



Partnership For Prevention
Better Health Through the Power of Prevention

Health Policy

Priorities

Developed by Partnership for Prevention at the request of
Gov. Mike Huckabee, National Governors Association

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ENHANCE PHYSICAL EDUCATION IN SCHOOLS

The purpose of this action is to increase physical activity among young people.

BACKGROUND

- Sixteen percent of young people ages 6-19 are now overweight. This is more than double the percentage of young people who were overweight in 1980.¹
- Health officials recommend that children accumulate a minimum of 60 minutes of moderate to vigorous physical activity each day. Currently, only 27% of students in grades 9-12 engage in moderate-intensity physical activity for at least 30 minutes per day.² The Institute of Medicine recommends that at least thirty minutes of physical activity should be accrued at school since children spend half their day in school.³
- Although there are likely many factors contributing to the increase in overweight, one important reason is that children are not engaging in recommended amounts of physical activity.
- Physical education requirements vary widely across states and school districts. In 2000, daily PE for the entire school year was provided in only 8% of elementary schools, 6% of middle/junior high schools, and 6% of senior high schools.⁴

BURDEN OF DISEASE ADDRESSED BY THE ACTION

- Overweight among young people is associated with many serious health conditions, including increased risk for type 2 diabetes, high blood pressure, high cholesterol, sleep apnea, and orthopedic problems.⁵
- Among overweight or obese 5- to 10-year-olds, approximately 60% have at least one cardiovascular disease risk factor (e.g., high cholesterol or high blood pressure).⁶
- The metabolic and physiologic changes associated with childhood obesity often persist into adulthood. Obesity in adulthood is associated with an increased risk of disease, disability, and death.⁷

EVIDENCE OF EFFECTIVENESS

- The CDC-sponsored Task Force on Community Preventive Services has concluded that there is strong evidence that school-based PE is effective in increasing levels of physical activity and improving physical fitness.
- The Task Force identified several strategies that schools have implemented to increase the amount of time spent in moderate or vigorous physical activity. These include adding new PE classes, lengthening existing classes, and increasing physical activity levels without necessarily lengthening class time.
- Outcomes among students included increases in aerobic capacity, small decreases in Body Mass Index, and increased muscular strength.
- In its literature review, the Task Force found no evidence that increased time spent in PE harmed academic performance.⁸

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- ¹ Hedley AA, Ogden CL, Johnson CL, Carroll MD, Curtin LR, Flegal KM. Overweight and obesity among US children, adolescents, and adults, 1999-2002. *JAMA*. 2004;291:2847-2850.
- ² US Department of Health and Human Services. *Healthy People 2010* (conference ed in 2 vols) Washington, DC: US Department of Health and Human Services, 2000.
- ³ Institute of Medicine. Committee on Prevention of Obesity in Children and Youth. Preventing childhood obesity: Health in the balance. Washington, DC. 2005.
- ⁴ Burgeson CR, Wechsler H, Brener ND, Young JC, Spain CG. Physical education and activity: results from the School Health Policies and Programs Study 2000. *J Sch Health* 2001;71(7):279-293.
- ⁵ Institute of Medicine. Committee on Prevention of Obesity in Children and Youth. Preventing childhood obesity: Health in the balance. Washington, DC. 2005.
- ⁶ Freedman DS, Dietz WH, Srinivasan SR, Berenson GS. 1999. The relation of overweight to cardiovascular risk factors among children and adolescents: the Bogalusa Heart Study. *Pediatrics* 103(6 Pt 1):1175-1182.
- ⁷ Strong WB, Malna RM, Blimkie CJR, et al. Evidence based physical activity for school-age youth [electronic document]. *J Pediatr* (under embargo). Available at: http://www.pe4life.org/articles/Youth_PA_recs.pdf. Last accessed June 21, 2005.
- ⁸ Kahn EB, Ramsey LT, Brownson RC, Heath GW, et al. The effectiveness of interventions to increase physical activity: a systematic review. *Am J Prev Med* 2002;22(4S):73-107.



ENSURE ACCESS TO CLINICAL PREVENTIVE SERVICES

The purpose of this action is to increase access to clinical preventive services, such as screening tests, as recommended by the U.S. Preventive Services Task Force.¹

BACKGROUND

Clinical preventive services are immunizations, screening tests, counseling, and preventive medications offered to ostensibly healthy people in clinical settings in order to prevent disease, to promote good health, and to detect disease and treat it early before symptoms are apparent.

