

HEALTH PRIORITY AREA

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CORONARY HEART DISEASE

**Adams County**  
**Community Health Plan**  
Alliance for Building Communities  
2007



# CORONARY HEART DISEASE

## Overview/Description of Priority

Coronary heart disease, primarily heart disease and stroke, causes more deaths in Americans of both genders and all racial and ethnic groups than any other disease. It is also one of the leading causes of disability in the United States. Coronary heart disease costs an estimated \$300 billion annually as measured in health care expenditures, medications, and lost productivity due to disability and death. Modifying risk factors offers the greatest potential for reducing coronary heart disease morbidity, disability, and mortality: high blood pressure, high cholesterol, smoking tobacco, excessive body weight, and physical inactivity. Prevention programs have been set up in states with high rates of Coronary heart disease to implement policy and environmental strategies to increase levels of physical activity, availability of heart-healthy foods, and to decrease rates of smoking among minority populations. Changes have been advocated in schools, worksites, and other community-based organizations, and have been publicized by government and the media.

Overweight and obesity affect a large proportion of the U.S. population—55 percent of adults. Between 1976 and 1994, the number of cases of obesity alone increased more than 50 percent—from 14.5 percent of the adult population to 22.5 percent. A concerted public effort will be needed to prevent further increases of overweight and obesity. Healthcare providers, health plans, and managed care organizations need to be alert to the development of overweight and obesity in their clients and should provide information concerning the associated risks. These groups need to provide guidance to help consumers address this health problem. To lose weight and keep it off, overweight persons will need long-term lifestyle changes in dietary and physical activity patterns that they can easily incorporate into their lives. Patterns of healthful eating behavior need to begin in childhood and be maintained throughout adulthood. These patterns can be encouraged through nutrition education at schools and worksites that takes into account cultural and other factors influencing diet.

There is much concern about the increasing prevalence of obesity in children and adolescents. Overweight and obesity acquired during childhood or adolescence may persist into adulthood and increase the risk for some chronic diseases later in life. (HP 2010)

The adoption and maintenance of regular physical activity represents an important component of any health regime and provides multiple opportunities to improve and maintain health. Because the highest risk of death and disability is found among those who do no regular physical activity, engaging in any amount of physical activity is preferable to none. While moderate physical activity for at least 30 minutes a day is preferable, intermittent physical activity also increases caloric expenditure and may be important for those who cannot fit 30 minutes of sustained activity into their daily schedules. For even greater health benefits, vigorous physical activity is necessary.

Engaging in moderate physical activity for at least 30 minutes per day will help ensure that sufficient calories are used to provide health benefits. A minimum level of intensity (for example, a brisk walk for 30 minutes per day) would, for most persons, result in an energy expenditure of about 600 to 1,100 calories per week. If calorie intake remains constant, this expenditure translates into a weight loss of roughly one-sixth to one-third pound per week. Increases in daily activity to ensure a weekly expenditure of 1,000 calories would have significant individual and public health benefit for CHD prevention and deaths from all causes, especially for persons who are sedentary. Furthermore, this level of activity is feasible for most people even though the relative intensity of any activity will vary by age. Starting out slowly and gradually increasing the frequency and duration of physical activity is the key to successful behavior change. (HP 2010) In order to address physical activity needs, changes in the physical environment—such as access to walkways and bicycle paths—and the social

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environment—through social support and safe communities—will be needed to achieve long-term success.

The *Dietary Guidelines for Americans* recommends that Americans choose a variety of grains daily, especially whole grains, and a variety of fruits and vegetables daily. In the United States, persons of all ages eat fewer than the recommended number of servings of grain products, vegetables, and fruits. Vegetables, fruits, and grains are good sources of vitamins, minerals, carbohydrates, and other substances that are important for good health. Dietary patterns with higher intakes of vegetables, fruits, and grains are associated with a variety of health benefits, including a decreased risk for some types of cancer.

