

# 2005-2006 Interventions and Outcomes to Reduce the Burden of Cardiovascular Disease in Michigan

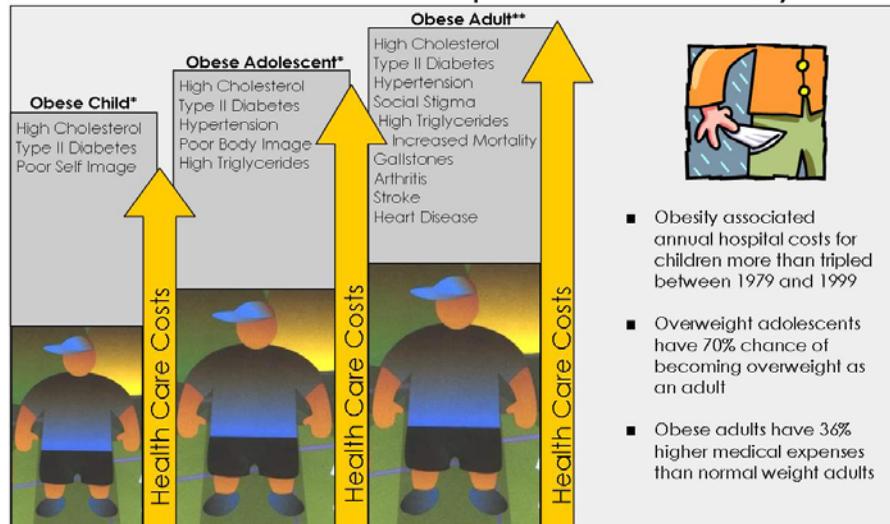
Michigan Department of Community Health  
Cardiovascular Health, Nutrition and Physical Activity Section

## Childhood Obesity Prevention Program

Reduce risk for childhood obesity and other cardiovascular disease risk factors by improving healthy eating options and physical activity levels of children (grades K-12) in Michigan schools, reaching 300,000 students and their families by:

- Assessing the school environment by completing Healthy School Action Tool (HSAT) in schools
  - Implementing policy and/or environmental changes based on assessment findings
  - USDA free fruit and vegetable program in 25 schools
  - Collaboration with Michigan State University Extension Project to reach low income students and families to improve eating and physical activity habits in the home
- Activities will be conducted through collaborations with the Michigan Department of Education and other partners. **Outcomes** will be measured through the HSAT online data collection system, school surveys, number of environmental changes per school, increased fruit and vegetable offerings, increased nutrition education and opportunities for physical activity.

The Health and Financial Consequences of Childhood Obesity



\*CDC defines childhood obesity as having a height to weight ratio greater than 95% of children in the US ages 3-18 years as determined by National Center for Health Statistics Clinical Growth Chart.  
\*\*Body Mass Index of 30kg/m<sup>2</sup> or greater is considered clinically obese

## Cardiovascular Disease Collaborative

Enhance the delivery of cardiovascular preventive and management services consistent with evidence-based practice.

- Working with primary care practices to improve health outcomes for 2,400 people at high risk for cardiovascular disease by implementing a new evidence-based model of care. This model has shown improvement in blood pressure management goals and cost efficiencies. The goal is to expand this model statewide
- Congestive Heart Failure Project led by the Michigan Peer Review Organization will improve patient self management and reduce heart failure hospital readmissions
- A Pediatric Obesity Expert Group, Michigan Quality Improvement Consortium and Blue Cross Blue Shield are assisting with a program to engage primary care physicians and pediatricians in implementing new pediatric obesity Activities will be directed by the Cardiovascular Health Task Force and other partners. **Outcomes** will be measured through a specialized data system in 12 sample practices indicating the following clinical outcomes: blood pressure control, self management goals, blood sugar control, regular physical activity and a decrease in heart failure patient hospital readmissions.

## Michigan Stroke Initiative

Improve the quality of care for people suffering from stroke and prevent future strokes.

- This initiative is working with 13 hospitals to track stroke outcomes and improve response time and treatment for stroke, increasing the chance of recovery, avoiding long term disability and reducing health care costs associated with stroke
  - An acute stroke project will provide a model for healthcare communities on standards of stroke care emphasizing recent evidence of benefits of timely administration of certain medications following stroke
  - The Michigan Treatment System for Acute Stroke will identify geographic areas that need access to acute care stroke centers and target stroke center development. The goal is to reduce the total number of acute care stroke facilities required to cover at least 95% of the Michigan population, while still improving care
- Activities will be directed by the Michigan Stroke Initiative and other partners. **Outcomes** will be measured through improved stroke outcomes, improved stroke response, adherence to recommended treatment guidelines and an acute stroke center geographic mapping model.

