

Introducing Health Impact Assessment: an analysis of political and administrative intersectoral working methods

L.N. Mannheimer¹, G. Gulis², J. Lehto³, P. Östlin⁴

Background: Intersectoral Action for Health (IAH) and its Health Impact Assessment (HIA) tool are built on collaboration between actors and sectors, requiring multidimensional and horizontal way of working. The study aims to analyse the enablers and barriers when such a new way of working and tool have been initiated to replace a traditional, vertical operation at the local level in Slovakia—a country in transition—in 2004. **Methods:** Up to date, there are few studies that have analysed intersectoral initiatives in relation to politics. In this study the conceptual framework of Kingdon has been used by which the actual problems, the governmental actions (or non-actions) (politics) and the understanding, implementation and evaluation of the initiative (policy) could be analysed. All actors involved, civil servants, politicians, representatives of the local public health institute and researchers, were interviewed and made to answer a questionnaire. **Results:** The results showed that there were a number of factors behind the initiation of HIA, which either delayed or accelerated the process. The problems identified were e.g. the prevailing traditional health care focus and the deteriorating health status of the population. There was a lack of multi-intersectoral knowledge, co-operation and function between sectors and actors. Enablers on the other hand were the membership of international organizations which called for new solutions, and the strong political commitment and belief that intersectorality would have a positive effect on health. **Conclusion:** The actors on the local level would have the capacity to work intersectorally to bring about policy change if HIA was to be more supported/institutionalized.

Keywords: intersectoral action for health, Health Impact Assessment, health policy, policy and implementation analysis

Introduction

In recent decades, there has been a growing recognition of broader health promotion policies, strategies and their implementation, representing a shift from vertical to horizontal policy approach. The latter is often referred to as Health in all Policies 'HiAP', which is 'a strategy with a solid background in science which aims at influencing health determinants so as to improve, maintain and protect health',¹ or Intersectoral Action for Health (IAH), which is defined as 'action in which the health sector and other relevant sectors of the economy collaborate or interact to pursue health goals'.² IAH is built on collaboration between actors and sectors, and consequently employs a multidimensional, horizontal way of working where there is no blueprint for how to formulate and implement policies. As a result, IAH may be difficult to achieve, when applying it to real life.³

This study aimed to analyse what happens when a new, horizontal intersectoral policy is initiated to replace a traditional, vertical operation at the local level in a country in transition. It examines how the ways of working needed to be changed and maps out learning experiences of involved

actors (politicians, civil servants and others) about IAH in general, and about the Health Impact Assessment (HIA) tool in particular, which was introduced in the city of Trnava, the Slovak Republic in 2004. The main research questions were as follows:

- What were the main barriers and enablers in the political and administrative working process of introducing HIA from the perspective of civil servants, politicians and other actors, respectively?
- Why was there a window of opportunity for HIA at this particular point in time at the local level? What was perceived as the general problem that needed a solution and what barriers were identified to delay a full implementation of IAH?

Intersectoral action for health/Health Impact Assessment

Currently, there are numerous national and international policies in place, which all aim to promote IAH and to ensure that health-related social issues are not overlooked.^{4–6} At national and local levels attempts are being made to redirect policies by developing health targets based on the determinants of health rather than on specific health outcomes.⁷ These attempts, in turn, create a need for tools, such as HIA, and strategies necessary for implementing such policies. HIA has been developed as an example of a broad and promising tool to realize intersectoral health policy in action. However, broad concepts may have different meaning in different contexts. In this study, HIA was defined as a tool for operationalizing IAH when it comes to judge and predict health impacts of policy proposals.

