

Including health in transport policy agendas: the role of health impact assessment analyses and procedures in the European experience

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Abstract From the mid-1990s, research began to highlight the importance of a wide range of health impacts of transport policy decisions. The Third Ministerial Conference on Environment and Health adopted a Charter on Transport, Environment and Health based on four main components: bringing awareness of the nature, magnitude and costs of the health impacts of transport into intergovernmental processes; strengthening the arguments for integration of health into transport policies by developing in-depth analysis of the evidence; developing national case studies; and engaging ministries of environment, health and transport as well as intergovernmental and nongovernmental organizations. Negotiation of the Charter was based on two converging processes: the political process involved the interaction of stakeholders in transport, health and environment in Europe, which helped to frame the issues and the approaches to respond to them; the scientific process involved an international group of experts who produced state-of-the-art reviews of the health impacts resulting from transportation activities, identifying gaps in existing knowledge and methodological tools, specifying the policy implications of their findings, and suggesting possible targets for health improvements. Health arguments were used to strengthen environmental ones, clarify costs and benefits, and raise issues of health equity. The European experience shows that HIA can fulfil the need for simple procedures to be systematically applied to decisions regarding transport strategies at national, regional and local levels. Gaps were identified concerning models for quantifying health impacts and capacity building on how to use such tools.

Keywords Transportation; Health status; Environmental health; Risk assessment; Public policy; Policy making; Risk assessment; Treaties; Intersectoral cooperation; Models, Statistical; Europe (*source: MeSH, NLM*).

Mots clés Transports; Etat sanitaire; Hygiène environnement; Politique gouvernementale; Choix d'une politique; Evaluation risque; Traités; Coopération intersectorielle; Modèle statistique; Europe (*source: MeSH, INSERM*).

Palabras clave Transportes; Estado de salud; Salud ambiental; Política social; Formulación de políticas; Medición de riesgo; Tratados; Cooperación intersectorial; Modelos estadísticos; Europa (*fuentes: DeCS, BIREME*).

الكلمات المفتاحية: النقل، الوضع الصحي، صحة البيئة، تقييم الخطر، السياسة العامة، رسم السياسة، معاهدات، التعاون بين القطاعات، نماذج، إحصائي، أوروبا، (المصدر: رؤوس الموضوعات الطبية، المكتب الإقليمي لشرق المتوسط).

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يمكن الاطلاع على الملخص بالعربية على الصفحة ٤٠٢.

Introduction

Health impact assessment (HIA) played a key role in promoting the inclusion of health considerations as part of transport decisions in Europe; key elements of HIA were used and contributed to different stages of policy-making. This paper discusses the added value of HIA analyses and procedures and the conditions for using HIA as a means of integrating health considerations into the development of sectoral policies.

Transport policy development in Europe

Work on the environmental impacts and external costs of transport increased in Europe in the mid-1990s, when health impacts had often been mentioned in the context of transport but were rarely quantified or explored in more detail, except those associated with air pollution and traffic injuries.

A turning point was represented by research that began to highlight the importance of a wider range of health impacts of transport policy decisions (1). This theme was picked up at an international meeting in London, addressed to a broader academic audience (2). It was also part of a European assessment prepared as background to the Second Ministerial Conference on Environment and Health, held in Helsinki, Finland, in 1994 (3).

These analyses, together with growing environmental concerns and the challenge posed by unsustainable transport practices, led to the decision to consider transport, environment and health as an issue in its own right, requiring action at national and international levels that would be debated at the Third Ministerial Conference on Environment and Health, in London, England, in June 1999.

The scientific and political processes that led to the adoption of a Charter on Transport, Environment and Health

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at the London conference, illustrated in Fig. 1, were based on four main components. The first consisted of bringing a higher degree of awareness about the nature, magnitude and costs of the health impacts of transport into the intergovernmental processes on transport and environment taking place within a number of organizations and agencies, such as the United Nations Economic Commission for Europe (UNECE), the Organisation for Economic Co-operation and Development (OECD), the European Conference of Ministries of Transport (ECMT), the European Environment Agency (EEA), the European Commission (EC) and the United Nations Environment Programme (UNEP).