The *Dietary Guidelines for Americans* recommend three to five servings from various vegetables and vegetable juices and two to four servings from various fruits and fruit juices, depending on calorie needs. Consumers can select from a plentiful supply of fresh, frozen, dried, and canned products throughout the year to obtain five or more servings of fruits and vegetables daily. The *Dietary Guidelines for Americans* recommends that persons choose dark green leafy vegetables, orange vegetables and fruits, and dry beans and peas often. (HP 2010)

## Population Groups Most Affected

Overall, minority and low-income populations have a disproportionate burden of death and disability from coronary heart disease. African Americans have the highest rate of high blood pressure of all groups and tend to develop it younger than others. Studies have shown that socioeconomic status, reflected in income and education, underlie a substantial portion, but not all, of the higher rate of heart disease in minority populations.

## Target Population

The identified interventions target all Adams County residents. The environmental strategies

focus on increasing opportunities to be physically active for anyone. The Safe Schools program targets school-age children and their parents. The school-based curriculum again targets school-age children and their parents. Finally, the Life Smart curriculum targets women ages 18 and older.

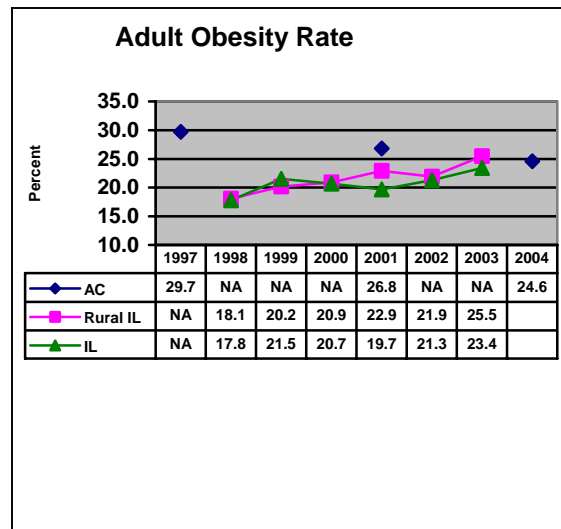
## Community Themes & Strengths

Findings in the community themes and strengths assessment centered around receiving health care services behaviors associated with coronary heart disease including physical activity and nutrition and were identified throughout the assessment. In the vision and measurement exercise, participants identified that we need healthy activities for youth and that community members are educated about the need for prevention and health care for all residents.

## Community Health Status Assessment

The following data measures related to cardiovascular disease were identified in the community health status assessment:

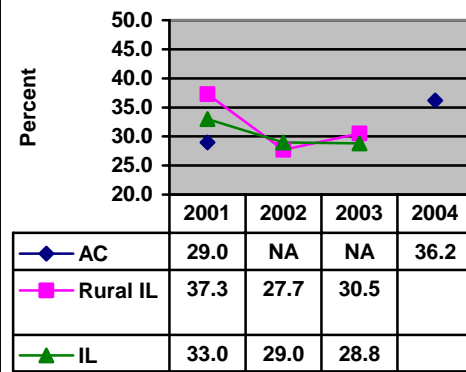
- The percentage of Adams County adults who are obese at 24.6% has been near or above (worse than) state - 23.4% and other rural Illinois counties- 25.5% since 1997.



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- The percentage of Adams County adults who meet the recommended guidelines for moderate physical activity has been near or higher (better) at 36.2% than the state at 28.8% and other rural Illinois counties at 30.5% in recent years.
- The percentage of Adams County adults who report eating 5 or more fruits and vegetables has been near or lower (worse) at 18.6% than the state at 22.6% and other rural Illinois counties at 20.0% in recent years.
- The percentage of adults in Adams County who reported that their physical health was not good on 7 or more days in the past month at 10.1% has been near or lower (better) than the state at 16.7% and other rural Illinois counties at 12.6%.
- The percentage of adults in Adams County who reported that their mental health was not good on 7 or more days in the past month at 8.5% has been near or lower (better) than the state at 11.1% and other rural Illinois counties at 15.2%.
- category at 74.0%. All subcategories in this area scored very high with health education scoring 67.7% and health promotion activities scoring 80.3%.
- Mobilize community partnerships- Adams County scored 71.2% in mobilize community partnerships. The lowest scoring subcategory was constituency development at 42.4% and the highest scoring subcategory of community partnerships scored 100%.

**Percentage of Adult Population That Meet Recommended Guidelines for Moderate Physical Activity**



## Local Public Health System Assessment

The essential public health services that relate to coronary heart disease include: monitor health status; inform, educate and empower people; and mobilize community partnerships.

