Memphis and Shelby County Behavioral Risk Factor Survey 2005

Tracking our Progress toward
Reversing the Epidemic of Obesity and Diabetes

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EXECUTIVE SUMMARY

Shelby County is at the center of a nationwide epidemic of obesity and diabetes that is leading to premature death and terrible suffering for many of our citizens. This report is a follow-up on some of the issues discussed in the 2005 report, “Reversing the Epidemic of Obesity and Diabetes.” We must continue to concentrate our resources and our efforts on supporting healthy lifestyles and creating healthy environments for all residents of Shelby County.

HEALTH STATUS in Shelby County

- Over one-fourth of the adults in Shelby County are obese (Body Mass Index greater than 30), and even more are overweight (BMI greater than 25).
- The rates of diabetes and overweight in Shelby County continue to exceed national averages.
- High blood pressure is linked to overweight and affects a higher percentage of adults in Shelby County than in the nation at large.

HEALTHY LIVING in Shelby County

- Ninety percent of diabetes is Type 2, which can be prevented and cured by healthy eating and exercise habits.
- The majority of Shelby County residents realize that diabetes is very strongly linked to obesity and that diet and exercise are important.
- The percentage of adults participating in physical activity appears to be on the rise.

HEALTHCARE in Shelby County

- The majority of Shelby County residents are still not aware of their Body Mass Index (BMI).
- Cholesterol screening is more widely done than BMI with 70-79% of adults reporting that they have had their cholesterol checked.
- Adults who have diabetes are getting some recommended care to avoid complications, but the rate needs to be higher.
INTRODUCTION

This report is designed to bring further attention to the plague that is afflicting our region and to follow up on key behavioral factors that contribute to the obesity and diabetes epidemic.

Memphis still is rated among the unhealthiest cities in the country by leading health magazines. In 2005 *Men’s Fitness* magazine rated Memphis as the 4th “fattest city” in the United States.* People in Shelby County are among those most likely to suffer from disease or die prematurely, and it is important for residents of the community to understand why they are suffering unnecessarily.

Overweight and obesity lead to many health problems. Diabetes and hypertension are two of the most common in our community. Nearly one in 10 Shelby County adults has diabetes. Pre-diabetes (metabolic syndrome) and diabetes are major causes of heart attacks, strokes, kidney failure, hardening of the arteries, and other diseases.

Many of the factors that are causing the epidemic are modifiable, but individuals must possess the commitment to change, and the community must have the will to support change. We must continue to educate one another on healthy choices and to create fit environments with walking and biking trails, fitness centers, and healthy places to shop and eat.

The Memphis and Shelby County Behavioral Risk Factor Surveillance Survey (MBRFS) was created to provide the Healthy Memphis Common Table (HMCT) and other interested organizations with reliable information about current local disease prevalence, healthcare utilization patterns, health behaviors and barriers to a healthy lifestyle that contribute to obesity and diabetes. For this annual survey the Mid-South Social Survey Program at the University of Memphis used a random-digit-dialing sample to interview 1062 Shelby County residents, May 11-17, 2005. All graphs in this report employ data from the MBRFS 2005 unless otherwise noted.

1. HEALTH STATUS: SCOPE OF THE EPIDEMIC

1.1 Prevalence of Diabetes

![Graph: % Adults with Diabetes U.S., TN, and Memphis/Shelby Co.]

1. US and TN data from CDC Behavior Risk Factor Surveillance Survey
2. Shelby County data from CDC Selected Metropolitan/Micropolitan Area Risk Trends, 2002-2005
3. Shelby County data from Memphis and Shelby County Behavioral Risk Factor Survey (MBRFS), 2004-2005

- The diabetes rate in Shelby County remains higher than the national average.
- Centers for Disease Control and Prevention (CDC) figures show a drop in the diabetes rate for Shelby County in 2005. The figures appear hopeful but have fluctuated and contradict BRFS data, so more years will be required to verify a trend.
- The diabetes rate in Tennessee has nearly doubled in the past ten years and continues to rise, as does the national rate.
1.2 Prevalence of Overweight and Obesity

In 2002-2005, obesity rates in Shelby County exceeded national averages.

Obesity rates in Shelby County, Tennessee, and the U.S. have continued to rise.

1. US and TN data from CDC Behavior Risk Factor Surveillance Survey
2. Shelby County data from CDC Selected Metropolitan/Micropolitan Area Risk Trends, 2002-2005
3. Shelby County data from Memphis and Shelby County Behavioral Risk Factor Survey (MBRFS), 2004-2005
1.3 Prevalence of High Blood Pressure

- The number of adults in Shelby County reporting high blood pressure substantially exceeds national averages.

- High blood pressure (hypertension) has been proven to contribute to strokes, heart attacks, heart failure and kidney failure. It is linked to overweight, poor eating habits, and inactivity.

- Almost one in three Shelby County adults knows that he or she has high blood pressure. Even more may have high blood pressure and not know it.

- The number of adults with elevated blood pressure has continued to rise gradually since the mid-1990s, both nationally and in the state of Tennessee, with some leveling off since 2001.

1. US and TN data from CDC Behavior Risk Factor Surveillance Survey
2. Shelby County data from CDC Selected Metropolitan/Micropolitan Area Risk Trends, 2002-2005
3. Shelby County data from Memphis and Shelby County Behavioral Risk Factor Survey (MBRFS), 2004-2005
1.4 Community Awareness

In order for Shelby County to reverse its epidemic of diabetes, we must continue to inform residents that overweight and obesity are strongly linked to diabetes and that a healthy diet and regular exercise are the most important ways to prevent diabetes.