The second component made the arguments for a stronger integration of health into transport policies more compelling by developing in-depth analysis of the evidence of the environmental health effects of transport and the relevance of these effects for decision-making, engaging economists and health scientists (4).

The third component concerned national case studies, where assessments were made of the health impacts of two-stroke engine motorcycles in Italy (5) and of transport-related health impacts of air pollution and their costs in Austria, France and Switzerland (6). The latter study proved to be a particularly effective awareness-raising tool, in view of its high impact on the mass media when the results were made public at the London conference.

The fourth component comprised a series of intergovernmental meetings, engaging ministries of environment, health and transport as well as intergovernmental and nongovernmental organizations. Together, they negotiated the Charter that was adopted at the London conference (7).

The Charter defined goals and actions to be undertaken at the national and international levels to achieve “transport sustainable for health and the environment” and identified HIA of transport-related decisions as a key area where further developments were needed. In particular, it emphasized the necessity to: adopt HIA procedures to appraise transport plans, programmes and strategies; develop methods, tools and capacity to conduct HIA and estimate the economic costs of transport-related health effects; and improve the evidence base for HIA.

Discussion

In this case study, the HIA framework was used for two main purposes, namely, for advocacy and to make explicit the health effects of decisions related to transport.

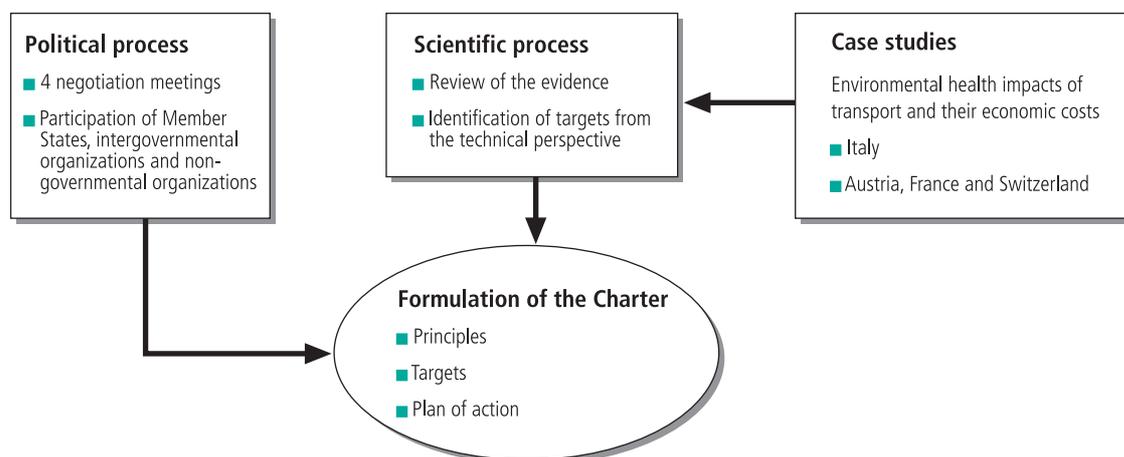
As a tool for advocacy, the HIA framework helped to develop a new vision of public health policy applied to the transport sector. Focusing on strategic-level decision-makers, the HIA framework added value to the policy debate by highlighting the links between decisions made in the transport sector and the wide range of health risks and benefits that these entail (see Box 1). This involved an understanding of the policy decisions at stake in the transport sector and the identification of key actors, their respective interests, and the power relations governing their interplay. The advocacy strategy was based on insights into how health evidence could help to advance some of the interests of different partners. As a result, health arguments were used to strengthen environmental ones, clarify costs and benefits in ways that could be used by economists and administrators, and raise issues of health equity, bringing to the forefront the interests of society as a whole.

In the process that led to the adoption of the Charter, the main steps and criteria of HIA were recognizable in the early involvement in the planning of future transport policies, in the use made of scientific evidence and opinions of experts coming from different disciplines to substantiate the assessments and the recommended policy actions, and in ensuring public participation through negotiation with government representatives and nongovernmental organizations.

