

MAKING THE AFTERSCHOOL HOURS ACTIVE HOURS:

The Afterschool Alliance Obesity Prevention Agenda

Tackling and reversing America's epidemic of obesity will require a comprehensive and sustained effort in every community in America. The nation's growing network of afterschool providers can make a significant contribution to this battle if given the resources to provide children with healthy activities in the hours outside of the school day. The nation's emerging obesity prevention agenda should include the expansion of afterschool in America as one of many strategies designed to improve our children's health.

The following are initial concepts from the Afterschool Alliance as to how afterschool can be integrated into the obesity prevention agenda. These are intended to be the beginning of a dialogue among Americans who care about our children's – and our nation's – health and future.

The overarching vision for afterschool that can maximize its contribution to the obesity prevention agenda is that:

Every child in America should have access to a healthy and positive afterschool program by 2010.

The following are specific policy and program recommendations that can make the continuing expansion of afterschool in America most effective in combating obesity and promoting healthy life habits.

The national focus on childhood obesity has come about fairly recently, and for the most part, initial prevention efforts are in the beginning phases. We expect that as this issue continues to grow those in the obesity prevention and afterschool communities will help the Afterschool Alliance refine and expand upon these initial policy recommendations.

For federal and state policymakers

- Increase funding for Carol M. White Physical Education Program (PEP Grant) to \$100 million in FY 2006.
- Encourage community wellness plans (initiated in the Child Nutrition Improvement and Integrity Act, PL 108-265) to focus on afterschool programs as the central component of community-based obesity prevention and interventions.
- Encourage grantees funded through the HHS's "Steps to a Healthier U.S." initiative and the CDC's "State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases" to include afterschool programs in statewide and community-based obesity prevention plans and interventions.
- Expand TEAM Nutrition to afterschool settings, allowing for the continuation of school-day programs that combine nutritious snacks, nutrition education, and instruction on proper food preparation and habits of exercise.
- Encourage public and private health insurance programs to contribute to or reimburse the cost of obesity prevention and exercise programs offered by afterschool programs to populations of students at risk for obesity.
- Support clearinghouses that identify and disseminate best practices for obesity prevention in afterschool settings.
- Require these clearinghouses to identify and disseminate nutrition and exercise programs that are culturally appropriate and designed for all physical ability levels, and adaptable to afterschool settings.
- Encourage funding of afterschool nutrition, nutrition education, food preparation and gardening programs as components of community nutrition and anti-hunger strategies.
- Expand the afterschool dinner option to all 50 states and increase the reimbursement rate for the afterschool snack program.
- In rural areas, encourage the Farm to School produce plans (initiated in the Child Nutrition Improvement and Integrity Act, PL 108-265) to also supply afterschool snacks in addition to fresh fruits and vegetables provided for consumption during the school days.

- Work with districts, schools and other providers to establish guidelines for the nutritional content of snacks and meals provided in afterschool settings.
- Implement systems to streamline the administrative reporting and documentation process for federal child nutrition programs feeding children after school.
- Work with districts, schools and other providers to ensure that students have access to healthy snacks, and to limit the availability of non-nutritious foods in vending machines and support their replacement with foods such as dried fruits and nuts, milk, soy, water and whole juice drinks.
- Encourage partnerships between local gyms and sports clubs and schools, specifically connecting licensed personal trainers, nutritionists and other well-qualified individuals to help schools create afterschool fitness programs that students can also bring home and share with siblings and parents.
- Create a new, national funding stream to support staff training and equipment purchases necessary to ensure regular physical activity in afterschool settings.
- Provide additional funding through the President's Council on Fitness and Sports to disseminate the Get Fit Handbook and additional teaching aids to afterschool programs that make a commitment to helping students get fit.
- Increase funding for the U.S. Department of Education's 21st Century Community Learning Centers to the authorized level of \$2.25 billion for FY06.

For funders

- Draw upon the knowledge and experience of exercise and sports clubs, personal trainers, nutritionists and other well-qualified individuals and apply lessons learned from those fields to spreading effective physical activity and nutrition programs in the afterschool environment.
- Improve the reach and quality of afterschool obesity prevention efforts, by reaching out to and partnering with: community health

advocates and agencies; community garden programs; nutrition educators such as the Cooperative Extension Service; college and university exercise science departments; national organizations such as YWCA, YMCA, Boys and Girls Clubs, 4-H, Campfire and Communities in Schools; Action for Healthy Kids State Teams; faith-based organizations and local park and recreation programs.

