



SOCIETY FOR PUBLIC HEALTH EDUCATION

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EARLY AND MIDDLE CHILDHOOD

EMC HP2020–3: Increase the proportion of elementary, middle, and senior high schools that require school health education.

The Society for Public Health Education (SOPHE) strongly endorses this objective. SOPHE suggests that a sub-objective "C" be added: (NEW) EMC HP2020– 3c: Increase the proportion of elementary, middle, and senior high schools that provide instruction in school health education at each grade level for a specific time period each year that coincides with the recommendations of the National Standards for Health Education.

Justification:

Health literacy is the ability to “obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Ratzan & Parker, 2009).

- Nine out of ten adults have problems finding and using health information (Kutner, Greenberg, Jin, & Paulsen, 2006).
- The cost to our nation of poor health literacy is estimated to be between \$100 and \$200 billion a year (Vernon, Trujillo, Rosenbaum, & DeBuono, 2007).
- Evidence strongly suggests that children of all ages have the potential to understand the practices associated with health as well as how to access health information (Keil, 2006).

Quality language arts K-12 ensures literacy while quality instruction in health education can ensure health literacy. *The amount of health instruction in K-12 has been measured periodically over the last fifteen years and the results do not bode well for a healthy society.* The amount of health instruction may not confer health literacy to students because of the limited amount of health instruction provided in comparison to instruction in other content areas. Health education instruction is not provided by all schools at each grade level. While most students receive daily instruction in language arts, not all schools nationwide require instruction in health education at each grade level. Less than 50% of schools require health education instruction in each of grades K-3; 60% or less require instruction in each of grades 4-8; and less than 35% require instruction in each of grades 9-12.(Kann, Telljohann & Wooley, 2007). Currently the following is the median instruction required at the school level by grade:

Grade	% of All Schools	Weeks/Year	Sessions/Week
K /35.8	32	2 days	28 minutes
1/44.6	31	2 days	28 minutes
2/43.5	31	2 days	28 minutes
3/47.7	19	2 days	28 minutes
4/50.3	17	2 days	32 minutes
5/60.4	17	3 days	38 minutes
6/52.0	12	2 days	45 minutes
7 /53.3	12	3 days	45 minutes
8/49.9	11	2 days	45 minutes
9/34.3	17	5 days	54 minutes
10/25.2	15	5 days	52 minutes
11	12	5 days	52 minutes
12	8.5	5 days	51 minutes

The Joint Committee on National Health Standards (2007) recommends that students in Pre-K to 2 receive a minimum of 40 hours per academic year. Students in grades 3 to 12 should receive 80 hours of

instruction in health education per academic year. Health education can improve health literacy. Health education is a planned, sequential, K-12 curriculum that addresses the physical, mental, emotional and social dimensions of health. A health education curriculum is designed to motivate and assist students to maintain and improve their health, prevent disease, and reduce health-related risk behaviors. It allows students to develop and demonstrate increasingly sophisticated health-related knowledge, attitudes, skills, and practices.

- *Instruction in health education can improve health knowledge* (Kolbe, 2004). National Health Education Standards were developed in 1995 and revised in 2007. From two thirds to 80% of all schools, districts and states have adopted these standards for K-12 instruction (Kann, Telljohann, Wooley, 2007). Illustrative examples include health education curriculum in exercise (Sallis JF, Mc Kenzie TI, Alcaraz JE, et al., 1997; McKenzie, Nader, Strikmiller, et al. 1996), and nutrition (Simons-Morton, Parcel, Baranowski, Forthofer, Luepker, Perry, McKinlay, et al., 1996; Edmunson E, et al. 1996).
 - *Quality health education can improve health behaviors* (Kolbe, 2004). Examples of behaviors that have been addressed include increasing physical activity (Luepker, Perry & McKinlay, 1996), preventing tobacco use (Dent, Sussman, Stacy, Craig, Burton & Flay 1995; Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995; Ghosh-Dastidar, et al, 2004), preventing alcohol use (Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995); reducing heavy drinking (Hawkins et al, 1999, Botvin, Griffin, et al, 2001), preventing aggression (Foshee et al, 2000), preventing violence (Hawkins et al, 1999, Botvin, Griffin, & Nichols, 2006), and decreasing risky sexual behavior (Coyle, et al, 2001).
 - *Many of the effective research studies on health topics have incorporated personal and social skills as strategies.* Zins, et al (2004) identified a framework of social and emotional learning as one that includes competencies for students in self-awareness, social awareness, decision making, self-management and relationship management which includes communication, negotiation, conflict management, and help-seeking skills.
 - *The teaching of age-appropriate, social and emotional skills can improve significant academic behaviors of students.* Specific academic behaviors that have been improved include school attitudes such as increased motivation, positive attitude toward school (Zins, Bloodworth, Weissberg, Walberg, 2004.), school behaviors such as fewer absences (Christenson & Havsy, 2004; Zins, et al, 2004 Elias, Gara, Schuyler, Branden-Mueller, Sayette, 1991), more classroom participation, fewer conduct problems (Zins, et al, 2004, Flay et al, 2001; Jalongo et al, 2001), and fewer suspensions (Zins, et al, 2004.). Several studies indicate that teaching personal and social skills, combined with other strategies, improved test scores (Zins, et al, 2004.); grades (Zins, et al, 2004; Eggert, et al, 1994; Flay et al, 2001; O'Donnell, Hawkins, Catalano, Abbott, Day, 1995; Hawkins, Smith & Catalano, 2004) and high school graduation rates (Hawkins, Smith & Catalano, 2004).

Potential Data Source: School Health Policies and Programs Study, CDC. Measurement of this objective can be accomplished through using data from the CDC School Health Policies and Practices Survey, which will be administered twice during the next decade.

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EDUCATIONAL AND COMMUNITY-BASED PROGRAMS

ECBP HP2020–1: Increase high school completion. The Society for Public Health Education (SOPHE) strongly endorses this objective.

SOPHE Proposed the Following New Objective: Increase the number of public health departments and schools who work collaboratively via a school health council from 73% at the district level to 93%, and from 40% of schools to 60% of schools, to ensure all students have access to health care and equitable opportunities for learning.

Justification:

Research has shown that improving graduation rates may be more cost effective than most medical interventions to reduce health disparities as well as increase the quality and years of healthy life (Alliance for Excellent Education, 2006; Freudenberg & Ruglis, 2007; Kolata, 2007; Muennig & Woolf, 2007). High school graduates have better health and lower medical costs than high school dropouts (Alliance for Excellent Education, 2006; Muennig, 2006). High school is associated with an increase in average lifespan of six to nine years (Wong et al., 2002).

Student drop out rates have been attributed to both school and non-school factors. Specific school factors include lack of rigor in the curriculum, lack of teacher preparation, lack of teacher experience and attendance, large class sizes, and lack of school safety (Barton, 2003), as well as poor teacher-student relationships and lack of careful monitoring of student progress (Allensworth & Easton, 2007). Many note that poverty is a major reason for school failure (Acevedo-Garcia et al., 2007; Farkas, 2003; Hodgkinson, 2006; Nelson, 2006; Warren, 2005). However, several researchers state that modifiable risk factors such as chronic absenteeism, behavioral problems and course failures are more salient predictors of dropping out of school than are socioeconomic factors such as race, poverty, and family background (Jerald, 2007a; Allensworth & Easton, 2007).

Non-school factors associated with students dropping out include health problems, hunger and poor nutrition, lack of parent participation in schooling, lack of being read to, increased television watching, lack of parent availability, low birth weight, lead poisoning and frequent residence and school changes (Barton, 2003). Children in poverty face a disproportionate array of health problems, which could exacerbate one of the modifiable risk factor (absenteeism). Poor children in comparison to high SES children have more infectious disease (National Institute of Child Health and Human Development, 2000), chronic health conditions (Currie, 2005), childhood injury (National Institute of Child Health and Human Development, 2000), developmental delays (National Institute of Child Health and Human Development, 2000), social/emotional and behavioral problems (Currie, 2005; National Institute of Child Health and Human Development, 2000), as well as exposure to violence (Mikkelsen et al., 2002). It has been noted that students with chronic health conditions experience more academic difficulties than their healthy classmates (Thies, 1999).

Because of the variety of school and non-school issues contributing to students dropping out, there is a need for the public health sector to work with the education sector to help students improve their academic performance and graduate from high school, thus reducing health disparities related to low educational attainment (Freudenberg & Ruglis, 2007; Kamerow, 2008). Although dropping out of school can often be triggered by a specific event (e.g. pregnancy, behavioral problems), it usually is preceded by excessive absenteeism, gradual disengagement from school, course failure, or lack of achievement that can be traced back to the elementary grades. Given the need to address preventive and curative health care, particularly for poor students as well as educational supports in high poverty schools, the health and the educational communities must work collaboratively to ensure that all students have access to health care. An analysis of Chicago public school students revealed that attendance is eight times more predictive of students' course failure in the freshman year than eighth-grade test scores. Failure of two courses in the freshman year is predictive of not graduating (Allensworth & Easton, 2006).