The second use of the HIA framework was to ensure that transport-related decisions consider health effects in a systematic and coherent way. This result cannot be achieved only through advocacy, but requires the establishment of a set of rules and procedures for the application of HIA.

The recommendations of the Charter represent a move in that direction. The need to strengthen the HIA of transport-related decisions emerged from different analyses conducted to find out whether HIA was already being implemented, for example as part of Environmental Impact Assessments (EIAs). One of these analyses evaluated how health issues were treated and presented in 28 EIAs for road projects and plans carried out in Sweden from 1990 onwards (8), while another expanded the analysis to cover more European

Fig. 1. The process to the charter



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Box 1. The political and scientific processes that led to the Charter

The negotiation of the Charter on Transport, Environment and Health was based on two converging processes, one of a political and the other of a scientific nature. The political process involved the interaction of stakeholders in transport, health and environment in Europe, and leadership of some European Member States. It was much facilitated by the existing European Environment and Health Process, supported by the European Environment and Health Committee, and the preparation of the Third Ministerial Conference on Environment and Health, held in London in June 1999. The political interaction helped to frame the issues and the approaches to respond to them. The scientific process involved an international group of experts on the range of transport-related health effects and relevant assessment methodologies, including economics. These experts produced state-of-the-art reviews of the health impacts resulting from transportation activities, quantifying these impacts where possible, identifying gaps in existing knowledge and methodological tools, specifying the policy implications of their findings, and suggesting possible targets for health improvements. The results of these assessments of the evidence were presented at an international meeting that launched the negotiations of the Charter, held in Vienna, Austria, in June 1998. The meeting was attended by the scientists and by policy-makers from the transport, health and environment sectors, appointed to represent their respective governments in the ensuing negotiations of the Charter. The secretariat facilitated communication between the two groups, which went on to develop, respectively, the Charter and a publication plus case studies. This collaboration allowed scientific issues to be reflected in the text of the Charter and permitted policy questions to sharpen the scientific assessment, which was completed later. The preamble of the Charter builds on the points raised by this assessment and establishes them as the motivation for action, while the Charter's annexes present both a summary of the key findings of the assessment and the list of proposed health targets.

countries (9). They both concluded that health impacts were assessed inadequately. This inadequacy was attributed to the absence of specific requirements to conduct health assessment and the lack of resources for that purpose, as well as to the lack of allocation of responsibility for HIA and of mechanisms to ensure its enforcement.

As part of the Charter implementation, several methodological developments are taking place to improve and support the implementation of HIA, including the preparation of guidelines for carrying out rapid HIA of transport policies and for assessing the health risks and benefits of changes in levels of walking and cycling. In addition, integrated approaches to the modelling of exposures and the health effects of urban transport policies through traffic injuries, air pollution and noise are being researched.

However, in the absence of specific requirements, the availability of better tools will not be sufficient in itself to ensure that HIA is implemented.

Recent policy developments in Europe are likely to influence positively the use of HIA for transport decisions and investments. For example, application of Article 152 of the Treaty of the European Union, according to which "a high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities" is prompting the need to develop the means to enact

this requirement (10). In addition, a Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, Finland, 1991), in which specific requirements have been introduced for including health and involving health authorities at all stages of the assessments, will be proposed for adoption at the next Ministerial Conference on Environment for Europe, to be held in Kiev, Ukraine, in May 2003 (11).

Lessons learnt

The European experience shows that HIA provided a useful framework for raising awareness and for advocating the inclusion of health in the transport agenda at the strategic level. It also showed that HIA can fulfil the need for simple procedures to be systematically applied — at least in minimal (screening) form — to decisions regarding transport projects, plans and strategies at national, regional and local levels, to ensure consideration of their effects on health.

The analysis of how impact assessments of transport policies in Europe have largely failed to consider health indicates also that there is a need to establish requirements for such procedures to be applied and enforced. The macro policy environment in Europe is moving in the direction of taking health effects into consideration in all policy-making. This could lead to a wider implementation of HIA and eventually reduce health risks, make trade-offs explicit, and promote health benefits of different sectoral policies.