- Develop and implement tools for assessment of a program's impact on free-time physical activity, general fitness and nutrition behaviors of participants. Share results with the afterschool field and the obesity prevention community.
- Expand funding for staff training and equipment for programs that operate in inner-city areas. Examine the availability of safe places for physical activity and high-quality produce and healthy foods in these areas, and provide adequate resources to expand options.

For program leaders

- Ensure that students have daily opportunities for active, engaging, developmentally appropriate physical activity that can be modified or adapted for participants at all levels of physical ability. Directed activities should focus on skill development that will facilitate the student's lifelong participation in physical activity.
- Ensure that nutrition and physical activity curriculum and activities complement and reinforce classroom learning, physical education and school-wide health education and promotion efforts.
- Include food selection, handling and preparation as components of nutrition education and health promotion curriculum and activities.
- Examine ways to link nutrition and physical activity to academic content areas, as well as to afterschool leadership and entrepreneurship programs.
- Partner with schools, districts and communities to support and promote walking and bicycling programs such as KidsWalk-to-School, Walking Schoolbus and Safe Routes to School.
- Integrate music and dance into physical fitness and nutrition curriculum implemented in afterschool programs.

- Actively solicit student input when selecting and implementing nutrition and physical activity curriculum and activities. Whenever possible, choose curriculum and activities that incorporate the students' interests. Search for kid-tested, kid-driven programs.
- Participate in school nutrition advisory councils and community obesity-prevention task forces.
- Explore the use of healthy foods and opportunities for physical activity as rewards and for fund-raising activities.

For both funders and program leaders

- Promote interdisciplinary conversations within the afterschool field to develop better understanding of connections between a healthy diet and daily exercise and personal self-esteem and success in school and life.
- Encourage involvement of professional sports teams and stars, music celebrities and other pop culture icons in development and promotion of afterschool programs that contain components that promote healthy habits for life.
- Fund and provide appropriate training for afterschool staff and volunteers who are responsible for the delivery of nutrition and physical fitness curriculum and activities. Physical activity-related training should incorporate injury prevention techniques.
- Develop and implement program models for promoting physical activity and nutrition that engage and encourage the involvement of parents and caregivers.
- Ensure that every child has access to healthy foods and opportunities for physical activity year-round. Seek to integrate summer recreation and feeding programs with school-year programs to ensure continuity.

BACKGROUND ON THE ISSUE

Risks and Costs of Obesity

The growing obesity epidemic has not passed children by. The latest data from the 1999-2002 National Health and Nutrition Examination Survey (NHANES) indicate that approximately 16 percent of U.S. children ages 6 -19 are overweight, and another 15 percent are at risk of becoming overweight.ⁱ

Young people are also spending more time in sedentary activities and less time exercising. On average, children in the United States spend almost 5.5 hours each day consuming media.^{II} This means that the average American child spends almost as much time in front of the television, playing video games, listening to music or using a computer as she spends in the classroom. As for exercise, the CDC reports that 61.5 percent of children ages 9-13 do not participate in any organized physical activity outside of school hours, and 22.6 percent do not engage in any type of physical activity during free time.^{III}

Unfortunately, many communities and schools are ill-equipped to give youth the time and space to get active. More and more neighborhoods lack safe walking and bike routes and conveniently located public facilities, and general safety in terms of exposure to crime is also an impediment to physical activity.^{IV} Even when at school, students are increasingly less likely to get any exercise. Less than 10 percent of elementary, junior high, middle and high schools surveyed in 2000 provided daily physical education or an equivalent at the time of the study. Additionally, less than half of all schools offered any out-of-school time intramural activities or physical activity clubs for students.^V

Today's youth generally fail to meet dietary guidelines that recommend diets low in fat, sugar and sodium, and high in fruits, vegetables, and whole grains. According to data from the CDC's 2003 Youth Risk Behavior Surveillance, just one-fifth of youth in grades 9-12 consumed the recommended daily servings of fruits and vegetables.^{vi}

