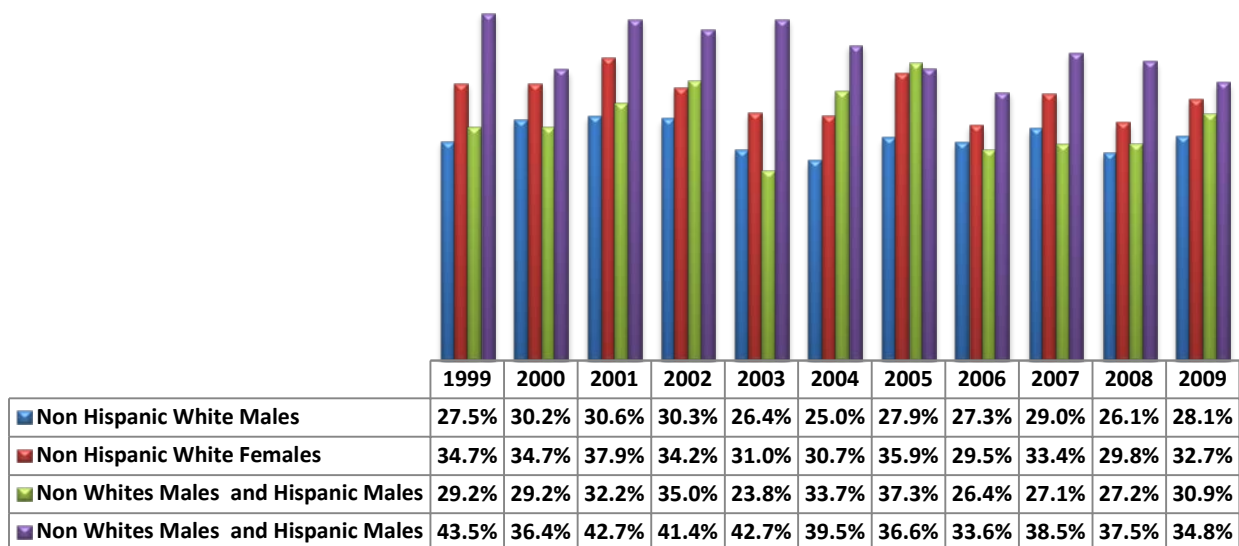


Obesity as a Social Determinant of Health

Researchers have linked the obesity epidemic to environmental, technological, social and economic changes in society. The relevance of urban design, easy access of inexpensive and non-nutritional foods, heavily marketed high calorie energy drinks, reliance on cars, media influenced consumer changes, and globalization have all contributed to inadequate physical activity, insufficient nutrition and overall increased health risks for many Americans. Social determinants of health are the conditions in which people are born, grow, live, work and age.

The Tennessee’s Behavioral Risk Factor Surveillance System (BRFSS) demonstrates how the behaviors of individuals will affect their risk of developing chronic diseases that could lead to premature death. Physical activity and fitness are good health habits that help to promote healthy weight and lifestyles. The BRFSS is a state-based computer-assisted telephone interviewing survey conducted in cooperation with the Tennessee Department of Health and the U.S. Centers for Disease Control and Prevention. The Tennessee BRFSS of 2009 reported on surveys conducted between 1999 and 2009, and found that the females regardless of race or ethnicity, reported being more physically active than all of the male respondents. Overall, there was a decrease in the percentage of respondents who reported not having any leisure time physical activity during those ten years. Chart 1 shows that during that ten-year period, Tennesseans become more physically active which decreased their risk of obesity and other health related illnesses.

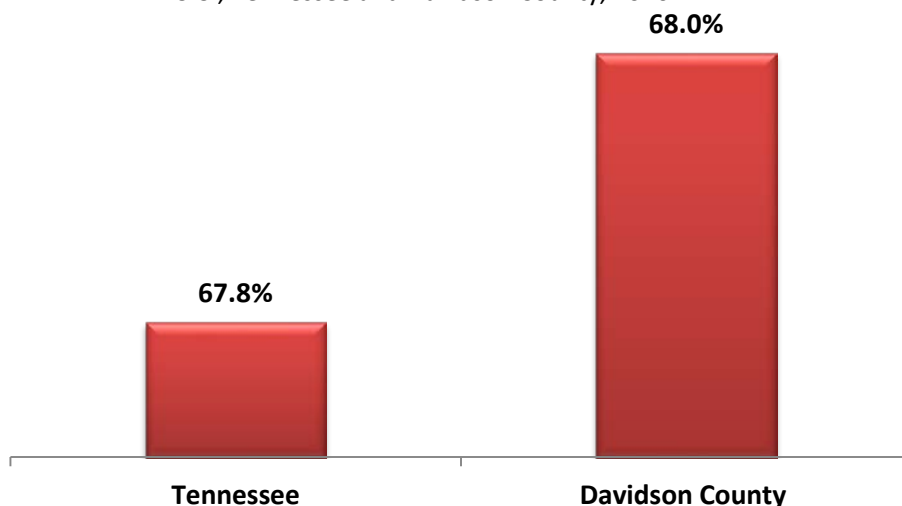
Chart 1: Percent of Respondents Who Reported No Physical Activity, by Race and Gender
Tennessee 1999 -2009