Insurance Coverage for Clinical Preventive Services

- A 2001 national survey revealed significant gaps in coverage for clinical preventive services in employer-sponsored health insurance plans.² While tobacco cessation counseling is considered to be the most valuable clinical preventive service next to childhood immunization,³ 80% of employers offered no coverage for tobacco cessation counseling and 29% did not offer coverage for childhood immunizations.
- Influenza (“flu”) vaccinations and colorectal cancer screening are also important clinical preventive services;³ however, this survey revealed that 45% and 32% of employers’ health insurance plans did not cover these two services.²
- Because this survey only looked at employers who offer health insurance benefits, the findings overestimate coverage in the employed population. Only 63% of employers nationwide offered any health benefits in 2004, a drop from 68% in 2001.⁴
- Insurance coverage for clinical preventive services in state Medicaid plans varies, particularly for adults. A state-by-state analysis revealed significant variation in coverage for influenza, pneumococcal, and other adult immunizations, with 2 states providing no coverage at all.⁵

Effect of Insurance Coverage on Receipt of Preventive Services

- A recent review of the literature found a strong and statistically significant effect of insurance coverage on receipt of preventive services by adults, such as influenza vaccinations, blood pressure and cholesterol tests, and physical exams.⁶
- The same review found that expanding insurance coverage to children increases the number of annual physician visits by roughly 1 visit per year for each child who gains insurance coverage. This outcome is important among young children since an annual well-child visit is recommended and is necessary to stay up-to-date on childhood immunizations.⁶

Insurance Coverage Does not Guarantee that Services are Delivered

- Even if a person has health insurance and preventive services are covered benefits, receipt of preventive services is not guaranteed. For example, only 48% of adults aged 50-64 years in health insurance plans with coverage for the influenza shot received that vaccination in 2003, which is higher than the national rate reported by CDC (36.4%), but still leaves half of insured adults unvaccinated.⁷
- A number of approaches are being used to improve delivery of preventive care and should be expanded. Some large employers, the federal government and some states are collecting performance data from health insurance plans, preferred provider organizations, hospitals and physicians and recognizing and rewarding those who demonstrate positive results for patients.⁷
- Two systematic reviews of published studies have identified approaches that can be taken in healthcare settings and communities to improve use of cancer screenings and immunizations, such as postcards reminding people they are due for screening or immunization, expanding hours of operation, and reminders to providers when their patients are due for services.^{8, 9}

EVIDENCE OF EFFECTIVENESS

- High use rates of effective clinical preventive services, such as those recommended by the U.S. Preventive Services Task Force, are beneficial to employers: they reduce disease and disability among the working population and potentially improve productivity, employee retention and morale.^{10,11}
- Underlying estimates from the ranking of clinical preventive services indicate that if counseling were delivered to all smokers on a regular basis, approximately 70,000 deaths could be prevented in one year.³
- If screening with fecal occult blood test and sigmoidoscopy were delivered to all persons 50 and older on a regular basis, approximately 18,000 deaths could be prevented in one year.³

¹ The U.S. Preventive Services Task Force, an independent panel of experts convened by the U.S. Agency for Healthcare Research and Quality, systematically reviews evidence of effectiveness and develops recommendations for clinical preventive services.

² Bondi MA, et al. Employer coverage of clinical preventive services in the United States. *Am J Health Prom* 2005 (publication pending).

³ Coffield AB, Maciosek MV, McGinnis JM, Harris JR, Caldwell MB, Teutsch SM, Atkins D, Richland JH, Haddix A. Priorities among recommended clinical preventive services. *Am J Prev Med* 2001 Jul;21(1):1-9.

⁴ The Kaiser Family Foundation and Health Research and Education Trust. Employer Health Benefits: 2004 Survey. September 2004. Last accessed May 9, 2005 (www.hospitalconnect.com/hret/publications/2004ehbs.html).

⁵ Rosenbaum S, et al. The Epidemiology of U.S. Immunization Law: Medicaid Coverage of Immunizations for Non-Institutionalized Adults. Washington, D.C.: The George Washington University Center for Health Services Research and Policy, November 2003.