Excessive absenteeism does not start in high school. Absenteeism in early elementary school sets a trajectory for not achieving and ultimately dropping out of school. Excessive absenteeism among elementary students is associated with low academic achievement, (Caldas, 1993; McClusky, et al, 2004, Chang, & Romero, 2008), and dropping out. (Alexander, Entwisle, and Horsey, 1997; McClusky, et al, 2004; Chang, & Romero, 2008). The causes of excessive absenteeism include health issues.

Many students come to school with health and medical needs: 24% of students exhibit a vision problem by age 17; 13% are overweight and at risk for developing health problems; 13% need to take prescription medication at school for a health problem (National Association of School Nurses, 2005); and 5% have asthma (National Association of School Nurses, 2005). Further, approximately 13% of children have one or more developmental disabilities, many of whom have complex medical needs requiring individual health plans and individualized educational plans (IEPs) to attend school (Boulet, Boyle and Schieve, 2009). Seven percent of students have learning disability in the absence of mental retardation and 6.4% of students who have been diagnosed as ADD/ADHD. More than one third (37.5%) of the children with disabilities took prescription medication regularly and 6.1% had limitations in movement and 3.5% needed special equipment. Students with disabilities in comparison with students without disabilities were likely to have had more health care visits (14.9%), received special education (38.8%), have recently visited a medical specialist (23.9%) and/or emergency department (10.3%) (Boulet, Boyle and Schieve, 2009). About 35% of all schools have medically fragile students requiring catheterizations, tube feedings, stoma care, suctioning and/or respirator care (National Assembly of School Based Health Centers, 2004-05). Further, epidemiological studies suggest that 12 to 30% of U.S. school-age children and youth experience at least moderate behavioral, social or emotional problems (Halfron, 2004) which can be a major reason for lack of school success. Six million children and youth have a serious emotional problem (Halfron, 2004) and as many as 80% will not receive appropriate services (Acevedo-Garcia, McArdle, Osypuk, Lefkowitz, Krimgold, 2007). The number of substantiated, reported victims of child abuse nationwide in 2007 was 753,357 (Administration for Children and Families, 2007). Exposure to adverse childhood experiences (ACEs) such as child abuse is a traumatic stressor that substantially increases the likelihood of initiating health risk behaviors during early adolescence. Specifically, exposure to ACEs is strongly associated with early initiation of smoking (Anda et al., 1999), alcohol use (Dube et al., 2006), illicit drug use (Dube et al., 2003), sexual intercourse (Hillis et al., 2001), adolescent pregnancies (Hillis et al., 2004), and adolescent suicide attempts (Dube et al., 2001).

Physical health services, mental health services and dental health care are provided in some school settings but there is no standard nationwide for health services provided by schools even though there are significant numbers of professionals nationwide employed to provide care in the 95,000 public schools. Lear (2003) estimates that there are 99,000 counselors, 56,000 nurses, 30,000 school psychologists, 15,000 social workers and a smaller number of physicians, dentists, and dental hygienists providing care. State mandates often require preventive screenings (vision and hearing and to a lesser degree scoliosis, dental, weight, BMI, etc.) and specific immunizations prior to school entry. Federal law requires some services for special needs students and those with disabilities. Most schools provide some type of mental health identification and/or services to students: 83 % provided case management for students with emotional or behavioral problems (e.g. anxiety, depression, ADHD); 57.4% offered a Student Assistant Program, 79.6% of schools had student support teams while 39% had a student support team that included staff from a collaborating community (Brenner, Weist, Adleman, Taylor, Vernon-Smiley, 2007).

While 81.5% of schools had someone to oversee or coordinate health services, only 35.7% of schools had a registered nurse or licensed practical nurse at the school full time. The recommended ratio of nurse to student is 1:750 but only 45% of schools met this ratio (Brenner, Wheeler, Wolfe, Vernon-Smiley, Caldart-Olsen, 2007), which means that school nurses may not be able to provide needed health services to all students.

However, more than one third of schools had arrangements with agencies, organizations or health care providers not located on school property to provide services as need to students. A nationwide survey showed that schools had arrangements with providers not located on school property to provide health

services to students: 10.3% with the community health clinic, 18% with local health departments, 9.6% with local hospitals, 13.7% with the local mental health or social services agency (Brenner, Wheeler, Wolfe, Vernon-Smiley & Caldart-Olson, 2007) Further, 45% of schools had a memorandum of agreement or contract to provide mental health services to students in need in facilities not located on school property (Brenner, Weist, Adelman, Taylor & Vernon-Smiley, 2007).

Finally, many districts and schools have instituted school health councils (defined as a group that offers guidance on the development of policies and promotes health programming for students and staff). Nation wide 72.9% of districts had such a coordinating council while 39.5% of schools had such a council. Of those districts and schools who had councils, almost all had school administrators participating as members; 89% had representatives from health services, health education, and physical education school staff. However, only 50% of district councils had local health providers or representatives from the local health department. Only 34% of school health councils had local health providers as members and only 30% had public health department representatives. According to the National Association of City and County Officials, 42% of local public health departments collaborated with schools having regular meetings and 44% shared personnel and/or resources (NACCHO, 2009).

There is evidence that collaboration between the health sector and the education sector is appropriate and useful. The IOM's report on *Schools and Health* (1997) calls for the creation of coordinating councils at the state level between the State Department of Education and State Department of Health as well as at the local level at the district and school level. The American Cancer Society has called for both school health councils and school health coordinators. CDC has recommended school health councils at the district level, school health teams and school coordinators (Allensworth, Fisher, Hunt, 2007). Further, parent and community involvement with schools is one of the eight components of a quality school health program. Schools with school health teams are significantly more likely to have implemented key health promoting school health policies and program (Journal of School Health, 2005).

Given the critical health and education problems facing our nation's youth, particularly poor students, schools and community health agencies must work together to ensure that students have access to health resources as well as equitable education resources. Organizing community coordinating councils for infants, children and adolescents, linking schools with health departments and all other community agencies concerned about the health and well-being of children, could create a system of support for children at the most critical and formative times of their lives. By forming community coalitions that mobilize health and educational professionals, as well as family members, changes in organizational practices and policies can improve access to health care (Children's Defense Fund, 2006; Iton, 2006; Mikkelsen, 2002).

Potential Data Source: School Health Policies and Programs Study, CDC. Measurement of this objective can be accomplished through using data from the CDC School Health Policies and Practices Survey which will be administered twice during the next decade.

Benchmarks:

The percentage of districts and schools that have instituted school health councils: 72.9% of districts and 39.5% of schools had such a council (Jones, Fisher, Greene, Hertz, Pritzl, (2007). Of those districts and schools who had councils only 50% of district councils had local health providers or representatives from the local health department; only 34% of schools had local health providers and 30% had public health department representatives on their school council. (Jones, Fisher, Greene, Hertz, Pritzl, (2007).

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ECBP HP2010-2: Increase the proportion of elementary, middle, and senior high schools that provide comprehensive school health education to prevent health problems in the following areas: unintentional injury; violence; suicide; tobacco use and addiction; alcohol or other drug use; unintended pregnancy, HIV/AIDS, and STD infection; contraception and sexual decision-making; unhealthy dietary patterns; and inadequate physical activity.

The Society for Public Health Education strongly supports this objective with the inclusion of the underlined text above.

Justification:

CDC has established six critical behaviors among adolescents which contribute to death and disability: alcohol and drug use; injury and violence; tobacco use; nutrition; physical activity; and sexual risk behaviors¹. Of those six, two include the leading cause of death for youth ages 10-24 years old – injury and violence. Motor vehicle crashes account for 30% of all youth deaths, while homicide and self-inflicted violence account for 15% and 12%, respectively². In addition, alcohol and drug use play a factor in injury and violence; approximately 41% of all fatal motor vehicle crashes in youth occur when youth drive while drinking or intoxicated³.

1 <http://www.cdc.gov/HealthyYouth/healthtopics/index.htm>

2 CDC, National Center for Injury Prevention and Control, Office of Statistics and Programming. Web-based Injury Statistics Query and Reporting System (WISQARS). Accessed December 21, 2009.

3 U.S. Department of Transportation. Fatality Analysis Reporting System (FARS) Web-based Encyclopedia.



Youth also engage in risky behaviors that compromise their health at alarming rates. Each day in the US, approximately 3,500 youth (ages 12-17 years) begin smoking cigarettes⁴. In 2007, 20% of high schools students reported current cigarette use and as high as 18% of male high school students reported current smokeless tobacco use⁵. Most young people are also not following dietary and physical activity recommendations. Almost three-fourths of youth exceed the limit of daily intake of saturated fat⁶, and only one-fourth report eating the recommended amount of fruits and vegetables⁷. In addition to unhealthy eating habits, more and more youth are leading sedentary life styles due to increased use and access of television and video games.

