Health Impact Assessment Toolkit for Cities

Document 1.

Background document: concepts, processes, methods

Vision to Action
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The WHO health impact assessment toolkit

The project Promoting and Supporting Integrated Approaches for Health and Sustainable Development at the Local Level across Europe (PHASE Project) was funded by the European Commission, Directorate-General for the Environment, under the Community Framework for Cooperation to Promote Sustainable Development (2003–2005). The WHO Healthy Cities and Urban Governance Programme has coordinated the Project together with health impact assessment experts across Europe and the coordinators of the Italian Healthy Cities Network and Association of Healthy Cities of Slovakia. The PHASE Project aimed to promote the integration of health and social aspects into the sustainable development by focusing on and introducing the process of health impact assessment (HIA). The objective was to develop an HIA toolkit to be used for introducing and implementing HIA at the local level. The toolkit consists of five documents:

1. Health impact assessment – from vision to action (background paper)
2. Health impact assessment – a training module
3. Health impact assessment – how can it support decision-making? (brochure)
4. Introducing health impact assessment in Trnava, Slovakia: a case study
5. Introducing health impact assessment in Bologna, Italy: a case study

This document presents the links between health and the determinants of health to HIA and between HIA and the sustainable development approach. It explains the background to and different forms of impact assessment processes. Moreover, the technical steps of HIA are described as well as how to practically introduce HIA at the local level. HIA tools are provided as well as case examples of HIA at the local level.

Acknowledgements

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1. Health impact assessment and sustainable development

1.1 Introduction

The health and well-being of a population depend on many different factors such as environmental, individual, social and economic aspects. Improving the health status of a population and reducing ill health pose challenges to national and local governments in multisectoral decision-making. Public policy plays a vital role in shaping the social and physical environment in ways that are conducive to better health. The health of people living in towns and cities is strongly determined by their living and working conditions, the quality of their physical and socioeconomic environment and the quality and accessibility of care services.

Thus, multisectoral and intersectoral approaches (including tools, procedures and methods) to preventing ill health are increasingly needed, especially in sectors outside health care. Local governments are in a unique position to promote health and sustainable development because they are directly responsible for sectors that have major effects on health.

Health impact assessment (HIA) aims to predict and assess the effects on health of various proposed policies, programmes and projects and to support policy-makers in improving the decision-making process. HIA supports decision-makers in several ways.

- It informs decision-makers on how they can make optimal decisions between a range of policy options, and it improves the investment of public funds.
- It offers an opportunity to prevent potential negative health effects and to maximize the positive health effects of proposals.
- It offers information about a proposal’s effects on the distribution of health in the population, thus providing an opportunity to reduce inequality in health between groups.
- It makes public views and perceptions known to decision-makers.
- It strengthens local partnerships within local government, other organizations and the community.

This chapter sets out the definition of health and the function of the determinants of health, the origin of HIA and its position in respect to other forms of impact assessment and the role of HIA in supporting sustainable development planning.
1.2 Understanding health and the determinants of health

Health is much more than just the absence of disability and disease. In 1948, the WHO Constitution defined health as: “a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity”. In 1986, the Ottawa Charter for Health Promotion (1) further developed the word health to include “the extent to which an individual or group is able, on the one hand, to identify and to realize aspirations and satisfy needs, and on the other, to change or cope with the environment. Health is therefore seen as a resource for everyday life, not the objective of living; it is a positive concept, encompassing social and personal resources as well as physical capacities.”

This broad and comprehensive concept of health is better understood and fully supported by the rich scientific literature on the determinants of health. Health status and differences in health status are affected by genetic, environmental, social and economic factors related to personal and family circumstances, income, education, where people live and work and, to a relatively limited extent, health care services. In recent years, the importance of the social determinants of health has been increasingly recognized (2). Fig. 1 depicts well the multiple influences on people’s health (3).

Fig. 1. The main determinants of health

Table 1 shows a helpful way of presenting the determinants of health for the purpose of HIA (5).

<table>
<thead>
<tr>
<th>Categories of influences on health</th>
<th>Examples of specific influences (the determinants of health)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological factors</td>
<td>Age, sex and nutritional factors</td>
</tr>
<tr>
<td>Personal and family circumstances and lifestyles</td>
<td>Family structure and functioning, primary, secondary and adult education, occupation, unemployment, risk-taking behaviour, diet, smoking, alcohol, substance misuse, exercise, recreation and means of transport</td>
</tr>
<tr>
<td>Social environment</td>
<td>Culture, peer pressure, discrimination, social support (neighbourliness, social networks and isolation) and community, cultural and spiritual participation</td>
</tr>
<tr>
<td>Physical environment</td>
<td>Air, water, housing conditions, working conditions, noise, odours, the visual environment, public safety, civic design, shops (location, range and quality), transport (road and rail), land use, waste disposal, energy and local environmental features</td>
</tr>
<tr>
<td>Public services</td>
<td>Access to (location, access for disabled people and cost) and quality of primary, community and secondary health care, child care, social services, housing, leisure, employment and social services, public transport, policing, other health-relevant public services and nonstatutory agencies and services</td>
</tr>
<tr>
<td>Public policy</td>
<td>Economic, social, environmental and health trends, local and national priorities, policies, programmes and projects</td>
</tr>
</tbody>
</table>

Source: adapted from Scott-Samuel et al. (5)

### 1.3 The purpose of health impact assessment

HIA has two purposes: to predict the likely health effects of a proposal on a specific population group or groups and to inform policy-makers to improve evidence-based recommendations in the decision-making process. The Gothenburg consensus paper published by the WHO European Centre for Health Policy (6) defined HIA as “a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population and the distribution of those effects within the population”.

Fig. 2 shows a simplified picture of an HIA process. Directly analysing the health outcome attributable to a specific proposal is difficult if not impossible. Instead health outcome must be analysed through how a proposal affects the determinants of health. HIA is therefore divided into three steps: 1) how a proposal affects the determinants of health; 2) how the determinants of health affect health outcome and 3) feeding back the results from the HIA to the policy-makers to revise the proposal (7).
HIA has several benefits.