⁶ Buchmueller TC, Grumbach K, Kronick R, Kahn JG. The effect of health insurance on medical care utilization and implications for insurance expansion: a review of the literature. *Med Care Res Rev*. 2005 Feb;62(1):3-30.

⁷ National Committee for Quality Assurance. *The State of Health Care Quality 2004*. Washington DC: 2004. Last accessed June 23, 2005 (www.ncqa.org).

⁸ Task Force on Community Preventive Services. Recommendations regarding interventions to improve vaccine coverage in children, adolescents and adults. *Am J Prev Med* 2000; 18(1S):92-6.

⁹ For recommendations regarding interventions to improve breast, cervical and colorectal cancer screening see <http://www.thecommunityguide.org/cancer/default.htm>. Last accessed June 22, 2005.

¹⁰ Chapman LS. Health and productivity management: an emerging paradigm for the workplace. *The Art of Health Promotion* 7. 2003;3:1-12.

¹¹ Cardinal BJ. Employee maintenance: worksite health promotion programs are a sound business investment. *American Fitness*. 2004;22(2):40-42.



ENHANCE ACCESS TO PLACES FOR PHYSICAL ACTIVITY

The purpose of this action is to increase physical activity by improving access to places and facilities where people can be physically active.

BACKGROUND

The Centers for Disease Control and Prevention and the American College of Sports Medicine recommend that adults accumulate 30 minutes or more of moderate-intensity physical activity on most, but preferably all, days of the week.¹

- Only 45% of adults get the recommended amount of physical activity, and 26% do not participate in any leisure-time physical activity.²
- The major barriers to increasing physical activity are lack of time, access to convenient facilities, and safe environments in which to be active.³
- Providing access to weight and aerobic fitness equipment in fitness centers and creating walking and bicycling trails are examples of enhancing access to convenient facilities and safe environments.
- Providing access to fitness facilities through worksite fitness programs is one strategy for reaching large numbers of adults. These programs have at least short-term effectiveness in increasing the physical activity and fitness of program participants. Worksite programs that include physical activities can reduce employer costs for insurance premiums, disability benefits, and medical expenses. They also appear to increase productivity, reduce absenteeism, reduce employee turnover, and produce a positive return on investment for employers.^{4,5}

BURDEN OF DISEASE ADDRESSED BY THE ACTION

- Regular physical activity can substantially reduce the risk of developing or dying from heart disease, diabetes, colon cancer, and high blood pressure.
- Many studies have documented that regular physical activity helps to maintain the functional independence of older adults and enhances the quality of life for people of all ages.⁶

EVIDENCE OF EFFECTIVENESS

- There is strong evidence that creating or enhancing access to places for physical activity, combined with informational outreach activities, is effective in increasing levels of physical activity.
- These interventions increase the percentage of people engaging in leisure-time physical activity, increase aerobic capacity, and decrease body fat.
- These interventions have been found to be cost-saving, primarily as a result of reducing medical costs.⁷

¹ Pate RR, Pratt M, Blair SN, et al. Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *JAMA*. 1995;273(5):402-7.

² Centers for Disease Control and Prevention. Prevalence of physical activity, including lifestyle activities among adults --- United States, 2000—2001. *MMWR*. 2003;52(32):764-769.

³ US Department of Health and Human Services. *Healthy People 2010* (conference ed. in 2 vols.) Washington, DC: US Department of Health and Human Services, 2000.

⁴ Riedel J, Lynch W, Baase C, Hymel P, Peterson KW. The effect of disease prevention and health promotion on workplace productivity: a literature review. *Am J Health Promotion* 2001;15(3):167-191.

⁵ Goetzel RZ, Anderson DR, Whitmer RW, Ozminkowski RJ, Dunn RL, Wasserman J. The relationship between modifiable health risks and health care expenditures. An analysis of the multi-employer HERO health risk and cost database. The Health Enhancement Research Organization (HERO) Research Committee. *J Occ Env Med* 1998;40(10):843-54.

⁶ U.S. Department of Health and Human Services. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity [electronic document]. Office of the Surgeon General, 2001. Available at: <http://www.surgeongeneral.gov/topics/obesity/calltoaction/CalltoAction.pdf>. Last accessed June 20, 2005.

⁷ Kahn EB, Ramsey LT, Brownson RC, Heath GW et al. The effectiveness of interventions to increase physical activity: A systematic review. *Am J Prev Med* 2002;22(4S):73-107.