- Monitor health status- Adams County scored 58.0% in this category as a whole. The segment regarding developing a community-based health profile was the highest scoring subcategory at 83.1% which indicates that we are very strong in our ability to develop a health profile with statistics, demographics, risk factors, and assessing community data. The lowest scoring subcategory in this topic included access to and utilization of current technology.
- Inform, educate and empower people- Adams County scored very high in this

## Forces of Change Assessment

Several issues identified in the forces of change assessment are related to coronary heart disease. First is the need for ancillary support for chronic disease including dietitians, therapists, nursing, etc. Related to this issue is the trend that is being identified in communities in that there is an increase in chronic disease and proper indicators of chronic disease. A challenge related to this issue is a difficulty in identification of disease. A second area is the aging workforce. The threats identified related to this issue are that we need more healthcare workers at all levels- especially in rural areas.

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An opportunity related to this issue is that new leaders can develop as a result of the need.

## Healthy People 2010 Goals

- Reduce the proportion of children and adolescents who are overweight or obese (HP 2010 19-3c) and the proportion of adults who are obese (HP 2010 10-2)
- Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day (HP 2010 22-2)
- Increase the proportion of children and adolescents who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days (HP 2010 22-6)
- Increase the proportion of persons aged 2 years and older who consume at least two daily servings of fruit. (HP 2010 19-5)
- Increase the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables. (HP 2010 19-6)

## Adams County Program Goal

- Decrease the incidence of coronary heart disease within Adams County residents. (Baseline 161 per 100,000 in 2004, I-Plan Data System)

## Adams County Program Objectives

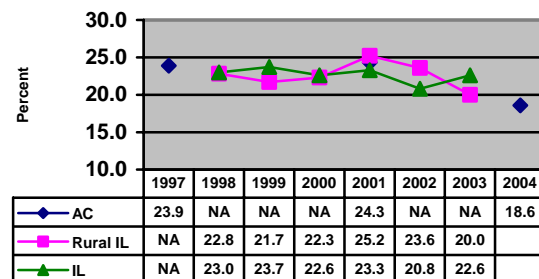
- Decrease the percentage of adult Adams County residents who were told they have high blood pressure (baseline

- 31.1%- Behavioral Risk Factor Survey, 2004).
- Decrease the percentage of Adult Adams County residents who have ever been told they have high cholesterol (baseline 30.3%- Behavioral Risk Factor Survey, 2004).
- Decrease the percentage of adult Adams County residents who are obese (baseline 24.6%- Behavioral Risk Factor Survey, 2004)

## Adams County Health Impact Objectives

- Increase the percentage of adult Adams County residents who report eating 5 or more fruits and vegetables per day (baseline 18.6%- 2004 Behavioral Risk Factor Survey)
- Increase the percentage of adult Adams County residents who report they meet the recommended guidelines for moderate activity (baseline 36.2%- 2004 Behavioral Risk Factor Survey).

**Percentage of Residents Who Report Eating Five Servings of Fruits and Vegetables a Day**



## Adams County Program Strategies

Strategy #1: Friends of the Trails

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The Centers for Disease Control Guide to Preventive Services recommends on strong evidence of effectiveness the environmental strategy for creating or improving access to places for physical activity as an effective intervention to increase physical activity. A systematic review of published studies, conducted on behalf of the Task Force on Community Preventive Services by a team of experts, found that people will become more physically active in response to the creation of or improved access to places for physical activity, combined with distribution of information. The first two strategies discussed in this section are designed to create access to places for physical activity.

Friends of the Trails' mission is to collaborate, promote, and educate the community on the multi-use trail system and greenways while providing organizational and fundraising capacities to supplement and lessen the burden of the City of Quincy, Quincy Park District, and Adams County. The goal is to complete the Quincy Greenways and Trails Plan and assist in the development of the Adams County Trails Plan in an attempt to meet the following objectives: provide free, health-related recreational opportunities for which families can participate together; allow safer access to our existing parks; provide linkage throughout the community for all socioeconomic populations; increase educational opportunities for children and adults to learn bike safety; increase educational opportunities for motorists through public awareness and media coverage; and enhance the economic benefits for the community (tourism and recruitment of new businesses to Quincy).