Lastly, sexual activity place youth at an increased risk for HIV/AIDS, STDs, and unplanned pregnancies. In 2007, almost half of high school students had ever had sexual intercourse and 15% had had four or more sex partners during their lifetime⁸. There is a true need for evidence-based comprehensive sexuality education that meets the needs of all youth and fully informs them about abstinence and contraception. Recent polling confirms that a majority of adults, especially parents, support a comprehensive approach to sexuality education—one that provides students with information about abstinence and contraception, including birth control and condoms. Seventy-eight percent of those polled favor allowing public schools to provide students with birth control information, and nearly as many (76%) believe schools should teach teenagers to abstain from sex until marriage

The research base has shown that certain comprehensive primary prevention programs used in schools are effective deterrents of negative behaviors and outcomes in youth, such as violence⁹, obesity¹⁰, HIV/AIDS infection¹¹, and substance-abuse¹². Although reaching all youth poses a major problem for effective program implementation, school systems provide easy access to most youth. The partnership between school systems and public health practitioners is key to effective program implementation. These partnerships work to quell the unanticipated costs of program implementation but also provide schools with additional resources and capacity to implement programs.

ECBP HP2010-3: Increase the proportion of college and university students who receive information from their institution on each of the priority health-risk behavior areas (all priority areas; unintentional injury; violence; suicide; tobacco use and addiction; alcohol and other drug use; unintended pregnancy, HIV/AIDS, and STD infection; contraception and sexual-decision making; unhealthy dietary patterns; and inadequate physical activity).

The Society for Public Health Education strongly supports this objective with the inclusion of the underlined text above.

Justification:

College aged youth (18-22 years) experience high rates of sexual violence^{13,14}, experimentation with drugs and binge drinking¹⁵, and STD/STI infection¹⁶. According to the 2008 American College Health Association (ACHA), National College Health Assessment (NCHA)¹⁷:

4 Substance Abuse and Mental Health Services Administration. 2007 National Survey on Drug Use and Health. (Office of Applied Studies, NSDUH Series H-27, DHHS Publication No. SMA 05-4061) [Accessed 2009 Jul 20]. Rockville, MD.

5 CDC. Youth Risk Behavior Surveillance—United States, 2007. *Morbidity & Mortality Weekly Report* 2008;57(SS-4):1-131.

6 U. S. Department of Agriculture. Continuing survey of food intakes by individuals, 1994-96, 1998.

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9 <http://www.thecommunityguide.org/violence/supportingmaterials/RGSchool.html>

10 Flattum, C., Friend, S., Neumark-Sztainer, D., & Story, M. (2009). Story Motivational Interviewing as a Component of a School-Based Obesity Prevention Program for Adolescent Girls. *Journal of the American Dietetic Association*, 109, 91-94.

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12 Bosworth, K. (July 1997). Drug Abuse Prevention: School-based Strategies that Work. *ERIC Digest*, <http://www.ericfacility.net/ericdigests/ed409316.html>

13 Rennison, C.M. & Rand, M. (2003). "Criminal Victimization 2002." Washington, DC: USGPO. NCJ 199994.

14 Mohler-Kuo, M., Dowdall, G.W., Koss, M.P., & Wechsler, H. (2004). Correlates of Rape While Intoxicated in a National Sample of College Women. *Journal of*

- 70% of student reported receiving information about alcohol and other drug use;
- 63% received information on relationship violence;
- 61% received information on physical activity;
- 55% received information on nutrition;
- 51% received information on STD prevention;
- 39% received information on pregnancy prevention;
- 38% received information on overall violence prevention;
- 37% received information on eating disorders;
- 36% received information on tobacco use;
- 30% received information on injury prevention; and
- 28% received information on suicide.

Most college and university students are not receiving adequate amounts of information on these negative health outcomes and behaviors. Binge drinking rates have sky-rocketed in recent years with more than half of college and university students reporting binge drinking in a two-week time span¹⁸. Binge drinking can also influence other negative health outcomes such as relationship and sexual violence, unplanned pregnancy, and unintentional injury. Very few evidence-based prevention programs exist for college students, yet, given these statistics, primary prevention programs should be implemented and evaluated in this population.

ECBP HP2020–5: Increase the proportion of worksites that offer a comprehensive employee health promotion program to their employees.

The Society for Public Health Education (SOPHE) recommends and supports the inclusion of this objective in Healthy People 2020.

Justification:

Worksite policy and environmental supports that promote physical activity, healthy eating, stress management, and preventive health screenings can contribute to the prevention of cardiovascular disease and other health problems and lower employer costs. (1) Worksite health promotion programs have the potential to reach large segments of the adult population and allow control over interpersonal, environmental, and organizational factors that influence health behavior (2). They are an important venue for chronic disease prevention. Recent studies demonstrating that comprehensive worksite wellness programs can promote worker productivity and reduce costs have increased employers' interest in implementing such programs (3-6).

According to Senator Harkin (D-IA) one of the leading Congressional proponents of worksite wellness "Health reform will not be complete without prevention and wellness being a center piece for fixing this broken system, the lifesaving and cost-saving benefits have been proven in study after study. With healthcare costs quickly increasing, it is no surprise that some companies report spending more than 50 percent of their profits to cover these expenses. Employer spending on health promotion and chronic disease prevention is a good investment. Studies have reported a proven rate of return on investment within 12 to 18 months, ranging from \$2 to \$10 for each dollar invested. It simply makes sense to partner with employers and leverage the place where Americans spend the majority of their waking hours – the workplace." (7)

Studies on Alcohol, 65, 37-45.

15 Wechsler, H. (1996). Alcohol and the American College Campus: A Report from the Harvard School of Public Health. *Change*, 28, 20-25.

16 Weinstock H, et al. Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. *Perspectives on Sexual and Reproductive Health* 2004;36(1):6-10

17 http://www.acha-ncha.org/docs/ACHA-NCHA_Reference_Group_Report_Fall2008.pdf

18 Erenberg, Debra, Hacker, George, Problem? What Problem? Some basic facts about the drinking culture, in *Last Call for High-Risk Bar Promotions That Target College Students: A Community Action Guide*, 1997.

An estimated 145 million American adults are overweight and 74 million are obese, placing more than a third of the working-age population at risk for chronic illnesses. The estimated cost of obesity and overweight related health conditions is \$117 billion per year. Health care costs in the United States doubled from 1990 to 2001 and are expected to double again by 2012. And just three chronic conditions, asthma, diabetes and hypertension, are associated with 164 million lost work days per year at a cost to employers of \$30 billion.

Worksite wellness programs are an important means of addressing the nation's rising obesity rates, increasing prevalence of chronic disease and escalating health care costs, according to the American Heart Association. A comprehensive wellness program can bring value and savings to employers through reductions in direct health care costs, proper healthcare utilization, increased performance measures, lower rates of absenteeism and lower prevalence of chronic disease or illness.

According to the American Heart Association (8), comprehensive worksite wellness programs should have the following components:

- A comprehensive program aimed at improving employees' cardiovascular and general health should include the following: Tobacco cessation and prevention; regular physical activity; stress management/reduction; early detection/screening; nutrition education and promotion; weight management; disease management; and changes in the work environment to encourage healthy behaviors and promote occupational safety and health.
- Programming should be integrated into the organizational structure of the workplace by use of the following proven strategies: Health education that relies on existing valid sources and is focused on skill development that is consistent with employees' readiness to make behavior changes; initiatives that are integrated into existing employee assistance programs; and voluntary worksite screening linked with medical care for follow-up on modifiable risk factors.
- Employers should administer health risk appraisals in combination with organizational health promotion checklists that have already been developed for the worksite before initiating programming so that health needs in the workplace can be identified and employees can learn their risks and health status. Employees' health risks must be addressed within comprehensive worksite programs.
- Research should investigate the effectiveness of wellness programming and how to tailor programming and policies for maximum effect.
- When possible, planning and implementation of worksite wellness programs should optimize use of on-site personnel, physical resources, and organizational capabilities to make it easier for employees to participate.

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7. U.S. Senators Tom Harkin (D-IA) and John Cornyn (R-TX) and U.S. Representatives Earl Blumenauer (D-OR) and Mary Bono Mack (R-CA), press conference April 2, 2009 (<http://harkin.senate.gov/blog/?i=4d931ef6-d529-4d45-920e-1e4f7eb82655>, accessed 19 December 2009.)
8. American Heart Association Advocacy Coordinating Committee; Council on Epidemiology and Prevention; Council on the Kidney in Cardiovascular Disease; and Council on Nutrition, Physical Activity and Metabolism Worksite Wellness Programs for Cardiovascular Disease Prevention, *Circulation*. 2009; 120:1725-1741

ECBP HP2020–6: Increase the proportion of employees who participate in employer-sponsored health promotion activities.

