

Public Health Views... and News

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***From the desk of:*
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We have an epidemic of obesity. It is estimated that 64% of adults in the U. S. are overweight or obese. Overweight is defined by a BMI (body mass index) of >25. Tables are readily available to find your BMI using height and weight. What is equally alarming is the fact that about 15% of children in the U.S. are overweight. This is more than double the percentage in 1970. According to the NIH, adults over 18 with a BMI of >25 are at risk for premature death and disability as a consequence of overweight and obesity.

The obesity rate among Michigan adults has increased by 80% between 1990 and 2002. From the Behavioral Risk Factor Survey (1998-2000) the Michigan expenditure due to adult obesity was \$2.9 billion. According to the BRFS, Michigan has ranked among the worst 10 states in percentage of adult obesity each year for the last 10 years. Twenty-four

percent of Michigan high school students are overweight. Twenty eight percent of low-income children aged 2-5 are overweight in Michigan.

Halting or reversing the obesity epidemic will require action by individuals, physicians and communities across the nation. The estimated cost of obesity in economic terms is staggering. The Medical Expenditure Panel Survey and the National Health Interview Survey estimated national costs as a result of obesity and overweight to be about \$80 billion, or about 9% of the total U.S. medical expenditures.

Abdominal obesity is considered to be somewhat worse than generalized obesity. The unique fat cells that grow inside the abdominal cavity are metabolically active and secrete substances that may harm organs and blood vessel lining. These can accelerate development of atherosclerosis and increase risk for heart attack, stroke and other organ damage. One easy way to gauge abdominal obesity is to measure waist and hip circumference. A waist size of >40 inches for men and >35

inches for women is abnormal. A waist to hip ratio of >1.0 is also an indication of too much abdominal fat for both men and women. A waist to hip ratio of less than 0.90 in men and less than 0.80 is considered "safe".

At present no magic cure-all medication or effortless treatment for obesity exists. A multimillion dollar industry has built up promoting various "cures" for this prevalent problem. Fundamentally overweight is due to a combination of genetic and behavioral factors. Societal and environmental influences can work to our detriment by encouraging sedentary behavior and poor food choices. There is a tremendous interest in weight reduction, but too many of us are looking for quick fixes. Rushing to fad diets, "fat farms", and "fat burning" concoctions usually results in thinness of our wallets rather than our bodies.

Genetic influence does seem to have great importance, as evidenced by the common observation that certain families have a high prevalence of obesity. Researchers have isolated a gene that seems to be related to obesity – the *ob* gene that codes for a protein called *leptin*. Metformin, a drug used in diabetic treatment, seems to interfere with leptin secretion by abdominal fat cells. Other research is being carried out to modify other protein receptor sites, such as GPCR and melanocortin-4.

The discovery of a safe and effective weight reducing drug would have obvious appeal to drug manufacturers and to the public. Currently Xenical, a drug that blocks fat absorption, is the only drug approved for

obesity treatment in the U.S. Bariatric surgery is being recommended more frequently by physicians for patients with morbid obesity (BMI >40).

Healthy Michigan 2010 is a recent report published by the Michigan Surgeon General Dr. Kimberly Dawn Wisdom that analyzed the state of health of Michigan citizens. Lack of physical activity, poor eating habits and cigarette smoking contributed to 1/3 of the deaths in the state.

Your health department promotes *Michigan Steps Up: A nutrition and physical activity program to prevent obesity and other chronic illnesses*. One of Dr. Wisdom's first efforts has been a Pedometer challenge to churches, the legislature, public health workers and others. Many BHSJ Community Health employees have accepted the challenge and are wearing their pedometers. City and county government should make it policy to authorize development projects only if health and fitness considerations are included. Bike and walking trails, green spaces and walkways between buildings are some ideas to *get us on the move*. Parents should strictly limit their child's TV, computer and video game time and generous after school physical activity should be the norm. Safe after school play areas should be available to all children. Adults should set aside at least 20 minutes a day for moderate exercise.