The health- and economic-related consequences for a society that doesn't eat well and exercise are dire. Unhealthy behaviors such as physical inactivity, often established during youth, are among the risk behaviors that are related to the leading causes of mortality and morbidity for adults older than 25.^{vii} Direct medical costs related to physical inactivity increased from \$29 billion in 1987 to approximately \$76.6 billion in 2000.^{viii} The total of U.S. obesity-attributable medical expenditures in 2003 was estimated at \$75 billion, half of which would have been financed by Medicare and Medicaid.^{ix}

The list of serious health consequences attributed to obesity is long and includes hypertension, cardiovascular disease, stroke and respiratory problems.^x Also, a report released by the American Cancer Society in 2001 suggested that obesity

may cause the risk of dying from certain cancers to increase up to almost 50 percent.^{xi} However, the consequence of most concern is the close link between the obesity epidemic and the overwhelming increase in the incidence of type 2 diabetes in children. According to data from 2002, 206,000 people younger than 20 have diabetes.^{xii} While there is not yet a stable estimate of the prevalence of type 2 diabetes in youth, it has been estimated that type 2 diabetes may account for 8 percent to 45 percent of all new cases of pediatric diabetes.^{xiii} Recently, the CDC estimated that one in three U.S. children born in 2000 will develop diabetes in their lifetime. The odds for African-American and Hispanic children are much worse: nearly half are likely to develop the disease.^{xiv} Metabolic syndrome, a collection of disorders that often precedes diabetes, is also on the rise among youth. Research indicates that 32 percent of adolescents who are overweight and 7 percent who are at risk for becoming overweight have developed metabolic syndrome.^{xv}

Public Efforts That Focus on Children and Prevention Via Afterschool Programs

Prevention will be a critical strategy in the fight against obesity. Experts are focusing on childhood as the prime intervention point because that is the time during which lifestyle habits are developed. Many health organizations and leaders have developed their own obesity prevention plans that include ways to reach children and inspire them to develop healthy exercise habits. The Secretaries of Education and Health and Human Services, Former U.S. Surgeons General C. Everett Koop and David Satcher, The American Academy of Pediatrics, The National Coalition for Promoting Physical Activity and The National Association for Sport & Physical Education all have recommended physical activity during afterschool hours as part of their plans. Also, several colleges and universities are involved with developing fitness and nutrition curricula and studying their effectiveness.

Some organizations have already developed programs and/or curricula that aim to increase physical and nutritional education and practices in afterschool programs. The National Heart, Lung, and Blood Institute and the National Recreation and Park association teamed up in 1999 to create the Hearts N' Parks program. This program integrates information on healthy lifestyles with skill development for heart-related healthy behaviors into existing parks and recreation activities and has created summer camps and afterschool programs for youth. Hearts N' Parks programs are operating at more than 50 sites in 11 states. Data from an evaluation report indicated that the program has resulted in significant improvements in participants' knowledge, behavior and attitudes toward nutrition, and in physical activity.^{xvi}

The Centers for Disease Control has several programs and funding streams directed toward getting kids moving. In 2000, it launched a media campaign called "VERB: It's what you do," which is aimed at 9- to 13-year-olds ("tweens") and promotes physical activity. In an effort to assist state and local agencies with

their efforts in increasing physical activity in youth, the CDC's Division of Adolescent and School Health has provided one year of funding to 43 state, 4 territorial and 15 local education agencies, and 8 national organizations. As a result, new afterschool programs have been created, and existing ones have been able to train staff in providing physical and nutritional education to their students.^{xvii}

Some examples of afterschool physical activity curricula include:

- "Fitness Fun Forever" Florida Department of Education^{xviii}
- "Sport For All" NASPE, Sport Time and Human Kinetics^{xix}
- "SPARK After-School (Active Recreation)" San Diego State University, University of Tennessee at Memphis and California Adolescent Nutrition and Fitness Program (CANFit)^{xx}
- "CATCH Kids Club" University of California at San Diego, University of Minnesota, Tulane University, and University of Texas Health Science Center at Houston^{xxi}
- "Sports 4 Kids After-School Program" Sports 4 Kids"xxii

There are also a number of nutrition education, gardening, and cooking curricula that are being used in the afterschool setting. Some examples include:

- "The Power of Choice" HHS's Food and Drug Administration and the USDA's Food and Nutrition Service^{xxiii}
- "5 a day Power Play!" California Department of Health Services, Cancer Prevention and Nutrition Section^{xxiv}
- "Growing With Plants" –4-H and Washington State University's Extension Family Nutrition Education Program^{xxv}
- "CANFit Recipes for Success" California Adolescent Nutrition and Fitness Program (CANFit)^{xxvi}
- "Generation Fit" American Cancer Society^{xxvii}

Statewide Initiatives to Address Obesity

In 2000, the CDC's Division of Nutrition and Physical Activity launched the State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases. The goal of the program is to support state health departments in their efforts to prevent obesity and other chronic diseases through the creation of statewide obesity prevention plans that include nutrition and physical activity interventions. There are 28 states currently funded through this CDC program: Arizona, Arkansas, Colorado, Florida, Georgia, Illinois, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Missouri, Montana, New Mexico, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Vermont, Washington, West Virginia, and Wisconsin. Several CDC-funded states, including Florida, Colorado and Washington, have already completed their initial planning phases and are currently implementing interventions. In 2003, Arkansas passed legislation requiring public schools to measure the body-mass index of all schoolchildren and include the results on report cards sent home to parents. The state has already removed vending machines from elementary schools and has set up a Child Health Advisory Committee.^{xxviii} Gov. Mike Huckabee has indicated that he will address health and wellness issues when he becomes head of the National Governors Association in 2005.^{xxix}

Even states that are not funded through this CDC program have taken action and are implementing initiatives to improve the health of their state. California's Department of Health Services Cancer Prevention and Nutrition Section has adopted a policy initiative to reduce the number of cancer deaths through promotion of physical activity and nutrition.^{xxx} Hawaii's State Department of Health is using Federal Tobacco Settlement money to fund the HealthyHawaii Initiative, a public education campaign to promote good nutrition, physical activity and healthy lifestyles.^{xxxi}

Afterschool Program Models in Practice

Existing afterschool programs are also taking the initiative to address the obesity issue themselves and have integrated nutrition and physical activity promotion into their existing structure. In fact, polling of elementary school principals shows that 78 percent report that their afterschool programs offer recreation and sports activities.^{xxxii} Programs across the country are examining the needs of their communities and addressing specific issues:

- Promoting healthy lifestyles through nutrition and physical activity.
- Preventing risk factors for diabetes.
- Moving to prevent cardiovascular disease.
- Addressing the growing trend of obesity in Hispanic/Latino youth.
- Promoting healthy Native American youth.
- Promoting physical activity in adolescent girls.

Clinical Results

The results from recent clinical studies on the effects of physical activity on obese children and teens have shown that physical training interventions in afterschool settings can result in positive health outcomes for the participants. Studies of various programs have noted the following results:

- Increased bone density and improvements in body composition, cardiac parasympathetic activity, and some components that make up insulin resistance syndrome.^{xxxii, xxxv}
- Positive outcomes for the cardiovascular health of obese adolescents and improvement in body composition.^{xxxvi}
- Lower body mass index, a reported increase in afterschool physical activity and a trend toward improved grades in school.^{xxxvii}

- Long-term reductions in weight and blood lipids (after a five-year followup).^{xxxviii}
- Lower levels of tobacco and alcohol use.^{xxxix}

Is prevention cost-effective?

There are not yet any long-term data to suggest that programs that promote health through physical activity in the afterschool hours are cost-effective in comparison with the long-term health care costs of complications resulting from physical inactivity. There has been evidence, however, to suggest that prevention programs can be cost-effective in the short term. A diabetes-prevention program in Texas that includes staff visits to students has an annual budget of about \$500,000 to provide 1,414 students in 20 public schools with nutrition and physical education. Each visit costs \$11.76, compared to the \$48 an insurance company would pay for a routine diabetes treatment. Preliminary studies indicate this program is effective in modifying the risk factors and rates of diabetes, at a much lower cost than treating the disease itself.^{xl}