- HIA supports “healthier” decision-making.
- HIA can help decision-makers optimize the investment of public money by identifying likely negative effects on health.
- HIA can point out the potential health effects on various population groups and recommend changes that can reduce inequality in health.
- HIA can draw attention to potential health effects (both positive and negative) and can offer options for constructive change.
- HIA can be a tool for integrating the concerns of public health into policy development and decision-making.
- HIA can lead to better policy-making through its values and principles.
- HIA can be seen as part of an integrated approach leading to better health for all.
- HIA helps to keep policy-makers informed about the possible health implications of their decisions and paves the way for intersectoral cooperation for health.

HIA is based on the following values:

- democracy: the right of people to participate in a transparent process of decision-making;
- equity: taking into consideration the effects on the health of vulnerable, marginalized or disadvantaged groups;
- sustainable development: including considering the short- and long-term and direct and indirect effects; and
- the ethical use of evidence: the use of qualitative and quantitative evidence has to be rigorous and based on different scientific disciplines and methods to achieve comprehensive assessment (6).

Another highly important factor in HIA, which is not explained in the HIA definition or in the values, is that HIA includes a multisectoral and intersectoral approach. HIA should promote partnership approaches and shared ownership of HIA. This includes bringing the relevant parties and stakeholders together to predict and assess the health impact of proposals.
1.4 Forms of impact assessment

HIA has different names and functions in countries at both the national and local level and in various international organizations. HIA can stand alone or can be included in other forms of impact assessment such as environmental impact assessment; strategic environmental assessment; social impact assessment; and integrated impact assessment.

1.4.1 Environmental impact assessment

The development of HIA can be traced back to the longstanding practice of environmental impact assessment that has been undertaken since 1969 in the United States through the National Environmental Policy Act. Today many countries require environmental impact assessment by law. Environmental impact assessment is a procedure that ensures that the environmental implications of decisions are taken into account before decisions are made. The process involves analysing the likely effects on the environment, recording these effects in a report, consulting on the report, taking into account the comments and the report when making the final decision and informing the public about that decision afterwards. In the European Union, environmental impact assessment has a statutory basis through a directive introduced in 1985 (8) and amended in 1997 (9). Environmental impact assessment is usually applied to projects rather than to broad policies. The advantage of including HIA in the environmental impact assessment process is that the legal basis already exists and a new impact assessment approach does not need to be introduced. The disadvantage of including HIA in environmental impact assessment is that the determinants of health and social cohesion have not usually been explicit in environmental impact assessment (or strategic environmental assessment). Although environmental impact assessment emphasizes health as a key issue, little has been done to involve health professionals or to take into account the wide range of possible health effects, based on the broad determinants of health.

1.4.2 Strategic environmental assessment

At the WHO Third Ministerial Conference on Environment and Health held in London in 1999, several countries supported the idea of a protocol on strategic environment and HIA. WHO, in close collaboration with the United Nations Economic Commission for Europe, was then involved in a process that resulted a strong health dimension in the Strategic Environmental Assessment Protocol (10). The Strategic Environmental Assessment Protocol is set within the framework of the 1991 Espoo Convention on Environmental Impact Assessment in a Transboundary Context. The new Protocol ensures that health considerations are taken into account by requiring parties to assess both the environmental and health effects of proposals. The Protocol, which was adopted at the 5th Ministerial Conference “Environment for Europe” in Kiev, Ukraine on 21–23 May 2003, has been adopted by 36 countries. The word strategic is used to describe this type of environmental assessment because strategic environmental assessment is undertaken much earlier in the decision-making process of proposals (unlike environmental impact assessment), allowing more time for environmental and health issues to be considered. Strategic environmental assessment especially emphasizes the consideration of human health, opening up the possibility for health to be thoroughly considered within environmental assessment, unlike the current situation in environmental impact assessment (Table 2) (11).
### Table 2. Differences between environmental impact assessment and strategic environmental assessment

<table>
<thead>
<tr>
<th>Environmental impact assessment</th>
<th>Strategic environmental assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Applied to projects</td>
<td>• Applied to policies and programmes.</td>
</tr>
<tr>
<td>• Institutionalised in more than 100 countries</td>
<td>• Not many countries have institutionalized it</td>
</tr>
<tr>
<td>• Relatively reactive</td>
<td>• Proactive</td>
</tr>
<tr>
<td>• Strict formal procedures with a “beginning” and an “end”</td>
<td>• Flexible with continuous procedures</td>
</tr>
<tr>
<td>• Involves private developers and environmental authorities</td>
<td>• Involves diverse public authorities</td>
</tr>
<tr>
<td>• Focus on unintended negative impacts</td>
<td>• Focus on issues and implications</td>
</tr>
<tr>
<td>• Narrow but higher level of detail</td>
<td>• Broader but lower level of detail</td>
</tr>
</tbody>
</table>

### 1.4.3 Social impact assessment

Social impact assessment assesses the likely social effects of a proposal on a population (12). Social impact assessment was developed to supplement environmental impact assessment, which did not analyse the social effects of proposals. Social impact assessment includes “life” factors such as work, play, culture and being a member of society. Other factors or determinants included are the norms, beliefs and values of a society. Social impact assessment includes analysing proposals based on the distribution of effects in the population. Solely analysing the whole population is not enough, since a proposal affects various groups differently. The effects in different population groups are therefore highly important. Social impact assessment highlights:

- population characteristics
- political and social issues
- individual and family changes
- community and institutional resources.

The advantage of social impact assessment is that health is included in social issues, and social impact assessment is broader than just covering health factors. However, social impact assessment does not explicitly mention health, and this could be somewhat hidden in the concept of determinants of social cohesion.

