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# Appendix 2: Glossary





Term	Definition
<b>Accelerometer</b>	A monitoring device that measures the intensity of an activity. (TRB Report 2005)
<b>Active Frontage</b>	Street frontages where there is active visual engagement between those in the street and those on the ground floors of buildings. This quality is assisted where the front facade of buildings, including the main entrance, faces and opens towards the street.
<b>Active Travel</b>	Walking, cycling and/or using public transport.
<b>Amenity</b>	The qualities, characteristics and attributes people value about a place which contributes to their quality of life. These include the physical landscape or streetscape; areas of vegetation and public and private open space for recreation; urban design, including the scale and dominance of buildings; historic and cultural heritage; public views and outlooks; privacy; physical safety; and the accessibility of places.
<b>Behavioral Risk Factor Surveillance System (BRFSS)</b>	The Behavioral Risk Factor Surveillance System (BRFSS) is the world's largest, on-going telephone health survey system, tracking health conditions and risk behaviours in the United States yearly since 1984.
<b>Biophilia</b>	The hypothesis that humans have an inherent inclination to affiliate with Nature has been referred to as Biophilia. Biophilia implies affection for plants and other living things. (Grinde and Patil 2009)
<b>Body Mass Index (BMI)</b>	A measure of someone's weight in relation to height. The calculation of one's BMI entails dividing one's weight in kilograms by the square of one's height in centimetres. (TRB Report 2005)
<b>Built Environment (BEnv)</b>	Defined broadly to include land use patterns, the transportation system, and design features that together provide opportunities for travel and physical activity. Land use patterns refer to the spatial distribution of human activities. The transportation system refers to the physical infrastructure and services that provide the spatial links or connectivity among activities. Design refers to the aesthetic, physical, and functional qualities of the built environment, such as the design of buildings and streetscapes, and relates to both land use patterns and the transportation system. (TRB Report 2005)
<b>Case-control Studies</b>	Studies in which exposure to an acknowledged risk factor is compared between individuals from the same population with and without a condition. For example, individuals could be sorted on the basis of their activity level (e.g., active versus sedentary) into case and control groups to see whether there are statistically significant differences in environmental characteristics that may influence the propensity of the two groups to be physically active. (TRB Report 2005)
<b>Commute</b>	To commute is to travel back and forth regularly. In planning literature the commute generally refers to the regular trip from home to work and vice versa.
<b>Connectivity</b>	The directness of travel between destinations, which is influenced by the kind of intersections and their density in a given area. (Gebel et al. 2005)
<b>Cost-Benefit Analysis (CBA)</b>	An analysis in which the economic and social costs of medical care and the benefits of reduced loss of net earnings due to preventing premature death or disability are considered. (Pencheon et al. 2006)
<b>Crime Prevention Through Environmental Design (CPTED)</b>	A crime prevention strategy that focuses on the planning, design and structure of cities and neighbourhoods. It reduces opportunities for crime by using design and place management principles that reduce the likelihood of essential crime ingredients (law, offender, victim or target, opportunity) from intersecting in time and space. (Lette and Wiggins 2010)