Since HIA is a relatively new tool, it is still being debated concerning for example (a) its effectiveness^{8–10} (b) learning experiences^{11–13} (c) its utilization on its own or together with

1 School of Public Health, University of Tampere, Finland and Karolinska Institute, Department of Public Health Sciences, Stockholm

2 University of Southern Denmark, Unit of Health Promotion Research, Esbjerg Denmark and Trnava University, Department of Public Health, Trnava, Slovak Republic

3 School of Public Health, University of Tampere, Finland

4 Karolinska Institutet, Department of Public Health Sciences, Stockholm, Sweden

Correspondence: Louise Nilunger Mannheimer, MPH, PhD-student, Tampere University, Department of Public Health, Tampere, Finland, tel: +46 70 715 8638, e-mail: louise.nilunger.mannheimer@ipm.ki.se

another form of impact assessment^{14–16} and (d) its understanding or philosophical use.^{17–19} However, there are few examples of health policy studies analysed in relation to politics^{20–22} and its administrative functions. Oliver²³ explains that the value of political analysis illustrates the actual problem, what the government decides to do (or not to do) (politics) and the understanding, implementation and evaluation of its actions (policy). This study was inspired by a mixture of three papers in particular:

- (a) a large, pilot project about agricultural and food policies introducing HIA at the national level in Slovenia,²⁴
- (b) an evaluation of the implementation of HIA at the local level in Stockholm by interviewing key people²⁵ and
- (c) an exploration of a political–administrative (three different ways of decision-making) approach to HIA.²⁶

These papers demonstrate the multidimensional nature of HIA, such as the importance of the policy (decision-making) process and how HIA runs in administrative and political functions.

Intersectorality in Slovakia

Slovakia became an independent state in 1993. Through a complex transition process it transformed from an authoritarian–egalitarian to a liberal–democratic society. Before 1993, decision-making was not driven by values such as democracy, participation or financial, political or managerial influences from other interest groups or the public.²⁷ Politicians abolished the ideas of disease prevention and health promotion as health was traditionally defined only as relevant to the curative health care system. The traditional socialist regime was based on a ‘sectoral principle’ and there were consequently few opportunities for intersectoral action. However, HIA was not a completely new approach for the Slovaks.²⁸ Regional and national hygienists had to assess every investment project or program before approval. However, these assessments were based on environmental and biomedical methods rather than social and economical models. In 1999 and 2000, HIA was explicitly mentioned in two major national policies: the National Health Promotion Programme and the State Health Policy^{29,30} which focused on health determinants rather than methodologies based on the traditional health care model.

Materials and methods

Conceptual framework

There are several theoretical frameworks available for an analysis of health policy processes. Walt³¹ describes the policy analysis as formulation, initiation and implementation of a process, i.e. analysing the political, financial, managerial and technical resources. Hall³² introduces three criteria: feasibility, legitimacy and support to be effective means to analyse policy processes. Tarlov³³ illustrates the policy process as two processes in one, an administrative technical function and the other more political orientated. This study is based on the conceptual framework of Kingdon³⁴ who has developed a theoretical framework of policy change operating via three streams: problem, policy and politics. Since this study aimed to analyse the data from the perspectives of politicians (politics), civil servants/directors/others (policy), and also to better understand why (problem) intersectoral health policy was on the political agenda (or not) in Slovakia, the Kingdon framework was considered to match the study well. Rushefsky and Patel³⁵ present a good example of Kingdon’s framework analysing the health care reform in the United States in the 90s.

The problem stream explains how and why a condition becomes a problem for the politicians. The policy stream takes

into account the means of how to solve the problem (knowledge and capacity of different actors and sectors) and the politics stream addresses elements such as the actions of the governments, ideological views, national mood and functions of re-election. All streams operate independently from one another, but they have to arise simultaneously for a policy change to occur, a ‘policy window’.³⁴

Introduction of the intersectoral HIA

The introduction of the HIA tool was carried out from March to September 2004. The city of Trnava was a member of the WHO Healthy City Network and the city was selected when the WHO carried out an EU-funded project in 2003–05 to initiate a pilot HIA at the local level (see acknowledgements).³⁶ Two training events were held in spring 2004 for public officials (politicians, civil servants, directors of the departments) and others (researchers, the local public institute of health) (a total of 70 people). The training was performed by an HIA specialist on determinants of health and HIA methodology. A steering group was created consisting of five people from three local governmental departments, the WHO healthy cities co-ordinator and the local public health institute. The steering group worked intersectorally and carried out a health impact appraisal of a policy proposal suggesting to build a new playground in an urban part of the city.³⁶