### 1.4.4 Integrated impact assessment

Integrated impact assessment is an approach that considers all environmental, economic and social effects. This approach avoids overlooking any key factors and maintains or improves sustainable development and the environment. Integrated impact assessment also aims to analyse and present its results for various population groups: the distribution of the effects in the population. Even if integrated impact assessment exists in many countries, both at the national and local levels, getting enough resources and time to evaluate all determinants for each proposal may be difficult, as is ensuring that social, environmental and economic issues are weighted appropriately.
1.4.5 Health impact assessment in countries

HIA has generated considerable recent interest in many parts of Europe. Finland, Ireland, Germany, the Netherlands, Sweden and the United Kingdom have some level of commitment to apply HIA to policies. In the United Kingdom, HIA is predominantly carried out at the local level. In Sweden, HIA has been introduced at the regional and local levels and has been highlighted in the new public health policy since 2002. In the Netherlands, extensive screening has been carried out on government documents, which resulted in a number of HIA reports. In some German Länder, the Public Health Service laws require the health authorities to participate in planning procedures whenever human health may be affected. Several other European countries have launched activities to introduce HIA, including Denmark, Hungary, Norway, Romania and Slovenia. At the local level, many local authorities across Europe are introducing HIA. In the United Kingdom, cities such as Manchester, Liverpool, Stoke-on-Trent, Brighton, Camden, Glasgow, Stirling and Belfast all have experience in conducting HIA. In 2003, the WHO European Healthy Cities Network launched Phase IV of the Network, in which 50 cities across Europe are committed to introducing and developing HIA.

The European Commission has highlighted the work and development of HIA. The Commission is developing its own tool to carry out integrated impact assessment on its major policies. The World Bank promotes environmental and social impact assessment. The WHO Regional Office for Europe is promoting the use of HIA across Europe through various projects and activities.

1.5 Health and sustainable development

There has been a long tradition of bringing social, economic, cultural and environmental determinants together to maximize development without causing negative effects in other areas. This progress led to the definition of sustainable development in 1987 as development that meets the needs of the present without compromising the ability of future generations to meeting their own needs. The report led to the World Conference on Environment and Development in 1992 in Rio de Janeiro, where the Rio Declaration on Environment and Development and Agenda 21 state that “Human beings are at the centre for concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.” This principle focuses on the inextricable links between health, the environment and development. Agenda 21 specifically addresses health, calling for action in primary health care and communicable diseases, protecting vulnerable groups, meeting the urban health challenges and reducing health risks from the environment.

Underlying the concept of sustainable development is an increasing understanding that the goals of sustainable development cannot be achieved where there is a high prevalence of illness, and health cannot be maintained without ecologically sustainable development. In this respect, “ecological” has both social (as in social capital) and physical (as in natural capital) dimensions. If development occurs unsustainably, economic gains may be accompanied by health gains in the short term but not in the long term.

The World Conference on Environment and Development was followed up a decade later by the World Summit on Sustainable Development (Johannesburg Summit 2002), which included a stronger focus on socioeconomic issues. In the lead-up to Johannesburg, WHO focused on several areas to which Agenda 21 had paid inadequate attention. These messages focused on the
long-term benefits of investing in people’s health for social, environmental and economic development. These key messages included the following (23): ill health worsens poverty and causes socioeconomic decline; and environmental degradation, mismanagement of resources and unhealthy consumption patterns and lifestyles affect health. The current and future effects on health of development policies and practices and new partnerships and measures also need to be considered inside and outside the health sector. HIA contributes towards a sustainable future. HIA aims at studying the determinants of health in an integrated way rather than concentrating on single risk factors.

Further, the United Nations launched the Millennium Development Goals in 2000 (24). These eight goals are to reduce poverty, hunger, disease, illiteracy, environment degradation and discrimination against women by 2015. Each target has subtargets and indicators for monitoring and evaluation. These targets aim to improve the human condition.

In 1984, the WHO launched its health for all strategy for the European Region, presenting 38 targets to reduce ill health and promote health. In 1998, HEALTH21 presented values, actions and 21 targets for the Region (25). Several issues were highlighted, including a gender perspective and putting health as one important factor for sustainable development by strengthening partnership alliances at both the local and national level. The target on multisectoral responsibilities explicitly mentions HIA as a mechanism to be established in all sectors to assess the effects on health of policies.

1.6 Health and the urban dimension

Responsibilities are being increasingly decentralized in areas that directly influence the determinants of health, and cities have therefore increasingly become key players for health and sustainable development. Since the World Conference on Environment and Development in 1992, promoting integrated strategies for sustainable development at the local level has been strongly emphasized. These ideas have been largely championed by Local Agenda 21 initiatives and a range of sustainable development networks that bring together local authorities at the European and international level. A major weakness of Local Agenda 21, and the sustainable development agenda generally, is that it has not embraced the wider social and health issues that are central to a sustainable future. In addition, health has not been widely recognized as a key resource for economic and social development in mainstream policy-making. At most, efforts are made to reduce negative effects on health through mechanisms such as environmental impact assessment, but opportunities to promote health are not considered.

The WHO European Healthy Cities Network has made progress in raising health and social issues on the agenda of sectors other than the health sector by promoting city-wide health development plans. For some cities, work on these city health development plans has represented a first attempt to develop integrated planning for health. Although these plans have helped to raise health on local agendas and to increase cooperation between sectors, many local plans are still dominated by the health and social sectors.

HIA can facilitate the development of integrated planning approaches by bringing sectors together to identify potential health effects and to identify interventions to eliminate or minimize negative effects and maximize positive effects. It can help to build common understanding of health among local stakeholders (such as politicians, practitioners and community representatives) and of the responsibility each sector has in producing positive health outcome. As HIA is based on a broad model of health, it takes into account social, environmental,
economic and cultural issues and how they affect the lives of individuals, communities and populations. The approach of HIA is therefore consistent with the concept of sustainable development described above.

2. Stages of health impact assessment

This chapter explains the technical aspects of HIA. The HIA process consists of three stages describing how to start and what proposals should undertake screening (screening and scoping); assessment (appraisal and reporting dissemination); and determining whether the HIA led to any change (monitoring and evaluation). Table 3 shows the stages of an HIA process, the main tasks and the rationale for each stage.

