1. Introduction

1.1 Health does not only mean lack of diseases and illnesses, but also general and mental well-being. Transport has different kind of impacts on physical health and mental well-being of people.

Transport has both positive and negative effects on health. On the one hand, transport connections help people to reach services, maintain contacts and interaction, on the other hand transport networks may prove to be barriers, lead to isolation and reduce mobility.

Transport causes annually hundreds of thousands of premature deaths in Europe. For example, every year about 45 000 people die in traffic accidents and 1.5 million people are injured in the European Union. Transport related gaseous and particulate emissions are one of the main sources of air pollution. Air pollution (particulate matter and ozone) is estimated to cause around 370 000 premature deaths a year in the European Union and an average estimated reduction of life expectancy of around 8,7 months per EU citizen. Traffic is also the main source of noise in Europe and approximately 30 % of EU citizens are exposed to levels of traffic noise that exceed the limit of 55 dB which is regarded harmful for health. Transport has also many other psycho-social impacts on health and welfare, both positive and negative. Traffic congestion, noise and pollution may also cause stress, aggressions, annoyance and fatigue. Even traffic accidents which did not result in severe injury, they may still cause post-traumatic reactions, such as nightmares, flashback phenomena, sleeplessness and avoidance of certain situations.

Cycling and walking have positive impacts on human health and they can play a very significant role in getting people more physically active in their daily life, thereby addressing one of the largest health risks for European populations, after tobacco smoking. Recent studies (e.g. Report of Nordic Council of Ministers, CBA of cycling, 2005:556) have started to produce quantitative estimates on the health benefits and savings from increasing the level of daily cycling and walking. For perspective, in the above mentioned report of the Nordic Council, it has been estimated that cycling produces positive health effects worth of approximately 900 euros/person/year.

Several positive impacts of transport are usually fully internalised into decision making process and investment decisions, although not all of them are yet fully recognised and quantified (e.g. savings from reduced health impacts). Some negative ones are recognised (e.g. impacts on the physical environment) several other external impacts (e.g. on health), but they are not fully covered and internalised in monetary terms when making investment decisions. Non-quantifiable impacts (e.g. psycho-social impacts) tend to be ignored completely.

1.2 Transport is one of the sectors where most progress has been made in identifying links to environmental and more recently also to health aspects. Especially the integration of environmental aspects into the Common Transport Policy has promoted also the recognition of some health issues in transport policy both at the national and Community level. Especially the
Cardiff process, the EU Sustainable Development Strategy, the EU Environmental Action Programme with its thematic strategies, the European Road Traffic Safety Programmes and the Verona Process have been successful in raising awareness and promoting a better integration of environmental and health aspects into transport policy, notably in relation to efforts to reduce emissions of air pollutants. Also the UNECE-WHO Pan-European Programme on Transport, Environment and Health has assisted in recognising and taking into account the transport related environmental and health aspects.

1.3 Efforts towards greater integration between transport, environment and health are part of the attempts to address the tension between the societal needs and ensuring accessibility and connectivity but at the same time enhancing efforts that this should not cause undue harm to health and the environment. As indicated in the EU White Paper (2001) “European transport policy for 2010: time to decide” a modern transport system must be sustainable from an economic and social as well as an environmental point of view.

1.4 The recently published report of the European Environmental Agency (2006) “Transport and the Environment: facing a dilemma” highlights how the technological improvements which have led to reductions in vehicle emissions are being offset by the growth of transport volumes. New knowledge about the breadth and inter-twinning of the links between transport, environment and health indicate though that there is ample room for identifying and scaling-up “win-win-win” approaches, by better taking into consideration health and environmental concerns when developing further transport policies.

1.5 Environmental impact assessments and strategic environmental assessment procedures have helped taking into account also health impacts in transport policy, plans, programmes and projects. However, impact assessments may sometimes be only used to justify implementation of pre-determined plan, programme or project instead of modifying them from a health perspective.

2. Recommendations for future action

2.1 Policy integration

All relevant actors (EU, national and local level)

- The “Health in All Policies” concept should be applied by making health considerations an explicit part of the broad range of policies that affect the demand for transport and mobility (such as land use planning, housing, fiscal, regional, trade and other industry policies), and combining this with an assessment of how the transport demand could be reduced and shifted towards more sustainable modes of transport. It is probably the most efficient approach to reduce the negative environmental and health impacts of transport. In such a cross-sectoral policy integration the experiences from Cardiff process and EU Sustainable Development Strategy should be used as important policy references.

EU level

- Transport, environment and health sectors and stakeholders should create and develop further arenas for dialogue and policy integration. The UNECE-WHO Programme on Transport, Health and Environment (THE PEP programme) is a pioneer process of co-operation among all stakeholders. EU and its Member States should continue active collaboration with other countries and parties within this framework and other relevant policy integration processes with the aim to identify the win-win-win opportunities and to pave the way towards healthier and more sustainable direction.

- The European Commission should evaluate to what extent progress has been achieved in integrating health aspects into transport policy especially since 2002 when the European
Parliament presented its Resolution (A5-0014/2002) on Transport and Health and what are the most urgent areas where further action is needed.

**National and local level**

- National governments should work more actively with local level authorities to reach better vertical policy integration and to assist local level authorities in implementing the national and Community level strategies and programmes on health and the environment.

**2.2 Impact assessments**

**All relevant actors (EU, national and local level)**

- Health and wealth impacts (including psycho-social impacts and accessibility) should be properly examined in impact assessments of transport plans, programmes and projects. Health assessments should be part of integrated impact assessment procedures.

