Why healthy transport?

Health and well-being can be profoundly influenced by transport whether through air pollution, noise, the division of communities by roads infrastructure or through diminished opportunities for physical activity and social interaction.

Around one third of trips currently made by car are shorter than 3 km. There is great potential for more trips to be made on foot or by bicycle, especially in urban areas. More cycling or walking will not only help citizens to keep fit, it also enables them to remain self-sufficient and socially active. The level of cycling is higher in countries that have a more cycling-friendly policy, dedicated investments and a safe cycling infrastructure. Recent studies in Europe and the United States show that the health benefits of cycling outweigh the (by comparison rather low) costs of cycling promoting measures. More cycling contributes to better health, fewer absences from work, a better environmental quality and reduction of CO_2 emissions and will contribute to more green jobs.

Potential conflicts between transport policies and environmental health should be considered at an early stage of planning in order to minimise negative health impacts and optimise positive impacts. It is necessary to do this on different levels, from the EU level, with reference to the White Paper on a Roadmap to a Single European Transport Area (COM(2011)144 final), to the local transport and spatial planning policy levels. As transport policy and environment and health matters fall under the responsibility of different sectors and administrations at Member State and EU levels, it requires strong cooperation between and within these sectors to ensure that environment and health is fully taken into account.

How to secure healthy transport?

The vehicles we build and operate, investments in public transport and infrastructure, urban and transport planning, cultural norms and individual preference all influence how we move about in towns and cities. Figure 1 conveys something of this complexity. It also illustrates that identical drivers can influence health through direct pathways (proximal, near in space and time) and more indirectly through land use and ecosystem impacts (distal route). The use of this simple conceptual framework as a communication and issue framing tool in workshops where there is a broad and informed stakeholder representation, can allow (thus far hidden) associations to emerge. It can also identify policies which offer co-benefits, in more than one area.

For example, policies that promote cycling benefit health and well-being in a variety of ways whilst potentially reducing greenhouse gas emissions with its attendant threats to health and well-being. Many policies in the field of neighbourhood planning housing and transport offer co-benefits. However, other policies intended to produce benefits to environment, health and well-being may have unintended consequences which are damaging to health.

For example, measures which have encouraged the widespread use of diesel cars with the intention of reducing CO_2 emissions, have added to background concentrations of particulates which are damaging to respiratory and cardiovascular health. In addition, the framework offers a structured approach to identifying useful indicators for evaluating and monitoring health and wellbeing impacts and to presenting them in a relational way.

