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Kentucky's War on Weight & Type 2 Diabetes in Youth

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Nationally, about 108 million adults in the United States are overweight or obese³. According to National Health and Nutrition Examination Survey (NHANES), the trend in the prevalence of overweight and obesity is upward. The NHANES shows that, between 1994 and 1999, the U.S. experienced a 5% increase in the number of adults who are overweight or obese, representing 61% of the U.S. adult population³. More and more children and teens are also overweight, continuing the pattern the survey documented over the past two decades when the number of overweight children nearly doubled and the number of teens nearly tripled⁴. The survey indicates that approximately 20% of children and adolescents are now overweight as defined by a body mass index (BMI) greater than the 85th percentile¹.

Data regarding obesity among Kentucky youth is limited. However, available data suggest that Kentucky children and adults appear to have a prevalence of weight excess consistent with national trends⁴. The percentage of low-income children, age 1-5 years, enrolled in the Kentucky Women, Infants, and Children (WIC) supplemental feeding program above the 95th percentile of weight for height has increased 19% over the past five years⁴.

Obesity and Overweight Increase Risks

Obesity (BMI >30) and overweight (BMI >25) substantially increase the risk of morbidity from hypertension, dyslipidemia, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems, as well as endometrial, breast, prostate, and colon cancers².

Of particular concern is the relationship of excess body weight to the risk of type 2 diabetes. Until recently, type 2 diabetes has been seen almost exclusively in adults, primarily those who are overweight and inactive. Before

1982, type 2 diabetes accounted for 2-4% of all childhood diseases; it increased to 16% by 1994⁶. This observed increase of type 2 diabetes in youth is attributed to factors that have led to increased prevalence of obesity. The typical American child is becoming less active, watching more television, and eating a diet higher in fat content. Most consume only one serving of fruit and/or vegetables in a given day, and 25% of the time that one serving is French-fried potatoes¹. Additionally, parents of children who are obese are often overweight themselves. If both parents are obese, 80% of their children are overweight; if one parent is overweight, the occurrence in children drops to about 40%¹.

Surgeon General Calls for State Goals

In response to these alarming trends, the Surgeon General's call to action to prevent and decrease overweight and obesity involves state and local governments in facilitating goals for reducing these problems⁵. Kentucky has implemented one of the Surgeon General's suggested actions by creating a task force to address the problem of obesity among the state's youth. Lieutenant Governor Stephen L. Henry, M.D., formed this task force in May of 2001, with representation from individuals, healthcare professionals, private providers, hospitals, universities, local health departments, the state's public health and education departments, and local, state, and national school, education, and health promotion organizations.

Following the Surgeon General's identification of schools as a key setting for this public health issue, the task force has identified two major areas of focus: improving nutrition and physical activity in schools.

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Kentucky Youth Tobacco Survey 2000

By

Linda Dunne, Irene Centers and Molly Cone • Kentucky Department for Public Health

The first *Kentucky Youth Tobacco Survey*, a “community diagnosis” on tobacco use in children, was formally released by the Department for Public Health in March 2001. The report provides baseline data to guide the Department’s Tobacco Use Prevention and Cessation Program in the design, implementation, and evaluation of comprehensive tobacco prevention and control activities.

Conducted from February to June 2000, the survey was designed to collect vital information in the following areas:

- Prevalence of tobacco use among young people (including cigarettes and other products)
- Secondhand smoke exposure
- Cessation of tobacco use
- Role of the media and advertising in youth tobacco use
- Minors’ access to tobacco products
- Tobacco-related attitudes of young people
- Influence of peers and family members to use tobacco products

A 75-item school-based questionnaire was administered to 1282 students (grades 6-8) at 37 public middle schools and 1313 students (grades 9-12) at 40 public high schools. All participating schools and classrooms were randomly selected.

A section addressing the prevalence of cigarette smoking by youth, which the Centers for Disease Control and Prevention (CDC) estimates will account for the premature death of 87,902 young Kentuckians, presents a compelling picture. Findings include:

Current Cigarette Use: (Defined by the CDC as smoking cigarettes on one or more of the past 30 days.) The state’s young people far exceed the national average in current cigarette use. Nationally, usage is 9% among middle schoolers and 29% among high school students. By way of contrast, the Kentucky survey shows usage at 22% for middle school students and 37% for high school students. The study shows that current cigarette use increases significantly

between grades 6 and 7, and is well-established by grade 8. (Figure 1.)