Interviews and questionnaire

All involved in the HIA pilot, a representative of the local public health institute, researchers, civil servants and directors from three different departments (social, health and culture; environment and youth) and politicians (elected in the city council from the Christen Democrats Party), were interviewed in their respective group after the HIA pilot had been carried out (approximately 6 months after the HIA training). The interviews were qualitative and semi-structured.³⁷ All the interviews lasted for 1–2 h and two researchers from the Trnava University helped to interpret from English to Slovakian and vice versa. The interviews were recorded and written up in English. Since the interviews were carried out group-wise, each interviewee also answered a questionnaire, to see the individual responses. The form consisted of 67 questions assessing the participants’ opinions about and understanding and application of HIA. The transcribed interviews and the answers from the questionnaire were analysed systematically.³⁸ First, they were selected into categories deriving from the questions about barriers and enablers of performing HIA: communication and co-operation; ability/capacity to carry out HIA; understanding of HIA; support and commitment; funding and formulation of policy (table 1). These categories were later sorted in following Kingdon’s framework: the streams of problem, policy and politics.

Results

Table 1 presents a summary of the answers of the interviews and the questionnaires and these are explained below in relation to the three streams: problem, policy and politics.

Problem identification

Many factors were identified as problems. The main fundamental problem identified was that the health status of the population was somewhat poor compared with other European countries. Another problem identified was the prevailing view that the health care sector alone was responsible for the health of the population and there was a lack of inter- and multi-sectorality. HIA was regarded as a tool

Table 1 Summary of results from interviews with public officials (civil servants/directors of departments), politicians and other actors (public health institute/researchers at the local university)

Category	Public officials	Politicians	Others
Communication and co-operation within sectors	Both the civil servants and the directors claim to have open and continuously conversation and co-operations.	Open and continuously	
Communication and co-operation between sectors	The three sectors present say they have good communication. Not so much formal co-operation exists, needs to be institutionalised. Some informal co-operation.	Good communication and co-operation. However, difficulties in different levels (local vs. national).	
Communication and co-operation between public officials and politicians	Most communication goes via the directors, who claim this is good, but could be improved. The civil servants would like to take more part in this communication.		
Communication and co-operation with other actors	Could be improved.	Strongly supports other actors to be involved.	The institute of public health think they have little insight into the local governance's activities.
Ability/capacity of carry out HIA	Both groups think they are able to carry out HIA, but it requires time, training, understanding and support from politicians. The civil servants express that the traditional way of working is still in function, and it takes time to modernise the administration.	Not totally independent to conduct EIA, and maybe the same will be applied to HIA.	More co-operation is needed to make this work. It also requires time, training, understanding and support from politicians. The traditional way of working is still in function, and it takes time to modernise the administration.
Understanding of HIA (training and knowledge)	The civil servants found the training very useful, but more and continuously would be needed. The directors satisfied. Both groups show a greater understanding of the concept after the training. The advantages are not so clear as the disadvantages.	The politicians show great knowledge and understanding of HIA as a concept as well as the advantages of it.	The other actors show great knowledge and understanding of HIA as a concept as well as the advantages of it.
Support and commitment to carry out HIA	more support from the directors and politicians, as in time and for training to carry out HIA. The directors would like more support from politicians. Both groups would clearly choose an institutionalising of HIA to get it work better.	The politicians says the put very strong commitment to an HIA process.	The other actors would like to have more insight of planning of/and activities and co-operation, also to be able to give support and commitment.
Funding	No funding has been put aside for HIA processes.		
Formulation and initiation of policy	formulation and initiation should be adapted to Slovakian needs and it is not possible to take someone else's (WHO) formula to make this work.	The politicians respect and commit to the WHO formulation.	Formulation and initiation should also involve other actors, and it should be adopted to Slovakian needs.

to tackle both problems. The politicians were strongly in favour of HIA. They saw HIA as a much-needed tool to protect human health and to try to predict the health impacts of policies in a more systematic way than had been done in the past. The politicians were also aware of the work of the EU Commission and the WHO on HIA development and they felt that the city could learn from taking part in this WHO project.