Source: Tennessee’s Behavioral Risk Factor Surveillance System 2009, Tennessee Department of Health

In Nashville, the issue of obesity has been identified as a public health issue that is of great concern. The percentage of obesity in Davidson County was higher than the average for the state of Tennessee and above the national percentage, as shown in Chart 2. It is estimated that obesity has contributed to one out of every eight deaths, decreased life spans and poor quality of life. According to the 2009 Healthy Living Report by Healthy Nashville Leadership Council, the issues of obesity have been linked to the social, cultural and built environment.

Chart 2: Percentage of Adult Overweight and Obese Adults
U.S., Tennessee and Davidson County, 2010



Source: Tennessee Behavioral Risk Factor Surveillance System (BRFSS); Metropolitan Nashville Public Health Department, 2011

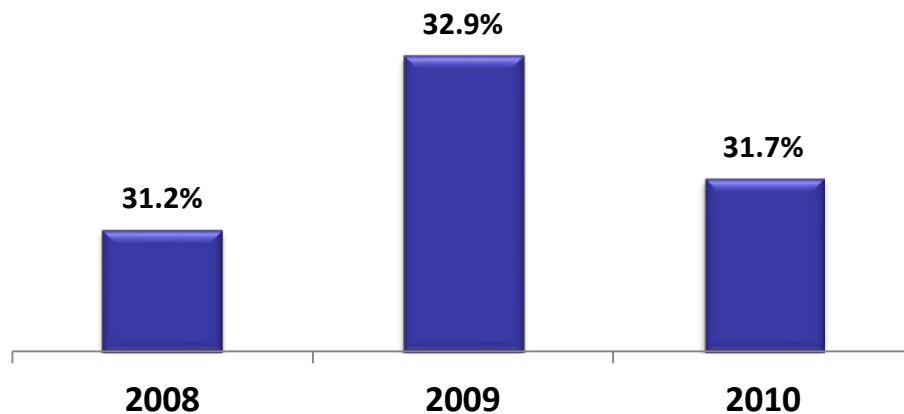
Initiatives by the local government and others work to reduce the obesity rate and to increase healthy lifestyles. Mayor Karl Dean has been actively engaged in community health initiatives to promote physical activity and health for Davidson County's residents. Places of employment have also been encouraged by the Mayor's office to foster healthy workplaces and promote active lifestyles. The Healthy Nashville initiative of the Mayor's Office continues efforts to improve the health and quality of life of Nashville by mobilizing community efforts to reduce the impact of obesity, and other health disparities.

<http://www.nashville.gov/mayor/healthynashville/>

Excess weight and obesity can have tremendous consequences on health, according to the Tennessee Statewide Nutrition and Physical Activity Plan, *A Comprehensive Plan to Reduce Obesity and Chronic Disease in Tennessee, 2010- 2015*. The plan reported that in 2009, Tennessee adults had the third highest incidence of obesity in the United States at 32.8%. In Tennessee, 68.8% of adults were either overweight or obese.

The 2012 Kaiser Foundation Update on Health Disparities released new findings that Tennessee has slightly improved in the adult obesity rate from 33% to 32%. While the decrease was not drastic, it resulted in Tennessee going from the third most obese city to the ninth most obese city in the nation. Chart 3 shows the elevation in obesity for 2009, compared to the year before and the year after.

Chart 3: Percentage of Obese Adults
Tennessee, 2008-2010



Source: Tennessee Behavioral Risk Factor Surveillance System (BRFSS); Tennessee Obesity Task Force Progress Report

Groups with low income, low levels of education and those in low wage occupations are less likely than others to have food purchasing, preparation and consumption patterns consistent with dietary guidelines. Factors influencing food choices include individual preferences as well as social, cultural and economic circumstances.

Another challenge in the issue of obesity is creating public awareness that breastfeeding has been linked to decreased risk of obesity in children and throughout the life span, along with other positive health outcomes, according to the National Women’s Health Information Center. Low socioeconomic groups are often disadvantaged by the intergenerational effects of poor maternal diet, and poor infant and childhood growth and development. Breastfeeding for up to six months with appropriate introduction of solid foods can improve children’s health outcomes.

Obesity is multifaceted with many issues that involve much more than personal responsibility, physical activity and nutrition. There are issues and circumstances that affect physical activity and nutrition and extend beyond the scope of individual responsibility. For example, children have less opportunity for physical activity if schools do not provide a period for physical education or their neighborhoods do not have playgrounds. In this example, education policy, housing policy, and community development are social determinants of health that are correlated with lack of physical activity that can contribute to obesity.