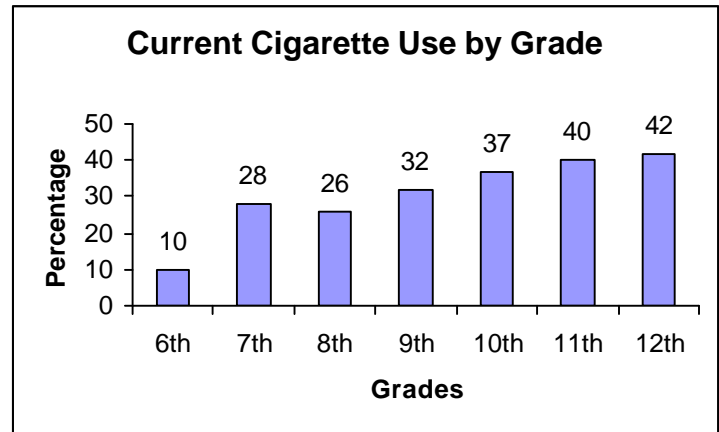


Figure 1. Source: *Kentucky Youth Tobacco Survey 2000*.

Current Use by Ethnicity: The survey shows no significant ethnic differences in current cigarette use among middle school students. White and Hispanic high school students are more likely to be current smokers than African American students, consistent with national data.

Lifetime Use: (Defined by the CDC as having ever smoked cigarettes, even one or two puffs.) Overall, 50% of middle school students and 74% of high school students reported they had smoked cigarettes at some time.

Frequent Use: (Defined by the CDC as smoking cigarettes on 20 or more of the last 30 days.)

By Gender—While 7% of middle school students and 21% of high school students reported frequent use, there is no difference in this usage between male and female students.

By Ethnicity—There are no significant ethnic/racial differences in frequent use at either the middle or high school level.

By Grade Level—The proportion of frequent smokers increases significantly after grade 6.



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Kentucky Youth Tobacco Survey 2000

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Approximately one-fifth of students in grades 9, 10, and 11, and one in three high school seniors are frequent smokers. Frequent use is well established by grade 9.

Established Use: (According to the CDC, students who have smoked 100+ cigarettes in their lifetime are likely to be established smokers.) The survey shows that 20% of middle school students and 43% of high school students who ever smoked reported smoking more than 100 cigarettes in their lifetime. High school smokers are more likely to be established smokers than middle school students. Nationally, 10% of middle school smokers and 30% of high school smokers are reported to be in the established user category.

Need for Daily Cigarettes:

Overall, 32% of middle school student smokers and 47% of high school smokers reported needing a cigarette every day.

Additional sections of the survey provide data on many issues (from access to advertising and attitudes) associated with youth and tobacco. Each section contains strategies to aid policymakers and the public in their understanding of the types of activities that are most effective in decreasing tobacco use among the young. For more information or to obtain a copy of *Kentucky Youth Tobacco Survey 2000*, visit Web site <http://chs.state.ky.us./publichealth/tobacco.htm>. Or contact Beth Thomas at 502-564-7996 or beth.thomas@mail.state.ky.us.

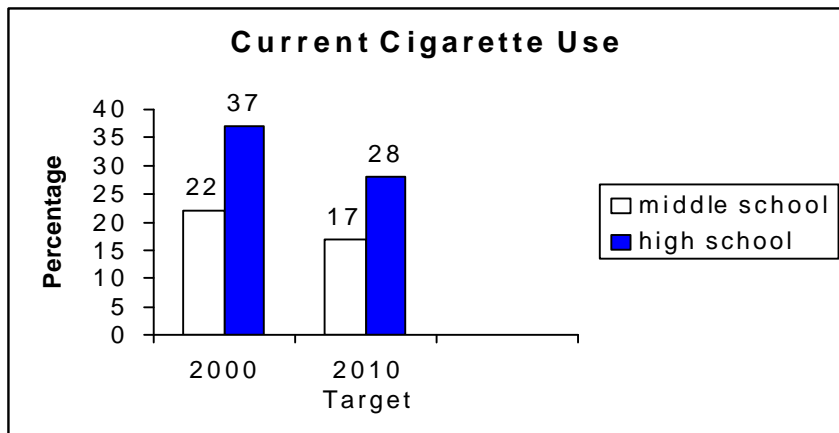


Figure 2. Source: *Kentucky Youth Tobacco Survey 2000*.