The Society for Public Health Education (SOPHE) recommends and supports the inclusion of this objective in Healthy People 2020.

Justification:

In 2004, the National Worksite Health Promotion Survey conducted 1553 interviews with worksites from different size and industry categories and found that only 6.9% of employers offered comprehensive worksite wellness programming, defined as those programs "that incorporated all of the 5 key elements outlined in *Healthy People 2010*: health education, supportive social and physical work environment, integration, linkage, and worksite screening and education."(1)The presence of comprehensive programming varied significantly by worksite size; programs were available at 11.3% of companies with 250 to 749 employees, but only 4.6% of companies with 50 to 99 employees had programs.

At least half of the working people in the United States do not have access to health promotion programs because they work in small companies or for employers who have employees distributed in small numbers across multiple sites. Of the 4.9 million firms in the United States, only 0.5% have >500 employees; the majority of firms (99.5%) have <500 employees. (2) These larger and smaller firms employ 51% and 36% of the working population, respectively.(3) There were also striking disparities in the availability of worksite wellness programs by industry type. Manufacturing and business/professional services reported having wellness programming 8.7% and 8.3% of the time, respectively, whereas wholesale/retail (5.6%), transportation (2.9%), finance (2.4%), and agriculture/mining (1.4%) were much less likely to have comprehensive programming.(1)

Smaller employers face a number of barriers to offering wellness programs. Many of these smaller companies do not have a central human resources function to initiate and organize programs. Moreover, the expense associated with hiring a full-time health promotion staff is difficult to justify in a smaller company. Finally, because health insurance premiums are typically *community rated*, meaning that premiums for smaller companies are set by the medical utilization experience of their community, reducing their medical care costs by improving the health of employees will not decrease their insurance premiums.(3) Consequently, an important financial incentive to develop worksite wellness programs is missing for smaller companies. It is especially important that company wellness programs are equitably implemented across different worksites, populations and socioeconomic groups, and do not discriminate against employees who fail to pass medical evaluations.

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ECBP HP2020-8: Increase the proportion of state, county, and local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs.

The Society for Public Health Education strongly supports this objective with the inclusion of the underlined text above.

Justification:

Health departments (be they state, county, or city/local) often provide safety-net services to all citizens, regardless of cultural or linguistic differences.

Health services cannot be structured in a “one-size-fits-all” mentality. Services need to be guided by the community and be culturally-sensitive or -appropriate. Linguistically competent services should be provided to all clients. Evaluation of the health services should be done with a sample of clients and the survey evaluation should be done in the client’s preferred/primary language.

The concept of cultural competence is “an acceptance and respect for difference, a continuing self-assessment regarding culture, a regard for and attention to the dynamics of difference, engagement in ongoing development of cultural knowledge, and resources and flexibility within service models to work towards better meeting the needs of minority populations” (SAMHSA, 2000). The development of cultural competence is continually evolving. There are different levels of cultural competence: cultural knowledge (familiarization of selected cultural characteristics), cultural awareness (development of sensitivity and understanding of another ethnic group), cultural sensitivity (knowledge of cultural differences and similarities without assigning values), and cultural competence (acceptance and respect of differences) (no author attributed, no date). The concept of culture must be incorporated into health promotion and disease prevention programming and is an essential feature in health disparity reduction work (Edgerly, et al., 2009). If cultural beliefs and values are integrated into the interventions, it is more likely that the service recipient will hear and heed the health promotion or disease prevention message (Edgerly, et al., 2009).

But an important point to realize is that even if, for example, cultural competency for Hispanic-Americans has been achieved, there are different sub-groups of the Latino culture (Puerto Rican or Mexican) that may respond to services in different manners or have linguistic differences. Also, the reason why the person left the birth country (voluntarily or involuntarily) can make a difference how s/he responds to services (Orlandi et al., eds., 1992). There is also a great amount of diversity in the American Indian/Alaskan Native population: there are more than 500 federally-recognized tribes and more than 300 state-recognized tribes in the United States (Orlandi et al., eds., 1992). However, the same comment above about sub-group cultural differences within the Latino culture holds for the American Indian/Alaskan Native culture: each tribe “has had a unique set of social, religious, economic, and legal-political relationships with other tribes, other ethnic/racial groups, and Euro-American societies” (Orlandi et al., eds., 1992). American Indians and Alaskan Natives speak distinct languages, which can differ by tribe or can be from different “language stocks” (Orlandi et al., eds., 1992). The US government conferred full citizenship rights to all Indians, in addition to their tribal citizenship (Orlandi et al., eds., 1992). The self-determination act (PL 93-938) grants all American Indians the freedom to plan and implement health, educational, and social services for tribal members (Orlandi et al., eds., 1992). Some American Indians subscribe more to the concept of “tribal” rather than “cultural identity” (Orlandi et al., eds., 1992). Knowledge of the historical trauma felt by many American Indians as a result of “historical and contemporary social injustices” is important when designing interventions for this population that respect the traditional culture (Edgerly et al., 2009).

“The practice of culturally and linguistically appropriate, clear communications that empower clients in the decision-making process is likely to enable more effective adherence to health recommendations, promote healthful choices, reduce medical errors, and heighten client safety and well-being.



Furthermore, in line with the goals of the health education profession, including ethical practice and justice, the elimination of health disparities due to gaps in health communication could be favorably affected as well” (Marks, 2009).

Non-discrimination laws and regulations are cornerstones of civil rights. A state, county, or local health department extending the non-discrimination beyond language, race/ethnicity, national origin, age, gender, sexual orientation, disability to include non-discrimination by culture is simply taking the next step to ensure that all people who are in need of services receive the services they require.

Potential Data Source

Benchmarks to indicate the achievement of the target to increase the proportion of state, county, and local health departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs include the following:

1. Identification of service modalities and models which are appropriate and acceptable to the communities served, population densities, and targeted population subgroups (SAMHSA, 2000).
2. Identification and involvement of community resources and cross-system alliances for purposes of integrated (client) support and service delivery (SAMHSA, 2000).
3. Assurance of cultural competence at each level of care within the system (SAMHSA, 2000).
4. The use of culturally competent indicators, adapted for specific minority cultural values and beliefs (SAMHSA, 2000).
5. The inclusion of representatives of the minority groups present in the population when planning services (Edgerly, et al., 2009).
6. Percentage of clients from the minority groups served by or under direct supervision of culturally competent staff (SAMHSA, 2000).
7. Client satisfaction with services, measured in a culturally competent manner (SAMHSA, 2000).
8. The availability of adult interpreters/translators for families in need of interpretation or translation during service delivery (SAMHSA, 2000).
9. Documentation that activities and materials are provided in the proportion of the primary language(s) in the population served (SAMHSA, 2000).
10. Ensure that all pertinent written and oral and symbolic consumer and family materials are interpreted from the appropriate cultural perspective (SAMHSA, 2000).

Data sources for this objective can include the National Profile of Local Health Departments, done by the National Association of County and City Health Officials (NACCHO) (<http://www.naccho.org/topics/infrastructure/profile/>).

Anticipated Number of Data Points During the Decade

The NACCHO survey is done on an annual basis. Other sources for state-level data such as the Virginia Department of Behavioral Health and Developmental Services and the US Census’ American Community Survey (depending on the population size).

Proposed Target

Healthy People 2010 set the baseline (from 1996-1997) for this objective (Objective 7-11 in HP 2010) at “developmental” for access to quality health services (Obj 7-11a) and as high as 48% for immunization and infectious disease. Some HP2010 targets are not provided and some are as high as 50% (USDHHS, 2000).

NACCHO (2008) reported that at least 30% of the local health departments surveyed were working on community change related to health disparities, describing health disparities using data, training their workforce on health disparities, educating elected or appointed officials about health disparities, and prioritizing resources and programs specifically for the reduction in health disparities. NACCHO did not provide data specifically on effecting cultural or linguistic competency change in the local health department.

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ECBP HP2020–10: Increase the inclusion of sentinel core competencies in health education, health promotion and disease prevention in health profession training.

The Society for Public Health Education strongly supports this objective with the inclusion of the underlined text above.

Competencies are an essential component of outcomes-based education for many health-related professions and are critical in credentialing. One public health specialty, health education (HE), was the first population-based profession to develop competencies, which have been used in quality assurance systems for more than 20 years. The National Commission for Health Education Credentialing, Inc. (NCHEC) is a national body that is dedicated to enhancing "the professional practice of health education by promoting and sustaining a credentialed body of health education specialists. ... NCHEC certifies health education specialists, promotes professional development, and strengthens professional preparation and practice." (<http://nchec.org/aboutnchec/mission/>, retrieved on 12/16/09). The concept of credentialing health educators began in the 1970s with a concerted effort to clarify the role of health educators and to establish standards of professional practice, along with identifying the competencies and responsibilities of health educators.