Afterschool Programs are a Natural Ally of Obesity Prevention

After steady funding increases for afterschool programs in recent years, economic issues have led to a stall in growth, but not demand. There are 14.3 million children in the U.S. with no place to go after the school day ends, and programs are scrambling for funds to meet this need. Meanwhile, parents have to face worries about childhood obesity along with concern for their children's safety during the afterschool hours. Afterschool programs are uniquely suited to address both these issues because they aim, in part, to keep children safe by keeping them occupied. Afterschool and obesity prevention advocates can help each other by joining forces. The federal 21st Century Community Learning Centers initiative already serves an estimated 1.4 million children across the country, and several states and localities are building their own networks to support afterschool programs. With a variety of public and private entities willing to invest in obesity prevention, afterschool programs have the opportunity to find the funding they need to keep kids safe and become an important piece of the prevention puzzle.

About the Afterschool Alliance

The Afterschool Alliance is a nonprofit organization dedicated to raising awareness of the importance of afterschool programs and advocating for quality, affordable programs for all children. It is supported by a group of public, private and nonprofit organizations that share the Alliance's vision of ensuring that all children have access to afterschool programs by 2010.

The Alliance is committed to working to increase support from federal and state lawmakers to help afterschool programs do more to address the issue of childhood obesity. The Alliance has participated in other health-orientated activities, in addition to the release of this policy agenda. In the Fall of 2004, the Alliance submitted a letter to the Members of the Senate Health, Education, Labor and Pensions (HELP) Committee in support of the bipartisan *Childhood Obesity Reduction Act* (S.2552). Recently, the Alliance added an "Active Hours Afterschool" section to their website, providing resources to afterschool providers and advocates interested in making the hours after school active and healthy.

Comments and questions regarding the Afterschool Alliance Obesity Prevention Agenda, or other health-related activities may be directed to the Washington, DC office, 202-347-2030.

The Afterschool Alliance Obesity Prevention Agenda was created by the Afterschool Alliance. If re-printing in whole or part, please attribute it to the Afterschool Alliance.

ⁱ National Center for Health Statistics. Press release: Obesity still a major problem, new data show. Dated 10/6/04. U.S. Department of Health and Human Services. Centers for Disease Control. From the website: www.cdc.gov/nchs. Downloaded 10/26/04

ⁱⁱKaiser Family Foundation. Press Release: New study finds kids spend equivalent of full work week using media. Dated 11/17/99. From the website: www.kff.org. Downloaded 11/3/03.

ⁱⁱⁱ Centers for Disease Control and Prevention. Physical activity levels among children aged 9-13 years ---United States, 2002. Mortality and Morbidity Weekly Report. 2003:52(33);785-788.

^{iv} Centers for Disease Control and Prevention, "Promoting Better Health for Young People Through Physical Activity and Sports: A Report to the President", U.S. Department of Health and Human Services, DHHS, CDC at Healthy Youth, [Silver Spring, MD], Revised December 2000, p 11.

^v Centers for Disease Control and Prevention (CDC). Fact Sheet: Physical Education and Activity. From: School Health Policies and Programs Study (SHPPS) 2000. From the website: www.cdc.gov/shpps.

^{vi} Grunbaum, J A, et al. Youth Risk Behavior Surveillance – United States, 2003. In: Surveillance Summaries, May 21, 2004. MMWR 2004;53 (No. SS-2): 21.

vii Grunbaum J, et al. Youth Risk Behavior Surveillance – United States, 2001. In: Surveillance Summaries, June 28, 2002. MMWR 2002;51 (No. SS-4): P. 2

viii National Center for Chronic Disease Prevention and Health Promotion. Fact sheet: Improving nutrition and increasing physical activity. From the website: www.cdc.gov. Downloaded on 11/3/03.

⁹ Finkelstein, E. Fiebelkorn, I., Wang, G. State-level estimates of annual medical expenditures attributable to obesity. Obesity Research; 2004:12:18-24

^x National Center for Chronic Disease Prevention and Health Promotion. From the website:

www.cdc.gov/nccdphp/dnpa/obesity/consequences.htm. Downloaded on 11/21/03.

xⁱ American Cancer Society. Cancer facts & figures 2001. American Cancer Society, Inc. Atlanta, GA

[2001] ^{xii} National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Statistics fact sheet: General information and national estimates on diabetes in the United States, 2003. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, 2003. Rev. ed. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, 2004.

xiii National Center for Chronic Disease Prevention and Health Promotion (CDC). Fact Sheet: Diabetes Public Health Resource, Diabetes Projects. From the website: http://www.cdc.gov/diabetes/projects/. Downloaded on 5/11/04.