<table>
<thead>
<tr>
<th>Stage of HIA</th>
<th>HIA tasks</th>
<th>Added value of this stage</th>
</tr>
</thead>
</table>
| 1. How to start and how to select a proposal (screening and scoping) | • Selecting proposals  
• Identifying health effects and the population groups affected  
• Creating an HIA steering group  
• Developing terms of reference for the HIA | • Resources used efficiently  
• Proposals can be selected systematically  
• A group is created that takes responsibility for the HIA |
| 2. Assessment (appraisal, reporting and dissemination) | • Collecting and analysing quantitative and qualitative data on health effects in various population groups  
• Writing an HIA report based on the results  
• Disseminating the report | • Assessment is based on evidence  
• Various stakeholders are informed |
| 3. Did the HIA lead to any change? (monitoring and evaluation) | • Evaluating the process  
• Evaluating the outcome (or results)  
• Evaluating the impact (effectiveness) | • Lessons are learned and the process is improved the next time |

2.1 Screening and scoping: is health impact assessment needed and, if so, how would it be carried out?

2.1.1 What is screening?

The screening process selects a proposal and identifies potential effects on the determinants of health, health outcome and population groups.

The screening step aims to select proposals that may affect the determinants of health and thereby the health outcomes in different population groups and should therefore be assessed. Screening not only identify the proposals that should be assessed; it also identifies proposals that do not need HIA, such as ones with a negligible impact on health, those for which the effects are well known and documented and those that are not negotiable. Screening can therefore result in three types of decisions.
• HIA is needed.
• HIA is not needed, as the effects are already known or the proposal is not negotiable.
• HIA is not needed, as the effects are negligible.

2.1.2 Who should carry out screening?
Screening should preferably be carried out by a team of people. Screening is more likely to have greater influence if it is carried out by a team with different backgrounds (a multisectoral process). Wide involvement of local partners can help to raise awareness, to broaden the understanding of the determinants of health and HIA and to gain support for investing resources in HIA. The team may include public health professionals, policy planners, health experts, policy experts and relevant local authorities. However, the question of whether a team can be in place for screening depends on the organizational context; otherwise an individual could do the screening. Policy-makers are not usually involved in screening, but they must be kept informed and involved.

2.1.3 How to carry out the screening
Screening is carried out by a) selecting a proposal, b) create a screening tool or checklist and c) screening by checking whether the proposal affects the determinants of health, health outcomes or population groups in any way.

First, a proposal should be selected based on its content and significance. These two factors should be well understood. Any political priorities or any form of disagreement surrounding the proposal need to be considered. The question that needs to be answered is “Can and will HIA solve problems and bring clarity to the proposal, or should other methods be used?”. Another important factor is whether there is enough time to carry out HIA on the proposal before the decision is made. If there is not, the results of the HIA will not reach the decision-makers in time to make a difference.

Second, the screening requires creating a screening tool or checklist. A tool is preferable, since this will be more comprehensive and involve more factors that the checklist. However, a checklist may be a good substitute when there is not enough time or resources to develop a tool. The tool or checklist should produce clarity on whether the proposal affects – positively or negatively – the determinants of health, health outcome and population groups. This means that the tool and checklist have to be based on several determinants of health, outcomes and population groups that may look different in various communities (depending on health status, political priorities and geographical spread).

Third, the screening starts by reading through the proposal and using the tool and checklist to assess which determinants of health and population groups may be affected. The results for the determinants of health affected can be used to form a judgement about the potential health outcomes affected. The results of the screening should then be enough to decide whether or not the proposal should undergo HIA.
2.1.4 What is scoping?

Scoping forms the following steps of the HIA by creating a steering group and to develop and adopt the terms of reference for the HIA.

When a proposal has been screened and the assessment is that HIA is required, the proposal needs to go through scoping. Scoping involves bringing together the major stakeholders of the proposal by creating a steering group and developing and adopting terms of reference for the HIA. This means that scoping may be the most critical and important step of all, since the decision is made as to who should work on the HIA (members of the steering group), who should carry out the appraisal, the person or organization responsible, how the appraisal should be carried out and how to monitor and evaluate the process.

2.1.5 Steering group

The steering group should include people with different backgrounds representing various sectors relevant to the HIA.

The first step of scoping is to set up a HIA steering group. The members of the steering group should be selected according to their competencies, which should relate to the topic of the HIA (the content of the proposal). Different people or organizations therefore need to be involved depending on the HIA in question. Specialist competencies are generally required such as those related to public health, environmental health and social sciences as well as research and management skills. However, all the potential stakeholders of a proposal may not be able to be involved directly due to limitations of time, availability and resources. Nevertheless, all stakeholders should be kept informed about the HIA process, invited to meetings and provided with opportunities for feedback. Box 1 shows the potential different stakeholders of an HIA (26).

<table>
<thead>
<tr>
<th>Box 1. Potential stakeholders of an HIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Representatives from the communities in the affected population</td>
</tr>
<tr>
<td>• Representatives from neighbouring communities</td>
</tr>
<tr>
<td>• Proponents of the proposal</td>
</tr>
<tr>
<td>• Specialists whose field of knowledge is relevant to the proposal</td>
</tr>
<tr>
<td>• Professionals from relevant public agencies, including front-line staff, such as health visitors, general practitioners, social workers, community development officers, police, probation officers and teachers</td>
</tr>
<tr>
<td>• Representatives of relevant voluntary organizations</td>
</tr>
<tr>
<td>• Representatives from the business or commercial sector as appropriate</td>
</tr>
<tr>
<td>• Decision-makers involved in implementing the proposal</td>
</tr>
<tr>
<td>• Locally elected politicians (if not involved as decision-makers)</td>
</tr>
</tbody>
</table>
2.1.6 Tasks of the steering group

The main task of the HIA steering group is to develop terms of reference that explain how and when to conduct the appraisal and who will conduct it.

The steering group is responsible for developing and adopting terms of reference for the HIA. The drafted terms of reference should indicate:

- the person, group or organization responsible for the HIA;
- the boundaries for the appraisal: who should carry out the appraisal, the amount of time, method chosen, for whom will the report be written and how it will be disseminated; and
- the nature of and responsibility for monitoring and evaluation.