Term	Definition
<b>Critical Mass</b>	A socio-dynamic term to describe the existence of sufficient momentum in a social system, such that the momentum becomes self-sustaining and fuels further growth.
<b>Cross-Sectional Studies</b>	Studies that examine the relationship between conditions (e.g. physical activity behaviours) and other variables of interest in a defined population at a single point in time. Cross-sectional studies can quantify the presence and magnitude of associations between variables. Unlike longitudinal studies, however, they cannot be used to determine the temporal relationship between variables, and evidence of cause and effect cannot be assumed. (TRB Report 2005)
<b>Cul-de-sac</b>	A street that is closed at one end. This is a typical feature of the suburban-style street layout and contributes to lower levels of connectivity. (Gebel et al. 2005)
<b>Curvilinear Street Networks</b>	Street networks characterised by cul-de-sacs and not based on a grid (see also Dendritic Street Networks).
<b>Decentralisation</b>	Movement of population and employment away from city centres. (TRB Report 2005)
<b>Dendritic Street Networks</b>	Street networks characterised by cul-de-sacs and not based on a grid (see also Curvilinear Street Networks).
<b>Density, Diversity and Design or 'The Three Ds'</b>	The three 'Ds' of Neighbourhoods are Density, Diversity and Design. <ul style="list-style-type: none"> <li>'Density' is usually measured in terms of population, or residential housing units within a given urban area.</li> <li>'Diversity' refers to the extent of mix of different land uses within a neighbourhood.</li> <li>'Design' within a neighbourhood includes street network characteristics such as dense grids of highly interconnected streets to sparse suburban networks of curvilinear non-connecting streets.</li> </ul> (Mead et al. 2006)
<b>Derived Travel</b>	Travel individuals do to engage in activities in other places, such as work, recreation, shopping and health services. (Krizek et al. 2009)
<b>Dose-Response Relationship</b>	The relationship between the amount of exposure (dose) to an intervention and the resulting changes in health (response).
<b>Ecological Model</b>	Based on social cognitive theory, which explains behaviour in terms of reciprocal relationships among the characteristics of a person, the person's behaviour, and the environment in which the behaviour is performed. Ecological models emphasise the role of the physical as well as the social environment. (TRB Report 2005)
<b>End-of-Trip Facility</b>	Items required at a destination to facilitate the use of walking and cycling as an alternative means of transport. This includes facilities which cater for the needs of both the cyclist and their equipment (e.g. bike racks). (Lette and Wiggins 2010)
<b>Energy Expenditure</b>	Represents the sum of three factors: <ul style="list-style-type: none"> <li>(a) resting energy expenditure to maintain basic body functions (approximately 60 percent of total energy requirements);</li> <li>(b) processing of food, which includes the thermic effect of digestion, absorption, transport, and deposition of nutrients (about ten percent of total requirements); and</li> <li>(c) non-resting energy expenditure, primarily in the form of physical activity (about 30 percent of total requirements).</li> </ul> (TRB Report 2005)

Term	Definition
<b>Energy Imbalance</b>	The situation that occurs when energy intake (calories consumed) exceeds or is less than total daily energy expenditure. Weight gain occurs when energy intake exceeds total daily energy expenditure for a prolonged period. (TRB Report 2005)
<b>Evidence-Based Health Care/ Medicine/ Public Health</b>	Systematic use of evidence derived from published research and other sources for management and practice (Pencheon et al. 2006)
<b>Exercise</b>	A subcategory of physical activity defined as that which is planned, structured, repetitive, and purposive in the sense that improvement or maintenance of one or more components of physical fitness is the objective. (TRB Report 2005)
<b>Experimental Studies</b>	Studies in which subjects are randomly assigned to the exposures of interest and followed for the outcome of interest. The most persuasive scientific evidence of causality usually is derived from experimental studies of individuals. The important advantages of experimental studies are that researchers have considerable control over all aspects of the study, including the type of exposure, the selection of subjects, and the assignment of exposure to the subjects. (TRB Report 2005)
<b>Focus Group</b>	A small, convenient sample of people brought together to discuss a topic or issue with the aim of ascertaining the range and intensity of their views, rather than arriving at a consensus. (Pencheon et al. 2006)
<b>Geographic Information Systems (GIS)</b>	Automated systems for the capture, storage, retrieval, analysis, and display of spatial data. (TRB Report 2005)
<b>Global Positioning System (GPS)</b>	A worldwide radionavigation system comprising a constellation of 24 satellites and their ground stations. GPS uses these satellites and ground stations as reference points to calculate positions accurate to a matter of meters. (TRB Report 2005)
<b>Greenness</b>	A measure of the amount and quality of vegetated areas, such as parks, open space and playgrounds, in an area. (Sugiyama et al. 2008)
<b>Grey Literature</b>	Grey literature is information which has not been published or which, although published, cannot be found through readily accessible sources. Grey literature can take many forms across multiple disciplines, including conference proceedings, theses and dissertations, research and technical reports, census information, and ongoing research. (The Community Guide, 2010)
<b>Hard Measures</b>	Physical factors directly affected by policy changes. May include development patterns, street layout, bicycle lanes, foot paths, intersections, bicycle parking, etc. (Krizek et al. 2009)
<b>Health</b>	A state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity. (TRB Report 2005)
<b>Health Impact Assessment (HIA)</b>	An assessment process to look at the impact of government policies or other actions, completed or projected, on health. (Pencheon et al. 2006)
<b>Healthy Built Environment</b>	A healthy built environment is an environment that is supportive of people's health as part of everyday living.

