

# Linking Transportation Policy and Public Health

November 13-14, 2008  
Doubletree Crystal City • Arlington, VA

## Glossary of Terms

Health and Environmental Terms	
Terms	Definitions
Access	The ability to obtain needed health care services.
Acute	Occurring over a short time.
Acute Exposure	Contact with a substance that occurs once or for only a short time (up to 14 days).
Active Community Environment (ACE)	An initiative sponsored by the Centers for Disease Control and Prevention (CDC) to promote walking, bicycling, and the development of accessible recreation facilities. ACEs was created in response to data from a variety of disciplines, including public health, urban design, and transportation planning, suggesting that characteristics of our communities play a significant role in promoting or discouraging physical activity.
Active Living	A way of life that integrates physical activity into daily routines.
Additive Effect	A biologic response to exposure to multiple substances that equals the sum of responses of all the individual substances added together.
Adverse Health Effect	A change in body functions or cell structure that might lead to disease or health problems.
Agent	A factor, such as a microorganism, chemical substance, or form of radiation, whose presence, excessive presence, or (in deficiency diseases) relative absence is essential for the occurrence of a disease.
Antagonistic Effect	A biologic response to exposure to multiple substances that is less than would be expected if the known effects of the individual substances were added together.
Attributable Proportion	A measure of the public health impact of a causative factor; proportion of a disease in a group that is exposed to a particular factor which can be attributed to their exposure to that factor.
Biologic Monitoring / Biomonitoring	Measuring hazardous substances in biologic materials (such as blood, hair, urine, or breath) to determine whether exposure has occurred.
Body Burden	The total amount of a substance in the body. Some substances build up in the body because they are stored in fat or bone or because they leave the body very slowly.
Body Mass Index (BMI)	A mathematical calculation used to determine whether a person is overweight or obese. BMI is calculated by dividing body weight in kilograms by height in meters squared.
Carcinogen	A substance that causes cancer.
Case	A countable instance in the population or study group of a particular disease, health disorder, or condition under investigation. Sometimes, an individual with the particular disease.
Chronic	Occurring over a long time.
Chronic Disease	A health condition that occurs over a long period of time (e.g. several weeks, months, or years).
Chronic Exposure	Contact with a substance that occurs over a long time (more than 1 year).
Cluster	An aggregation of cases of a disease or other health-related condition,



	particularly cancer and birth defects, which are closely grouped in time and place. The number of cases may or may not exceed the expected number.
Cohort	A well-defined group of people who have had a common experience or exposure, who are then followed up for the incidence of new diseases or events, as in a cohort or prospective study.
Comparison Value	Calculated concentration of a substance in air, water, food, or soil that is unlikely to cause harmful (adverse) health effects in exposed people; used as a screening level during public health assessments.
Crash	An occurrence in a sequence of events that produces unintended injury, death, or property damage. Crash refers to the event, not the result of the event.
Determinants of Health	The range of personal, social, economic and environmental factors which determine the health status of individuals or populations.
Disability	An outcome of interactions between health conditions (diseases, disorders and injuries) and contextual factors such as external environmental factors.
Disease Prevention	Covers measures not only to prevent the occurrence of disease, such as risk factor reduction or protective factor promotion, but also to arrest its progress and reduce its consequences once established.
Dose	The amount of a substance to which a person is exposed over some time period. Dose is a measurement of exposure often expressed as milligram (amount) per kilogram (a measure of body weight) per day (a measure of time) when people eat or drink contaminated water, food, or soil. An "exposure dose" is how much of a substance is encountered in the environment. An "absorbed dose" is the amount of a substance that actually got into the body.
Dose-Response Relationship	The relationship between the amount of exposure [dose] to a substance and the resulting changes in body function or health (response).
Environmental Factor	An extrinsic factor (e.g. geology, climate, insects, sanitation, health, etc.) that affects the agent and the opportunity for exposure.
Environmental Health	Those aspects of human health, disease, and injury that are determined or influenced by factors in the environment. This includes the study of both the direct pathological effects of various chemical, physical, and biological agents, as well as the effects on health of the broad physical and social environment, which includes housing, urban development, land-use and transportation, industry, and agriculture.
Environmental Media	Soil, water, air, biota (plants and animals), or any other parts of the environment that can contain contaminants.
Environmental Media and Transport Mechanism	Environmental media include water, air, soil, and biota (plants and animals). Transport mechanisms move contaminants from the source to points where human exposure can occur. The environmental media and transport mechanism is the second part of an exposure pathway.
Epidemiology	The study of the distribution and determinants of disease or health status in a population; the study of the occurrence and causes of health effects in humans.
Exposure	The study of the distribution and determinants of disease or health status in a population; the study of the occurrence and causes of health effects in humans.
Exposure Assessment	Process of finding out how people come into contact with a hazardous substance, how often and for how long they are in contact with the substance, and how much of the substance they are in contact with.
Exposure-Dose Reconstruction	Method of estimating the amount of people's past exposure to hazardous substances.
Exposure Pathway	The route a substance takes from its source (where it began) to its end point (where it ends), and how people can come into contact with (or get