Dietary choices are the other side of the equation. Both healthy food choices and food quantity are important. Children should be instructed on the basics of a healthy diet instead of allowing a free for all approach. Schools

should step up and provide only nourishing meals and begin eliminating soda-pop and "junk food" offerings. These please the taste but can make kids fat and help solidify bad dietary habits likely to contribute to poor health. A school lunchroom should be a classroom for children to learn first hand about nutrition. Americans need to relearn the joy of eating slowly and nutritiously.

Visit these web sites for more information about obesity, diet and exercise.

Surgeongeneral.gov/topics/obesity/
Americaonthemove.org/
Cdc.gov/nccdphp/dnpa/obesity/
Michiganfitness.org/
Michigan.gov/mdch/0,1607,7-132--92193--,00.html

Epidemiology of Asthma in Michigan

This year the Michigan Department of Community Health reported on the epidemiology of asthma in Michigan. Data studied shows that prevalence in Michigan adults is slightly higher than the U.S., and prevalence is also higher among women than men. In youth, 17% of middle and high school kids in Michigan report having asthma now. Many adults are also not attaining goals for management of asthma. Less than 1/2 report using their asthma medication on a daily basis and nearly 1 in 5 had an asthma visit to the emergency room in the past year.

This comprehensive report also looks at the issues of asthma management in the school setting, the workplace, issues of hospitalization and mortality as well as looking at asthma in the

context of the National Healthy People 2010 goals and its recommendations. There are numerous tables of levels and rates of asthma, reported at the county level as well as comparative rates with Michigan as a whole. You can view this report on-line or download it as a PDF file for viewing at your convenience. Visit the Michigan Department of Community Health web site at:

Michigan.gov/documents/miasthmasurveillance_2004_96083_7.pdf

Mercury news: A little goes a long way

The days are getting colder and we find ourselves turning the heat up in the house, as well as checking the temperatures of sick family members. Many of the thermometers and thermostats that we use at home contain mercury. There is enough mercury in older thermometers and thermostats to make young children, and pets very ill. Mercury is a naturally occurring element that is present



throughout the environment and as a result of human activity can be released into the

air, water and soil. In the U.S., coal-fired power plants are the biggest source of mercury emissions to the air. You can still find mercury in thermometers, thermostats, and many electronic switches in homes today.

Although mercury is highly toxic to humans and other animals, it is the method in which the element is absorbed that makes it so toxic. Small amounts of mercury can be absorbed through the skin and even can be ingested and not be

toxic. It is when the element becomes a vapor, or gas that it becomes very toxic to humans and animals. When the vapors are inhaled, the body can readily absorb the toxins into the blood stream becoming toxic very quickly. Mercury tends to vaporize at warmer temperatures, making it even more dangerous during the winter months indoors where it is hard to ventilate rooms.

There are a wide range of effects that can result from exposure to mercury. Symptoms that you may see right away are; headaches, chills, fever, hand tremors, chest tightness, vomiting, nausea, and abdominal cramps. With long term exposure you may find symptoms of; personality changes, decreased vision or hearing, elevated blood pressure, and peripheral nerve damage. People with the highest risk are young children (infants) and pregnant women. Young children can develop a condition known as acrodynia or "Pink Disease" by inhalation of the vapors from mercury. Symptoms include; reddening of the palms and soles of the feet, itching with peeling of the skin, behavioral changes, hair loss, muscle weakness, and increased heart rate and blood pressure. Taking a broken thermometer for granted can lead to serious illness and loss of property.

If you do encounter a mercury spill with a patient or even in your own home here are some quick tips. **DO NOT** vacuum or sweep the contaminated area. Keep pets and children from entering the room. Seal the room off from the rest of the house and open the windows to help ventilate the contaminated room as best you can. Then contact either MDCH 1-800-648-6942,

Poison Control Center 1-800-222-1222. For more information regarding Mercury you may contact your local health department - Branch County (517)-279-9561 ext.106, Hillsdale County (517)-437-7395 ext. 111 or St. Joseph County (269)-273-2161 ext. 233.

Did I Miss Something?

In early November mailings went out to public officials and area physicians, that the Branch-Hillsdale-St. Joseph Community Health Agency would be hosting an Emergency Preparedness and MDSS Workshop in each of our three counties. In Sturgis, at Sturges-Young Auditorium, on November 16 we were treated to an update of MDSS (Michigan Disease Surveillance System) by our Region 6 Epidemiologist. MDSS has come a long way from its conception in 2002. Medical professionals were not only shown the mechanics of how the system operates, but Emergency Management officials were given a glimpse into the world of disease reporting. It will likely be MDSS that lets us know that a Bio-Weapon has been triggered as well as the range and scope of its effects.