Policy

The communication within and between sectors seemed to work well, but there was little formal co-operation between the sectors. Even though there was some informal action, civil servants felt that the intersectoral work could be improved

if they had more access to the discussion about planning with politicians and between sectors. The public officials expressed that it was not enough with informal working principles when creating and setting up the HIA process, it would require institutionalizing (formed by law). They compared the tool to the Environmental Impact Assessment (EIA) that was institutionalized already and worked out well. This was a general opinion of the public officials coming from three departments, not just the environmental department. Both civil servants and directors expressed their need for more support and direction from politicians and time and training. There seemed to be a difference between commitment and support.³⁹ The politicians were very committed to the HIA process but their commitment was not reflected by

changes in the budget or in how issues were prioritized. The public officials were quite pessimistic about the continuation of the process when this WHO project would come to an end.

The civil servants pointed out that good information and data about health care and health status existed, but again, there was no satisfactory system of dissemination from one department to another and employees did not know what data was available. Some civil servants commented that even if they had the information, they would not immediately know what to do with it.

Traditionally there was not much co-operation between the local administration and other local actors. The local institute of public health did not have much insight of governmental processes and vice versa. There seemed to be a very few non-governmental actors at the local level in the health field and few attempts were made for improving the situation.

None of the civil servants or directors of departments had any knowledge of or training in HIA before the trial. However, many of them were familiar with the definition of health, health determinants and their overall correlation with sustainability. Many of the participants had worked with the EIA tool, which was a great help also for understanding the HIA. The civil servants mentioned however that it was still difficult to know how to start the HIA process and how to apply HIA to the 'real world'. According to civil servants it was difficult to change 'mentality' to transform attitudes 'over night' towards intersectoral way of working and western values.

Politics

The politicians were much in favour of HIA and they were very committed compared to the other groups who saw HIA as 'one of many tools needed to protect human health'. As the civil servants were the ones carrying out the HIA, they seemed, compared to the politicians, to take a more cautious approach to HIA, recognizing the potential problems of having a new policy in place.

Politically, intersectoral working structures seemed to work well. However, politicians identified problems that were different from those identified by the public officials. Links to the EIA tool were also clearly seen by the politicians—they reported how complicated it was to perform an EIA at local level, in spite of the fact that the municipalities are autonomous local administrations with their own budget, personnel and financial independence. The national administration has maintained control over some areas for example building constructions. To perform an EIA, the municipality would have to request from the Ministry of Environment (national level). A particular example was mentioned to illustrate these difficulties. An international company had set up a car plant storage in the municipality. An EIA was carried out at the national level that did not show on any particular environmental or health effects. However, health was defined as health care and no health impacts could therefore be found.⁴⁰ The local administration would have liked to carry out an EIA of the storage that would also include an analysis of potential health effects (based on several health determinants, not just health care services). The EIA on the storage was rejected and the politicians feared that a HIA process could meet the same fate if it was applied to sensitive policies.

There were also other actions, which the politicians were highly committed to and supported. A 'health day' in the city was being planned aiming to present general information about health issues, but also to explain plans and strategies for achieving better health. HIA was to be presented at this day as means to realize better health structures and consequently better health status of the population.