Carrying this out requires the steering group to understand the decision-making process related to the actual proposal. This includes knowledge about the institutional context (formal decision-making procedures), how the proposal comes about and how the HIA may be linked to this and the parties involved.

The steering group is usually responsible for HIA. If the steering group is not responsible for decisions related to modifying the proposal, then special care should be taken to engage decision-makers in the steering group. By taking part in the HIA process directly, decision-makers will better understand the process itself and the results arising from the HIA. Their involvement makes it more likely that any recommendations emerging from the HIA will be accepted. The steering group should generally have good knowledge about the priorities of decision-makers and should clarify the opinions and main interests of various stakeholders.

The terms of reference should indicate who should carry out the appraisal (the HIA assessment team), the amount of time available for the appraisal and the method (rapid or more in-depth) given the amount of time and content. The steering group also needs to establish criteria for how the report will be written and to whom and how it will be disseminated. This should include decisions about the target audience, format, means, resources for publishing and disseminating the HIA results. Publicizing the HIA (when it begins and at other key stages), disseminating preliminary findings and using discussion groups will help to put health interests on the agenda of agencies. These steps are as important as producing a sound report.

2.2 Appraisal: assessment, reporting and dissemination

2.2.1 What is appraisal?

Appraisal is the heart of the HIA process where all the data and evidence are collected and analysed.

Once scoping is completed, the next stage is to conduct appraisal. The appraisal should be carried out in accordance with the terms of reference, which indicate the amount of time, the in-depth stage of the HIA, who will carry it out and how. This step also includes writing the report and how to best distribute it to decision-makers and stakeholders.
2.2.2 How to carry out an appraisal

An appraisal can be either rapid or more comprehensive.

Appraisal requires knowledge of the content of the proposal, the characteristics of the local area and its population and the use of evidence and methods to identify the health impact and make a judgement and recommendation. Rapid appraisal does not involve collecting any new information or data. In-depth appraisal explores new data and new correlations to get stronger evidence for the assessment. The choice of appraisal form depends on the significance of the proposal and its content. Table 4 shows the criteria for each form of appraisal (27).

Content of the proposal

First, the content of the proposal needs to be analysed. The analysis, which started during the scoping step, identifies and characterizes the potential determinants of health and health effects and helps the assessor to shape the results of the appraisal and any recommendations for modifying the proposal. Analysing not only the content as such but also the proposal’s aims and objectives and whether the proposal has (sometimes hidden) values is essential. All these factors need to be assessed in accordance with the actual political context and the political priorities and goals. The analysis of the proposal should also preferably include factors that might limit the implementation of the HIA process.
<table>
<thead>
<tr>
<th></th>
<th>Rapid appraisal</th>
<th>Comprehensive appraisal</th>
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<tr>
<td><strong>Definition</strong></td>
<td>Rapid appraisal uses information and evidence that is already available or easily accessible. Rapid appraisal can be carried out as a participatory or a nonparticipatory process.</td>
<td>Comprehensive appraisal entails collecting new data. This might include a survey of local residents, a comprehensive literature review or a primary study of health effects of the same proposal elsewhere. It usually requires a prolonged and substantial time commitment from a number of people and is resource-intensive.</td>
</tr>
<tr>
<td><strong>Nonparticipatory rapid appraisal</strong></td>
<td>This is sometimes called a desktop appraisal. Desktop appraisal is very rapid and is generally undertaken by officers in an organization to gain a snapshot of the health effects to determine the direction of a proposal. It is similar to screening but does not have the function of selection.</td>
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<tr>
<td><strong>Participatory rapid appraisal</strong></td>
<td>Participatory rapid appraisal is undertaken by several stakeholders (relevant to the proposal) together with officers in charge of the appraisal. The key element is a half-day workshop. Rapid appraisal is comparatively rapid and inexpensive, but intensive labour is required to prepare for the workshop.</td>
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</table>
| **Time span**        | • Participatory: 1–2 months  
                        • Nonparticipatory: hours to days (not including approval time by the steering group) | Months to years (depending on the content of the proposal) |
| **Alternative terms**| • Mini-appraisal  
                        • Health impact rapid appraisal  
                        • Rapid health impact appraisal | • Maxi  
                        • Comprehensive appraisal  
                        • Health impact analysis |
| **Features of the appraisal** | • Can be a desk-top exercise  
                        • Could be carried out by an assessor within a participatory, stakeholder workshop (not including reporting) | • Extensive collection of qualitative and quantitative data showing evidence of health effects  
                        • Should preferably be carried out by one (or more) internal or external person trained in HIA, such as a health officer, social scientist, policy officer or public health officer |
| **Consultation and participation** | • Participatory: involves holding a half-day stakeholder workshop  
                        • Nonparticipatory: little consultation. Nonparticipatory techniques can be useful for assessing a proposal’s effects on health routinely in the early stages of planning | • Full participation of stakeholders |
| **Primary and secondary data** | • Makes use of existing or readily available data and the results of assessments on similar proposals  
                        • Makes use of the knowledge and perceptions of stakeholders | • Involves collecting and analysing new data  
                        • Involves a review of existing evidence and assessments on similar proposals  
                        • Makes use of the knowledge and perceptions of stakeholders |
| **Output**           | Brief report | Comprehensive report, agreed and possibly co-written, by a number of stakeholders |
Background information about the population and community

Carrying out the appraisal requires data about the community and the population. Background information about the population living in the actual community is very valuable, including health status and physical and social structures and conditions. Profiles show the present state of all these factors and provide a baseline for monitoring the future. This profile should not only describe the whole population but also (if possible) population groups to follow and monitor inequality in health. Box 2 shows the factors that should be collected in a health profile (28).