INCREASE ACCESS TO HEALTHIER FOOD OPTIONS IN COMMUNITIES

The purpose of this action is to alleviate the burden of nutrition-related health conditions by making nutritious foods more readily available to everyone.

BACKGROUND

- The CDC has identified that only 25% of American adults eat the recommended five fruits and vegetables per day.¹
- Additional research suggests that low-income households in rural or urban areas have reduced access to reasonably priced, high-quality food such as produce. Many of these households simply lack the resources to purchase nutritious food options.²
- Contributing to the disparity in access to healthy foods is the lack of supermarkets in low-income areas. Supermarkets tend to charge lower prices but often are located in more affluent suburban areas. In areas where a larger proportion of the poor live, small grocery and convenience stores predominate, but they usually offer a lower selection of food items, higher prices, and fewer generic options. Public transportation to supermarkets may be unavailable or inadequate.^{3,4}
- A variety of programs have been initiated in an effort to solve this problem.
- Boston, New York, and Pittsburgh are among the cities that have used public/private partnerships to increase access to supermarkets with more fruits and vegetables in underserved areas.⁴
- Food stamp outreach programs aim to increase the number of eligible households involved in federal programs to reduce food costs.
- Local initiatives to improve access to healthy food options include farmers' markets and community gardens.² Community gardens can be established on vacant lots in cities where the land available for individual households is very limited. Neighbors share the expense and labor involved in maintaining the garden.³
- Another new approach to increasing access to healthy food is called community-supported agriculture (CSA). These programs allow consumers to purchase a "share" in a farm at the beginning of the season, in exchange for regular delivery of fresh produce at below-retail prices. Some CSA programs have even provided subsidies for low-income households that cannot afford to pay the entire lump-sum price for a share.³

BURDEN OF DISEASE

- Nutritional factors contribute substantially to the burden of preventable illnesses and premature deaths in the US.
- Four out of the ten leading causes of death have been linked to nutrition: coronary heart disease, stroke, type 2 diabetes, and some types of cancers. These conditions cost an estimated \$200 billion per year in medical expenses and lost productivity.⁵

EVIDENCE OF EFFECTIVENESS

- Fruits and vegetable consumption has been associated with a reduced risk of a number of chronic conditions including heart disease and some cancers.⁶
- Eating at least five servings of fruits and vegetables per day can reduce cancer risk by half.⁷
- While research to demonstrate the effectiveness of programs designed to increase access to healthier foods in communities is scant, there are early indications that these initiatives can produce positive outcomes.
- One study has shown that community gardeners eat more vegetables than people who do not participate in gardens.²
- Introducing a wider range of healthy food and beverage options to local convenience stores resulted in increased sales of fruits and vegetables in a pilot study in Scotland.⁸
- The USDA's Community Food Projects Competitive Grant Program has provided federal funding to communities for projects to increase access to healthy foods. Examples of success stories include the creation of a farmers' market accessible to low-income populations, the establishment of a food buying cooperative in a Hispanic neighborhood, and the formation of a community garden run by youth. These programs have demonstrated self-sustainability and effectiveness on a local level.¹⁰
- There remains a need for more large-scale efforts and the expansion of existing programs, along with the implementation of ways to monitor and evaluate their success.

¹ Centers for Disease Control and Prevention. At a glance, physical activity and good nutrition: essential elements to prevent chronic disease and obesity 2004 [electronic document]. Available at: http://www.cdc.gov/nccdphp/aag/pdf/aag_dnpa2004.pdf. Last accessed June 21, 2005.

² Cohen B. USDA community food security assessment toolkit. 2002 [electronic document]. E-FAN-02-013. Available at: <http://www.ers.usda.gov/publications/efan02013/efan02013.pdf>. Last accessed June 21, 2005.

³ Kantor L. Community food security programs improve food access. *Food Review*. 2001;24(1):20-26.

⁴ Prevention Institute for the Center for Health Improvement. Supermarket Access in Low-income Communities [electronic document]. Available at: http://www.preventioninstitute.org/pdf/CHI_Supermarkets.pdf. Last accessed June 28, 2005.

⁵ US Department of Health and Human Services. *Healthy people 2010*, Vol 2. 2000.