Discussion and conclusions

What factors were in play when the HIA was initiated at the local level in Slovakia? We have identified four issues that were all relevant at the time:

1. *The lack of intersectorality, the deteriorating health status of the population and the belief of capacity for a policy change called for the policy-makers to take action (window of opportunity in the problem identification stream).*

As a country in transition, the health status was deteriorating and the health care sector was seen as the only player in the effort to bring about improvements in health. Politicians at local level understood the problem of deteriorating health status and the narrow focus on the role of the health care sector. They called for new solutions in order to achieve health improvements in the population.

2. *The transition period meant that traditional patterns of policy-making had lost their legitimacy (window of opportunity in the policy reform stream).*

The population had been through enormous structural and political changes in the recent decade when the new political system allowed a dramatic transition from an authoritarian–egalitarian to a liberal–democratic society. This required a radical change in working methods for the political parties and in administrative functions. HIA process runs horizontally and the participants in this project had problems with intersectoral working methods. There were few formal intersectoral functions in place for (public) health, and it needs to be strongly improved and supported accordingly. There was never any discussion about public participation. A number of factors explain why this did not take place. First, the study was a pilot project and there was lack of both time and resources. The focus of the work was not to involve the public, at least not in this initial stage. Few other actors took part in the study, partly because there are very few interest groups at local level, especially when it comes to health issues.

3. *The Slovak Republic was looking for new policy patterns and since HIA was established as a 'western policy pattern' in the WHO and EU, Slovak policy-makers were favourable to HIA (window of opportunity in the policy reform stream).*

Improvements were one of the requirements for membership of the European Union, thus making international, predominantly Western European initiatives in the field of health policy, was highly interesting for Slovakia. The treaties and policies of the international organizations regarding health issues strongly promoted a shift in focus from health care to broader, intersectoral health policy based on the determinants of health and evidence-based health policy initiatives. However, the public officials thought that without the involvement of WHO, the HIA would perhaps not be supported enough and consequently not work out.

4. *The local government and the university had developed particular links with WHO. Introducing HIA was part of this cooperation with WHO and the EU (window of opportunity in the politics stream).*

HIA had been recognized by the local researchers at the university. HIA was presented to the politicians in order to raise awareness, and possibly to gain a political commitment to initiate a HIA process. Moreover, the municipality had signed up to membership of the 'WHO Healthy Cities' in order to take the agenda on intersectoral health promotion forward and to gain new insights and experience from the international community. The WHO invited the city to take active part in the pilot project where HIA was to be initiated and implemented. These factors played a crucial role in opening a policy

window for introducing HIA and drawing the attention of politicians to the HIA tool. It is debatable, however, whether HIA could become a permanent aspect of policy making, even though the problem of low health status persists. This is because:

1. *The civil servants feel that not enough resources and training are available for a continuous and routine implementation of HIA (might close the window of opportunity in the policy stream).*
The civil servants experienced that there was a strong political commitment for HIA but not much support in time and training which correspond to other studies made on initiating HIA.¹¹ The same actors advocated that HIA should be institutionalized, i.e. to include the health aspects in the EIA. This refers to the already established discussion on how to best institutionalize HIA.⁴¹ There seems to be no general answer other than that it can be institutionalized when there is enough political commitment and support, in other words resources for capacity building and reorganizing management functions.

2. *As the example of the EIA at the car plant storage indicates, HIA of economically significant policies and projects may be inhibited by powerful political forces (might close the window of opportunity in the politics stream).*

The politicians demonstrated that they had moved towards a more horizontal way of working. They clearly promoted broader health promotion action than those within the traditional health care services. However, the politicians also encountered difficulties in initiating impact assessment processes. They struggled with the independence of the municipality vis à vis the state authorities. If the politicians wanted to carry out an EIA within the municipality, this had to be approved by the national Ministry of Environment. The example of the car plant showed that even though an EIA was carried out, it was considered to not include or analyse all potential environmental and health impacts. The local administration requested therefore to carry out an EIA (including health effects) on the storage, which was turned down: it seemed that its construction was seen as all-important, irrespective of any possible consequences for the environment or for health.

