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Health Impact Assessment in a Swedish context: The Route 73 case study

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Abstract

Background: Health issues are being allocated increasingly higher priority on the political agenda in Sweden, due to initiatives taken by both the Parliament (the Riksdag) and the Government over the last few years. The Riksdag has recently adopted a bill for public health.

Methods: The case study was performed in accordance with the framework for the project "The effectiveness of Health Impact Assessment", which includes a common questionnaire and a model for evaluating effectiveness. During the study, six interviewees representing different actors and stakeholders in the decision-making process were contacted. The analysis of effectiveness of the HIA on Route 73 is based on the "partial HIA", i.e. the HIA that is incorporated into the EIA, but the case study also illustrates the benefits of performing a complementary HIA in accordance with the new guidelines in Sweden.

Results: The case study on Route 73 shows that the partial HIA had *general health effectiveness* and *general* or *direct community effectiveness*. With respect to equity effectiveness, the answers varied. If the complementary HIA had been used as a basis instead of the partial HIA, it would have highlighted equity aspects much more since the complementary HIA focuses on priority groups and gender throughout the assessment and makes them an important part of the assessment.

Conclusions: There is a growing awareness of public health in Sweden today due to the policies adopted by the Riksdag and the Government. Public health objectives, the pinpointing of prioritised groups, health determinants and indicators constitute a good framework for conducting HIA in accordance with the new public health policy and represent its prime facilitators.

Keywords: Health impact assessment (HIA), public health policy, effectiveness, hindrances to and facilitators of HIA, implementation

Introduction

As a partner in the project "The Effectiveness of Health Impact Assessment", co-funded by the European Commission under the Public Health Programme, the Swedish National Institute of Public Health (SNIPH) performed a case study on a domestic health impact assessment (HIA) during 2006. The aim of the HIA effectiveness project is to analyse HIA as a tool for decision-making and to identify the factors that facilitate or hinder its successful implementation. The complete case study will be published by the European Observatory on Health Systems and Policies as part of publications from the project.

The case study selected in Sweden was a HIA performed during the planning stage of a new Route 73, the main trunk road between Stockholm and the port of Nynäshamn [1]. The case study was selected for the following reasons:

- it was well documented.
- the HIA had been performed quite recently and it was therefore easy to find relevant actors and stakeholders for interviews.
- it included an interesting decision-making process. Protests were made by some stakeholders against the construction of the new road. A decision whether or not to construct a new road in accordance with the proposed solution had therefore to be made by the Swedish Ministry of Sustainable Development and ultimately the Swedish Government.
- the HIA was based on the new Swedish public health policy which includes objectives, determinants and specified priority groups.

National context for HIA in Sweden

Health issues are being allocated increasingly higher priority on the political agenda in Sweden. The Swedish Parliament (the Riksdag) has recently adopted a bill for public health and a strategy for sustainable development [2].

- In 2003 the Riksdag adopted 11 national domains of objectives for public health as part of a new strategy for addressing public health and social sustainability (see Table 1).
- The overall aim of Swedish public health policy is to create social conditions that ensure good health, on equal terms, for the entire population.

Table 1. The eleven public health objective domains and their relevant determinants [3].

The eleven public health objective domains	Examples of determinants
1. Participation and influence in society	Discrimination, social participation, democratic participation, cultural participation
2. Economic and social security	Economic terms, level of education, access to housing
3. Secure and favourable conditions during childhood and adolescence	The psychosocial environment at home and at school, the competences of children and young persons
4. Healthier working life	The environment at work, safety of employment, recuperation between working shifts
5. Healthy and safe environments and products	Air pollution, noise, injuries
6. Health and medical care that more actively promotes good health	Prevention and treatment, occurrence of health promoting efforts
7. Effective protection against communicable diseases	Incidence of infectious matter, incidence of immunity
8. Safe sexuality and good reproductive health	Safe sex, sexual violence and coercion
9. Increased physical activity	Physical activity
10. Good eating habits and safe food	Eating habits, energy balance
11. Reduced use of tobacco and alcohol, a society free from illicit drugs and doping and a reduction in the harmful effects of excessive gambling	Use of tobacco, use of narcotics, excessive gambling

