



HEALTH **IMPACT** IN 5 YEARS

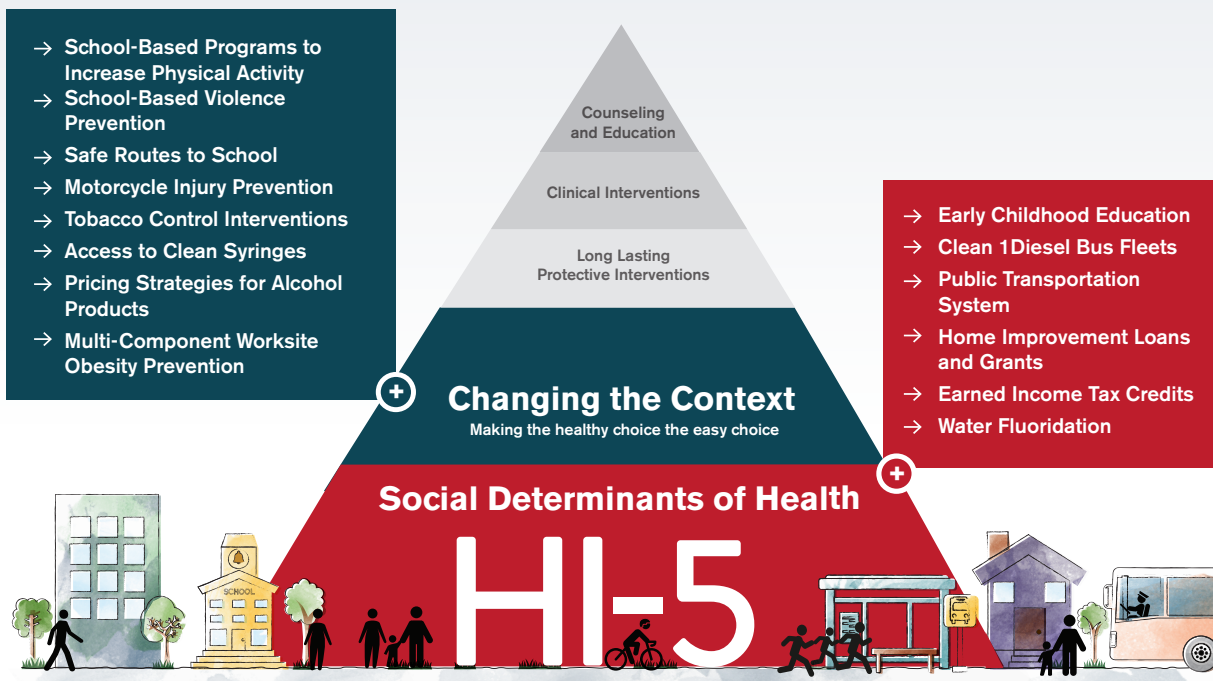
www.cdc.gov/hi5

Achieving lasting impact on health outcomes requires a focus not just on patient care, but also on community-wide approaches aimed at improving population health.^[1-6] Programs that address the conditions in the places where we live, learn, work, and play have the greatest potential for keeping people healthy.^[7-11] By focusing on these “social determinants of health” (SDOH) and on “changing the context to make healthy choices easier,” we can help improve the health of everyone living in a community. The Health Impact in 5 Years (HI-5) Initiative highlights non-clinical, community-wide approaches that have evidence reporting: 1) positive health impacts, 2) results within 5 years, and 3) cost effectiveness or cost savings over the lifetime of the population or earlier. The public health impact pyramid shows the potential impact of different types of public health interventions.^[7] At the base of the pyramid are those interventions that have the greatest potential for impact on health because they reach entire populations of people at once and require less individual effort. The HI-5 Initiative maps directly to the two lowest tiers of the public health pyramid with the greatest potential for positive impact.

Health conditions that the HI-5 interventions address

Community-wide approaches can have broad health impact, often addressing several health conditions at once. Below is a partial list of the health outcomes that HI-5 interventions can prevent or reduce:

- Anxiety and Depression
- Asthma
- Blood Pressure
- Bronchitis
- Cancer
- Cardiovascular Disease
- Child Abuse and Neglect
- Cognitive Development
- Infant Mortality
- Liver Cirrhosis
- Motor Vehicle Injuries
- Obesity
- Dental Cavities
- Pneumonia
- Sexually Transmittable Infections
- Sexual Violence
- Teenage Pregnancy
- Traumatic Brain Injury
- Type II Diabetes
- Youth Violence



What are the HI-5 interventions?

Changing the Context



SCHOOL-BASED PROGRAMS TO INCREASE PHYSICAL ACTIVITY:

The goal of these school-based programs is to increase physical activity during the times children are on school grounds before, during, and after classes. The programs can expand and enhance existing physical education programs and incorporate physical activities into classroom learning activities. Evidence has shown that these programs are associated with increases in student physical activity and have positive effects on Body Mass Index (BMI) and obesity prevention.



SCHOOL-BASED VIOLENCE PREVENTION:

Universal school-based violence prevention programs provide students and school staff with information about violence, change how young people think and feel about violence, and enhance interpersonal and emotional skills such as communication and problem-solving, empathy, and conflict management. These approaches are typically delivered to all students in a particular grade or school. A systematic review found that universal school-based violence prevention programs were associated with less youth violence in all types of school environments—regardless of grade level, socioeconomic status, crime rate, and predominant race or ethnicity of students. The evidence also shows that specific programs have been associated with lower rates of delinquency and alcohol and substance abuse, along with improvements in academic performance.