^{xiv} CBS News.com, "Shocking' diabetes prediction," posted on cbsnews.com on June 14, 2003. Downloaded on August 24, 2004.

^{xv} Biotech Business Week. Prevalence of the metabolic syndrome among U.S. adolescents rising. October 21, 2004. Reprinted in *Diabetes Today*. American Diabetes Association website, www.diabetes.org. Downloaded October 26, 2004.

^{xvi} National Recreation and Park Association. Hearts N' Parks – Phase II report of 2002 magnet center performance data. Downloaded from the website: www.nrpa.org.

^{xvii} U.S. Department of Health and Human Services, Division of Adolescent and School Health and Centers for Disease Control and Prevention. CDC's Youth Media Campaign: Projects to increase physical activity among youth. Summary Report. May 2003.

xviii http://cops.uwf.edu/copsweb/hles/fff/fitness%20fun%20forever/resources/contents.htm

xix www.sportforall.net/programs.cfm?s=after_school

^{xx} www.sparkpe.org

xxi www.sph.uth.tmc.edu/catch/about.htm

^{xxii} www.sports4kids.org

xxiii www.fns.usda.gov/tn

xxiv http://www.dhs.ca.gov/ps/cdic/cpns/powerplay

xxv http://www.pierce.wsu.edu/Nutrition/GWP/index.htm

xxvi www.canfit.org

xxvii www.cancer.org

xxviii Associated Press. Kids' obesity may be worse than thought. The New York Times. June 4, 2004. From the website: www.nytimes.com. Accessed on 6/4/04.

^{xxix} Associated Press. Arkansas officials launch health initiative. *The New York Times*. December 15th, 2003. From the website: www.nytimes.com. Accessed on 12/15/03.

^{xxxii} National Association of Elementary School Principals. Fact Sheet: Principals and after-school programs: a survey of PreK-8 principals. From the website: www.naesp.org

^{xxxiii} Gutin, G, Owens, S, Okuyama, T, Riggs, S, Feguson, M and Kitaker, M. Effect of Physical Training and Its Cessation on Percent Fat and Bone Density of Children With Obesity. *Obesity Research*. 1999;7:208-13.

^{xxxiv} Gutin, B, Barbeau, P, Litaker, M, Ferguson, M and Owens, S. Heart rate variability in obese children: relations to total body and visceral adiposity, and changes with physical training and detraining. *Obesity Research*. 2000;8: 12-19.

^{xxxv} Ferguson, M, Gutin, B, Le, N, Karp, W, Litaker, M, Humphries, M, Okuyama, T, Riggs, S and Owens, S. Effects of exercise training and its cessation on components of the insulin resistance syndrome in obese children. *International Journal of Obesity*. 1999; 22: 889-95.

^{xxxvi} Gutin, B, Barbeu, P, Owens, S, Lemmon, C, Bauman, M, Allison, J, Kang, H-S, and Litaker, M. Effects of exercise intensity on cardiovascular fitness, total body composition, and visceral adiposity of obese adolescents. *American Journal of Clinical Nutrition*. 2002;75:818-26.

^{xxxvii} Robinson, T et al. Dance and reducing television viewing to prevent weight gain in African American girls: the Stanford GEMS pilot study. *Ethnicity & Disease*. 2003:13:S65-77.

^{xxxviii} Johnson, W, et. al. Dietary and exercise interventions for juvenile obesity: long-term effect of behavioral and public health models. *Obesity Research*. 1997:5:257-261.

^{xxxix} American Academy of Pediatrics, Committee on Sports Medicine and Fitness and Committee on School Health. *Policy Statement: Physical Fitness and Activity in Schools (RE9907)*. American Academy of Pediatrics; 2000;105:1156-1157.

^{x1} Trevino, RP. Bienestar Program: A cost-effective model to control diabetes. *San Antonio Medicine*. November 2001: 8-39.

xxx http://www.dhs.ca.gov/ps/cdic/ccb/cpns/policy.html

xxxi http://www.healthyhawaii.com/index.html