Term	Definition
<b>Incidental Physical Activity</b>	Physical activity undertaken as part of day to day activity. Physical activity that is associated with a specific purpose other than to be active, for example, walking to a destination for a purpose, climbing the stairs in a building or undertaking domestic tasks. Also referred to as Utilitarian Physical Activity.
<b>Land Use Mix</b>	Diversity or variety of land uses (e.g., residential, commercial, industrial and agricultural). A diverse land use mix is associated with shorter travel distances between places of interest and activities. (Gebel et al. 2005)
<b>Legibility</b>	The extent to which people can understand the urban layout and find their way, including from different types of cues. (Lette and Wiggins 2010)
<b>Local Environment Plan (LEP)</b>	The principal legal document for controlling development of land at the local government level in NSW, Australia.
<b>Longitudinal Studies</b>	Studies in which individuals are known to have various levels of exposure and are followed over time to determine the incidence of outcomes. Quasi-experimental designs and natural experiments are two categories of longitudinal studies. Quasi-experimental designs are those in which the exposure is assigned, but not according to a randomised experimental protocol. Investigators lack full control over the dose, timing, or allocation of subjects, but conduct the study as if it were an experiment. Natural experiments are situations in which different groups in a population have differing exposures and can be observed for different outcomes. A study gathering data at one time point only is called a cross-sectional study. (Gebel et al. 2005)
<b>Master Planned Community (MPC)</b>	A form of development usually organised around a complete and manicured living package of house, land, open space and community facilities.
<b>Meta-Analysis</b>	A quantitative approach in which individual study findings addressing a common problem are statistically integrated and analysed to determine the effectiveness of interventions. (The Community Guide 2010)
<b>Metabolic Equivalent (MET)</b>	A unit used to estimate the metabolic cost (oxygen consumption) of physical activity. Activities that raise the rate of energy expenditure are frequently expressed as the ratio of working to resting metabolic rate. (TRB Report 2005)
<b>Metabolic Syndrome</b>	When several conditions occur together, including obesity, insulin resistance, diabetes or pre-diabetes, hypertension and high lipids. (The Australian Diabetes Council 2010)
<b>Mixed Use</b>	'Mixed Use' development refers to a mix of activities within a geographic location. An example of this would be residential apartments located above retail outlets, neighbouring an office block. (Mead et al. 2006)
<b>Multiple Regression Technique</b>	A statistical technique that predicts values of one variable on the basis of two or more other variables.
<b>Multivariate Analysis</b>	A generic term for any statistical technique used to analyse data from more than one variable.

Term	Definition
<b>Neotraditional Developments</b>	Developments whose design is characterised by land use and street patterns that encourage walking and cycling. These include such features as interconnected street networks, sidewalks, walking and cycling paths, mixed land uses, and higher densities than those of more typical suburban developments. Also known as new-urbanist developments. (TRB Report 2005)
<b>New Urbanism</b>	An approach to development and redevelopment championed by a group of architects, planners, and urban designers that has similar goals to Smart Growth. Towns and cities developed before widespread use of the automobiles are seen as having multiple environmental, social, and health benefits when compared to the sprawling, suburban developments that have dominated land use decisions in the United States since the 1940s (see <a href="http://www.cnu.org">http://www.cnu.org</a> ). (Saelens et al. 2003)
<b>Non-motorised Travel</b>	Travel by non-motorised means, including walking, cycling, small-wheeled transport (e.g., skates, skateboards, push scooters, hand carts), and wheelchair. (TRB Report 2005)
<b>Nutrition</b>	All the factors which are part of, and/or influence, the food system and population eating habits and behaviours. (Burke et al. 2008)
<b>Obesity and Overweight</b>	Adults are defined as being obese if they have a Body Mass Index (BMI) of 30 or greater, and as being overweight if they have a BMI of over 25 but less than 30. BMI varies with age and sex during childhood and adolescence. The International Obesity Task Force recommends that children and adolescents be categorised as overweight or obese based on age and sex specific centile curves that pass through the adult values of 25 and 30 at age 18. This definition is intended for use in epidemiological research. Alternatively, young people may be considered overweight if they have a BMI above the 85th centile on BMI-for-age charts, and obese if their BMI is above the 95th centile. (Gebel et al. 2005)
<b>Pedometer</b>	A monitoring device that counts steps and measures distance. (TRB Report 2005)
<b>Peri-urban</b>	Areas immediately adjoining an urban area, situated on the periphery or borders of large towns and cities.
<b>Physical Activity (PA)</b>	Physical activity is all human movement in everyday life including work, recreation, exercise and sporting activities. Physical activity may be either recreational or utilitarian in nature, demand either a moderate or a vigorous amount of exertion from the participant, and require varying amounts of leisure time, financial resources, and equipment. (Burke et al. 2008)
<b>Physical Environment</b>	The 'physical environment' comprises elements of the built and natural environment that are influential in the choices and patterns of physical human activity. (Mead et al. 2006)
<b>Physical Fitness</b>	The ability to carry out daily tasks with vigour and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and to respond to unforeseen emergencies. Attributes of physical fitness include such characteristics as cardiorespiratory endurance; flexibility; balance; body composition; and muscular endurance, strength, and power. (TRB Report 2005)
<b>Proximity</b>	The straight-line distance between different land uses such as residential, office, retail, and commercial activities. (Saelens et al. 2003)
<b>Public Health</b>	The science and art of preventing disease, prolonging life, and promoting health through the organised efforts and informed choices of society, organisations, public and private, communities and individuals. (Pencheon et al. 2006)