The core competencies of a certified health education specialist are the following:

1. Assess individual and community needs for health education.
2. Plan health education strategies, interventions, and programs.
3. Implement health education strategies, interventions, and programs.
4. Conduct education and research related to health education.
5. Administer health education strategies, interventions, and programs.
6. Serve as a health education resource person.
7. Communicate and advocate for health and health education.

These core competencies should be addressed in the training process of other health professionals.

Health educators are professionals who design, conduct and evaluate activities that help improve the health of all people. These activities can take place in a variety of settings that include schools,



communities, health care facilities, businesses, universities and government agencies. The profession is recognized by the U.S. Department of Labor in the federal Standard Occupational Classification (SOC) system but it should be noted that health educators are employed under a range of job titles such as patient educators, health education teachers, health coaches, community organizers, public health educators, and health program managers.

Furthermore, health educators are trained in a variety of locations and institutions—providing multiple opportunities for cross training in other health professions. For example, preparation for public health education workers can come from a variety of sources: on-the-job training, baccalaureate preparation, graduate-level preparation, post-graduate-level preparation. When looking at scholastic preparation for public health education workers and cross-training for other health professionals, there are many options—particularly for student in a large university or in a populated state. Some universities have schools of public health, programs of public health, schools of health education, and other schools that have coursework that pertain to these two disciplines (e.g., colleges of education that prepare health teachers and other educators). Some 250 academic programs in colleges and universities prepare health educators at the undergraduate and graduate levels leading to baccalaureate, masters, and doctoral degrees (AAHE, 2005; found at <http://nche.org/credentialing/profession/> on 12/16/09).

Health profession students from rural and frontier states often face a different situation. They experience many of the same health-related community problems as more densely populated areas, but experience even more obstacles to promotion and prevention due to isolation, distance from facilities and services, and lack of community resources (<http://www.frontierus.org/nursing.htm>, retrieved on 12/16/09). Further, the “best fit” between resources for education in health promotion competencies and opportunities for training among other health professionals may not be readily available. Web-based and “hybrid” training formats may ease this problem, somewhat, by making health education training available across geographic distances and institutional boundaries. As a result, exposure to training in health education, health promotion and disease prevention should become more readily available as the decade proceeds and web-based training proliferates.

ECBP HP2020-11: Increase the proportion of elementary, middle, and senior high schools that have health education goals or objectives that address the knowledge and skills as measured by the performance indicators articulated in the National Health Education Standards (high school, middle, elementary).

The Society for Public Health Education strongly supports the inclusion of this objective in Healthy People 2020.

Justification:

Performance criteria are included in the National Health Education Standards (1). These performance criteria should be referenced in the wording for this objective. Including specific and measureable performance criteria would close the gap between state policies that marginally “address” the NEHS standards. The National Commission for Health Education Credentialing states in Responsibility Area 4, Competency D, Sub-competency 3, “Implement appropriate qualitative and quantitative evaluative techniques” (2).

ECBP HP2020-11(NEW):

The Society for Public Health Education proposes that the following new objective be included in Healthy People 2020.

Increase the number of venues in which fully inclusive, developmentally appropriate practices, facilities and programs are accessible to children and youth with disabilities. This should include in-school, after school and child care settings.

Justification:

Students with disabilities as defined in federal legislation include students ages 3-21 who may be served in other than traditional educational settings (3, 4). Health education teachers may lack the necessary skill set to teach this population resulting in a smaller proportion of special needs students receiving appropriate health education (5, 6). According to the American School Health Association's policy research, students with special needs may be especially vulnerable in the area of sexuality education (7). Adding language to clarify application of the objective to students with disabilities was suggested in two public comments, including one by the New York State Developmental Disabilities Council (see comment on 12/1/2009 at 8:59 A.M.)

Many students come to school with health and medical needs: 24% of students exhibit a vision problem by age 17; 13% are overweight and at risk for developing health problems; 13% need to take prescription medication at school for a health problem (National Association of School Nurses, 2005); and 5% have asthma (National Association of School Nurses, 2005). Further, approximately 13% of children have one or more developmental disabilities, many of whom have complex medical needs requiring individual health plans and individualized educational plans (IEPs) to attend school (Boulet, Boyle and Schieve, 2009). Seven percent of students have learning disability in the absence of mental retardation and 6.4% of students who have been diagnosed as ADD/ADHD. More than one third (37.5%) of the children with disabilities took prescription medication regularly and 6.1% had limitations in movement and 3.5% needed special equipment. Students with disabilities in comparison with students without disabilities were likely to have had more health care visits (14.9%), received special education (38.8%), have recently visited a medical specialist (23.9%) and/or emergency department (10.3%) (Boulet, Boyle and Schieve, 2009). About 35% of all schools have medically fragile students requiring catheterizations, tube feedings, stoma care, suctioning and/or respirator care (National Assembly of School Based Health Centers, 2004-05). Further, epidemiological studies suggest that 12 to 30% of U.S. school-age children and youth experience at least moderate behavioral, social or emotional problems (Halfron, 2004) which can be a major reason for lack of school success. Six million children and youth have a serious emotional problem (Halfron, 2004) and as many as 80% will not receive appropriate services (Acevedo-Garcia, McArdle, Osypuk, Lefkowitz, Krimgold, 2007).

While 81.5% of schools had someone to oversee or coordinate health services, only 35.7% of schools had a registered nurse or licensed practical nurse at the school full time. The recommended ratio of nurse to student is 1:750 but only 45% of schools met this ratio (Brenner, Wheeler, Wolfe, Vernon-Smiley, Caldart-Olsen, 2007), which means that school nurses may not be able to provide needed health services to all students.

References:

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ECBP HP2020-12: Increase the proportion of early childhood programs, including preschools and Head Start programs, that provide health education to prevent health problems in the following



areas: unintentional injury; violence; tobacco use and addiction; alcohol and drug use, unhealthy dietary patterns and inadequate physical activity, dental health, and safety.

The Society for Public Health Education strongly supports this objective with the inclusion of the underlined text above.

Justification:

Expanding the wording of this objective to include early childhood programs, would be inclusive of day care as well as other private providers who may include health education as a component of their program. Child development services for special needs preschoolers are included in this category. Some sub-objectives could be categorized into more general areas since there is some overlap between them. For example, “d” and “e” can be placed into one category “Preschool Health Education: Substance Abuse.”

Early intervention strategies, including health education, can positively impact preschool age children (1). Numerous risk factors develop early in life and contribute to chronic health problems, including poor dietary habits leading to childhood obesity and dental problems. Although alcohol and drug problems are not commonly associated with preschool age children, there is evidence that even very young children can develop positive attitudes about substance use as well as “brand awareness” (2). Other risk factors, such as unintentional injuries now account for more preschool deaths than infectious diseases (3).

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HEALTH COMMUNICATION AND HEALTH IT

HC/HIT HP2020–3: Improve the health literacy of the population by increasing the proportion of elementary, middle, and senior high schools that provided school health instruction at each grade level for a specific time period each year that coincides with the recommendations of the National Standards for Health Education.

The Society for Public Health Education (SOPHE) strongly endorses this objective with the above underlined text.

Justification:

Health literacy is the ability to “obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Ratzan & Parker,2009). This is especially critical in childhood and adolescence when lifelong health behaviors and habits are being formed.

- Nine out of ten adults have problems finding and using health information (Kutner, Greenberg, Jin, & Paulsen, 2006).
- The cost to our nation of poor health literacy is estimated to be between \$100 and \$200 billion a year (Vernon, Trujillo, Rosenbaum, & DeBuono, 2007).
- Evidence strongly suggests that children of all ages have the potential to understand the practices associated with health as well as how to access health information (Keil, 2006).