Friends of the Trails provides the following services:

- Collaborate with city/park district/county officials to identify the needs and activities for which this organization can support

- Collaborate with community groups and residents to gather input and encourage participation
- Promoting the trails through publicity and fundraising.
- Educate all stakeholders (city/park district/county officials, community and philanthropic groups, and residents throughout the county) regarding use, safety and benefits of trails and greenways

Projects:

- South Park Kiosk: A \$15,000 grant from Marion Gardner Jackson Trust to build a trailhead kiosk was awarded to Friends of the Trails in December 2001. The kiosk is located on the edge of South Park along RJ Peters Drive. A trail map, seating, bike rack, and lighting is included as part of the kiosk. The South Park location was selected for the first kiosk because of the existing trail within the park and the recent addition of the 8-foot sidewalk connecting the trail to Cherry Lane. Friends of the Trails volunteers completed the connecting sidewalk in the fall of 2001. The kiosk was built by Friends of the Trails volunteers in the fall of 2002.
- Salem Church Kiosk: Salem Church built a bike trail spur that was in the Church's Heritage Park at 9th and State St. A kiosk/bike rack area was built at Heritage Park.
- Gardner Museum of Architecture Kiosk: Friends of the Trails constructed a Dogwood Trail kiosk at the Gardner Museum of Architecture and Design.
- Quincy Bikes:- Friends of the Trails recently held a Community Work Day for the Quincy Bikes - bike loan program. Volunteers donated their time to help rehabilitate bicycles that will be used for the program.
- Indian Mounds Park Kiosk and Landscaping: Friends of the Trails. A teenaged eagle scout volunteer installed trail marking signs and did some landscaping work in Indian Mounds Park for his badge. The signs installed at the park highlight the developing
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- trail system and assist users of the systems paths.

## Strategy #2: Safe Routes to Schools

An associated strategy is an initiative led by the City of Quincy Office of Planning and Development in partnership with the Quincy School District and the Quincy Police Department to develop safe routes for children walking to school. All of the schools in the city provided information for a plan that was developed on the most practical routes and any obstacles to walking or biking along the way. The plan addresses priority infrastructure needs for each school in Quincy to provide safe routes to school for children. Projects identified by the schools include improved street lighting, signage, pavement markings, accessible walkways, construction of sidewalks and bike paths, bike parking, and speed feedback signs for traffic. The 71-page School Travel Plan includes demographic information for each school and maps of the two miles surrounding each school that indicate the proposed safe route; location of crossing guards, cross walks and speed feedback signs; existing bike trails; proposed sidewalk projects; and the current location of registered sex offenders.

An educational component of the program involves the PTA of each school in organizing activities such as the walking school bus. The goal of the program is for each school district to have a walking school bus program by the 07-08 school year. The program involves parents and children meeting at a designated location and walking to school, picking up other students along the way. Additional educational components of the plan provide for bike rodeos and the Kids Let's Walk program offered by the

Cheryl Loatsch Studio that provides students with pedometers.

The plan has been submitted to the Illinois Department of Transportation which is offering \$24 million in funding over three years under a new federal Safe Routes to Schools grant program. Nationwide, the program offers \$612 million to improve pedestrian routes and educate the public about the benefits of walking. Addressing priority infrastructure needs identified by each school would cost an estimated \$1.2 million. Since the most that can be applied for in any one project is \$400,000, projects will be submitted individually for each school. Once the safe travel routes plan is approved by the Illinois Department of Transportation, the city will begin submitting specific requests for funding. The city will implement the plan with all funding coming through the state.

## Strategy #3: CATCH (Coordinated Approach to Child Health)

CATCH (Coordinated Approach To Child Health) is an evidence-based coordinated school health program designed to promote physical activity and healthy food choices, and prevent tobacco use in elementary school-aged children. By teaching children that eating healthy and being physically active every day can be fun, the CATCH program has proven that establishing healthy habits in childhood can promote behavior changes that can last a lifetime. CATCH builds an alliance of children, parents, teachers, and school staff to teach skills and behaviors associated with maintaining healthy lifestyles. CATCH coordinates four component areas, including classroom curricula, food service modifications, physical education changes, and family enforcement, targeting both children's behaviors and the schools environment. CATCH directly addresses four of the eight CDC coordinated school health (CSH) model components, and indirectly supports facets of a more comprehensive program.

