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# Chronic Disease Prevention in Adolescence

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## EDITORIAL

### Chronic disease prevention in adolescence

The Centers for Disease Control and Prevention (CDC) in Atlanta have recently published the 2005 data from their Steps communities (small cities or rural areas whose activities are coordinated by a state health department, large cities or urban areas, and tribes or tribal entities) on unhealthy dietary behaviors, physical inactivity and tobacco use, which are behaviors that contribute to chronic disease, including obesity, diabetes and asthma (1). The Youth Risk Behavior Surveillance System (YRBSS) conducted by CDC monitors health-risk behaviors, general health status and prevalence of overweight and asthma among youth. As a part of YRBSS communities participating in the Steps to a Healthier United States Program (Steps Program) school-based surveys of students in grades 9-12 in their program intervention areas was also conducted. These communities used a modified questionnaire asking about dietary behaviors, physical activity and tobacco use with monitoring of overweight, diabetes, and asthma.

The results from 15 Steps communities indicated that a significant proportion of adolescents engaged in health risk behaviors associated with obesity, diabetes, and asthma. During 2005 the percentage of high school students, who had not eaten fruits and vegetables over five times/day during the seven days preceding the survey ranged from 80.1% to 85.2% (median: 83.1%), the percentage who were overweight ranged from 6.6% to 19.6% (median: 11.5%), the percentage who did not attend physical education classes daily ranged from 53.7% to 95.1% (median:

74.2%) and the percentage who had smoked cigarettes during the 30 days preceding the survey ranged from 9.2% to 26.5% (median: 17.1%).

This data collected will now be used to examine the effects of the program, for further planning and intervention, which is very important in order to make evidence based intervention that will hopefully have long term effects on our youth in order to prevent chronic disease in adulthood. The findings of this comprehensive study are useful also to help us understand the extent of unhealthy lifestyles in adolescence. Despite the high prevalence of risk taking behaviors in these surveys, they might actually be underestimating the actual prevalence, because of their subjective nature. In Kentucky for example, we looked at actual height and weight of students in an entire high school and found that 51% of students had a body mass index (BMI) at or more than the 85<sup>th</sup> percentile for their respective ages (2). Nevertheless, the YRBSS is the most comprehensive data available. The findings indicate significant prevalence of lack of physical activity, poor nutrition and tobacco use in these communities. There are multiple factors contributing to this. In most cases, parental lifestyle is found to lead the way for the adolescents with children of obese smokers also becoming obese smokers. In addition, lack of after-school programs, lack of proper education and fragmented preventive programs, as well as lack of adult supervision all contribute to the high prevalence of risk behaviors. To change the current situation, long-term studies to evaluate preventive and therapeutic studies

are needed. One sided intervention such as education only usually fails. In our adolescent clinic in Kentucky, the most promising approach seems to be the comprehensive risk assessment at early age (around 10 years of age) followed by overall intervention targeting reduction of risk taking and involving not only the teen, but the entire family in addition to working with the school system, the political and civil service leadership of the community.

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