Quality language arts K-12 ensures literacy while quality health education ensures health literacy. *The amount of health instruction in K-12 has been measured periodically over the last fifteen years and the results do not bode well for a healthy society.* The amount of health instruction may not confer health literacy to students because of the limited amount of health instruction provided in comparison to

instruction in other content areas. Health education instruction is not provided by all schools at each grade level. While most students would receive daily instruction in language arts, not all schools nationwide require health instruction at each grade level. Less than 50% of schools require instruction in each of grades K-3; 60% or less require instruction in each of grades 4-8; and less than 35% require instruction in each of grades 9-12.(Kann, Telljohann & Wooley, 2007). Currently the following is the median instruction required at the school level by grade:

Grade Minutes/Week	% of All Schools	Weeks/Year	Sessions/Week
K /35.8	32	2 days	28 minutes
1/44.6	31	2 days	28 minutes
2/43.5	31	2 days	28 minutes
3/47.7	19	2 days	28 minutes
4/50.3	17	2 days	32 minutes
5/60.4	17	3 days	38 minutes
6/52.0	12	2 days	45 minutes
7 /53.3	12	3 days	45 minutes
8/49.9	11	2 days	45 minutes
9/34.3	17	5 days	54 minutes
10/25.2	15	5 days	52 minutes
11	12	5 days	52 minutes
12	8.5	5 days	51 minutes

The Joint Committee on National Health Standards (2007) recommends that students in Pre-K to 2 receive a minimum of 40 hours per academic year. Students in grades 3 to 12 should receive 80 hours of instruction in health education per academic year. Health education can improve health literacy. Health education is a planned, sequential, K-12 curriculum that addresses the physical, mental, emotional and social dimensions of health. The curriculum is designed to motivate and assist students to maintain and improve their health, prevent disease, and reduce health-related risk behaviors. It allows students to develop and demonstrate increasingly sophisticated health-related knowledge, attitudes, skills, and practices.

- *Instruction in health education can improve health knowledge* (Kolbe, 2004). National Health Education Standards which have been in existence since 1995 were revised in 2007. From two thirds to 80% of all schools, districts and states have adopted these standards for K-12 instruction (Kann, Telljohann, Wooley, 2007). Illustrative examples include exercise (Sallis JF, Mc Kenzie TI, Alcaraz JE, et al., 1997; McKenzie, Nader, Strikmiller, et al. 1996), and nutrition (Simons-Morton, Parcel, Baranowski, Forthofer, Luepker, Perry, McKinlay, et al., 1996; Edmunson E, et al. 1996).
 - *Quality health education can improve health behaviors* (Kolbe, 2004). Examples of behaviors which have been addressed include increasing physical activity (Luepker, Perry & McKinlay, 1996), preventing tobacco use (Dent, Sussman, Stacy, Craig, Burton & Flay 1995; Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995; Ghosh-Dastidar, et al, 2004), preventing alcohol use (Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995); reducing heavy drinking (Hawkins et al, 1999, Botvin, Griffin, et al, 2001), preventing aggression (Foshee et al, 2000), preventing ,violence (Hawkins et al, 1999, Botvin, Griffin, & Nichols, 2006) decreasing risky sexual behavior (Coyle, et al, 2001).
 - *Many of the effective research studies on health topics have incorporated personal and social skills as strategies.* Zins, et al (2004) identified a framework of social and emotional learning as one that includes competencies for students in self-awareness, social awareness, decision making, self-management and relationship management which includes communication, negotiation, conflict management, and help seeking skills.

- *The teaching of age-appropriate, social and emotional skills can improve significant academic behaviors of students.* Specific academic behaviors that have been improved include school attitudes such as increased motivation, positive attitude toward school (Zins, Bloodworth, Weissberg, Walberg, 2004.), school behaviors such as fewer absences (Christenson & Havsy, 2004; Zins, et al, 2004 Elias, Gara, Schuyler, Branden-Mueller, sayette, 1991), more classroom participation, fewer conduct problems (Zins, et al, 2004, Flay et al, 2001; lalongo et al, 2001),and fewer suspensions (Zins, et al, 2004.). A few studies teaching personal and social skills, some with other strategies improved test scores (Zins, et al, 2004.); grades (Zins, et al, 2004; Eggert, et al, 1994; Flay et al, 2001; O'Donnell, Hawkins, Catalano, Abbott, Day, 1995; Hawkins, Smith & Catalano, 2004) and high school graduation rates (Hawkins, Smith & Catalano, 2004).

Potential Data Source: School Health Policies and Programs Study, CDC. Measurement of this objective can be accomplished through using data from the CDC School Health Policies and Practices Survey which will be administered twice during the next decade.

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PHYSICAL ACTIVITY AND FITNESS

PAF HP2020–2: Increase the proportion of the Nation’s public and private schools that require daily physical education for all students. a. Middle and junior high schools b. Senior high schools c. Elementary Schools

The Society for Public Health Education (SOPHE) strongly endorses this objective with the above underlined text. However, it could be strengthened by adding a requirement for elementary students to also receive Physical Education. SOPHE suggests that a new sub-objective "C" be added: C. Elementary students

PAF HP2020–2a: Increase the percentage of schools requiring physical education each year (150 minutes/per week for 36 weeks in elementary school and 225 minutes/week in middle school and high school for 36 weeks.

Justification:

Physical activity is associated with both physical and mental health benefits.

Physical activity has important positive effects on musculoskeletal, cardiovascular, respiratory, and endocrine systems and these changes can provide health benefits, including a reduction in for coronary heart disease, hypertension, colon cancer, and diabetes mellitus. Further regular participation in physical activity also appears to reduce depression and anxiety, improve mood, and enhance ability to perform daily tasks throughout the life span (Seefeldt,1998).

*There is strong evidence that school-based physical education is effective in increasing the levels of physical activity and improving physical fitness. Various studies revealed increases in energy expenditure (Shepard, 1997; Donnelly, Jacobsen. Watley, et al. 1996; Seefeldt,1998) and increases in percentage of class time spent in moderate to vigorous physical activity (Sallis, Mc Kenzie, Alcaraz, et al.,1997; Edmunson E, et al. 1996; Luepker, Perry, McKinlay , et al.1996; Simons-Morton, Parcel, Baranowski, Forthofer, O'Hara. 1991). Several studies showed increases in physical fitness as measured through sit-and reach tests and muscular strength (McKenzie, Nader, Strikmiller, et al. 1996; Edmunson E, et al. 1996; Seefeldt,1998). *Providing more opportunity for increased physical activity (by reducing class time) does not lead to a decrease in achievement (Sallis, McKenzie, Kolody, et al, 1999; Coe, et al 2006).**

*Physical education and physical activity could be improved in many schools. Over all, only 78.3% of schools nationwide require students to take some physical education – 69.3% of elementary schools, 83.9% of middle schools and 95.2 % of high schools. **Daily** physical education occurred in 3.8% of all elementary schools, 7.9% of all middle schools and 2.1% of all high schools. The percentage of schools requiring physical education each year (150 minutes/per week for 36 weeks in elementary school and 225*

minutes/week in middle school and high school for 36 weeks [typical school year] could be improved significantly. The percentage of all schools that required physical education in each grade according to the 2006 SHPPS survey (Lee, Sarah M et al, 2007):

Grade	Percentage of All Schools
K	49.7
1	57.2
2	57.7
3	58.0
4	58.2
5	61.1
6	68.1
7	67.1
8	65.5
9	55.3
10	33.2
11	20.2
12	20.4

Potential Data Source: School Health Policies and Programs Study, CDC. Measurement of this objective can be accomplished through using data from the CDC School Health Policies and Practices Survey which will be administered twice during the next decade.

Benchmarks: Daily physical education occurred in 3.8% of all elementary schools, 7.9% of all middle schools and 2.1% of all high schools.

The percentage of schools requiring physical education each year (150 minutes/per week for 36 weeks in elementary school and 225 minutes/week in middle school and high school for 36 weeks is as follows:

Grade	Percentage of All Schools
K	49.7
1	57.2
2	57.7
3	58.0
4	58.2
5	61.1
6	68.1
7	67.1
8	65.5
9	55.3
10	33.2
11	20.2
12	20.4

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PAF HP2020–7: Increase the proportion of adolescents that meet current physical activity guidelines for aerobic physical activity and for muscle-strengthening activity.

The Society for Public Health Education (SOPHE) STRONGLY endorses this objective. However, it could be strengthened by adding a requirement for all students grade 4-12 to participate in a health related fitness test.

New sub-objective PAF HP2020–7a: Increase the proportion of districts requiring health-related fitness testing at the elementary, middle school and high school level for students in grade 4-12.

New Sub-objective PAF HP2020–7b: Increase the proportion of districts requiring students to develop an individualized activity plan to improve fitness levels which engages their family and friends as support after completing fitness testing at the elementary, middle school and high school level.

New Sub-objective PAF HP2020–7c: Increase the proportion of districts requiring faculty to grade students on the attainment of their individualized activity plan to improve fitness levels at the middle school and high school level.

In 2004, 20.4% of 6-11 year olds were overweight and 18.8% were obese. While 15.3% of 12-19 year olds were overweight and 17.4% were obese (Lee, et al 2007). Physical education can increase physical activity levels, one measure that can help students maintain a healthy weight or reduce their weight. One strategy within physical education to stimulate increased physical activity outside of class is to conduct annual fitness tests, followed by allowing students to set individualize fitness goals. Securing support and

working on improving aerobic activity, muscle strength or flexibility for a semester is one way that students can be motivated to increase their physical activity.