- Another important aim is to improve the public health of particularly vulnerable groups.
- Evidence-based health determinants were chosen as the basis for the policy.The benefit of using determinants instead of health outcomes as a basis for political decisions is that ill-health can be more easily avoided.
- Indicators have been further developed for each objective domain by SNIPH
- During the last few years, the Government has commissioned a number of central agencies to develop HIA methodology and to perform HIA within their respective fields. SNIPH has been instructed to support the agencies in this task.

Even if public health has been strengthened on the national level over the last few years, Sweden still has a long way to go before public health is considered on an equal footing with economic policy and labour market policy [2].

HIA in the case study

Under the Swedish Environmental Code, an Environmental Impact Assessment (EIA) must incorporate a HIA.The main focus of this kind of HIA is, however, on environmental health determinants. Equity is very seldom assessed and the gender perspective is rarely analysed. Health analyses are often presented in separate chapters of EIA reports and are usually not summarised in the final conclusions.This was also the case in the EIA for Route 73. In this article we refer to this type of incorporated HIA as the "partial HIA".

In the Route 73 case study, a complementary HIA was performed in accordance with the new public health policy in Sweden.This HIA included both social and environmental health determinants, equity and gender perspective[4] and provided decision-makers with an overview. In this article, this kind of HIA is referred to as the "complementary HIA".Table 2 show how different health aspects were assessed in the partial HIA of Route 73 and the complementary HIA performed in accordance with the new public health policy.