Box 2. Data to be collected in a health profile

- Size
- Age and sex structure
- Vital statistics
- Health status
- Inequality (identification of vulnerable or deprived groups)
- Lifestyles
- Living conditions
- Socioeconomic conditions
- Physical environment
- Physical and social infrastructure
- Public health services and policies (including the quality of and access to services)

Identifying potential effects on health

After the proposal, population and community are analysed, the assessment of health impact can start. Drawing conclusions directly from the content in the proposal to health outcome is difficult and complex. The analysis thus determines the likely effects of the proposal on the determinants of health and then how the determinants of health affect health outcome.

- How does the proposal affect the determinants of health? Which determinants? How strongly are they affected?
- How are these determinants of health likely to affect the health outcome in the population?

A systematic mapping system can be used to examine the relationships between the proposal, the determinants of health and health outcome. The causal pathways model in Fig. 3 illustrates the likely effects of a home energy efficiency scheme (labelled HEES) on health (29). The model below shows how well-intentioned improvements for energy efficiency may have unintended negative health effects through decreased ventilation and increased humidity. This is not just a good way to start for the assessor, but this illustration should also be given to the stakeholders for feedback and comments.
The nature of health effects derives from several factors:

- the determinants of health affected and the subsequent effect on health outcomes;
- the direction of change, positive or negative;
- the distribution of health effects – the population groups affected and the effects on inequality in health;
- magnitude: the number of people in the community affected;
- severity of health outcome (mortality, morbidity or injury and well-being);
- the likelihood of the effects based on the strength of the evidence;
- latency: when the effects will occur, in the immediate, short, medium or long term;
- frequency: how often the effects will occur;
- duration – for how long the effects occur; and
- the potential for interaction with other effects.

These factors show that appraisal should use both qualitative and quantitative evidence. Qualitative data describe and explain the content of the proposal, whereas quantitative data estimate the size of the relationship. Both methods are usually valuable and necessary to provide a full picture.

Qualitative research involves gathering evidence from experience, knowledge, opinions and perceptions of research such as surveys, interviews, focus groups, workshops and citizens’ juries. This type of evidence is of great value to the HIA process for the following reasons.

- It provides more insight and detail into how a proposal is likely to affect the determinants of health.
- It provides more insight and detail into how the determinants of health are likely to affect the health outcome.
- It gives information about the population’s opinions and feelings about the proposal and its outcome.
- It gives insight into the likely effects on inequality in health, which population groups may be affected and how.
Quantitative data and methods provide the magnitude and direction of the effects. Several quantitative methods can be used, such as population analysis, regional analysis, identifying and classifying health hazards, health monitoring, environmental monitoring and health risk assessment.

- They provide more insight and detail related to how strongly a proposal is likely to affect the determinants of health.
- They provide more insight and detail related to how strongly the determinants of health are likely to affect the health outcome.
- Quantitative data could also be used to monitor effects over time and thereby provide information about how the effects are likely to increase or decline over time.
- They provide more insight and detail related to how strongly the inequality between population groups is likely to increase or decrease.

A mix of both qualitative and quantitative is preferable. The results of quantitative methods such as modelling and risk assessment can provide useful input for the participatory qualitative HIA method. In this way, the discussions of stakeholders and experts can be more focused, since the assumptions made in predicting health effects become more explicit.

In practice, finding evidence that can show a direct relationship between a proposal and potential health effects may be difficult. The existing evidence base for the determinants of health and interventions to improve health can be unreliable. Where evidence exists, it may only show an association rather than a direct causal link. There may also be disagreement about the strength of such associations. Where local evidence is unavailable or where resources are inadequate to collect new evidence, other data may have to be extrapolated, even if this is quite difficult. Sources of information that can support an HIA include (30):

- information about similar proposals implemented elsewhere
- people with technical and specialist competence
- views of residents and people with local knowledge
- views of people with specialist knowledge
- information from literature on the determinants of health
- routinely collected local statistics on health, unemployment, benefits, crime, air quality, etc.
- opinion surveys
- literature reviews undertaken for other assessments
- surveys of local conditions
- secondary analysis of existing data
- predictions from models, and
- resources from research institutes.

Judging the significance of the predicted effects

HIA may identify several effects and make suggestions for reducing negative health effects and enhancing positive health effects. The impact analysis will compile both qualitative and quantitative evidence and help to strengthen the decision. Policy-makers may, however, only be
able to make a limited number of changes to the proposal. This means that priorities may have to be set among the effects. These effects will be ranked in priority for the recommendations in the core report.

2.2.3 Reporting and dissemination

Reporting includes collecting and presenting the results from the analysis and input from stakeholders as well as deciding how to best distribute the report.

The core report should include the potential effects and options for enhancing the positive effects and minimizing the negative effects of the proposal. The responsibilities of the steering group are to ensure that the content of the report and the substance of the recommendations are in accordance with:

- the scope of the HIA and its underlying values;
- whether the content of the report and the recommendations reflect the values and the priorities identified at the beginning of the process;
- the views expressed by the stakeholders; and
- the evidence available from the various sources.

The report should distinguish between the overall findings and any recommendations that are being made. Recommendations may be related to the details of a proposal or to the effects of different options for the implementation of the proposal. Any interventions that are recommended should be based on evidence, to ensure that the intervention will bring about the desired outcome. Box 3 summarizes the typical content of an HIA report (29).
Box 3. Typical content of an HIA report

| 1. | Description of the proposal and the scenarios (options) under consideration (as identified during scoping) |
| 2. | The background of the situation, including: |
|   | a. The current situation |
|   | b. The current state of health of the community |
|   | c. The determinants of health in the community – such as employment, pollution or housing |
|   | d. Vulnerable groups (elderly people, minority groups, etc.) in the community, if any |
|   | e. How things will develop if the no-change option is selected |
| 3. | List of intermediate factors (include possible scenarios that were included during scoping) |
|   | a. For each intermediate factor in the list: |
|   |   i) How much will it change under the proposal? (this may differ for different sectors) |
|   |   ii) How will people be affected by the changes? |
|   | b. For each factor indicate: |
|   |   i. The estimated size of the impact |
|   |   ii. The uncertainty attached to the estimate, rated using such words as “certain”, “probable” or “possible” |
| 4. | A table summarizing the effects |
| 5. | A statement on how the proposal will affect equity |
|   | a. Who will gain? Who will lose? |
|   | b. How will the various groups (ethnic, income or geographical) be affected? |
|   | c. Are there any benefits for the least favoured sectors of the community? |
| 6. | Recommendations to maximize the benefits and minimize harm |
| 7. | Monitoring and evaluation |
|   | a. What needs to be monitored after the proposal is implemented to check the predictions of the HIA? |
|   | b. Are there any particular aspects that require careful consideration in case of early intervention? |
|   | c. Are there any lessons learned from this HIA that can be applied to future assessments? |
2.3 Monitoring and evaluation: did the health impact assessment lead to any change?