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The various components of the program include the classroom, physical education, cafeteria, at home, and in the community. The CATCH Go for Health Series is a K-5 classroom health education curriculum that teaches children to identify, practice, and adopt healthy eating and physical activity habits. Hands-on activities encourage changes in behavior that support healthful eating and physical activity patterns—primary risk factors of heart disease, osteoporosis, high blood pressure, and obesity.

CATCH PE combines high energy, non-elimination activities with teaching strategies that keep kids moving and having fun. CATCH PE significantly increases physical activity levels of students during PE class, and provides for a variety of learning experiences for students of all abilities. The CATCH program considers school cafeterias an extension of the classroom. Through the Eat Smart component, breakfast and lunch become opportunities for children to learn, practice, and adopt healthy eating habits. School food service personnel prepare healthier meals and help coordinate healthy messages with the rest of the school.

The CATCH family component is designed to get students, parents, and extended family members involved in practicing and adopting healthy eating and physical activity behaviors at home. By doing so, the home environment becomes an extension of the CATCH program at school. Implemented in community-based programs across North America, CATCH Kids Club, has been designed for after-school and summer enrichment settings. Developed from the nationally recognized CATCH program, healthy messages are reinforced beyond the school day via physical activity and nutrition sessions.

## Strategy #4: Life Smart for Women

Life Smart for Women is a 10-week curriculum that is appropriate for a widely diverse audience of women who meet in small groups of approximately 15-20 people. The curriculum was developed based on principles of adult learning such as focusing on topics that are highly relevant to the participants and providing information and skill-building learning experiences that are transferable to the participants' personal, family and professional lives. Learning strategies include active learning, discussion, screenings, and skill-building.

The program includes sessions on a variety of topics including cardiovascular health, nutrition, physical activity, stress management, substance use, violence, sexuality, aging and consumer health. The target population for the program is women who are older than the age of 18.

We recruit women into class using methods including: contacting participants from past Heart Smart for Women classes and scheduling the program at sites where groups have already formed and meet on a regular basis such as workplaces and church groups. We have had interest from a variety of sites that have collaborated with us in the Heart Smart for Women program in serving as potential class sites and promoting the class through their employees and clients. The Tri-State Health Care Coalition will promote the class to all of the 56 member businesses and their employees. John Wood Community College will continue to promote the class through their course booklet that is mailed to all homes in Adams County.

We also promote the program in a story in the newspaper and by providing information about the program to doctors offices. If needed, we use paid newspaper and television advertising. We have had interest expressed in offering the Life Smart program from businesses and agencies who served as sites for the Heart Smart program including Madison Park Church, Tri-State Health Care Coalition, John Wood Community College, Quincy Public Schools,

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Niemann Foods, Harris Corporation, Mercantile Bank, and Transitions.

Program follow-up is conducted three months after completion of classes. The initial contact is made through a mail survey. Program staff contact those participants who do not return a survey by telephone to gather the follow-up information. We offer educational programs approximately twice a year for the current and past program participants. Programming consists of speakers who enhance participant's knowledge on topics related to the variety of information the participants learned during the program. We gather follow-up information from those who are in attendance at these sessions as well.