In summary, this study has highlighted barriers and enablers when IAH, and in specific HIA, is implemented at the local level in a country in transition. It is, nevertheless, difficult to sustain an intersectoral approach such as HIA since it requires continuously support in training, funding and time when there are no intersectoral functions or collaborations between actors. Even though politicians were committed to HIA, it seemed that civil servants needed more support to adjust to 'western standards'. Even if this study does not appear to have resulted in a long-term continuation, it might have brought about gradual implementation by raising the awareness and knowledge of HIA, leaving the policy window for HIA half-open at present.

Acknowledgements

Parts of this study were funded by the European Commission, Directorate General for the Environment (DG ENV) under the Community Framework for Cooperation to Promote Sustainable Development, carried out by the WHO EURO Healthy Cities and Urban Governance under the project name 'Promoting and Supporting Integrated Approaches for Health and Sustainable Development at the Local Level across Europe(PHASE)'. A WHO report was conducted in 2005 to

the EU Commission explaining the HIA material (toolkit) and the work of the HIA appraisal in detail (http://www.who.dk/healthy-cities/phase/20040719_1).

Key points

- A number of factors explain the barriers and enablers of initiating the intersectoral action for health and the health impact assessment in particular: problems such as the lack of multi- and inter-sectorality; the health status of the population was deteriorating; the strong focus on traditional health care, and enablers such as membership of international organizations called for new solutions and a strong belief and commitment in a capacity to actually learn and work intersectorally.
- It is debatable whether HIA will become a permanent aspect of policy making, even though the actors involved seemed very committed to it. Not only is there a lack of resources and training to learn HIA functions, but there is also a lack of intersectoral working structures between sectors and actors.

References

- 1 Ståhl T, Wismar M, Ollila E, Lahtinen E, Leppo K (eds). Health In All Policies, prospects and potentials. *The Ministry of Social affairs and Health, Finland* 2006.
- 2 World Health Organisation, Geneva, 1998a.
- 3 Wismar M, Ernst K, Srivastava D, Busse R. Health targets and (good) governance. *Euro Observer: The health policy bulletin of the European Observatory on health systems and policies* 2006;8:1.
- 4 WHO Health for all policy, Geneva, 1984.
- 5 EU Commission Amsterdam treaty 1997 (<http://eur-lex.europa.eu/en/treaties/dat/11997D/htm/11997D.html>)
- 6 EU Commission Lisbon Strategy 2000.
- 7 European Health Policy strategy documents can be found at www.euro.who.int/observatory/studies/20040310-2
- 8 Wismar M, Nilunger L, Figueras J, Dumitrescu A. Health Impact Assessment: European Study on Effective Implementation. *Eur J Public Health* 2003;13(4):371.
- 9 Quigley RJ, Taylor LC. Evaluating health impact assessment. *Public Health* 2004;118:544–52.
- 10 Parry J, Kemm J. Criteria for use in the evaluation of HIA. Evaluation of HIA workshop. *Public Health* 2005;119(12):1122–9.
- 11 Parry J, Stevens A. Prospective health impact assessment: pitfalls, problems, and possible ways forward. *BMJ* 2001;323(7322):1177–82.
- 12 Krieger N, Northridge M, Gruskin S, et al. Assessing Health Impact Assessment: multidisciplinary and international perspectives. *J Epidemiol Community Health* 2003;57:659–62.
- 13 Kemm J, Parry J, Palmer S. *Health Impact Assessment*. Oxford: Oxford University Press, 2004.
- 14 Mindell J, Joffe M. Health Impact Assessment in relation to other forms of impact assessment. *J Public Health Med* 2003;25(2):107–13.
- 15 Manson-Siddle C. Correspondence. *J Public Health* 2004;26(1):115–7.
- 16 Wright J, Parry J, Scully E. Institutionalising policy-level health impact assessment in Europe: is coupling health impact assessment with strategic environmental assessment the next step forward?. *Bull World Health Organ* 2005;83:472–7.
- 17 Kemm J. Health Impact Assessment: a tool for Healthy Public Policy. *Health Promot Int* 2001;16(1):79–85.
- 18 Kemm J. Can health impact assessment fulfil the expectations it raises? *Public Health* 2000;114(6):431–3.