Also presenting was Dr. Gillian Stoltman, a former Director at the Michigan Department of Community Health and professor of Epidemiology at MSU. Dr. Stoltman gave an overview of Bio-Terror around the world while emphasizing the things that can be done to fight it on a local level. Dr. Stoltman's work in the area of preparation for Bio-Terror is well known around the country and her insight into the problems facing communities in these "interesting times" was enlightening.

On November 18 at the Dearth Center in Coldwater, the MDSS overview was presented to the Branch County audience. The information was well received even by those who had no medical background. The scope of the MDSS and its wide ranging uses assure stakeholders that their State tax dollars are indeed well spent in the area of Community Health.

Also presenting was Linda Scott, the Bio-Terrorism Hospital Coordinator at the Michigan Department of Community Health. Linda presented a comprehensive view of how the hospitals and emergency management blend to plan for possible catastrophic events. Many crossovers in budgeting and tasks are divided up to make for less duplication of effort and more efficient operation.

Our last presentation on December 1 was given at the Dow Center in Hillsdale, featuring Kim Kutzko (Region 5 Epidemiologist) in the MDSS role, and Dr. Don Edwards with our keynote address. Dr. Edwards is the Medical Director for Region 1 and an ER physician. He works closely with Emergency Preparedness personnel to ensure they have the training and equipment necessary for disaster planning.

Response back from those who have attended our workshops has been very positive. We were pleased to be able to present this information in a relaxed somewhat informal atmosphere where Community leaders and physicians were able to network and discuss our plans for disaster mitigation. For more information on MDSS or Emergency Preparedness please contact the Health Agency

via phone or on our website www.bhsj.org, or e-mail the state MDSS coordinator at:

MDCH_MDSS@Michigan.gov

The Flu – What’s happening now



Due to the shortage of flu vaccine for the 2004/5 flu season, the Community Health Agency will be watching more closely than ever the prevalence of flu-like disease in our tri-county area. We have added a feature to our web site that shows a graphic display of monthly activity for each of the counties in our district. Go to www.bhsj.org and follow the link titled “Following the Flu”. This link includes downloadable materials on frequently asked questions about the flu, precautions you can take if you cannot get a flu shot, CDC guidelines on who can get a vaccination as well as the graphs of flu activity over the past three years in each of our counties. Make sure you know what is happening with the flu, as it often changes day to day.

Healthy Beginnings Expanding on Success

Healthy Beginnings is a collaborative project of Children’s Trust Fund, Branch-Hillsdale-St. Joseph Community Health Agency, Hillsdale Intermediate School District, Hillsdale Early On, Hillsdale Family Independence Agency, Hillsdale Community Action Agency, and Hillsdale Community Health Center & Human Services Network. Healthy Beginnings is entering their fourth year of services to Hillsdale County families

Healthy Beginnings mission is to reduce abuse and neglect, strengthen families by promoting healthy child growth and development and positive parent-child interaction. The program provides an opportunity for families to learn effective parenting and expand their knowledge about age appropriate behaviors and milestones. Additionally, the program offers a variety of services to families with children (newborn – three years old), including home visits with a family support worker to share important information regarding their infant/toddlers development, parent-child activities, and on going support.

Last year, Healthy Beginnings was awarded a direct service grant from the Children’s Trust Fund that allowed us to work with pregnant teenagers in Hillsdale County. This grant allowed us to expand our partners to include the Hillsdale County Schools, Alternative Schools, as well as the local OB/GYN to refer pregnant teens to our program. The pregnant teens are assigned a family support worker and receive home visits to focus on prenatal information and activities to help the teens begin to connect with their unborn child and with their own feelings as they adjust to pregnancy and prepare for their roles as parents.

We also encourage and offer parent group meetings, playgroups, parenting classes, and linking them to community resources.

If you are interested in learning more about the Healthy Beginnings and the services it offers, please feel free to contact Andrea Bricker, coordinator at (517) 437-7395 ext.116