⁶ Hyson D. The health benefits of fruits and vegetables: a scientific overview for health professionals [electronic document]. 2002. Available at: http://www.5aday.org/pdfs/research/health_benefits.pdf. Last accessed June 21, 2005.

⁷ National Alliance for Nutrition and Activity. Obesity and Other Diet- and Inactivity-Related Diseases: National Impact, Costs, and Solutions. Washington, DC: Center for Science in the Public Interest; 2005.

⁸ Healthy Foods at Corner Shops [online news release]. Scottish Executive News. Available at: <http://www.scotland.gov.uk/News/Releases/2005/02/07095154>. Last accessed June 29, 2005.

¹⁰ USDA. Grantee 2003 Annual Report [electronic document]. Available at: http://www.csrees.usda.gov/nea/food/pdfs/cfp_2003_annrpt.pdf. Last accessed June 21, 2005.



IMPLEMENT SMOKE-FREE POLICIES IN PUBLIC PLACES AND WORKPLACES

The purpose of this action is to decrease disease and death associated with exposure to secondhand smoke.

BACKGROUND

Smoke-free policies prohibit smoking entirely within enclosed public spaces, such as workplaces, restaurants, and shopping malls. An enclosed public space may be defined as any building regularly entered by ten or more individuals at least one day a week. *Smoking restrictions* only limit smoking to designated areas.

- Among the 4,800 compounds identified in cigarette smoke, 69 are carcinogens and several more are tumor promoters or cocarcinogens.¹
- More than 1/3 of the U.S. population—about 100 million people—are covered by strong smoke-free laws.² Seven states currently have comprehensive state smoke-free indoor air laws in place that, as implemented in practice, require almost all public places and workplaces, including restaurants and bars, to be smoke-free.³ In addition, many cities and counties in other states have also enacted comprehensive smoke-free policies.

BURDEN OF DISEASE ADDRESSED BY THE ACTION

- Secondhand smoke exposure is a direct cause of at least 3,000 lung cancer deaths and more than 35,000 heart disease deaths each year.⁴⁻⁵
- In infants and children, exposure to secondhand smoke causes middle ear infections and lower respiratory tract infections, exacerbates asthma, and is associated with spontaneous abortion and sudden infant death syndrome.⁴⁻⁵

EVIDENCE OF EFFECTIVENESS

- A systematic review of published studies evaluating the effects of smoke-free policies and restrictions found *strong evidence* that these policies are effective in reducing exposure to secondhand smoke.⁶
- Measurement of secondhand smoke components, such as nicotine vapor, in the environment before and after the smoke-free policy or restriction found an average reduction of 72%.⁶
- Self-reported secondhand smoke exposure was reduced by an average of 60% after implementation of the smoke-free policy or restriction.⁶
- Reductions in secondhand smoke exposure were greater in workplaces that had smoke-free policies compared to those with only smoking restrictions.⁶
- Studies also observed reductions in the number of cigarettes smoked among the group or population exposed to the smoke-free policies.⁶
- Peer-reviewed studies looking at the effect of smoke-free policies on sales tax revenue and employment levels have consistently found no negative economic impact on restaurants and bars.⁷⁻⁸

¹ Hoffmann D, Hoffmann I, and El-Bayoumy K. The less harmful cigarette: a controversial issue. *Chem Res Toxicol*. 2001;14(7):767-790.

² Campaign for Tobacco-Free Kids. Fact sheet: Smoke-free Laws Do Not Harm Business at Restaurants and Bars [Web page]. Updated 04-18-05. Available at: www.tobaccofreekids.org/research. Last accessed June 21, 2005. Figures based on ordinances recorded by the Association for Nonsmokers Rights (www.no-smoke.org).

³ Travers MJ, Cummings KM, Hyland A, et al. Indoor air quality in hospitality venues before and after implementation of a clean indoor air law – Western New York. *MMWR*. 2003;53(44):1038-1041.

⁴ Environmental Protection Agency (EPA). Respiratory health effects of passive smoking: lung cancer and other disorders. EPA/600/6-90/006F, December 1992.

⁵ National Cancer Institute. Health Effects of Exposure to Environmental Tobacco Smoke [monograph online]. Smoking and Tobacco Control Monograph No. 10. Bethesda MD: U.S. Department of Health and Human Services, National Institutes of Health, August 1999. Available at: <http://cancercontrol.cancer.gov/tcrb/monographs/>. Last accessed June 21, 2005.