- 19 Kemm J. Perspectives on health impact assessment. *Bull World Health Organ* 2003;81(6):387.
- 20 Bamba C, Fox D, Scott-Samuel A. Towards a politics of health. *Health Promot Int* 2005;20(2):187–93.
- 21 Signal L. The politics of health promotion: insights from political theory. *Health Promot Int* 1998;13(3):257–63.
- 22 McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. *Health Affairs* 2002;21(2):78–93.
- 23 Oliver T. The politics of public health policy. *Annu Rev Public Health* 2006;27:195–233.
- 24 Lock K, Gabrijelcic-Blenkus M, Martuzzi M, et al. Health Impact Assessment of agriculture and food policies: lessons learnt from the Republic of Slovenia. *Bull World Health Organ. The International Journal of Public Health* 2003;81(6):391–8.
- 25 Finer D, Tillgren P, Berensson K, et al. Implementation of Health Impact Assessment (HIA) tool in a regional health organization in Sweden – a feasibility study. *Health Promot Int* 2005;20(3):277–84.
- 26 Bekker MPM, Puffers K, van der Grinten TED. Exploring the relation between evidence and decision-making. A political-administrative approach to health impact assessment. *Environ Impact Assess Rev* 2004;24:139–49.
- 27 Makara P. Health promotion in Eastern Europe: a regional case study of economic reform and health development. *Health Promot Int* 1998;13(3):177–81.
- 28 Gulis G. Health Impact Assessment in CEE region: case of the former Czechoslovakia. *Environ Impact Assess Rev* 2004;24:169–75.
- 29 Gulis G. News from the National Health Promotion Program of the Slovakia Republic. *The Bulletin – International Health Promotion Foundation Network*, Vol. 3, Issue 1, 2001.
- 30 The State Health Policy is retrieved as an open document at the Government in Slovakia. www.health.gov.sk March 23rd, 2006.
- 31 Walt G. *Health Policy. An introduction to process and power*. London: Zed Books, Johannesburg: Witwatersrand University Press, 1994.
- 32 Hall P, Land H, Parker R, Webb A. *Change choice and conflict in social policy*. London: Heineman Educational Books, 1975.
- 33 Tarlov AR. Public policy frameworks for improving population health. *Ann NY Acad Sci* 1999;896:281–93.
- 34 Kingdon JW. *Agendas, alternatives and public policies*. 2nd. New York: Addison Wesley, Longman, 1995.
- 35 Rushefsky ME, Patel K. *Politics, power and policy-making. The case of health care reform in the 1990ies*. New York, USA: ME Sharpe, 1998.
- 36 The WHO reports to the EU Commission can be retrieved at http://www.who.dk/healthy-cities/phase/20040719_1
- 37 Dahlgren L. Fältforskning – en distanslös eller distansnerande verksamhet, in Svensson PG, Starrin B. *Kvalitativa studier i teori och praktik. (Qualitative studies in theory and practice)* Studentlitteratur, Lund, 1996.
- 38 Malterud K. *Kvalitativa metoder i medicinsk forskning (Qualitative methods in medical research)*. Studentlitteratur, Lund, 1998.
- 39 In discussion with Ms Erica Ison, HIA specialist, Oxford, UK, co-author to the WHO reports, see reference (36).
- 40 In discussion with Dr Gabriel Gulis, Trnava University, Trnava, Slovakia, who analysed the Environmental Impact Assessment carried out at the car plant.
- 41 Banken R. HIA of policy in Canada. In: Kemm J, Parry J, Palmer S, editors. *Health Impact Assessment*. Oxford: Oxford University Press, 2004.

Received 1 September 2006, accepted 12 November 2006