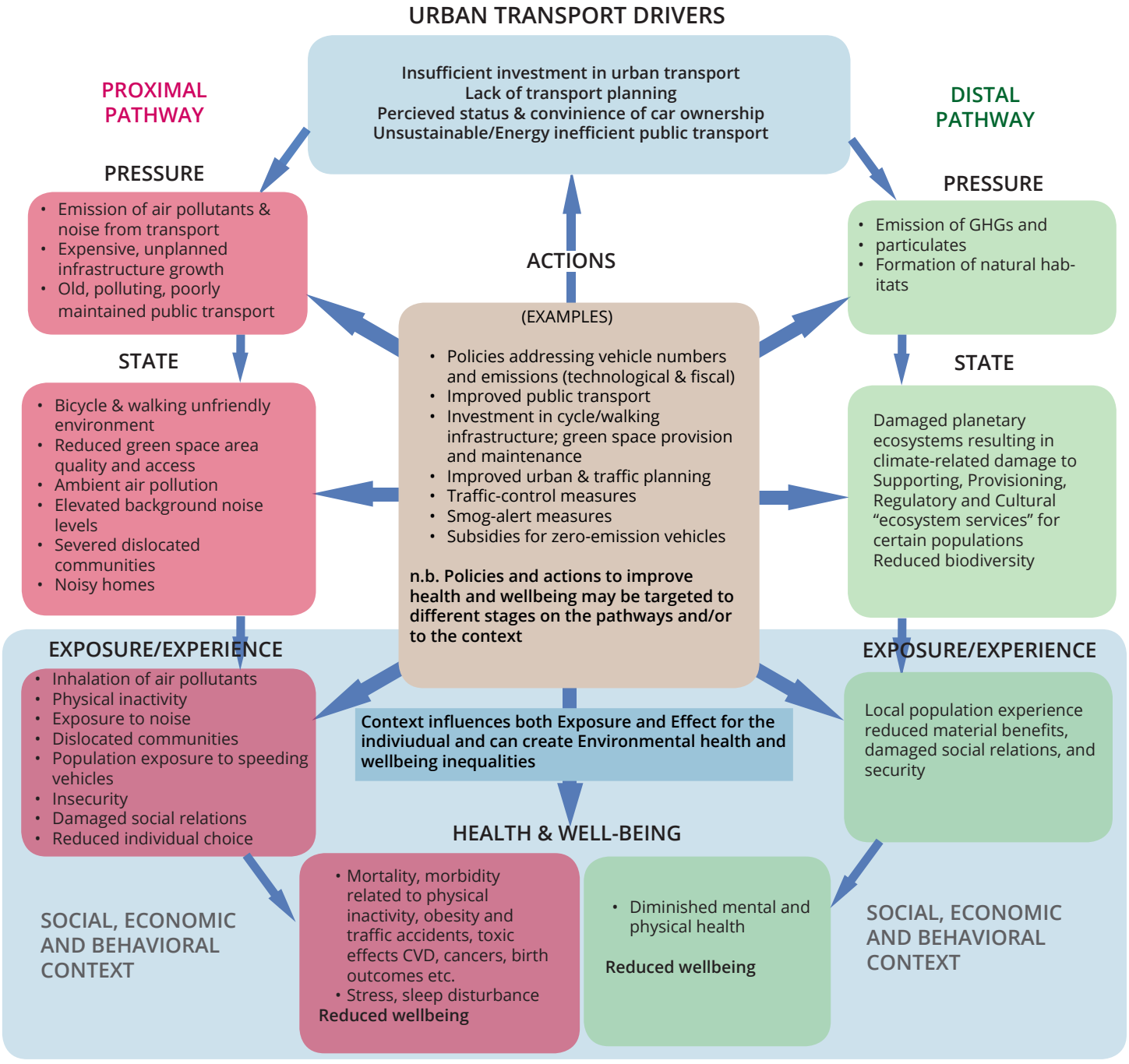
The correct indicators, presented in a relational way, are central to understanding problems and measuring progress in addressing transport-related health and well being impacts (figure 2). Accordingly, they provide a configuring framework for an information system. In many cities there are positive experiments with active mobility, electric driving or free public transport.

Not all of these experiments are easily accessible or available in international transport observatories of UNECE and EU (www.thepep.org, www.eltis.org).

Importantly, the health and well-being impacts of these experiments are not always evaluated. We see an enormous opportunity for promotion of cycling for everyday transportation (figure 3).

In addition, the framework offers a structured approach to identifying useful indicators for evaluating and monitoring health and wellbeing impacts and to presenting them in a relational way.

Figure 1. Addressing the effects and actions of transport through DPSEEA models



Modelling approach derived from Reis at al (2013) http://www.publichealthjrnl.com/article/S0033-3506%2813%2900242-4/abstract

n.b. Global economic social and ecosystem connectivity means the distal pathway can impact on the proximal pathway in health relevant ways and vice versa