Nationwide only 28.1% of districts require fitness testing at the elementary level, 26.1% at the middle school level and 24.6% at the high school level. However, in 73.8% of schools, fitness testing was required in at least one course; teachers in more than half of the schools that administered fitness tests compared their students' results to national results. Of those providing fitness testing: 70% compared current results to students' prior results; 88.2 % of schools provided students with an explanation of what tests signified and 90.8% of schools shared results with the students' parents; 25.6% of teachers in middle school and high school required students to develop individualized physical activity plans to improve fitness levels; 16.4% of teachers assessed students on the quality of the plans (Lee, et al 2007).

Disadvantaged poor and minority students are less likely to engage in physical activity. Requiring fitness testing and encouraging parental involvement may improve poor and minority students' fitness levels. These same students are more likely to be overweight and obese.

Only 31.1% of African American students met recommended levels of physical activity; 30.2% of Hispanic students and 37% of white students met recommended levels of physical activity by being physically active. This was measured as doing any kind of physical activity that increase their heart rate and made them breathe hard some of the time for a total of at least 60 minutes per day on 5 or more days during the 7 days before the survey.

While 22.6% of white students played video or computer games or used a computer for something that was not school work for 3 or more hours per day on an average school day; 26.3% of Hispanics students and 30.5 of African American students did so. While 27.2% of white students watched television 3 or more hours per day on an average school day, 62.7% of African Americans and 43% o Hispanic students did so.

Potential Data Source: School Health Policies and Programs Study, CDC. Measurement of this objective can be accomplished through using data from the CDC School Health Policies and Practices Survey which will be administered twice during the next decade.

Benchmarks: 28.1% of districts require fitness testing at the elementary level. 26.1% of districts require fitness testing at the middle school level. 24.6% of districts require fitness testing at the high school level. Of those classes providing fitness testing: 90.8 % of schools shared results with the students' parents; 25.6 % of teachers in middle school and high school required students to develop individualized physical activity plans to improve fitness levels; 16.4% of teachers assessed students on the quality of the plans.

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SOCIAL DETERMINANTS OF HEALTH

SOPHE supports the departure from Healthy People 2010's approach of disease-based categories toward health risk/determinant Topic Areas. We believe the new approach of focusing on health risks will foster more interdisciplinary and transdisciplinary collaboration to address underlying issues that influence health. SOPHE strongly supports the Healthy People 2020 expanded focus on the root causes of diseases, by more explicitly including objectives for major determinants such as education, housing, safety, career development and job training, and transportation that greatly impact individual, family and



community health. Health education and health promotion are not only concerned with improving the health of individuals and their families but also improving the ability of communities to provide safe and supportive environments that promote healthy living across the life stages. We strongly encourage the use of a wider range of measurable indicators to help determine current and future impact of social determinants of health on quality of life.

SOPHE also supports the adoption of public health policies to promote systems that support informed individual and community health-related decision making. The increased complexity of health and social problems of this century call for widespread adoption of a new paradigm in which community collaboration provides the foundation for change. Community partnership and action for social change must be integral components of the wellness enterprise. Throughout the past decade, many evidence-based, systems initiatives have developed community-level infrastructures that have helped reduce risk factors and achieve important health outcomes. These programs and policies emphasize more participatory and equitable approaches, such as community-based participatory research, that by their very nature engage individuals and communities in identifying both problems and solutions to improve their health. Indeed, programs such as CDC's Racial and Ethnic Approaches to Community Health – or REACH – have clearly demonstrated that through interventions that are community based – not just community placed – we can make progress toward eliminating racial and ethnic health disparities. Moreover, approaches that emanate from community involvement and ownership lead to greater program sustainability over time, thus maximizing community investment and utilization of limited resources. Finally, SOPHE recommends exploration as to why the confluence of race, poverty and factors in the community create barriers to health among certain geographic and ethnic minority populations. Such information would lead to the identification of ways health education and other disciplines can work together to alter underlying causes and pathways that produce illness, disability, injury and premature death.

Educational Attainment

During a national conference sponsored by the United States Department of Education in 1995, economists Grossman and Kaestner presented an extensive summary of the "Effects of Education on Health"; they later published their edited remarks in 1997. The authors borrow the household production function model of consumer behavior from Becker (1965, p. 1476) and Lancaster (1966) to research the effects of education on health. According to this model, health is a commodity to which the consumer assigns utility through a fundamental choice. "Consumers produce commodities with inputs of market goods and services and their own time" (Grossman & Kaestner, 1997, p.72). The authors believe that household production by consumers functions just like production in a small firm. The demand for good health is created by a fundamental decision that health is a commodity worth producing and that subsequent consumer actions are about the production of health. The authors define health broadly as longevity and illness-free days, both of which are demanded and produced by consumer household production.

Health is a choice variable because it is a source of utility (satisfaction) and because it determines income or wealth levels. The health production function relates an output of health to such choice variables or health inputs as medical utilization, diet, exercise, cigarette smoking, and alcohol consumption. (p.72)

The consumer's health production efficiency (health produced from health inputs) demonstrates the influence of age, gender, race, years of schooling, and previous health status. Maximizing good health is a function of production efficiency, market characteristics, and resource constraints.

Grossman and Kaestner cite a number of studies (Auster *et al.*, 1969; Grossman, 1972; Grossman, 1975; Grossman & Benham, 1974; Silver, 1972) that suggest, "years of formal schooling completed is the most important correlate of good health" (Grossman & Kaestner, 1997, p. 73). The studies measured health using mortality rates, morbidity rates, self-evaluated health, and physical indicators; the apparent value of schooling is affirmed with analysis at the individual or group levels. Their examples show schooling to be a more important determinant of health than income or occupation, and this holds true when controlling

for the reverse causality occurring when poor health leads to poverty. Recognizing the question about education being a proxy for income and that income is a more direct determinant of health, they again point to their examples and write, “a significant portion of the gross schooling effect cannot be traced to the relationship between schooling and income or occupation” (pp. 73-74).

While there is exhaustive literature on the relationship between many types of education and many forms of health, the preceding paragraphs justify inclusion of objectives about educational attainment as an important social determinant of health.

Public and private policy should favor investments in efforts to assure high school completion. Public and private policy should increase investments to support, incentivize, and otherwise encourage higher levels of post-secondary education.

1. To increase the proportion of American youth who successfully complete high school or a high school diploma equivalent. (National Center for Educational Statistics-NCES)
2. To increase the number of residents completing two-years of post-secondary education in 2020 by 60% of the number in 2010. (NCES-decade ending in 2007 increase was about 50%)
3. To increase the number of residents completing baccalaureate degrees in 2020 by 60% of the number in 2010. (NCES-decade ending in 2007 increase was about 50%)
4. To increase geographic distribution of households including at least one person with an advanced degree.

Income

Income is also a social determinant of health status. McDonough et al. used data from the Panel Study of Income Dynamics for the years 1968 to 1989; they used fourteen ten-year panels to analyze predictors during the first five years and vital indicators during the second five years of each panel. Logistic regression was used to analyze the pooled panels. They found that “Income level was a strong predictor of mortality, especially for persons under the age of 65” and they concluded that “income and income stability should be addressed in population health policy” (McDonough *et al.*, 1997, p. 1476).

Other literature showing the influence of income on health and the effectiveness of health care are too numerous to summarize here.

In addition to traditional ideas about economic development, public and private policy should favor investment and regulation that reduces the number of households with incomes below 200 percent of the federal poverty level.

1. To increase the proportion of American households that live above 200% of the federal poverty level. (US Census)
2. To decrease the geographic concentration of households with incomes below 200% of the federal poverty level. (US Census)

Employment Classification

On behalf of the World Health Organization’s Commission on the Social Determinants of Health, Marmot and his colleagues summarized important ideas about the health benefits of fair employment and decent work: “work can provide financial security, social status, personal development, social relations, and self esteem, and protection from physical and psychosocial hazards.” (Marmot *et al.*, 2008, p. 1663)

America should pursue the development of purposeful work in a way that benefits the economy and personal health. Public and private policy and investment should favor the development of markets for services, products, and information that improve the number and breadth of opportunities for workers to flourish economically and personally.

1. To increase persons employed in classifications that are associated with incomes above the 2010 average household income. (US Census, Department of Labor)
2. To increase persons employed in classifications that are associated with more autonomy and control over work-life balance. (US Census, Department of Labor)
3. To increase the geographic distribution of persons in the two categories identified in the preceding objectives. (US Census, Department of Labor)

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SOCIAL MARKETING AND HEALTH

- xx-xx Increase the number of programs that use evidence-based social marketing for health promotion and disease prevention.**
- a. Increase undergraduate/graduate training in schools of public health**
 - b. Increase continuing education for public health practitioners**
 - c. Increase evidence-based research in prevention research centers and schools of public health, business and other related disciplines.**

The Society for Public Health Education (SOPHE) supports the inclusion of a new objective on social marketing and health in Healthy People 2020.