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<p><b>POPULATION GROUPS AT RISK</b></p> <ul style="list-style-type: none"> <li>• African American</li> <li>• Low income</li> <li>• Those who lack of medical care</li> </ul>	<p><b>RELATIONSHIP TO STATE HEALTH IMPROVEMENT PLAN (SHIP)</b></p> <ul style="list-style-type: none"> <li>• The SHIP identifies obesity as a priority health issue. Local health departments are encouraged to develop programs to encourage nutritional eating habits in communities, implement a social norms marketing campaign, and participate in legislative campaign for a physical activity and obesity reduction initiative.</li> <li>• SHIP also identifies physical activities as a priority health issue. Local health departments are encouraged to participate in the development of programs to promote physical activity, educate residents on ways to increase physical activity, develop health care guidelines, and participate in legislative initiatives.</li> </ul>
<p><b>RISK FACTORS</b></p> <ul style="list-style-type: none"> <li>• High blood pressure</li> <li>• High cholesterol</li> <li>• Limited access to medical care</li> </ul>	
<p><b>CONTRIBUTING FACTORS (Direct and Indirect)</b></p> <ul style="list-style-type: none"> <li>• Poor diet</li> <li>• Genetics</li> <li>• Obesity</li> <li>• Lack of physical activity</li> <li>• Family history</li> </ul>	
<p><b>HEALTH IMPROVEMENT GOAL</b></p> <ul style="list-style-type: none"> <li>• Decrease the incidence of coronary heart disease within Adams County residents (Baseline 161 per 100,000 in 2004, I-Plan Data System)</li> </ul>	<p><b>ASSESSMENT METHODS</b></p> <ul style="list-style-type: none"> <li>• Behavioral Risk Factor Survey</li> <li>• I-Plan Data System</li> </ul>
<p><b>HEALTH IMPROVEMENT OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>• Decrease the percentage of residents who were told they have high blood pressure. (baseline 31.1%, Behavioral Risk Factor Survey, 2004)</li> <li>• Decrease the percentage of residents who have been told they have high cholesterol (baseline 30.3%, Behavioral Risk Factor Survey, 2004)</li> <li>• Decrease the percentage of the adult population who are obese (baseline 24.6%, Behavioral Risk Factor Survey, 2004)</li> </ul>	<p><b>HEALTHY PEOPLE 2010 OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>• Reduce the proportion of children and adolescents who are overweight or obese (HP 2010 19-3c) and the proportion of adults who are obese (HP 2010 10-2)</li> <li>• Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day (HP2010 22-2)</li> <li>• Increase the proportion of children and adolescents who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days (HP 2010 22-6)</li> <li>• Increase the proportion of persons aged 2 years or older who consume at least two daily servings of fruit (HP 2010 19-5)</li> <li>• Increase the proportion of persons ages 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables (HP 2010 19.6)</li> </ul>
<p><b>HEALTH IMPACT OBJECTIVES</b></p> <ul style="list-style-type: none"> <li>• Increase the percentage of population who report eating 5 or more fruits and vegetables (baseline 18.6%- 2004 Behavioral Risk Factor Survey)</li> <li>• Increase the percentage of population who report they meet the recommended guidelines for moderate activity (baseline 36.2%, 2004 Behavioral Risk Factor Survey)</li> </ul>	

<p><b>PROVEN INTERVENTION STRATEGIES</b></p> <ul style="list-style-type: none"> <li>• Implement the CATCH program in Adams County schools.</li> <li>• Increase the number of miles of walking trails in Adams County.</li> <li>• Implement the “Walking School Bus” program and safe travel routes plan as developed by the city’s Office of Planning and Development.</li> <li>• Implement comprehensive women’s health program entitled Life Smart in Adams County.</li> </ul>	<p><b>RESOURCES</b></p> <ul style="list-style-type: none"> <li>• Volunteers</li> <li>• University of Illinois Extension</li> <li>• Adams County Health Department</li> <li>• City of Quincy</li> <li>• Fitness facilities</li> <li>• Blessing Hospital</li> <li>• Nutritionists</li> <li>• Grant funding</li> <li>• Media</li> <li>• Schools/PTA</li> </ul>
<p><b>ESTIMATED FUNDING NEEDED</b></p> <ul style="list-style-type: none"> <li>• Approximately \$25,000 is needed to implement CATCH in school districts as a component of a comprehensive school- based program</li> <li>• Approximately 1.2 million is needed to implement the Safe Travel Route Plan</li> <li>• Approximately \$25,000 is needed annually to implement the Walking Trail Program in Adams County</li> </ul>	
<ul style="list-style-type: none"> <li>• Approximately \$40,000 is needed annually to implement Life Smart</li> </ul> <p><b>POTENTIAL FUNDING SOURCES</b></p> <p>Illinois Department of Public Health</p> <ul style="list-style-type: none"> <li>• Womens Health (Secured)</li> <li>• Coordinated School Health Grant (Secured)</li> <li>• Safe Routes to Schools Grant (City of Quincy Application)</li> </ul>	

# CORONARY HEART DISEASE HEALTH PROBLEM ANALYSIS WORKSHEET