⁶ Hopkins DP, Briss PA, Ricard CJ, et al. Reviews of evidence regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. *Am J Prev Med* 2001; 20(2S):16-66.

⁷ Scollo M, Lal A, Hyland A, Glantz S. Review of the quality of studies on the economic effects of smoke-free policies on the hospitality industry. *Tob Control*. 2003;12:13-20.

⁸ Scollo M, Lal A. Summary of studies assessing the economic impact of smoke-free policies in the hospitality industry. VicHealth Centre for Tobacco Control, the Cancer Council Victoria, April 2004.



ESTABLISH AND ENACT PRIMARY SAFETY BELT LAWS

The purpose of this action is to decrease the number of motor vehicle crash-related fatalities and injuries due to failure to use safety belts.

BACKGROUND

Primary safety belt laws allow police officers to stop motorists specifically for seat belt violations. Secondary laws require that a motorist be stopped for another traffic violation before the safety belt law can be enforced.

- Twenty-two states plus the District of Columbia now have primary laws in place, and 27 have secondary laws. New Hampshire is the only state with no law requiring adult safety belt use.¹
- Congressional legislation is currently underway that could potentially link passage of primary laws by states to federal highway funding.
- In the US, motor vehicle crashes are the leading cause of death for people from 3 to 33 years of age.²
- Safety belt use is the single most effective way to reduce fatal and nonfatal injuries in motor vehicle crashes.³ More than 9,000 fatalities and 143,000 serious injuries could be prevented each year if all passengers were to wear safety belts.⁴ This is a tremendous opportunity to prevent death and injury, and the need to strengthen legislation is urgent.

BURDEN ADDRESSED BY THE ACTION

- Fifty-six percent of people killed in motor vehicle crashes in 2003 neglected to wear a safety belt.⁵
- The implementation of primary safety belt laws could have saved over 12,000 lives during the years 1975-2000.⁶
- The annual costs of the unnecessary deaths and injuries that result from safety belt non-use total over \$26 billion, due to medical care, lost productivity, and other injury-related costs.⁴

EVIDENCE OF EFFECTIVENESS

- Safety belt use has saved nearly 165,000 lives since 1975.⁷
- After simply buckling a safety belt, a vehicle occupant's chance of surviving a potentially fatal crash increases by as much as 73%.⁴
- Safety belt use is statistically different according to the type of law in place: 84% in states with primary laws and 73% in states with secondary laws.⁸ Several states' experiences have indicated that safety belt usage increases by 10-15% after enactment of primary laws.⁴
- Safety belt use by adults has an additional positive impact on the use of child restraints. Drivers who use safety belts are three times more likely to restrain children in the car.⁹
- Some states with primary laws have included anti-harassment clauses in order to reduce the likelihood of discriminatory enforcement, although evidence from several states does not indicate that minority groups receive more tickets as a result of primary legislation.^{10,11}

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- ¹Governors Highway Safety Association. Safety belt laws [Web page]. Updated January 2005. Available at: http://www.statehighwaysafety.org/html/stateinfo/laws/seatbelt_laws.html. Last accessed June 23, 2005.
- ²NHTSA. Traffic Safety Facts: Research Note [electronic document]. Available at: <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/RNotes/2005/809831.pdf>. Last accessed June 23, 2005.
- ³Dinh-Zarr TB, Sleet D, Shults R, Zaza S, Elder R, Nichols J, Thompson R, Sosin D, and the Task Force on Community Preventive Services. Review of evidence regarding interventions to increase the use of safety belts. *Am J Prev Med* 2001;21(4S):48-65.
- ⁴NHTSA. The economic impact of motor vehicle crashes 2000. Washington, DC: US DOT, 2002; report no. DOT HS 809 446.
- ⁵NHTSA. 2003 Annual assessment: motor vehicle traffic crash fatality counts and injury estimates for 2003. 2004; report no. DOT HS 809 755.
- ⁶Chaudhary N, and Preusser D. Lives Lost by States' Failure to Implement Primary Safety Belt Laws [electronic document]. National Safety Council's Air Bag and Seat Belt Safety Campaign, 2003. Available at: http://www.nsc.org/public/Preusser_Study.doc. Last accessed June 21, 2005.
- ⁷Task Force on Community Preventive Services. *The Guide to Community Preventive Services*. Oxford NY 2005: 329-348.
- ⁸Glassbrenner D. Traffic safety facts research note: safety belt use in 2004 – overall results. NCSA, 2004; report no. DOT HS 809 783.
- ⁹Agran P, Anderson C, and Winn D. Factors associated with restraint use of children in fatal crashes. *Pediatrics*. 1998;102(3):39.
- ¹⁰Centers for Disease Control and Prevention. Impact of primary laws on adult use of safety belts – United States 2002. *MMWR*. 2004; 53(12):257-260.
- ¹¹NHTSA. The facts to buckle up America: safety belts and African-Americans – 2003 report. 2003; report no. DOT HS 808 866.



