

“MOVE FOR HEALTH”: WORLD HEALTH DAY 2002

Physical activity and transport

Physical activity is defined as any body movement that results in the expenditure of energy. It includes sports and activities such as walking, cycling, playing, skating, cleaning the house, dancing or climbing the stairs. It is thus part of daily life.

Over 30% of European adults are considered to be insufficiently active, and levels of physical activity continue to decline. In the majority of European countries, it is estimated that the prevalence of obesity increased by between 10% and 40% between the late 1980s and the late 1990s. Physical inactivity is the second most important risk factor in developed countries, after tobacco smoking. It increases total mortality, doubles the risk of cardiovascular diseases, diabetes and obesity, and substantially increases the risk of high blood pressure, lipid disorders, colon cancer, osteoporosis, depression and anxiety.

There is international consensus on the value of regular moderate physical activity. This can be provided by *at least 30 minutes of physical activity daily*. The total of 30 minutes does not have to be performed in a single session; it can be accumulated throughout the day.

More than 30% of car journeys in Europe are of less than 3 km and 50% are of less than 5 km. These distances can be covered within 15–20 minutes by bicycle or within 30–50 minutes by brisk walking, thus providing the recommended daily ration of physical activity.

The economic costs of physical inactivity have an effect on the national economy. In a Swiss study, insufficient levels of physical activity were estimated to cause 1.4 million cases of disease and 2000 deaths, and cost some 2.4 billion Swiss francs per year. In England, the direct and indirect costs of obesity amounted to £2.6 billion in 1998, and if present trends continue these costs may increase by a further £1 billion by 2010.

Benefits to health of physical activity

Physical activity has the following benefits:

- a 50% reduction in the risk of developing coronary heart disease, adult diabetes or obesity;
- a 30% reduction in the risk of developing hypertension;
- a decline in blood pressure in hypertensive people;
- maintenance of bone mass and thus protection against osteoporosis;
- improved coordination, mobility, strength and endurance;¹ and
- raised self-esteem, reduced levels of mild to moderate hypertension and overall psychological wellbeing.

Moreover, substituting walking and cycling for driving brings additional benefits by reducing air pollution and noise, and contributing to improvements in the quality of urban life and the safety of pedestrians and cyclists.

Transport is a key area where further action can and needs to be taken to encourage and assist people to be physically active in their travel routines.

Changing the environment may be key to the promotion of physical activity. Improvements to the local environment can lead to it being perceived as attractive and safe, and in particular to it being able to meet everyday travel needs. The importance of walking and cycling as a means of achieving greater sustainability and promoting health was recognized in the Charter adopted by Member States of the WHO European Region in 1999 at the Third Ministerial Conference on Environment and Health.

Specific population groups and physically active means of transport

Children and young people

Establishing a habit of physical activity early in life is important in encouraging an active lifestyle in adulthood, and those who start physical activity early in life tend to continue it later. Nevertheless, levels of physical activity among children are in decline. It is estimated that fewer than one third of young people are sufficiently active to benefit their present and future health and wellbeing. At the same time, the prevalence of obesity and overweight among children is increasing.

To benefit fitness and health it is recommended that children and young people participate in at least moderate physical activity (e.g. feeling “warm” and slightly out of breath) for one hour per day. (Those who currently do little activity should begin with at least half an hour per day.)

Walking and cycling are the two forms of transport most readily available to young people. As most children and young people travel to school, this journey is an important opportunity to establish the routines and habits of walking and cycling. In many European countries, the use of cars for this purpose has been increasing (ironically because of rising levels of motor traffic) and this partly explains declining levels of physical activity among young people.

Healthy aging

Regular, moderate physical activity can delay functional decline and reduce the onset of chronic diseases in both healthy and chronically ill older people. Healthy people can engage in most forms of physical activity as long as they do not involve excessive exertion. From the age of 50 onwards, the benefits of regular physical activity can be most relevant in avoiding, minimizing and/or reversing many of the physical, psychological and social hazards that often accompany advancing age. A greater degree of physical activity can help to prevent many of the negative effects of aging on functional ability and health. Regularly active individuals are less likely to withdraw from society and are more likely to actively contribute to social life. Leg muscle strength is improved through walking and cycling, and this contributes to a reduced risk of injury from falls among older people.

Roads are often perceived as barriers to the day-to-day movement of older people. Studies of behaviour at pedestrian crossings indicate that children and older people in particular are delayed by rising volumes of traffic. Heavy road traffic can lead to a perception that travel is dangerous and feelings of insecurity, anxiety and stress. None the less, walking is the most common form of physical activity for older people.

In the United Kingdom, more than half of all visits to the Post Office are made by walking or cycling, as are about one third of visits to the doctor, while just over a quarter of journeys to day centres and work are made on foot or by bicycle. In European countries where provision is made for cyclists, and where there is a positive culture for cycling, many older adults continue to cycle.

Barriers to walking and cycling

Low cycling levels, particularly in cities, are often correlated with transport policies that pay little attention to the safety of pedestrians and cyclists. In fact, the real or perceived physical danger posed by motor traffic is one of the main barriers to walking and cycling. On average, pedestrians and cyclists account for approximately 20% of those involved in serious accidents in the WHO European Region. However, they are at disproportionate risk of death or injury compared to car users. According to the United Nations Economic Commission for Europe, for example, an estimated 37% of people killed on the roads in 1997 were “vulnerable” road users. Other barriers to cycling include the attitudes of motorists, a lack of secure cycle parking, a lack of direct routes and the physical quality of the roads.

Nevertheless, where effective action has been taken to improve safety for cyclists and pedestrians, injuries and deaths have decreased. In the city of York in the United Kingdom, for example, a transport strategy that pays great attention to vulnerable road users and includes traffic restraint measures (particularly addressing the speed of motor vehicles) has led to a 40% reduction in casualties from road accidents, a figure well above the national average.

Supportive environments and policies for walking and cycling

There are major opportunities for achieving large health gains for the European population by increasing levels of routine physical activity. Walking and cycling as means of daily transport can be one of the most effective ways of achieving these gains. Creating conditions that overcome present barriers to walking and cycling should be regarded as a priority and a sound investment by the health, transport and environment sectors.

These policies require effective cross-sectoral collaboration at different levels of policy-making, involving the health, transport, land-use and environment sectors and stakeholders. For this to be successful in urban areas, distances between facilities must be short. This requires careful land-use planning and control so that both new and existing facilities are accessible on foot and by bicycle.

Other conditions for walking and cycling are: the widespread use and enforcement of low speed limits, slow-speed (15 km/h) streets, pedestrian areas and traffic-calming measures; improved road infrastructure for cyclists; and a redistribution of road space away from that used by motor vehicles (e.g. cycle lanes).

Additional important measures include: treating walking and cycling as “real” means of transport; considering the needs of vulnerable road users; promoting a culture that accepts walking and cycling; improving the education of road users; encouraging the use of protective devices (e.g. helmets and aids to make the user more conspicuous); and moving away from preventive approaches that put the responsibility for safety predominantly on the behaviour of cyclists and pedestrians rather than on that of drivers of motor vehicles.

¹ PARSONS, D. ET AL. Balance and strength changes in elderly subjects after heavy-resistance strength training. *Medicine and science in sports and exercise*, **24**(Suppl.): S21 (1992).