Justification:

Public health research shows that about one-half of the leading causes of deaths in the US are related to underlying voluntary risk behaviors, such as tobacco use, poor diet, lack of physical activity, drug and alcohol use, intentional injury (firearms), risky sexual behavior and failure to use seatbelts and other safety devices (McGinnis and Foege, 1993; Mokdad et.al. 2004), In addition, the number of these “preventable” deaths due to poor diet and lack of physical activity alone increased by about one-third from 1990 to 2000.

Success in reversing some of these trends, and improving the Nation's health, requires a transformative strategy that optimizes the health of the entire population by influencing behaviors that lead to preventable conditions responsible for a majority of premature deaths. Some of the most important preventable risks for poor health involve individual consumer behaviors that occur within the larger contexts of economic forces, e.g. changes in technology, peer and social network influences and social

and cultural trends that confront the individual with often arbitrary and conflicting choices. For those interested in promoting population health, the interaction of these multiple influences on consumer behavior creates a difficult dilemma of drawing a line of intervention that crosses between individual freedom of choice and the iron hand of public policy. Fortunately the social marketing approach provides many options for promoting population health by influencing individual behaviors using strategies based on consumer choice.

The use of marketing principles and practices in the private sector provides one of the most compelling demonstrations of solving the core business problem of achieving organizational success (improving public health in this instance) through satisfying consumer wants and needs. Marketing goes beyond advertising and sales. When applied as intended, it becomes a systematic way for management to structure its relationships with consumers and stakeholders from the products and experiences it offers, the structure of the incentives and costs associated with them, and their accessibility to various population groups (segments), to how they are promoted in the marketplace with an ever expanding palette of communication tools. This same marketing management approach can be applied to the analysis, planning, implementation and sustainability of public health programs aimed at promoting healthy behaviors.

Definitions of social marketing evolved over the more than three decades since its first description by Kotler & Zaltman (1971). One of the more commonly used definitions says:

Social marketing is a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviors that benefit society (public health, safety, the environment and communities) as well as the target audience (Kotler, Lee & Rothschild, 2007).

Social Marketing is a systematic approach to changing behavior that offers the tools to translate theory into practice and to scale up proven intervention approaches. By using a systematic process providers will appropriately: select an appropriate priority audience, understand the determinants of their current behavior, establish realistic objectives, develop an integrated strategy to facilitate the adoption of healthier behaviors (or maintain current ones) and measure the degree of successful performance. Indeed, when we examine some of the more well-known and successful public health programs over the past three decades, the principles of social marketing are being applied by major governmental agencies such as the US Agency for International Development, the Centers for Disease Control and Prevention, the Health Resources and Services Administration, the Substance Abuse and Mental Health Services Administration, and the National Institutes of Health.

A review of the literature on the effectiveness of social marketing by the UK Department of Health and the National Consumer Council and the National Health Service (NCC, 2006) concluded that:

- a. When the core concepts and principles of social marketing are applied systematically they can significantly improve the impact and effectiveness of work, whether at local, national or international level.
- a. Social marketing has potential to support achievement of specific behavioral goals across a diverse range of issues and topics. While social marketing has a developing history in the health sector, it is also increasingly being used in other areas such as sustainability and community safety.
- b. Social marketing can help to achieve behavioral goals and directly support service development and redesign by ensuring that they respond to, and meet the needs of, their intended audiences or consumers.

Potential Data Source



We propose that the Centers for Disease Control and Prevention support the development of a data source (or sources) that will provide a national sample of programs that use evidence-based social marketing for health promotion and disease prevention that can be evaluated for their use of best practices. A similar mechanism, such as through existing Cooperative Agreements or Prevention Research Centers, should be established to measure progress on the training and education components. These resources will support national organizations such as the Association of State and Territorial Health Officers (ASTHO), Association of Schools of Public Health (ASPH), Society for Public Health Education (SOPHE), National Public Health Information Coalition (NPHIC) and others who propose a program establishing a sampling frame for a systematic selection of programs to be evaluated. We propose a baseline survey(s) to be completed by the end of FY2011 with three additional biennial surveys for monitoring and feedback to stakeholders throughout the decade.

Anticipated Number of Data Points During the Decade

A total of four data points are proposed for each objective.

Proposed Target

A 50% increase above baseline level for the primary objective and each subobjective.

Health Determinant Identification

Indicate the relevant health determinant(s) for which the proposed objective applies:

- Physical Environment Social Environment Individual Behavior
- Biology and Genetics Health Services

Proposed 2020 Topic Area Identification

See listings below to indicate the relevant cross-cutting focus area(s), and/or sub area, for which the proposed objective applies.

Potential 2020 Topic Area Identification

Using the current 2010 focus areas and sub areas, indicate the relevant cross-cutting area(s) for which the proposed new objective applies.

- 1. Access to Quality Health Services**
 - Clinical Preventive Care
 - Primary Care
 - Emergency Services
 - Long-term Care and Rehabilitative Services
 - Other (All)
- 2. Arthritis, Osteoporosis and Chronic Back Conditions**
 - Arthritis and other Rheumatic Conditions
 - Osteoporosis
 - Chronic Back Conditions
 - Other (All)
- 3. Cancer**
- 4. Chronic Kidney Disease**
- 5. Diabetes**
- 6. Disability and Secondary Conditions**
- 7. Educational and Community-based Programs**
 - School setting
 - Worksite
 - Health care setting
 - Community setting and select populations
 - Other (All)
- 8. Environmental Health**



- Outdoor air quality
- Water quality
- Toxics and waste
- Health homes and healthy communities
- Infrastructure and surveillance
- Global environmental health
- Other (Please list) - Sustainability
- 9. Family Planning**
- 10. Food Safety**
- 11. Health Communication**
- 12. Heart Disease and Stroke**
 - Heart disease
 - Stroke
 - Blood pressure
 - Cholesterol
 - Other (All)
- 13. HIV**
- 14. Immunization and Infectious Diseases**
 - Diseases Preventable Through Universal Vaccination
 - Diseases Preventable Through Targeted Vaccination
 - Infectious Diseases and Emerging Antimicrobial Resistance
 - Vaccination Coverage and Strategies
 - Vaccine Safety
 - Other (All)
- 15. Injury and Violence Prevention**
 - Injury Prevention
 - Unintentional Injury Prevention
 - Violence and Abuse Prevention
 - Other (Please list)
- 16. Maternal, Infant, and Child Health**
 - Fetal, Infant, Child, and Adolescent Deaths
 - Maternal Deaths and Illnesses
 - Prenatal Care
 - Obstetrical Care
 - Risk Factors
 - Developmental Disabilities and Neural Tube Defects
 - Prenatal Substance Exposure
 - Breastfeeding, Newborn Screening, and Service Systems
 - Other (All)
- 17. Medical Product Safety**
- 18. Mental Health and Mental Disorders**
 - Mental Health Status Improvement
 - Treatment Expansion
 - State Activities
 - Other (Please list)
- 19. Nutrition and Overweight**
 - Weight Status and Growth
 - Food and Nutrient Consumption
 - Iron Deficiency and Anemia
 - Schools, Worksites, and Nutrition Counseling
 - Food Security
 - Other (All)
- 20. Occupational Safety and Health**
- 21. Oral Health**
- 22. Physical Activity and Fitness**
 - Physical Activity in Adults

- Muscular Strength/Endurance and Flexibility
- Physical Activity in Children and Adolescents
- Access
- Other (Please list)
- 23. Public Health Infrastructure**
 - Data and Information Systems
 - Workforce
 - Public Health Organizations
 - Resources
 - Prevention Research
 - Other (Please list)
- 24. Respiratory Diseases**
 - Asthma
 - Chronic Obstructive Pulmonary Disease
 - Obstructive Sleep Apnea
 - Other (All)
- 25. Sexually Transmitted Diseases**
 - Bacterial STD Illness and Disability
 - Viral STD Illness and Disability
 - STD Complications Affecting Females
 - STD Complications Affecting the Fetus and Newborn
 - Personal Behaviors
 - Community Protection Infrastructure
 - Personal Health Services
 - Other (All)
- 26. Substance Abuse**
 - Adverse Consequences of Substance Use and Abuse
 - Substance Use and Abuse
 - Risk of Substance Use and Abuse
 - Treatment for Substance Abuse
 - State and Local Efforts
 - Other (All)
- 27. Tobacco Use**
 - Tobacco Use in Population Groups
 - Cessation and Treatment
 - Exposure to Secondhand Smoke
 - Social and Environmental Changes
 - Other (Please list)
- 28. Vision and Hearing**
 - Vision
 - Hearing
 - Other (Please list)
- Other general area(s) not listed above** (Please list)

Genetic testing and counseling
 Public health preparedness
 Health information and communication technologies
 Safe use of OTC drugs
 Improvement of public-private partnership development and impact

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