- Most know how diabetes is linked to obesity and obesity to diet and exercise habits.
HEALTHY LIVING: CAUSES AND PREVENTION OF THE EPIDEMIC

2.1 Healthy Eating

Numerous studies have linked pre-diabetes and diabetes to unhealthy eating habits. They have also shown that eating high fiber foods, such as vegetables and unrefined whole grain foods, is beneficial in preventing diabetes and pre-diabetes.

- Only about one-fourth of Tennessee adults eat the recommended five or more vegetable servings per day. Recent data shows Shelby County residents faring worse than the state as a whole.

- Tennessee consumption of vegetables slowly increased from 1996 to 2001 but decreased over the next two years and has followed the national average since 2003.
2.2 Physical Activity

The present day sedentary or “couch potato” lifestyle is a major cause of the epidemic of diabetes in our community. Lack of daily physical exercise contributes to the increasing rates of overweight, obesity and diabetes in the greater Memphis area.

- Less than half of Shelby County residents answering the 2005 Memphis and Shelby County BRFS Survey said that they had participated in any non-work-related physical activity in the previous month.

- CDC data for Shelby County indicate that approximately 70% of Shelby County residents participated in some non-work-related physical activity in the previous month, but nearly 1/3 admitted to participating in no physical activity at all.

- The percentage in Shelby County appeared to drop between 2004 and 2005 for unknown reasons.

- These results do not necessarily indicate high levels of physical activity among Shelby County residents since a positive response to this question could mean as little as one episode of physical activity in the previous month.
2.3 Employer-based Health Promotion

Studies show that employees who eat healthy, exercise regularly, and do not smoke have fewer sick days, are more productive, and have lower healthcare costs. Well-designed workplace health promotion programs can actually save employers money while helping employees lead healthier lives.

Percent of Employees with Access to Workplace Health Promotion Programs in Shelby County

- Yes 17.20%
- No 82.80%

- Unfortunately most workers in Memphis do not have the benefit of a workplace health promotion program or incentive program for healthy habits.
3. HEALTHCARE DELIVERY:  
IS OUR COMMUNITY UP TO STANDARD?

3.1 Screening for Diabetic Risk Factors

Body Mass Index (BMI) is the most convenient tool for measuring obesity. Doctors and healthcare providers should check a patient’s BMI yearly.

**Percent of Shelby County Residents Whose BMI Was Ever Checked**

- **BMI Checked**: 27.2%
- **BMI Not Checked**: 72.8%

**Percent of Shelby County Residents Who Know Their BMI**

- **Know BMI**: 6.5%
- **Don't Know BMI**: 93.5%

- Only about one-fourth of people in Shelby County get their BMI checked, and even fewer know their BMI.
Cholesterol levels are another important measure for diagnosing metabolic syndrome or pre-diabetes.

- In the past decade the percentage of adults receiving cholesterol testing has shown a steady increase both statewide and nationally.

- The data for Shelby County are too recent to indicate a trend, but our goal should be to increase the number of adults receiving cholesterol testing.
3.2 Diabetes Care for all Diabetics

Critical outpatient health services can help people with diabetes avoid serious complications, hospitalizations, or premature death. The American Diabetes Association (ADA) recommends that all people with diabetes get the following screening tests at least yearly:

- Hemoglobin A1c (HbA1c) – measuring average blood sugar (twice yearly)
- Foot Exam to check for nerve damage
- Diabetic Eye Exam
- Cholesterol Screening
- Nephropathy Monitoring – urine test to detect kidney damage

This section relates the reports of people with diabetes in our community regarding their receipt of these services. This data shows that many diabetics in Shelby County are not receiving the preventive services recommended by the ADA.

- About 3/4 of Shelby County residents with diabetes are receiving at least some essential services.
- Those who do not receive these services are at greater risk for complications that could be prevented or minimized through early detection.
A Hemoglobin A1c (HbA1c) is a laboratory test that measures average blood sugar. People with diabetes should have their HbA1c checked at least two times per year.

The majority of diabetics in Shelby County have HbA1c testing at least once a year.

However, less than half receive this test the recommended two or more times a year.
• Diabetic Eye Exam by an ophthalmologist detects early treatable eye damage caused by diabetes. People with diabetes should have a diabetic eye exam every year.

• Most people with diabetes in Shelby County appear to be getting recommended eye care, but there is still room for improvement.

• A complete foot exam is recommended once a year for people with diabetes, more frequently for those who already have foot problems.

• Over one fourth of Shelby County diabetics have never received a foot exam, placing them at increased risk of nerve damage and ultimately an amputation that could leave them disabled for life.
3.3 Diabetes Education

- Less than half of people with diabetes in Shelby County participated in a diabetes education program in the past year.

- Many authorities recommend annual diabetes self-management training for all people with diabetes. Clearly this standard is not being met in our community.

- Regular ongoing diabetes self-management training needs to be encouraged, both by providers and by payers.
ACKNOWLEDGEMENTS

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DISCLAIMER

In general, the behavioral risk factor data presented for Shelby County as a whole should be deemed to represent accurate estimates. Similar methodology and identical questions were employed for the local survey and national CDC surveys of behavioral risk factors. However, since minor differences in methodology could exist, caution should be used in interpreting general population trends and differences between national, Tennessee and Shelby County populations.

WEBSITES

CDC Behavioral Risk Factor Surveillance Survey
http://www.cdc.gov/brfss

CDC Selected Metropolitan/Micropolitan Area Risk Trends (SMART)

Healthy Memphis Common Table
http://www.healthymemphis.org

Healthy Memphis Data Center
http://www.healthymemphis.org/Data_Center.hmdc.0.html

University of Memphis Mid-South Social Survey
http://msss.memphis.edu/

University of Memphis Shared Urban Data System (SUDS)
http://suds.memphis.edu/