SAFE ROUTES TO SCHOOL (SRTS):

SRTS is an overall approach that encourages students and their families to walk, bike, or use other forms of active transportation to get to and from school. It combines programmatic approaches like bicycle safety education, walking school buses, and increased traffic enforcement with infrastructure improvements such as better sidewalks, crosswalks, and lighting to ensure safe conditions for walking and biking. The evidence shows that SRTS is associated with increases in the number of students who walk and bike to and from school. There is also evidence that SRTS reduces the risk of injury from traffic collisions involving pedestrians and bicyclists.



MOTORCYCLE INJURY PREVENTION:

Universal motorcycle helmet laws require all motorcycle riders—both drivers and passengers—to wear a helmet when riding on public roads. States with universal laws consistently have higher rates of helmet use and lower rates of motorcycle-related deaths and injuries.



TOBACCO CONTROL INTERVENTIONS:

Effective tobacco control interventions include tobacco price increases, high-impact anti-tobacco mass media campaigns, and comprehensive smoke-free laws. Evidence has shown that a 20 percent increase in the unit price of tobacco can reduce the number of young people who start smoking, increase the number of young people and adults ages 30 and older who quit, and reduce tobacco use and demand. High-impact anti-tobacco mass media campaigns—which target large audiences through television and radio broadcasts, print media (e.g., newspapers), and digital media to change knowledge, beliefs, attitudes, and behaviors regarding tobacco—have been shown to reduce adult tobacco use, promote tobacco cessation, and prevent tobacco use initiation among youth. Comprehensive smoke-free laws that prohibit smoking in all indoor areas of workplaces, bars, and restaurants are associated with reductions in exposure to secondhand smoke and improvements in short- and long-term health outcomes, including fewer hospitalizations for asthma and heart attacks.



ACCESS TO CLEAN SYRINGES:

Policies that support access to clean needles and syringes let pharmacies sell them without prescriptions. They also allow public health departments to authorize and conduct programs that distribute clean needles and syringes and safely dispose of used ones. Evidence shows that these policies, laws, and regulations are associated with lower prevalence and incidence of human immunodeficiency virus (HIV) and hepatitis C virus (HCV) among persons who inject drugs.



PRICING STRATEGIES FOR ALCOHOL PRODUCTS:

Evidence shows that raising the price of alcohol products is associated with reductions in consumption and related harms, including sexual violence and motor vehicle crashes and fatalities.



MULTI-COMPONENT WORKSITE OBESITY PREVENTION:

Strategies at the workplace include offering information and education, behavioral- and social-change strategies, environmental components, and financial incentives. According to the results of a thorough review of a large number of studies, worksite obesity prevention programs are associated with reductions in BMI and helping employees lose weight.

Interventions Addressing the Social Determinants of Health



EARLY CHILDHOOD EDUCATION:

Early Childhood Education (ECE) programs foster socio-emotional, cognitive, and motor skill development for children ages 3 to 4 years. Some programs also include physical activity, nutritious meals, support for parents, healthcare screening and access, and social services. ECE programs may be delivered in a variety of ways and settings, including state and district programs (available to all children), the federal Head Start program, and model programs (which focus on at-risk or economically disadvantaged children). In addition to improved cognitive development, the evidence shows that ECE programs are associated with reductions in obesity and BMI, child abuse and neglect, youth violence, and emergency department visits.



HOME IMPROVEMENT LOANS AND GRANTS:

These financial resources provide funding to low-income families to repair and improve their homes. For example, funds may cover weatherization to improve insulation, air quality, dampness, and energy conservation, as well as removal of health or safety hazards from homes. The evidence shows that these actions are associated with improvements in residents' general health and reducing asthma symptoms and non-asthma-related respiratory problems.



CLEAN DIESEL BUS FLEETS:

Under these transition programs, fleets of diesel buses are retrofitted to operate using clean diesel technology. The body of scientific evidence shows that these reductions are associated with fewer cardiovascular events and respiratory conditions—such as asthma—and better lung function among children.



EARNED INCOME TAX CREDITS:

Earned income tax credits (EITCs) are usually implemented as refundable income tax credits levied at the federal, state, or local levels that benefit low- and moderate-income working people and families. The EITC has been credited with keeping more families and children above the poverty line than any other federal, state, or local program. In addition, the evidence demonstrates that EITCs are associated with reductions in infant deaths and preterm births, along with improvements in birthweight and the mother's mental health.



PUBLIC TRANSPORTATION SYSTEM INTRODUCTION OR EXPANSION:

The purpose of introducing or expanding public transportation systems is to increase both access to and use of public transit and to reduce traffic. The body of evidence shows that this intervention is associated with reductions in traffic collision injuries, fatalities, traffic congestion and associated air pollution, and higher levels of physical activity.



WATER FLUORIDATION:

Community water fluoridation is the process of adjusting fluoride levels in order to improve oral health. Drinking fluoridated water keeps teeth strong and reduces tooth decay by approximately 25 percent among children and adults. By preventing tooth decay, community water fluoridation has been shown to save money both for families and the healthcare system.

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