The *Kentucky Youth Tobacco Survey 2000* was conducted by the Kentucky Department for Public Health through a contract with the University of Kentucky College of Nursing. Additional technical assistance was provided by the CDC's Office on Smoking and Health. Representatives of local health departments administered the written surveys to students during school hours. Completion of the survey was voluntary and prior parental consent was obtained. The completed survey answer sheets were sent to the CDC for data entry and initial analysis.

The 2002 *Kentucky Youth Tobacco Survey* will be conducted this spring by the KDPH and local health department staff with technical support from the CDC's Office on Smoking and Health.

Healthy Kentuckians 2010 Tobacco Prevalence: Cigarette Use

Healthy Kentuckians 2010 recommends; reducing the proportion of young people who have smoked cigarettes within the past 30 days; increasing the number of cigarette smokers who attempt to quit; increasing the number of youth who disapprove of cigarette use and associate harm with use; enhancing enforcement efforts to decrease the illegal sale of cigarettes to minors; and prohibiting cigarette use on school campuses.

The (Kentucky Youth Tobacco) survey findings reveal that over one-fifth of middle school students and nearly one in four high school students report smoking cigarettes on one or more of the last 30 days. To meet the *Healthy Kentuckians 2010* goals, current youth cigarette smoking in Kentucky must be reduced by 24% for both middle school and high school students.

--From
Kentucky Youth Tobacco Survey 2000

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Access requires the Acrobat Reader Plug-In (available as a free download).

Kentucky's War on Weight and Type 2 Diabetes in Youth

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Task force proposals to Kentucky legislators during the 2002 session include:

- mandatory credentialing/certification and continuing education for school food service directors
- tougher guidelines for a la carte food items and competitive foods, such as foods found in vending machines, school stores, canteens and at fundraising activities sponsored by students, teachers, or other groups, that follow more stringent rules regarding fat content, added sugar by weight, and times of availability
- mandatory physical activity of at least 30 minutes per day, in no less than 15 minute increments, starting in preschool and continuing through primary grades (K-3), then following these students progressively through all grades
- creation of a legislative task force by the General Assembly to continue to address the obesity epidemic and health consequences of obesity in Kentucky's youth ⁴.

Because our youth spend a large proportion of their time and eat a large proportion of their meals at school, there are many opportunities to engage them and reinforce in them healthy eating practices and regular physical activity. Our hope is that as our youth learn and practice healthier lifestyles, they will grow into healthy adults. They will then pass this on to their children, and lead Kentucky and our nation to a healthier future.

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The author, Dawn S. Frazee, R.N., is a member of the Lt. Governor's Task Force on Type 2 Diabetes and Obesity in Youth, which was established last May. This article first appeared in the *AADE Public Health Specialty Practice Group Newsletter*.

"Sudden" Cardiac Deaths in the U.S.

More than 60% of heart disease deaths in 1999 were "sudden" and nearly half happened outside of hospital.

—Centers for Disease Control and Prevention
February 2002

Despite advances in the prevention and treatment of cardiovascular disease and improvements in emergency transportation systems, more than 60% of cardiac deaths in the United States in 1999—more than 460,000—were unexpected or "sudden." Nearly half of all cardiac deaths (46.9%) occurred outside of the hospital, according to an analysis of state data released by the Centers for Disease Control and Prevention (CDC) in mid-February.

Of the 728,743 heart disease deaths occurring that year, 462,340 (63.4%) were defined as sudden cardiac deaths (SCD). Of those, 46.9% occurred outside of the hospital. SCD patients who died in the emergency department, or who were pronounced dead on arrival, accounted for 16.5%, according to the latest death certificate data from the National Center for Health Statistics.

Women were more likely than men to die before reaching the hospital (51.9% compared to 41.7%). Men had a higher proportion of cardiac deaths that occurred in an emergency department or were dead on arrival (21.2% of 353,500 cardiac deaths). SCDs accounted for 10,460 (75.4%) of all 13,873 cardiac disease deaths in persons aged 34-44 years. The proportion of cardiac deaths that occurred out-of-hospital increased with age,

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“Sudden” Cardiac Deaths in the U.S.