	exposed to) it. An exposure pathway has five parts: 1) source of contamination, 2) environmental media and transport, 3) point of exposure, 4) route of exposure, and 5) receptor population. When all five parts are present, the exposure pathway is termed a completed exposure pathway.
Health	A state of complete physical, social, and mental well-being, and not merely the absence of disease or infirmity. It is a positive concept emphasizing social and personal resources as well as physical capabilities.
Health Disparities	The difference in the incidence, prevalence, mortality, burden of diseases, and other adverse health conditions that exist among specific population groups.
Health Education	Health education comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy.
Health Impact Assessment (HIA)	Refers to any combination of qualitative and quantitative methods used to assess the population health consequences of a policy, project, or program that does not have health as its primary objective (e.g. assessing the health consequences of non-health sector actions).
Health Indicator	A characteristic of an individual, population, or environment which is subject to measurement (directly or indirectly) and can be used to describe one or more aspects of the health of an individual or population (quality, quantity, and time).
Health Outcomes	A change in the health status of an individual, group or population which is attributable to a planned or unplanned intervention or series of interventions.
Health Promotion	The process of enabling people to increase control over, and to improve, their health.
Health Status	A description and/or measurement of the health of an individual or population at a particular point in time against identifiable standards, usually by reference to health indicators.
Healthy People 2010	A set of health objectives for the nation to achieve over the first decade of the new century. Healthy People 2010 builds on initiatives pursued over the past 20 years, including the 1979 Surgeon General's Report, Healthy People, and Healthy People 2000: National Health Promotion and Disease Prevention Objectives. Implemented by the federal government with partners from more than 400 health organizations.
Incidence	The number of new cases of disease in a defined population over a specific time period.
Infectious Disease	Caused by the presence of disease-causing organisms or agents, such as bacterial, viruses, and parasitic worms.
Injury	Physical harm or damage to the body resulting from an exchange, usually acute, of mechanical, chemical, thermal, or other environmental energy that exceeds the body's tolerance.
Injury Prevention	Strategies that focus primarily on environmental design (e.g. road construction that permits optimum visibility), product design, human behavior, education, and legislative and regulatory requirements that support environmental and behavioral change.
Intervention	The act or fact of interfering with a condition to modify it or with a process to change its course.
Latency Period	A period of unapparent pathologic changes following exposure, ending with the onset of symptoms of chronic disease.
Lifestyle	A way of living based on identifiable patterns of behavior which are determined by the interplay between an individual's personal characteristics, social interactions, and socioeconomic and environmental living conditions.



Mobile Source	1) Mobile sources include motor vehicles, aircraft, seagoing vessels, and other transportation modes. 2) Mobile source-related pollutants are carbon monoxide (CO), hydrocarbons (HC) or volatile organic compounds (VOCs), nitrogen oxides (NOx), and particulate matter (PM <sup>10</sup> & PM <sup>2.5</sup> ).
Mobile Source Air Toxics (MSATS)	Identified by the EPA, MSATs are the 21 hazardous air pollutants generated in large part by transportation sources.
Morbidity	State of being ill or diseased. Morbidity is the occurrence of a disease or condition that alters health and quality of life.
Mortality	Death. Usually the cause (a specific disease, a condition, or an injury) is stated.
National Ambient Air Quality Standards (NAAQS)	Federal standards that set allowable concentrations and exposure limits for various pollutants. Air quality standards have been established for the following six criteria pollutants: ozone (or smog), carbon monoxide, particulate matter, nitrogen dioxide, lead, and sulfur dioxide.
National Environmental Policy Act (NEPA)	Established a national environmental policy requiring that any project using federal funding or requiring federal approval (including transportation projects) examine the effects of proposed and alternative choices on the environment before a federal decision is made.
Nitrogen Oxides (NOx)	The term used to describe the sum of nitric oxide (NO), nitrogen dioxide (NO <sub>2</sub> ), and other oxides of nitrogen, which play a major role in the formation of ozone. The major sources of man-made NOx emissions are high temperature combustion processes, such as those occurring in automobiles and power plants.
Nonattainment Area	Any geographic area that has not met the requirements set out in the Clean Air Act.
No-Observed-Adverse-Effect Level (NOAEL)	The highest tested dose of a substance that has been reported to have no harmful (adverse) health effects on people or animals.
Obese	Defined as those with 20% (or more) extra body fat for the age, height, sex, and bone structure determined by the BMI, or a BMI of 30 or more.
Overweight	Defined as those with a BMI of 25 to 30.
Ozone (O <sub>3</sub> )	Ozone is a colorless gas with a sweet odor. Ozone is not a direct emission from transportation sources. It is a secondary pollutant formed when VOCs and NOx combine in the presence of sunlight and is associated with smog or haze conditions.
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Particulate matter consists of airborne solid particles and liquid droplets. Particulate matter may be in the form of fly ash, soot, dust, fog, fumes, etc. These particles are classified as "coarse" if they are smaller than 10 microns, or "fine" if they are smaller than 2.5 microns. Coarse airborne particles are produced during grinding operations, or from the physical disturbance of dust by natural air turbulence processes. Fine particles can be a by-product of fossil fuel combustion, such as diesel and bus engines. Fine particles can easily reach remote lung areas; their presence in the lungs is linked to serious respiratory ailments that may also aggravate other medical conditions, such as heart disease and emphysema, and may cause premature death.
Permanent Disability (or Permanent Impairment)	Includes any degree of permanent nonfatal injury. It includes any injury that results in the loss, or complete loss of use, of any part of the body, or any permanent impairment of functions of the body or a part thereof.
Point of Exposure	The place where someone can come into contact with a substance present in the environment.
Prevalence	The number of existing disease cases in a defined population during a specific time period.
Prevention	Actions that reduce exposure or other risks, keep people from getting sick,