Term	Definition
<b>Public Open Space</b>	Land used or intended to be used for recreational purposes by the public and includes parks, public gardens, foreshore reserves, playgrounds and sports fields. (WA Liveable Neighbourhoods Code 2004)
<b>Public Transport</b>	All transport systems in which passengers do not travel in their own vehicles or under their own exertion. Public transport is often referred to as public transit or mass transit. While it is generally taken to mean rail and bus services, wider definitions would include scheduled airline services, ferries and taxi services.
<b>Recreational Travel</b>	Travel individuals do for the sake of travel such as a walk around the park. (Krizek et al. 2009)
<b>Refereed Publication</b>	An article is defined as refereed by this Review if it is identified as such by Ulrich's Periodicals Directory. This global source for periodicals information applies the term refereed to a journal that has been peer-reviewed. Refereed serials include articles that have been reviewed by experts and respected researchers in specific fields of study.
<b>Residential Density</b>	The number of residential dwelling units per unit of land area (e.g. hectare). (Saelens et al. 2003)
<b>Rural</b>	In Australia, census districts which have a population density of 200 or more persons per square kilometre are classified as urban and census districts which have a population density of less than 200 persons per square kilometre are classified as rural.
<b>Self-selection</b>	The phenomenon in which people choose a neighbourhood or employment area based partially on the amenities that area provides for their given travel preferences. (Krizek et al. 2009)
<b>Self-selection Bias</b>	The need to distinguish the roles of personal attitudes, preferences, and motivations from external influences on observed behaviour. For example, do people walk more in a particular neighbourhood because of pleasant tree-lined sidewalks, or do they live in a neighbourhood with pleasant tree-lined sidewalks because they like to walk? If researchers do not properly address this issue by identifying and separating these effects, their empirical results will be biased in the sense that features of the built environment may appear to influence physical activity more than they in fact do. (TRB Report 2005)
<b>Setback</b>	The horizontal distance which a wall or window is from a property boundary.
<b>Smart Growth</b>	An approach to neighbourhood development that considers impacts on environmental quality, social interactions, population diversity, and transportation choices. Smart Growth is often contrasted with suburban sprawl that assumes automobile dependence. Smart Growth advocates promote development that is higher in density, built around public transit, contains a mixture of residential and commercial uses, and provides housing for a range of income levels. Smart Growth is the efficient usage of transportation infrastructure (e.g. roads and railways) and therefore encourages growth to be located in areas served by existing transportation investments (see <a href="http://www.epa.gov/livability">http://www.epa.gov/livability</a> ). (Saelens et al. 2003)
<b>Social Capital</b>	Features of social organisation such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit.