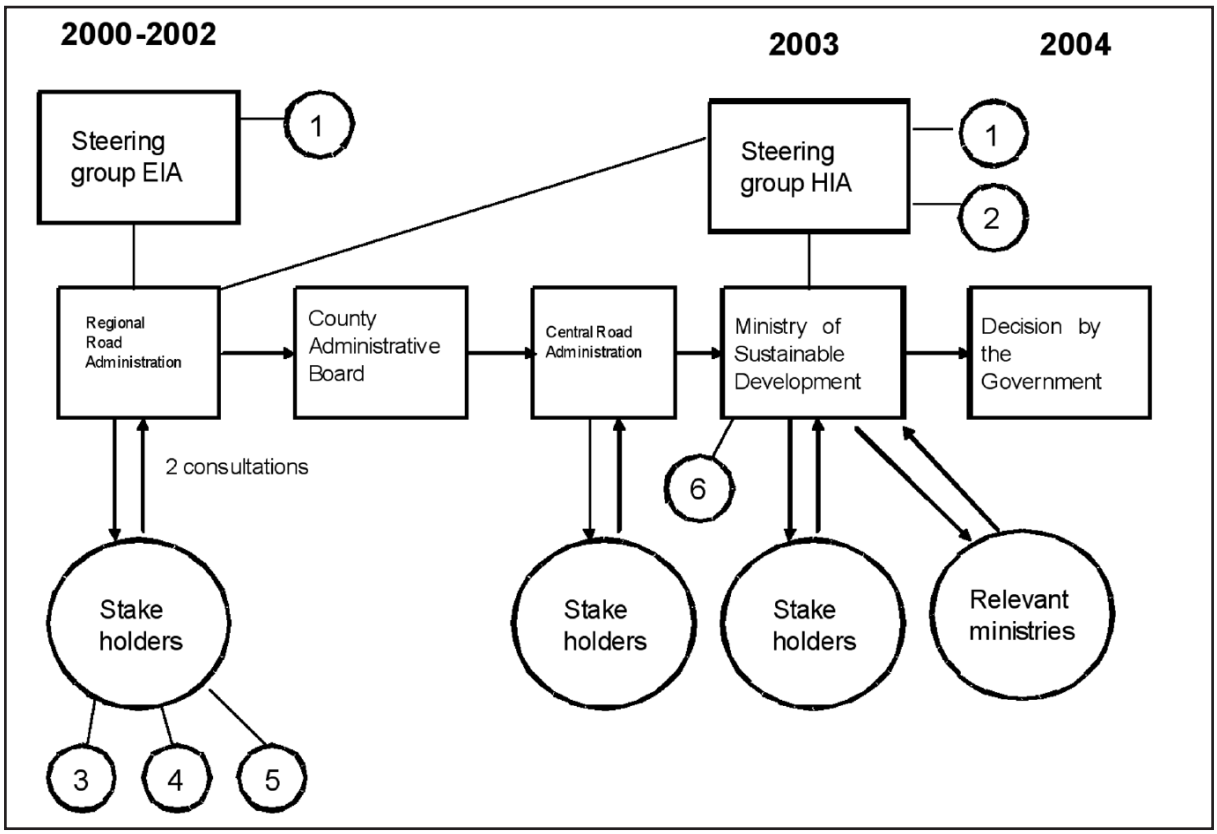
Methods

During the study, six interviewees representing different actors and stakeholders involved in the decision-making process were contacted. The

Table 2. A matrix showing how different health variables of Route 73 were considered in the partial HIA (incorporated in EIA) and the complementary HIA.

Assessment / Health aspects	Partial HIA (incorporated in EIA)	Complementary HIA
Determinants/indicators	Environmental health determinants	Environmental health determinants + relevant public health (social) determinants
Equity and priority groups	Not systematically analysed	Systematically analysed
Gender perspective	Assessed for some of the determinants	Assessed for all relevant determinants
Presentation of health aspects	Health analyses in separate chapters of the report	Summarised in the general conclusions

Figure 1. Schematic figure showing the decision-making process of Route 73 on a timeline. It includes both the partial HIA in the EIA and the complementary HIA initiated in 2003.



timeline of the decision-making process as regards the construction project on Route 73 is illustrated in Figure 1. Here you can see the role of the interviewees in the study. The numbered circles represent the interviewees and the part they played in the decision-making process. Number 1 is the Regional Road Administration of Stockholm (Project leader of Route 73 and HIA Steering group). Number 2 is the Municipality of Nynäshamn (HIA Steering group). Number 3 is the Swedish Environmental Protection Agency (Stakeholder). Number 4 is the Local Green Party of Nynäshamn (Stakeholder). Number 5 is "Route 73 Now" (NGO, Stakeholder). Number 6 is the Ministry of Sustainable Development (Advisor to the decision-makers).

The interviews were conducted in accordance with the framework of The Effectiveness of Health Impact Assessments project [5], with a common questionnaire for the project partners. The questionnaire focused on three dimensions of effectiveness: health effectiveness, equity effectiveness and community effectiveness. The questionnaire presented a matrix on each dimension of effectiveness where the interviewees were asked to categorise the HIA. The opinions of the interviewees formed the basis of the conclusions in the case study.

The analysis of effectiveness of the HIA of Route 73 is based on the partial HIA and the complementary HIA performed in accordance with the new public health policy. The case study shows the effectiveness of the partial HIA, but also illustrates the benefits of performing a complementary HIA in accordance with the new guidelines in Sweden (i.e. the new public health policy and the HIA guidelines published by SNIPH [6]).

Results

Health effectiveness

According to three of the interviewees, the partial HIA had *general health effectiveness* [5]. The primary reason given was that the health outcomes from the decision were positive. The health aspects, i.e. exposure to air pollution, exposure to noise and the risk of accidents, were affected in a positive way by the decision to construct a new road.

The interviewee representing an advisor to the decision-makers stated that the partial HIA had *general health effectiveness* since without a health impact assessment, it would never have been possible to reach a decision. An HIA must be incorporated into the EIA under the Swedish Environmental Code.