HEALTHY EATING ACTIVE LIVING CONVERGENCE PARTNERSHIP  
working together to create healthy people in healthy places



	or keep disease from getting worse.
Protective Factor	Social, economic or biological status, behaviors or environments which shield from or cause decreased susceptibility to a specific disease, ill health, or injury.
Public Health	The science and art of promoting health, preventing disease, and prolonging life through the organized efforts of society.
Public Health Surveillance	The ongoing, systematic collection, analysis, and interpretation of health data. This activity also involves timely dissemination of the data and use for public health programs.
Quality of Life	Defined as individual's perceptions of their position in life in the context of the culture and value system where they live, and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept, incorporating in a complex way a person's physical health, psychological state, level of independence, social relationships, personal beliefs, and relationship to salient features of the environment.
Reference Dose (RfD)	An EPA estimate, with uncertainty or safety factors built in, of the daily lifetime dose of a substance that is unlikely to cause harm in humans.
Risk Behavior	Specific forms of behavior that are proven to be associated with increased susceptibility to a specific disease or ill-health.
Risk Communication	The exchange of information to increase understanding of health risks.
Risk Factor	Social, economic or biological status, behaviors, or environments that are associated with or cause increased susceptibility to a specific disease, ill health, or injury.
Route of Exposure	The way people come into contact with a hazardous substance. Three routes of exposure are breathing (inhalation), eating or drinking (ingestion), or contact with the skin (dermal contact).
Sedentary	Physically inactive.
Special (or Vulnerable) Populations	People who might be more sensitive or susceptible to exposure to hazardous substances because of factors such as age, occupation, sex, or behaviors (for example, cigarette smoking). Children, pregnant women, and older people are often considered special populations.
Social Capital	Social capital represents the degree of social cohesion which exists in communities. It refers to the processes between people which establish networks, norms, and social trust, and facilitate co-ordination and co-operation for mutual benefit.
Social Marketing	The application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behavior of target audiences in order to improve their personal health and welfare and that of their society.
Surveillance	The ongoing, systematic collection, analysis, and interpretation of health data. This activity also involves timely dissemination of the data and use for public health programs.
Sustainable Development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
Synergistic Effect	A biologic response to multiple substances where one worsens the effect of another. The combined effect of the substances acting together is greater than the sum of the substances acting alone.
Years of Potential Life Lost (YPLL)	A measure of the impact of premature mortality on a population, calculated as the sum of the differences between some predetermined minimum or desired life span and the age of death for individuals who died earlier than that predetermined age.



## Sources

- Centers for Disease Control & Prevention (CDC) / Agency for Toxic Substances and Disease Registry (ATSDR): <http://www.cdc.gov>, <http://www.atsdr.cdc.gov>
- World Health Organization (WHO): [http://www.who.int/hpr/NPH/docs/hp\\_glossary\\_en.pdf](http://www.who.int/hpr/NPH/docs/hp_glossary_en.pdf)
- Active Living by Design: <http://www.activelivingbydesign.org/index.php?id=10>
- National Safety Council (NSC): <http://www.nsc.org/lrs/glossary.aspx#UNIN>
- American Planning Association (APA) / National Association of County and City Health Officials (NACCHO): <http://www.planning.org/research/healthy/pdf/jargonfactsheet.pdf>



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