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Term	Definition
<b>Socio-Ecological Model</b>	A framework to examine the multiple effects and interrelatedness of social elements in an environment. This model allows for the integration of multiple levels and contexts and recognises the interwoven relationship that exists between individuals and their environment. In the context of a healthy built environment research, socio-ecological models recognise that while individuals are responsible for instituting and maintaining the lifestyle changes necessary to reduce risk and improve health, individual behaviour is determined to a large extent by the external environment, for example community norms and values, regulations, and policies.
<b>Socio-Economic Status</b>	A way of looking at how individuals or families fit into society using economic and social measures including income, level of education, and occupation.
<b>Street Connectivity</b>	The way streets connect together to enable people to get to where they want to with ease. (Gebel et al. 2005)
<b>Structuration Theory</b>	The theory of structuration holds that all human action is performed within the context of a pre-existing social structure. (Bakewell 2010)
<b>Systematic Review</b>	A process by which a body of literature is reviewed and assessed using systematic methods which are intended to reduce bias in the review process and improve understandability. (The Community Guide 2010)
<b>Town Planning</b>	The profession that studies physical, social, and political systems and how the interactions between these systems can create urban environments that have desired effects on people, communities, and economies. (Saelens et al. 2003)
<b>Traditional Neighbourhood Design (TND)</b>	Traditional Neighbourhood Design (or TND) is much the same as New Urbanism and, as the name implies, TND deliberately attempts to recreate the characteristics of the older parts of cities and, simultaneously, to reject the design principles that dominate more recent suburban developments. (Radbone and Hamnett 2003)
<b>Traffic Calming</b>	Measures the attempt to slow traffic speeds in residential neighbourhoods and near schools and pedestrian ways through physical devices designed to be self-enforcing. These include vertical deflections (speed humps and bumps, and raised intersections); horizontal deflections (serpentine, bends, and deviations in a road); road narrowing (via neckdowns and chokers); and medians, central islands, and traffic circles. (TRB Report 2005)
<b>Transit-Oriented Developments (TOD)</b>	Projects that involve mixed-use development (i.e. residential and commercial) near public transport stations. (TRB Report 2005)
<b>Urban</b>	Settlements are usually designated as urban once they have grown large enough to support industries which are not rural in nature. No common figure can be put on the size of an urban area as settlements function differently in different areas due to local circumstances. However, in Australia, census districts which have a population density of 200 or more persons per square kilometre are classified as urban.
<b>Urban Agriculture (UA)</b>	The producer, processor and market for food, plant- and animal-sourced pharmaceuticals, fibre and fuel on land and water dispersed throughout the urban and peri-urban areas, usually applying intensive production methods. It encompasses greenhouse cropping and intensive animal industries and is distinguished from rural agriculture by its integration into the urban economic and ecological system. (Pearson et al. 2010)

Term	Definition
<b>Urban Consolidation</b>	<p>Infill development that occurs in established areas is referred to as urban consolidation. This type of development is viewed as containing population growth within an existing area to take advantage of the existing infrastructures and amenities. Urban consolidation policies advocate denser populations, a mix of land uses, activity centres and high quality public transport. (Mead et al. 2006)</p>
<b>Urban Sprawl</b>	<p>A metropolitan development pattern that typically comprises single-use residential development with a widely dispersed population, few urban centres and ill functioning open spaces. Road networks demark large block sizes, which contributes to poor accessibility. Given its predominant residential component 'urban sprawl' is often referred to as suburban sprawl. (Mead et al. 2006)</p>
<b>Utilitarian Physical Activity</b>	<p>Physical activity undertaken as part of day to day activity. Physical activity that is associated with a specific purpose other than to be active, for example, walking to a destination for a purpose, climbing the stairs in a building or undertaking domestic tasks. Also referred to as Incidental Physical Activity.</p>
<b>Vehicle Hours Travelled (VHT)</b>	<p>The time measured in hours spent for all travel via motorised means (e.g. auto, motorcycle). (Krizek et al. 2009)</p>
<b>Vehicle Kilometres Travelled (VKT) / Vehicle Miles Travelled (VMT)</b>	<p>The distance for all travel via motorised means (e.g. auto, motorcycle). (Krizek et al. 2009)</p>
<b>Walkability</b>	<p>Walkability is a measure of how friendly an area is to walking. It is generally calculated as a composite which includes at least net residential density, street connectivity and land use mix.</p>
<b>Zoning</b>	<p>Land 'zoning' is a method used by regulatory bodies to confine certain activities and land uses to specific localities within geographic jurisdictions. The practice of 'zoning' was introduced to separate activities believed to be detrimental to health. (Mead et al. 2006)</p>

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