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from 5.8% in persons aged 0-4 years to 61% in persons aged \geq 85 years.

"Because almost one of every two Americans will die of cardiovascular disease, and because about half of those deaths will be sudden, we need to train people in cardiopulmonary resuscitation and in use of the automated external defibrillator, and make that equipment widely available."

— Douglas Zipes, M.D.
President, American College of Cardiology

SCDs accounted for 63.7% of all cardiac deaths among whites, 62.3% among blacks, and 54.2% among Hispanics. Whites had the highest proportion of cardiac deaths out-of-hospital (48.3%) and blacks had the highest proportion of cardiac deaths in an emergency department or were dead on arrival (25%). States with the highest percentages of SCD (among all heart disease deaths) were Wisconsin (72.9%), Idaho (72.2%), Utah (72.1%), Colorado (71.3%), and Oregon (71.0%). States with the lowest SCD still had percentages close to 60%: Hawaii (57.2%), Arkansas

(57.5%), New Jersey (57.6%), Kentucky (58.4%), and Oklahoma (58.5%).

Possible reasons for the high national percentages of sudden cardiac death, according to the CDC researchers, are the unexpected nature of SCD and the failure to recognize early warning symptoms of heart disease, particularly heart attack. Early recognition of symptoms can lead to early treatment, resulting in less heart damage and fewer deaths.

Uncommon symptoms of heart attack that the public and health care providers should watch for include breaking out in a cold sweat, nausea, and light-headedness. More common symptoms are chest discomfort or pain; pain or discomfort in one or both arms or in the back, neck, jaw, or stomach; and shortness of breath.

CDC and its partners, the National Heart, Lung and Blood Institute of the National Institutes of Health and the American Heart Association, are working to increase public awareness about the signs and symptoms of a heart attack. They recently launched a new heart attack education campaign called Act in Time to Heart Attack Signs. Information is available at www.nhlbi.nih.gov and www.americanheart.org.



1999 Kentucky Sudden Cardiac Deaths

Number of all cardiac deaths, proportion of sudden cardiac deaths (SCDs) and age-specific rates*.

All Cardiac Deaths	SCD			Age-specific SCD rates					
	%	No.	Rate**	<u>0-34</u>		<u>35-64</u>		<u>\geq 65</u>	
				No.	Rate	No.	Rate	No.	Rate
12,162	58.4	7103	184.1	73	3.8	1405	90.4	5624	1140.4
*Per 100,000 population									
**Standardized to the 2000 projected U.S. population									

—SCD information courtesy of the CDC Office of Communication,
February 2002

Cardiovascular diseases—principally heart attack, stroke and high blood pressure—kill nearly a million Americans each year, making it the leading cause of death among men and women and all racial and ethnic groups. About 62 million Americans live with cardiovascular disease, which in 2002 is expected to cost the nation an estimated \$329.2 billion in health care expenditures and lost productivity. This burden continues to grow as the population ages.

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March Release: *Kentucky County Health Profiles, 1999*

The Surveillance and Health Data Branch of the Division of Epidemiology and Health Planning recently announced the publication and release of *Kentucky County Health Profiles, 1999*. The edition is the fifth in the series of annual reports designed to provide data for health status assessment and planning at state and local levels.

The report incorporates data for the state's 15 Area Development Districts (ADDs), as well as the 120 counties. A statewide summary is followed by information on each ADD and all counties (in alphabetical order). Also included are definitions of each indicator, technical notes, and a list of data sources. All data are for resident population and calendar year 1999 unless otherwise indicated.

The report, for the first time, uses the 2000 U.S. standard population for computing age-adjusted death rates (AAR)

The main purpose of the report is to gather in one place a number of key health status indicators that can assist local planners in assessing the health needs of their communities. It is intended to complement the *Kentucky Annual Vital Statistics Report, 1999*. It reproduces much of the data in the vital statistics report, while incorporating additional data and more specific data at the county level.

Kentucky County Health Profiles, 1999, is being made available to the state's local public health departments and to various libraries and educational institutions throughout the state. It also will be available on the Cabinet for Health Services' website at <http://chs.state.ky.us/publichealth/data-warehouse.htm>.

For more information, call Bonnie Franklin at 502-564-2757, or contact her at bonnie.franklin@mail.state.ky.us.