Figure 2. Selected indicators on environmental and health effects of transport

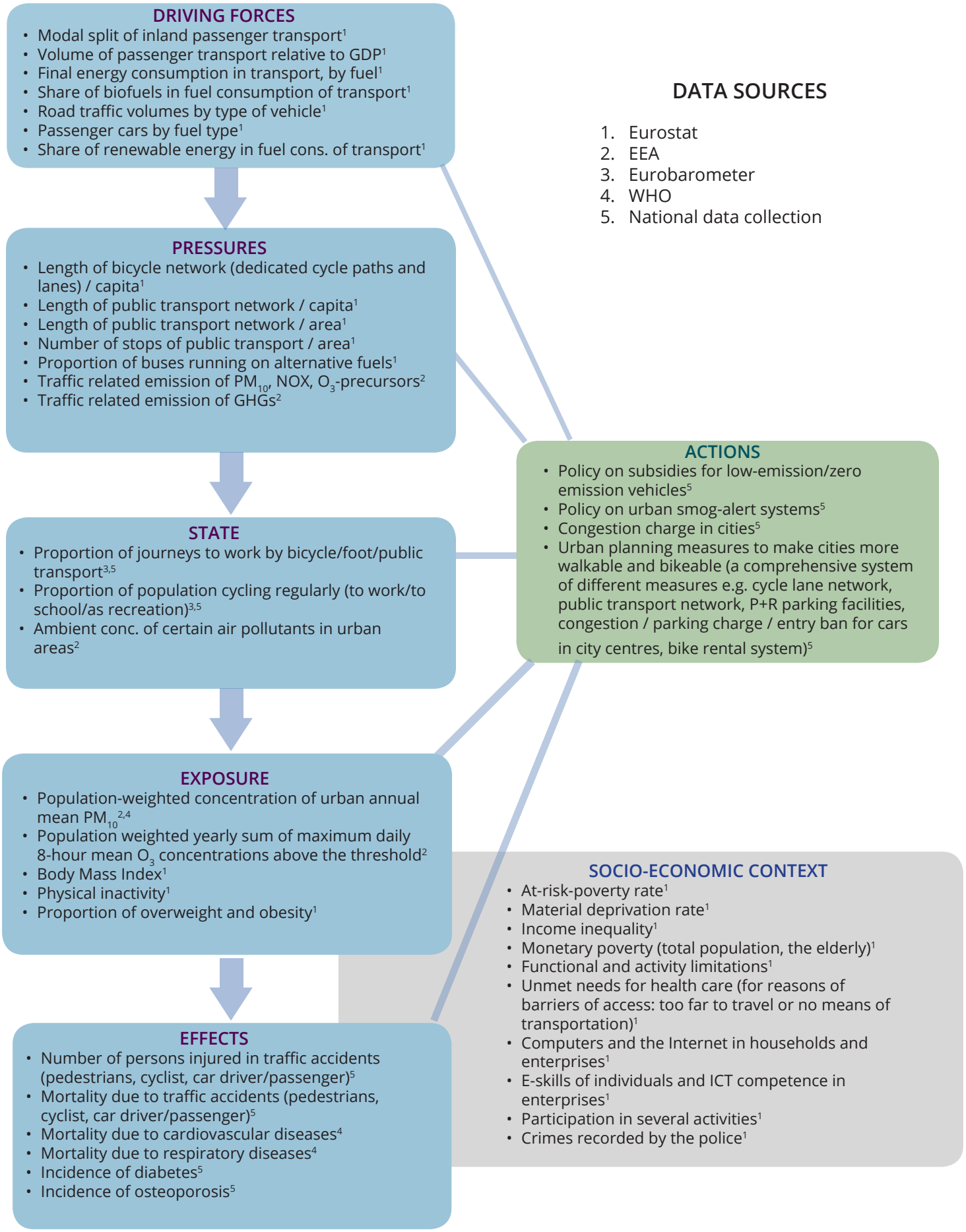
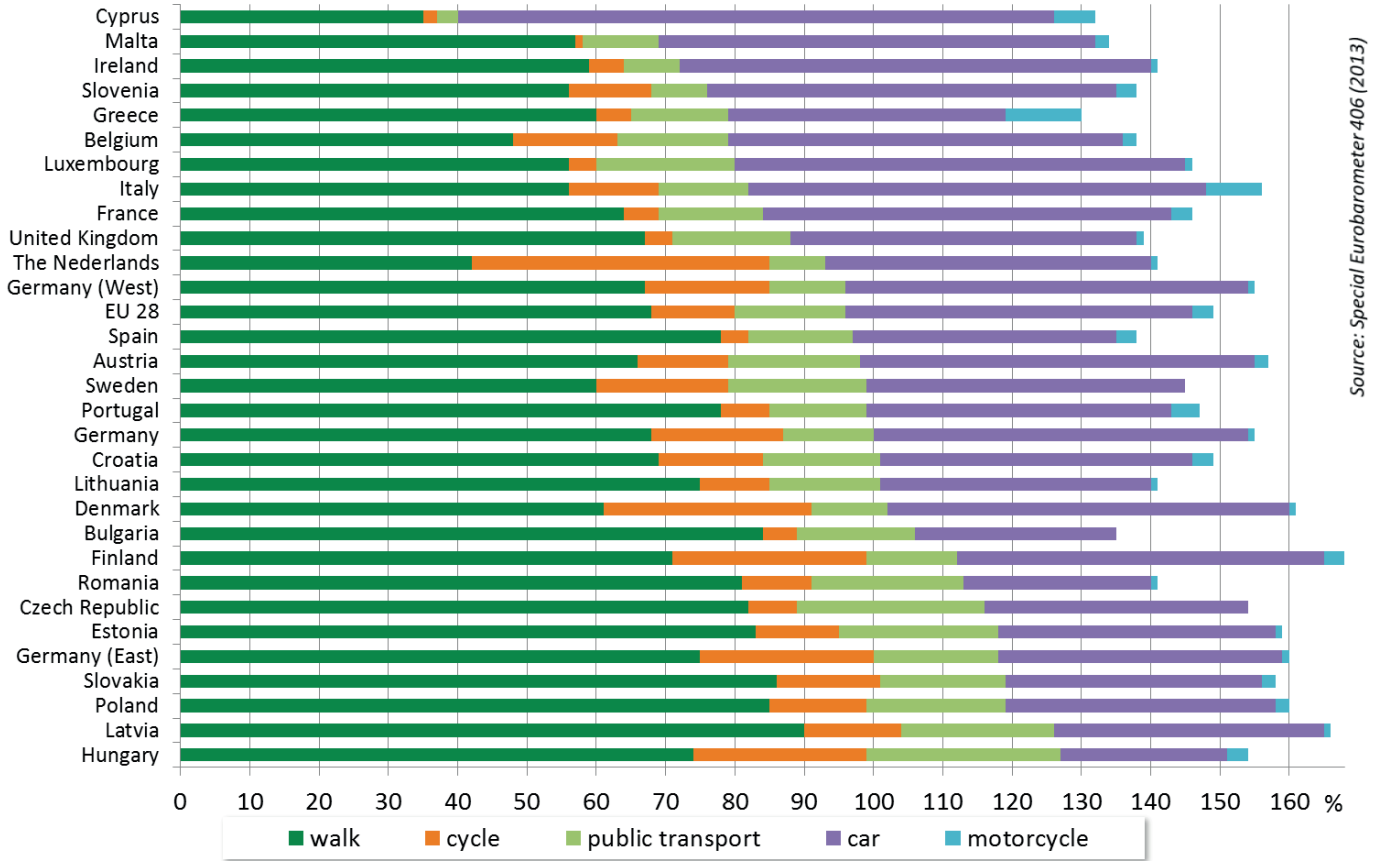


Figure 3. Distribution of people by mode of everyday transportation, 2013



Key messages

To assess the impact of transport on the health and wellbeing of European citizens, the use of harmonised data from international databases (Eurostat, EEA, WHO), expanded with national data collections is recommended.

Structured analysis is needed, for which the modified DPSEEA and distal DPSEEA models in combination are useful tools.

A harmonised international compendium on good practices and successful urban planning measures could also be extremely beneficial for the municipalities, decision makers and city leaders.

This leaflet was produced by the FRESH consortium under a project funded by the European Environmental Agency. More information is available at www.eea.europa.eu/ehwb