Monitoring and evaluation follow the results of the HIA and evaluate the process and the effectiveness of the HIA.

2.3.1 What is monitoring and evaluation?

The monitoring and evaluation part is the final step in the HIA process. This step is very important to be able to repeat the work of the successful HIA (and avoid mistakes, if any). Monitoring involves following up the project and its objectives and shows what is happening by time. Evaluation assesses the proposal by its outcome, the process and how effective it is.

The aim of the monitoring and evaluating process is:

- to improve the process of HIA;
- to use the results to inform other assessments to help future proposals to achieve health gains;
- to observe whether the recommendations were implemented; and
- to assess the accuracy of predictions by comparing the expected impact of the recommendations and the actual impact of the process.

The steering group is responsible for commissioning external or identifying internal assessors to carry out the evaluation. Where possible, the monitoring and evaluation should link to existing data collection and monitoring systems, which other organizations or partners may coordinate. Having a protocol for information sharing is also advisable.

Similar to the previous stages, the availability of financial and human resources and the time constraints will determine the extent of monitoring and evaluation activities (set out in the terms of reference and the scoping process). Ideally, evaluation should be carried out externally and independently, but in reality there is not always adequate funding to carry out independent, external evaluation. In this case, peer evaluation is better than no evaluation. A standard set of evaluation criteria can be agreed during scoping. Learning from the process of the HIA and understanding why it has or has not been effective are essential.

2.3.2 Types of evaluation

The process, impact and outcome can be evaluated (3l). Process evaluation explains how and why the process has worked (or not worked well) and should answer the following questions.

- Did the HIA follow the terms of reference?
- How was the HIA undertaken (time, place, geographical area, population groups affected, etc.)?
- What resources were used (human, financial and time)?
- What evidence was used and how it was used to form the recommendations?
- How was inequality in health assessed?
- How were recommendations assigned priority?
• How were decision-makers involved in the process and what did they expect from the HIA?
• In what format and time frame were recommendations delivered to decision-makers?
• How did those involved in the process perceive the HIA?

Impact evaluation assesses the effectiveness of the HIA. This type of evaluation specifically examines the effects of the HIA process: did anything happen as a result of the HIA? The following should be answered:
• how and when the decision-makers accepted and implemented the recommendations – and the factors that contributed to this;
• the likely reasons why recommendations were rejected or accepted;
• whether the aims and objectives of the HIA were met; and
• other effects associated with the HIA (such as raising the profile of local health needs).

Outcome evaluation assesses whether the anticipated positive effects on health, well-being and equity were realized and whether any negative effects were minimized. Measuring all the health effects of a proposal is difficult because the world is always changing, making attribution dynamic even in the short-term.

Some health effects will take many years to become apparent. Indicators should therefore be included to measure these longer-term health effects:
• to determine whether the predicted effects (or lack thereof) expected after changes to the proposal actually occurred;
• to allow early detection of possible harmful effects that may require action to safeguard the health of the population or that of vulnerable groups;
• to determine the actual effects of implementing the proposal to help inform the development and implementation of similar ones in the future;
• to learn whether value for money or added value has been obtained by investing resources;
• to build the evidence base for HIA; and
• to learn from intersectoral cooperation and to help other sectors gain an understanding of how they affect health.

3. Introducing health impact assessment at the local level

3.1 Introducing health impact assessment – getting started

HIA is a flexible method that should assist cities in systematically introducing health and social concerns into their planning and implementation processes. HIA can help cities to achieve goals and targets related to their commitment to sustainable development. The outcome of implementing HIA depends on a number of contextual factors related to physical (size, environment and location), political, social and economic factors (Fig. 4). However, even if HIA implementation varies depending on the contextual factors, universal lessons can be gleaned that are similar for all local areas regardless of location or structure. As Fig. 4 shows, HIA
implementation is divided into two strands: political and executive strands. The most important factor is to gain political commitment and support. This is achieved by briefing politicians and by raising awareness about the HIA process and its benefits. The other strand builds up the capacity in the local authority by training officers to carry out HIA. Both strands, commitment and support as well as capacity-building, lead to finding the best possible entry points to carrying out HIA, setting up a steering group and technically carrying out the HIA appraisal report.

Fig. 4. Introducing HIA at the local level

![Diagram](image)

### 3.2 Briefing politicians for political commitment and support

Briefing and raising awareness are significant elements in gaining political commitment and support. These differ. Even if there is commitment to HIA, there may be poor political support by transferring resources in time and people to perform the HIA. Both commitment and support are therefore necessary. Awareness about HIA can be raised in several ways: workshops, meetings, seminars and conferences. These events are normally open to the public, as the intention is to reach as many people as possible. Inviting people from different sectors and organizations is very valuable, however, as HIA is built on multisectorality, in which various stakeholders work together. Presenting experience and case studies from other countries is important to illustrate how the HIA process has been applied in other contexts. This chapter presents several case studies. The HIA toolkit includes a brochure (*Health impact assessment – how can it support decision-making*) written for briefing politicians and to be used in raising awareness.
3.3 Training the executive for capacity-building

Awareness-raising events are often combined with or lead up to training in HIA. The training sessions usually target a smaller audience than the awareness-raising events, and the people attending the training sessions are those who will carry out HIA. Carrying out HIA requires resources such as time and skilled people. The training session should present the HIA process in-depth, defining health and the determinants of health, how HIA is set up and with which values and characteristics and how to technically perform HIA. *Health impact assessment – a training module* (part of the HIA toolkit) describes all these issues.