One interviewee stated that the partial HIA had *direct health effectiveness*, since some changes were made to the proposal during the process because of presumed health effects.

One benefit from the complementary HIA was that it deepened the awareness of public health among practitioners, stakeholders and decision-makers by addressing not only environmental determinants but also social determinants and equity. Another benefit, according to one of the interviewees, was that mental health, worry and insecurity about accidents, were included in the HIA when previously it was difficult to include these aspects in the partial HIA. Another social determinant included in the complementary HIA was "Supportive environments for physical activity".

Equity effectiveness

The interviewees gave different answers in relation to equity effectiveness. Three of them felt that it wasn't relevant to answer the question about equity. The reason for this is likely to be that the implementation of the new public health policy has just started and that the interviewees felt they didn't have knowledge enough about equity to answer the question.

One said that the partial HIA had *general equity effectiveness*, either because equity consequences were of negligible importance in the decision or that the equity consequences from the decision were positive.

Another interviewee stated that the partial HIA had *no effectiveness* in relation to equity aspects, because such issues were not taken into account in the decision and because the partial HIA lacked a systematic analysis of prioritised groups.

One interviewee also stated that the partial HIA had *direct equity effectiveness*. This was because there had been changes made during the hearings in the EIA-process in relation to equity.

One benefit from the complementary HIA was that it helped to raise awareness of equity aspects amongst practitioners, stakeholders and decision-makers, since it considers and analyses priority groups.

Community effectiveness

With regard to community aspects, opinions were once again divided among the interviewees. Two answered that the partial HIA had *general community effectiveness* as the local population had been adequately informed about health consequences. During the decision-making process, there had been at least two public hearings and a number of exhibitions about the planned project giving the local community the opportunity to learn about the consequences of the various alternatives.

Two interviewees stated that the partial HIA even had *direct community effectiveness*, since the alternative solutions had been modified due to the dialogue with the local community. For example, the interests of horse riders and hunters had been protected as a result of them being given the opportunity to express their concern. The concerns raised during the hearings and exhibitions were also adequately considered by the decision-makers.

Two of the interviewees felt that it wasn't relevant for them to answer the question because they had not been involved in the consultation process.

Other dimensions of effectiveness

Other dimensions of effectiveness mentioned by the interviewees included *cost effectiveness*, *decision effectiveness* and *administrative effectiveness*. The interviewees saw that these dimensions were applicable to HIA in general terms.

According to the interviewees, HIA is cost-effective because it helps to eliminate bad alternatives and leads to resources being invested in health-improving alternatives. HIA is also decision-effective since it helps to point out the best alternative and provides a thorough assessment of the possible solutions.

Administrative effectiveness refers to the effective use of both competencies in the society at large and those embodied in central agencies. One interviewee stated that "What is not written is often just as important as what is", in other words, the process in itself, whereby competencies are pooled and experience is built up, is equally as important as the result.

Conclusions on the effectiveness of HIA

The Route 73 case study shows that the partial HIA had *general health effectiveness* and *general or direct community effectiveness*. With respect to *equity effectiveness*, the answers weren't as easy to interpret since the interviewees all gave different answers. In summary, according to the interviewees, equity wasn't very high up on the agenda in the partial HIA because of a lack of awareness among decision-makers and actors on such issues.

If the complementary HIA had been used as a basis for the decision instead of the partial HIA, it would have highlighted equity aspects much more since it focused on priority groups and gender throughout the assessment and included them as important components in the assessment

(see Table 2). The complementary HIA would have been more effective in relation to equity than the partial HIA. The interviewees also stated that if the complementary HIA had been published in time and presented properly to the decision-makers, it would have made it easier to reach a decision earlier and that it would have underpinned the positive health effects from constructing a new road even more.