- Impact assessments should be used and their role strengthened in decision making processes, i.e. health and environmental benefits should be evaluated realistically. If a plan, programme or project may cause environmental and health problems, these should be clearly stated and measures to avoid them should be presented. Therefore impact assessments should be further developed inter alia by:
  - developing further quality control and other check-point mechanisms to ensure that the assessment procedure is conducted in an open and transparent way and that health impacts are properly recognised and assessed; and
  - emphasising the role of monitoring and ex-post assessments to ensure that necessary measures to reduce arising environmental and health problems can be taken.

**EU level**

- The European Commission should, in collaboration with WHO and other relevant partners, support further development of appropriate assessment methodologies and procedures to cover also health impacts that are difficult to assess, such as distributional effects, effects on social equity, mobility and positive effects of cycling and walking. In this respect the European Commission should consider e.g. developing a legal basis for integrated assessment procedures and provide guidance on good practises.

**2.3 Taking health impacts into account in investment decisions**

**EU level**

- The European Commission should encourage the development of greater consensus and good practices on how the health impacts and especially positive health impacts of cycling and walking should be integrated into transport investment decisions. Promotion of cycling and walking in such a way should also support achievement of other important transport and environment policy goals, such as climate change and energy efficiency objectives.

**2.4 Need for comprehensive and balanced approach when reducing harmful transport-related health impacts**

**All relevant actors (EU, national and local level)**

- It is important to have a comprehensive and balanced approach when reducing transport-related environmental and health impacts (gaseous emissions, noise, traffic safety, psycho-social impacts, accessibility, CO2 emissions). This means that:
measures to reduce one problem should not lead to increasing problems in other areas. For example, when developing new alternative fuels aiming at reducing CO2 emissions they should not increase other harmful emissions;

abatement measures are taken in all modes of transport. The emissions of waterborne transport will exceed emissions of road transport in close future. Therefore, it is important to find efficient ways to reduce emissions of ships and boats with development of engine technology, fuel quality, economic instruments and other tools. Also measures to reduce emissions of aviation (air pollution and especially noise emissions) are needed; and

different kind of instruments (regulatory and technical measures, economic instruments, including also incentives for technical and societal improvements, information and awareness raising tools etc.) are used in a cost-efficient way to reduce harmful impacts.

Even though there is still scope for reducing the conventional gaseous and particulate emissions with the help of vehicle emission standards and fuel qualifications, the reduction of small and ultra fine particulate pollutants and other unregulated toxic pollutants and traffic noise remain challenging.

Improvement of road traffic safety should be continued with the aim to halve road transport deaths by 2010 compared to 2000. The aim should be achieved with a broad range of measures (e.g. regulatory and technical improvements, development of road infrastructure, awareness raising and behavioural changes, telematic and other intelligent road traffic management systems).

Possibilities for mobility and accessibility for everyone should be ensured irrespective of age, illness, permanent or temporary disability or any other kind of reduced mobility. Accessibility should be a starting point when building and improving transport environment, infrastructure and services.

2.5 Need for reliable data

All relevant actors (EU, national and local level)

There is a need for increasing the knowledge basis for evidence based policy making. In this respect it is needed more research data on dose-response relationships of various transport related health impacts and deeper understanding of cause –effect relationships. Moreover, it is important to develop indicators to have reliable follow-up data on the impacts of implemented strategies, measures and tools.

2.6 Implementation, re-evaluation and follow-up

"Health in transport policy” process should be continued within the existing and ongoing processes by further developing and enhancing them. Such processes are especially the EU Sustainable Development Strategy and Cardiff process and the UNECE-WHO PEP programme. Also re-evaluation and monitoring measures should be implemented within these processes.

3. Concluding remarks

The thematic workshop meeting on transport, environment and health (WG4) had four expert presentations and a wide discussion on measures that should be taken to reduce negative environmental and health impacts of transport and on how to continue the policy integration within transport policy. The conclusions of this discussion are reflected in the above mentioned recommendations for future action.

The role of transport in everyday life and its interconnection with health and well-being was widely recognised at the Health in All Policies Conference in Kuopio. The relevance of transport
planning and transport policy for health and well-being was not only raised at the thematic
workshop meeting on transport, but also at the other workshop meetings, especially within WG
2 (Nutrition and physical activity) and WG5 (mental health). This shows clearly the close link
that transport as an intermediary sector and service has with other social activities and policies.
Therefore, it is of utmost importance that various policy sectors try to find closer collaboration
to identify possible win-win-win approaches and opportunities as emphasised already earlier in
this note. Transport related environmental, health and wealth impacts cannot be solved only
with the tools and measures of transport policy and also the other policy sectors need support
of transport policy and transport planning to assist in reaching their health and wealth
supporting policy goals. In this respect there is really a need for continuing wider policy
dialogue and collaboration between various policy sectors within the Member States and the
European Commission and their stakeholders. The UNECE-WHO Programme on Transport,
Health and Environment (THE PEP programme) provides a unique and pioneering framework for
policy integration and co-operation between transport, environment and health sectors and
thereby it provides an interesting and useful test example also for other policy sectors to launch
wider inter-sectoral policy dialogue and policy integration processes.
This report was produced by a contractor for Health & Consumer Protection Directorate General and represents the views of the contractor or author. These views have not been adopted or in any way approved by the Commission and do not necessarily represent the view of the Commission or the Directorate General for Health and Consumer Protection. The European Commission does not guarantee the accuracy of the data included in this study, nor does it accept responsibility for any use made thereof.