Further progress will require that some of the main gaps in using HIA as part of the strategy to improve the health and environment performance of transport be filled. The gaps identified during the work with politicians, economists and health scientists for the development of the Charter action plan focus on the need for methods and tools. For those carrying out HIA, these include models for quantifying health impacts that link up with models being used to plan transport and land use and for estimating transport-related health costs, and capacity building on how to use such tools. At the same time, users of the results of HIAs need further access to knowledge and experience gained with HIA implementation at different stages of policy-making and with evaluating the impact of different HIA approaches. Which approaches have greater impacts at each level of decision-making, how much quantification is useful at the appraisal stage, how much can be achieved with screening and advocacy only, and the role of participation are aspects needing further documentation and evaluation.

Some of these gaps are already being dealt with as part of the Charter follow-up implementation, in the European context. The systematic investigation of these issues and the sharing of knowledge and experience gained should be of great use in taking account of the large impact on health and the environment currently produced by transport policies. These tools are also essential for health systems to interact with transport policy-making to help bring about its large potential health benefits. ■

Conflicts of interest: none declared.

Résumé

Inclure la santé dans les programmes d'élaboration des politiques des transports : le rôle des analyses et méthodes d'évaluation de l'impact sanitaire dans l'expérience européenne

A partir du milieu des années 90, la recherche a commencé à souligner l'importance d'un large éventail d'évaluations de l'impact sanitaire des décisions relatives à la politique des transports. La troisième Conférence ministérielle sur l'Environnement et la Santé a adopté une charte sur le transport, l'environnement et la santé s'articulant en quatre volets principaux : rendre les instances gouvernementales attentives à la nature, à l'ampleur et au coût des effets des politiques des transports sur la santé ; renforcer les arguments en faveur de l'intégration de la santé dans les politiques des transports en procédant à une analyse approfondie des faits ; mettre au point des études de cas nationales ; et obtenir la participation des ministères de l'environnement, de la santé et des transports, ainsi que des organisations intergouvernementales et non gouvernementales. La négociation de cette charte a reposé sur deux démarches convergentes : la démarche politique supposait un dialogue entre les parties prenantes au transport, à la santé et à l'environnement en Europe, qui a permis d'énoncer le problème et de

définir des approches pour y répondre ; la démarche scientifique impliquait la constitution d'un groupe international d'experts qui a fait le point des problèmes sanitaires résultant des activités de transport, en déterminant les lacunes dans les connaissances actuelles et les insuffisances des outils méthodologiques, en précisant les répercussions politiques de leurs résultats et en proposant des objectifs éventuels pour améliorer la santé. Les arguments d'ordre sanitaire sont venus renforcer ceux ayant trait à l'environnement, clarifier la question des coûts et des avantages et soulever la question de l'équité en matière de santé. L'expérience européenne montre que les évaluations de l'impact sanitaire permettent de répondre à la nécessité de disposer de mesures simples qu'on puisse appliquer systématiquement lorsqu'il s'agit de prendre des décisions relatives aux stratégies de transport aux niveaux national, régional et local. Des insuffisances ont été relevées dans les modèles de quantification de l'impact sanitaire et les capacités d'utilisation de ces outils demanderaient à être développées.

Resumen

Inclusión de la salud en las agendas de las políticas de transporte: función de los análisis y procedimientos de evaluación del impacto sanitario en la experiencia de Europa