Healthcare Savings from 1% Reduction in Heart Attacks and Stroke in Michigan

	Number of Hospitalizations	Estimated Hospital cost	1% Reduction	Projected Savings
Stroke	37,000	\$10,000*	370	\$ 3,700,000
Heart Attack	158,000	\$11,000**	1,580	\$17,380,000

\*Source: Michigan Stroke Initiative Report: 2000

\*\*Source: AHA Heart and Stroke Statistics 2005

Note: Hospitalization only reflects a portion of the costs. In addition there would be costs associated with ongoing treatment, procedures, rehabilitation and possibly long-term care.

### Hypertension Initiative

#### Improve Management of Hypertension by:

- Collaborating with healthcare providers to implement new national clinical guidelines with Continuing Medical Education programs
- Working with a large managed care organization to improve blood pressure treatment and control

Activities will be conducted through partnerships with the American Heart Association, National Kidney Foundation of Michigan and a managed care plan with the potential to reach 20,000 people. **Outcomes** will be measured on improved blood pressure control, use of appropriate medications, self-management activities, patients screened and number of consumers reached.

#### Hypertension Facts

- Aggressive treatment for high blood pressure is effective according to the National Institutes of Health
- A 12-13 point reduction in blood pressure can lower risk of heart attack by 21%, stroke by 37% and total CVD deaths by 25%
- Patients with hypertension who receive quality preventive care experience 54% fewer adverse complications than those with no preventive care
- Worksite programs targeting high blood pressure control show a cost/benefit ratio of 1:2
- 70% of people with high blood pressure do not have it under control.

### Healthy Communities Initiative

Reduce risk factors for heart attack and stroke by improving fruit and vegetable intake and physical activity levels for adults.

**Evidence-based strategies with 8 churches, 27 communities, 20 worksites and 11 counties addressing community barriers will be implemented, reaching over 1.2 million residents including over 227,700 Medicaid recipients through:**

- Fresh fruit and vegetable mini-marts at churches
- Community environmental assessments
- Conducting a targeted initiative to address overweight and obesity
- Increasing the number of worksite wellness programs and educational resources
- Increasing the number of farmers' markets and community gardens
- Introducing an evidence-based action plan to overcome barriers to achieving health and well being in older adults, reducing health care costs
- Partnering with the National Kidney Foundation of Michigan to support the *Healthy Hair Starts with a Healthy Body* Campaign that uses hair salons and barbershops as health information centers to disseminate information about hypertension to their clients and encourage them to discuss their risk factors with a physician

Activities will be conducted through collaborations with area faith and community-based organizations and 27 communities statewide. **Outcomes** will be measured by assessing changes in fruit and vegetable intake and physical activity levels at the church mini-marts through surveys and focus groups and the number of community environmental changes.

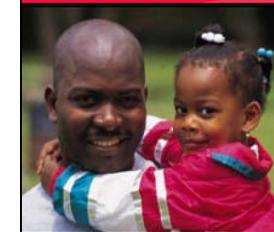
### Cardiovascular Emergency Response Campaign

Help high risk populations prevent and manage cardiovascular emergencies, reaching 10-20,000 African Americans in 100 faith-based and community venues by:

- Conducting a grassroots public education campaign
- Providing information on the importance of controlling hypertension
- Encouraging discussions with healthcare providers about the cardioprotective effects of aspirin
- Increasing understanding and awareness of heart attack and stroke warning signs and the benefits of calling 911
- Promoting the use of CPR and automatic electronic defibrillators to save lives

Activities will be conducted through collaborations with faith and community-based organizations statewide in 10 large cities. **Outcomes** will include increased awareness of recommendations for prevention and cardiovascular emergencies to be measured through focus groups, surveys and reductions in out-of-hospital deaths recorded on death certificates.

#### AFRICAN AMERICANS, HEART DISEASE & STROKE



The age adjusted heart disease death rate among Michigan blacks is about 45% higher than among whites, and the age adjusted stroke death rate is about 22% higher

#### CVD FACTS & Statistics



- Heart disease is Michigan's biggest killer and stroke #3- one death every 17 minutes
- The chances of survival for a victim of sudden cardiac arrest are reduced by 7% to 10% with every minute that passes without treatment
- Just a 1% reduction in cardiovascular disease and stroke would save \$84 million per year
- 23% of seniors admitted to nursing homes have a primary diagnosis of cardiovascular disease
- One in three men can expect to develop some form of CVD before age 60; the odds for women are one in ten. As women age their risk increases