The interviewees also stated that HIA can be effective in even more dimensions (i.e. *cost effectiveness*, *decision effectiveness* and *administrative effectiveness*). However, in this respect the interviewees' answers were made more in general terms rather than being specific about Route 73. The interviewees all appreciate HIA in accordance with the new public health policy as a good tool for elucidating health aspects and highlighting achievements of social and environmental sustainability for decision-makers. The interviewees had no problem accepting the HIA methods proposed in the new public health policy and thought that the use of such methods in the future would lead to better-informed decisions.

Depending on which organisation the interviewees represented, they naturally had different opinions and perspectives as regards effectiveness, as can be seen by their divergent answers. A local stakeholder, for example, had a different perspective on the project than a central agency. An environmental organisation had a different standpoint to those representing the transport sector.

Factors that facilitate or hinder successful implementation of HIA

In Sweden, several contextual factors play a key role in the success of HIA. According to the interviewees, there is a growing awareness of public health in Sweden today due to the policies adopted by the Riksdag and the Government. Public health objectives, the pinpointing of priority groups, health determinants and indicators constitute a good framework for conducting HIA in accordance with the new public health policy and represent its prime facilitators. In recent years, central agencies and regional authorities have also been commissioned by the Government to perform HIA in accordance with the new public health policy within their fields.

The interviewees all acknowledged that HIA in accordance with the new public health policy was an excellent tool to use to assess health and social sustainability. They also stated that it was important from a quality point of view to have a process which allowed competencies from outside and inside organisations to merge. This creates a culture that promotes discussion of health issues and social sustainability in other policy sectors.

The interviewees identified the benefits of having an integrated approach towards HIA and making it a complement to or a part of EIA, as was the case in the Route 73 study. HIA should not be a document on its own, however. Instead, results already gathered in the EIA process as regards environmental determinants should be used and complemented with social determinants and the equity perspective. In addition, integrating HIA and EIA is a step towards "Sustainability Impact Assessment" and it would also help to highlight conflicts between the three different dimensions of sustainability; economic, social and ecological.

The interviewees expressed the importance of using experienced and motivated practitioners when performing HIA, as their presence can be a facilitating factor. It is also important to present the results of HIA in an instructive way so that it is easy for the decision-makers to comprehend them and see the differences between the alternatives. This is crucial to the success and effectiveness of HIA and can facilitate the process if done in the right way.

Several interviewees gave the impression that aspects other than health (apart from accidents and loss of life) play a more important role in decision-making and this was also the case in the construction project on Route 73. Society is taking its time to change its perspective on social sustainability and public health. Health issues still have a long way to go before they are on an equal footing with other policy sectors. HIA is not yet adequately known in society and a lot of implementation of the new public health policy still remains. This also explains some of the difficulties encountered in this case study.

The interviewees felt that politicians on regional an local levels need to make policy decisions to use HIA in accordance with the new public health policy in order to broaden its use. While the tasks assigned to central agencies by the Government can be seen as an important beginning to this, decisions are needed on all political levels.

Discussion

One important conclusion from this case study is that HIA, in accordance with the new public health policy, is an effective tool for the attainment of social sustainability in Sweden. Partial HIA as part of EIA is already effective, but

seldom reflects the full intent of the new public health policy.The Swedish Government has taken policy decisions and initiatives over the last few years to broaden the use of HIA in accordance with the new public health policy and hopefully this will help make it become a more common procedure for decision-making.

In order to further development HIA methodology, SNIPH is prioritising the following areas:

- infrastructure
- land use and community planning
- regional development programmes and structural fund programmes.

There is considerable benefit to be derived from highlighting the health aspects of projects, plans and programmes in HIA in accordance with the new guidelines in Sweden (i.e. the new public health policy and the guidelines on HIA published by SNIPH). Performing HIA is a way of "looking before leaping"- creating a comprehensive basis for decision-making in relation to public health. HIA is also a tool for looking into how a decision will affect social sustainability. Sustainable development has been prioritised by the Government and HIA in accordance with the new public health policy should therefore be an obvious tool for everyone.

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