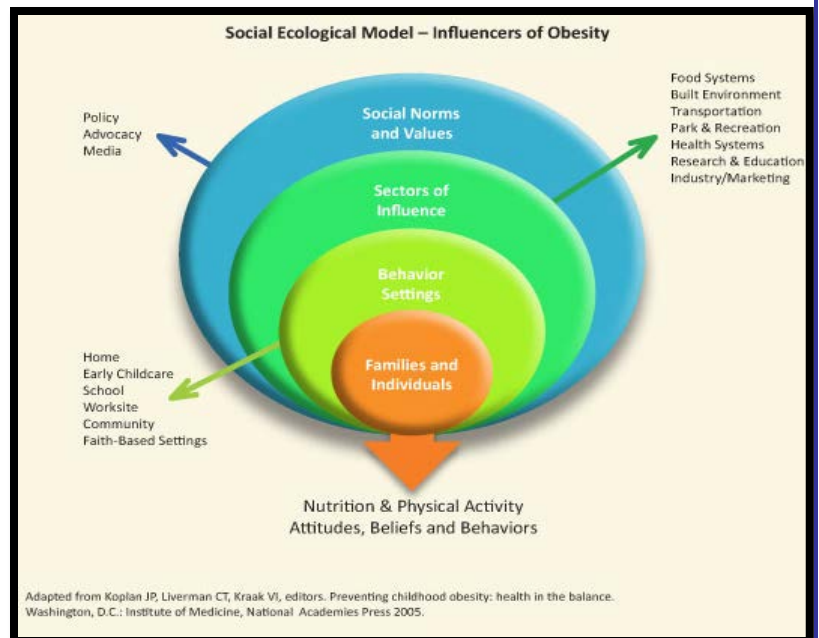
Social determinants of health are shaped by the distribution of money, power and resources at global, national and local levels. They are the economic and social conditions that influence the health of individuals and communities. Social determinants of health also refer to the quantity and quality of resources that are made available to individuals and communities. The economic and social conditions influence how one interacts with family, friends, coworkers and others in the community, as well as cultural attitudes, norms, and expectations. The policies in schools, neighborhoods, workplaces, businesses, and places of worship, health care settings, recreation facilities, and other public places can also influence the social aspects of health-related behaviors.

The U.S. Centers for Disease Control-Weight Control Information Network lists the following as Social Determinants of Health:

- Income and social status
- Social support networks
- Education and literacy
- Employment/working conditions
- Social environment
- Physical environment
- Personal health practices and coping skills
- Healthy child development
- Health services
- Culture

To incorporate the knowledge of how social determinants influence health outcomes, The Tennessee Obesity Taskforce chose to use the Social Ecological Model as a reference to effectively understand how the environment influences obesity by the choices people make and the interconnected elements that influence their choices. The Tennessee Obesity Taskforce uses partnership building, collaborative goals, implementation and evaluation of progress to address obesity.

Source: Institute of Medicine, National Academies Press, 2005



In conclusion, the comprehensive understanding of obesity requires awareness that there are some very prevalent physiological processes and behavior patterns that have become entrenched, and may be very difficult to reverse. Early prevention is crucial, according to Senior Fellow Ross Hammond, of the Brookings Institute (May 2012). To close the disparities gaps in obesity could take more than a generation at the rate the United States is going, according to the *Oxford Journal* report on “Closing the Disparities Gaps in Obesity” (December, 2008). The article reported the nation could help to improve the pace by closing the gaps of social determinants as well as the gaps between knowledge and policy with relevant, solution-oriented research. The impact on obesity through increased awareness and understanding of social determinants of health, and translating that knowledge into actions to address the problems of obesity and other illnesses would be essential to address obesity.

For additional information:

<http://health.state.tn.us/statistics/>

<http://health.state.tn.us/statistics/PdfFiles/2008%20TN%20PRAMS%20Report.pdf>

<http://health.nashville.gov/HealthData/BriefHealthyEatingActiveLiving.pdf>

<http://www.cdc.gov/obesity/adult/defining.html>

http://www.cdc.gov/healthyweight/assessing/bmi/childrens_BMI/about_childrens_BMI.html

http://www.who.int/social_determinants/en/

<http://www.oahpp.ca/resources/documents/presentations/2012feb21/PHO%20Rounds%20Feb%2021%202012.pdf>

<http://www.healthypeople.gov/2020/about/advisory/SocietalDeterminantsHealth.pdf>

<http://www.eatwellplaymoretn.org/plan-overview/about-the-plan/social-ecological-model.html>

<http://www.oahpp.ca/resources/documents/presentations/2012feb21/PHO%20Rounds%20Feb%2021%202012.pdf>

http://www.jointcenter.org/hpi/sites/all/files/Obesity%20Report.final_.pdf

<http://www.longwoods.com/publications/healthcare-quarterly/21950>

<http://ije.oxfordjournals.org/content/38/2/509.full.pdf+html>

<http://www.longwoods.com/publications/healthcare-quarterly/21950>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2169356/>

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Metropolitan Social Services – Planning & Coordination

<http://www.nashville.gov/sservices/planningcoordination/index.asp>