PROMOTE HEALTHY FOODS IN SCHOOLS

The purpose of this action is to increase the consumption of healthy foods by students while they are in school.

BACKGROUND

- Eighty-three percent of adults think schools should do more to limit access to unhealthy foods.¹
- Ninety percent of teachers and parents support placing healthy foods and beverages in vending machines.²

Competitive foods

- “Competitive foods” refer to foods and beverages sold in schools that are not part of the federal school meal programs, including foods and beverages sold in school-based vending machines, school stores, and snack bars.³
- These foods are typically lower in nutritional value than foods sold as part of government-sponsored school meal programs and include such things as soft drinks, candy, cookies, potato chips, and other salty or high-fat snack foods.^{4,5}
- These foods make up a significant portion of the foods students purchase at school, especially high schools.⁶
- Sweetened drinks, such as fruitades and soft drinks, make up the primary source of added sugar in the daily diet of children.⁷ Soft drinks can reduce children’s consumption of low-fat milk and 100% juice.⁸ Increasing the consumption of soft drinks by children increases their caloric intake by 55 to 190 per day.^{9,10}
- As of 2000, 43% of elementary schools, 74% of middle/junior high schools, and 98% of high schools had vending machines, a school store, a canteen, and/or a snack bar where competitive foods could be purchased.¹¹
- Preliminary research indicates that having competitive foods in schools is associated with an increase in calories obtained from fat and a decrease in the consumption of fruits and vegetables.¹²

Restrictions

- The Institute of Medicine recently issued its report on childhood obesity, which states: “New policies are needed to ensure that foods available at schools are consistent with current nutritional guidelines and to support students in making healthy food choices.”¹³
- The American Academy of Pediatrics recommends eliminating sweetened drinks from schools, and other organizations have issued similar calls.¹⁴
- Nearly half of all states, along with many school districts, place some restrictions on the sale of competitive foods, although these restrictions vary widely.¹¹
- Some states restrict the times during which competitive foods can be sold, while other states restrict the types of foods that can be sold.¹¹
- Prior to the 2005 legislative year, six states had enacted laws regulating vending machines. During 2005, 27 states had vending machine specific bills listed online.¹⁵
- The two largest school districts in the country – New York City and Los Angeles – have each banned vending machine sales of candy, soft drinks, and other snack foods. The Los Angeles ban extends to school stores as well.¹⁶

BURDEN OF DISEASE ADDRESSED BY THE ACTION

- Overweight among young people is associated with many serious health conditions, including increased risk for type 2 diabetes, high blood pressure, and high cholesterol.¹³
- Among overweight 5- to 10-year olds, approximately 60% have at least one cardiovascular disease risk factor (e.g., high cholesterol or high blood pressure).¹⁷

EVIDENCE OF EFFECTIVENESS

- Few studies have examined the impact of removing competitive foods from schools, however, interventions to increase the availability and promotion of healthier foods have been shown to increase the purchase of these foods among adolescents.¹⁸
- Salad bars are an effective way to make a wider range of fruits and vegetables available.¹⁹
- A potential barrier to eliminating these foods is that schools often receive needed revenue from the sale of these foods. A pilot program in Arizona demonstrated that switching to healthier foods in vending machines, a la carte, or in school stores did not result in lost money.²⁰ The Texas Department of Agriculture estimates that more money is lost by school food service to outside food sales than is gained by vending machine sales.²¹ More research is needed to determine the extent to which these revenues can be replaced by selling healthy foods.