Desde mediados de los años noventa, diversas investigaciones empezaron a destacar la importancia de una amplia gama de evaluaciones del impacto sanitario (EIS) de las decisiones adoptadas en el marco de las políticas de transporte. La Tercera Conferencia Ministerial sobre Medio Ambiente y Salud adoptó una Carta sobre el transporte, el medio ambiente y la salud basada en cuatro componentes principales: fomentar en los procesos intergubernamentales la toma de conciencia sobre la naturaleza, la magnitud y los costos de las repercusiones sanitarias del transporte; reforzar los argumentos en apoyo de la integración de la salud en las políticas de transporte efectuando análisis pormenorizados de la evidencia; realizar estudios de casos nacionales; e implicar a los ministerios de medio ambiente, salud y transporte, así como a organizaciones intergubernamentales y no gubernamentales. La negociación de la Carta se basó en dos procesos convergentes: un proceso político que entrañaba la interacción de los interesados directos en el transporte, la salud

y el medio ambiente en Europa, lo que facilitó la formulación de los problemas y de las opciones para responder a ellos; y un proceso científico en el que participó un grupo internacional de expertos que prepararon revisiones actualizadas del impacto sanitario de las actividades de transporte, identificando las lagunas existentes en los conocimientos y los métodos empleados, especificando las implicaciones de sus resultados para las políticas y proponiendo posibles metas para las mejoras sanitarias. Las razones de índole sanitaria se utilizaron para reforzar las ambientales, aclarar los costos y los beneficios y plantear cuestiones de equidad sanitaria. La experiencia de Europa indica que la EIS puede responder a la necesidad de procedimientos sencillos aplicables sistemáticamente a las decisiones que articulan las estrategias de transporte a nivel nacional, regional y local. Se identificaron lagunas en los modelos de cuantificación del impacto sanitario y en el desarrollo de capacidad en cuanto a la manera de utilizar esos instrumentos.

ملخص

إدماج الصحة في جداول أعمال سياسات النقل : دور تحليلات وعمليات تقييم التأثير الصحي في الخبرة الأوروبية

لها، والعملية العلمية التي تضم مجموعة من الخبراء الدوليين الذين يقومون بمراجعة لآخر ما توصل إليه العلم في مجال التأثيرات الصحية التي تنجم عن أنشطة النقل، ومعرفة الفجوات التي تنخلل في أدوات جمع المعلومات وفي تنفيذ المنهجيات، وتحديد التأثيرات التي تسببها السياسات على تجمع لديهم من الموجودات، واقتراح الأهداف المحتملة لتحسين الصحة. وقد استخدمت القضايا الصحية لتعزيز القضايا البيئية، وتوضيح التكاليف والمنافع، والتأكيد على قضايا العدالة الصحية. وقد أظهرت الخبرة الأوروبية أن بوسع تقييم التأثير الصحي أن يلبي الاحتياجات للعمليات البسيطة التي ينبغي أن تُطبق تطبيقاً منهجياً عند اتخاذ القرارات الصعبة المتعلقة باستراتيجيات النقل على كل من الصعيد الوطني والإقليمي والمحلي. وقد تم تحديد الثغرات المتعلقة بنماذج تحديد كمية التأثير الصحي وبناء القدرات المؤهلة لاستخدام تلك الأدوات.

منذ منتصف التسعينات، بدأت البحوث بالتركيز على أهمية طيف واسع من تقييمات التأثير الصحي في اتخاذ قرارات حول سياسات النقل. وقد تبنى المؤتمر الوزاري الثالث حول البيئة والصحة ميثاقاً حول النقل والصحة والبيئة يتكوّن من أربعة مكونات أساسية، هي رفع مستوى الوعي بالطبيعة، وبمدى وتكاليف التأثيرات الصحية للنقل على العمليات التي تتم بين الحكومات المتعددة، وتقوية التيار الذي يهدف لإدماج الصحة في سياسات النقل وذلك بإعداد تحليل معمق للبيّنات، وإعداد دراسات للحالات الوطنية، وإشراك الوزارات المهتمة بالبيئة والصحة والنقل إلى جانب المنظمات غير الحكومية والمنظمات المتعددة الحكومات. وقد ارتكزت المفاوضات حول الميثاق على عمليتين متقاربتين: العملية السياسية التي تشمل التفاعل بين المؤثرين في اتخاذ القرار السياسي حول النقل والصحة والبيئة في أوروبا، مما ساعد في وضع إطار للقضايا ولطرق الاستجابة

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