¹ *Wall Street Journal* Online/Harris Interactive Health-Care poll: “Americans say parents, schools play role in children’s obesity.” February 14, 2005.

² The Robert Wood Johnson Foundation (RWJF). *Healthy Schools for Healthy Kids*. Princeton, NJ: RWJF; 2003.

³ U.S. Department of Agriculture. Foods Sold in Competition with USDA School Meal Programs [online report]. Food and Nutrition Service Website. Available at: http://www.fns.usda.gov/cnd/Lunch/CompetitiveFoods/report_congress.htm. Last accessed June 30, 2005.

⁴ Bogden JF. Policies to promote healthy eating. In: *Fit, Healthy and Ready to Learn: A School Health Policy Guide, Part 1: Physical Activity, Healthy Eating, and Tobacco-Use Prevention*. Alexandria, VA: National Association of State Boards of Education; 2000:E1-E41.

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⁶ Wechsler H, Brener ND, Kuester S, Miller C. Food service and foods and beverages available at school: Results from the School Health Policies and Programs Study 2000. *J Sch Health*. 2001;71(7):313-324.

⁷ Guthrie JF, Morton JF. Food sources of added sweeteners in the diets of Americans. *J Am Diet Assoc*. 2000;100:43-51.

⁸ Ballew C, Kuester S, Gillespie C. Beverage choices affect adequacy of children’s nutrient intakes. *Archives of Pediatric and Adolescent Medicine*. 2000;154:1148-1152.

⁹ Harnack L, Stang J, Story M. Soft drink consumption among U.S. children and adolescents: nutritional consequences. *Journal of the American Dietetic Association*. 1999;99:436-441.

¹⁰ Guenther PM. Beverages in the diets of American teenagers. *Journal of the American Dietetic Association*. 1986;86:493-499.

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PROVIDE FLUORIDATION OF COMMUNITY WATER SYSTEMS

The purpose of this policy is to decrease the incidence of dental decay, especially among children.

BACKGROUND

- Water fluoridation is the most cost-effective method of preventing cavities.¹
- Fluoridation has helped improve quality of life by reducing pain and suffering associated with tooth decay and by reducing the amount of time and money spent to restore, remove, or replace decayed teeth.²
- Fluoridation works through direct contact with teeth and benefits both adults and children.¹
- The current level of community water systems providing optimal levels of fluoride is 67%, covering over 170 million people in the United States. One-third of those on public water systems, however, still do not have access to water with enough fluoride to prevent tooth decay.³

BURDEN OF DISEASE ADDRESSED BY THE ACTION

- By the time children reach age 15, nearly 60% are affected by tooth decay.
- Tooth decay also affects an astounding 95% of all adults.⁴
- Oral diseases can result in difficulties speaking, chewing, and swallowing, high costs for treatments, decreased self-esteem, and decreased economic productivity through missed work and school days.⁵
- Dental disease and treatment causes more than 50 million missed school hours each year.⁶
- Although research shows that nearly all children born today could potentially avoid cavities completely, tooth decay is the most common chronic disease among children in the United States.⁷
- Children experience cavities five times more frequently than asthma, and unless it is arrested early, the damage from dental decay progresses until it is irreversible.^{5,7}
- Additionally, significant disparities exist in the treatment of tooth decay. For example, the percentage of cavities left untreated for Hispanic children (43%) and African-American children (36%) is much higher than the percentage for white children (26%). Poor children are also far less likely to receive treatment. Less-educated adults experience dental diseases at higher rates than those with more education.⁵

EVIDENCE OF EFFECTIVENESS

- Overwhelming evidence documents the effectiveness of water fluoridation in preventing tooth decay.⁸
- Grand Rapids, Michigan was the first city in the world to fluoridate its water supply. A landmark study of the program's effectiveness found that children who consumed fluoridated water from birth were found to have 50% to 63% less tooth decay than children examined in the baseline survey.⁹
- Recent estimates of the effect of fluoridation have shown decay reductions between 18% and 40%.¹⁰
- Water fluoridation can help reduce disparities in dental decay because the strategy allows everyone in the community with access to public water to have access to prevention.¹
- For every \$1 invested in community water fluoridation, \$38 in dental care is saved.¹¹ At a total cost of less than \$1 per person per year, water fluoridation is the safest, most practical, and most equitable way to prevent tooth decay.^{12,13}

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