3.4 Entry points

3.4.1 Mapping the political and impact assessment processes

Once awareness is raised, training events carried out and political support obtained to start the actual HIA process, entry points need to be found for how to carry out HIA. The entry points look different depending on the structure of the community and its population. However, there are some general suggestions on how to find the best entry points: mapping the political process and identifying other already implemented impact assessment processes. Mapping the political process will provide information about the structure of decision-making: how a proposal turns into a decision. This mapping exercise provides knowledge about where and when in the political process applying HIA is appropriate. This should occur in an early stage of the political process. Knowing how, when and where to feed back the results to the decision-makers is also important. Undertaking HIA is pointless if there is no time to inform the decision-makers – HIA has to happen within the decision-making time period.

Another mapping exercise would be to find out whether the local authority has other forms of ongoing impact assessment processes. If there is a strong tradition of using environmental impact assessment, integrated impact assessment or the like, it would be valuable to study these to learn the process, as HIA will probably look very similar. Perhaps HIA should be built into the existing process instead of starting a complete new one. There are always advantages of having new elements merging into an already existing (and sometimes institutionalized) process. However, the disadvantage is that other impact assessment processes do not highlight health issues.

3.4.2 Health impact assessment steering group

Another step is to create an HIA steering group (in the scoping stage). This group should consist of representatives from different backgrounds and stakeholders from various organizations and institutions. The group must have a decision-making mandate over the terms of reference of the HIA. This means the group has responsibility for how the HIA is carried out and for delivering results. Similar to the mapping exercises above, it is important first to learn whether the local authority already has existing groups with similar tasks.

The participants on the steering group should preferably represent a range of HIA experts, community politicians, planners, researchers from universities, policy developers, people from different nongovernmental organizations and representatives from the housing, transport and social sectors. The steering group is not static or fixed and will differ for each assessment. However, as a minimal requirement, it would be valuable to have a politician, a planner and a project-based person (an HIA person with knowledge about the proposal) on the steering group. Annex 1 presents a framework for a screening tool that can be used when a tool is to be
developed. Annex 2 presents a scoping framework that can be used as a checklist when performing the scoping.

### 3.4.4 The technical stages

The next steps are to prepare the technical report (described in Chapter 2). The screening includes how to select a proposal and how to create a screening tool. It is important to select a proposal that is politically important but not too complex. When the screening step is carried out and a proposal is identified, the steering group needs to be formed and will adopt the terms of reference for the HIA. The appraisal will result in the HIA report, which should be based not only on the results but also on the stakeholders’ opinions. The report should be disseminated to the politicians to inform them about the outcome of the appraisal. It should also be disseminated to all relevant stakeholders.

### 3.5 Evaluation

Evaluation of the process is very important to improve the HIA process. Learning how to keep the procedures that functioned well and replacing others that did not function is essential. In many cases, the evaluation of the process has not been built in from the beginning in the project, and this step is often ignored due to lack of time and resources. It should, however, always be regarded as one of the most essential steps to be taken to explicitly determine what has been successful but also less successful.

### 3.6 Case studies

#### 3.6.1 Health impact assessment in Helsingborg, Sweden

**Background and initiation**

In 1999, HIA started to be developed in Helsingborg (32). The Federation of the Swedish County Councils and the Association of Swedish Local Authorities had started the process of HIA in the mid-1990s by developing tools and promoting the process at the local level in Sweden. In Helsingborg, HIA started when the city became a member of the WHO European Healthy Cities Network. This membership required developing a profile on the city population and focusing on the determinants of health. The government and its new public health policy Health on Equal Terms (33) supported the progress at the local level.

**Process**

Participants from the regional health authorities started to develop the process in Helsingborg together with the Department of Social and Preventive Medicine at the University of Lund. It began with a workshop where both professionals as well as local politicians participated. HIA was considered to be a useful tool for the plans for regenerating a district of Helsingborg with high levels of unemployment, migration and segregation combined with poor physical conditions. The new plans aimed to create a better neighbourhood for all population groups, and it became obvious that the health impact of each development plan could be assessed.

**Results**

HIA was not carried out systematically in the development plans. However, the work convinced the participants that HIA was a method that could facilitate the decision-making process and to make political priorities easier by supporting the policy-makers with information about the
health effects. These experiences led to awareness by the HIA Executive Committee, who started mainstreaming the HIA process by:

- holding awareness raising events: seminars with an external expert;
- creating an HIA steering committee; and
- developing a screening tool.

The HIA Executive Committee is currently developing the screening tool and testing it to start applying HIA systematically to all major proposals.

3.6.2 Smoke-free Brighton & Hove – ongoing health impact assessment work

Background and initiation

The City Health Partnership, as part of Brighton & Hove’s Healthy City approach, commissioned an integrated impact assessment of a proposal to extend smoke-free environments within the city (34–37). The topic of smoke-free environments is a high-level priority both at the national and the local level. Integrated impact assessment is an approach that considers and assesses all economic, environmental and social aspects. The work was also highly focused on analysing the health effects for the vulnerable groups in the city, looking at the distribution in the population.

Process

The integrated impact assessment was carried out starting with studies of the local views on extending smoke-free environments within the city. It consisted of three parts:

- desk research to establish the evidence base of the health, social and economic effects of smoke-free public places;
- an online and postal survey public consultation on smoke-free public spaces from July to September 2004, with the results being announced at a public debate; and
- direct consultation with business owners and venue managers in the bar, club, restaurant and wider hospitality industry and miscellaneous workplaces.

Results

Results showed that most respondents support a law to make public places smoke-free. Extension of smoke-free environments within the city has the potential to displace smokers from pubs, clubs, restaurants etc. onto street pavements and open public spaces. This will raise issues for policing of busy hospitality corridors throughout the centre of the City. The Brighton & Hove Tobacco Alliance will bring together key stakeholders:

- to identify specific community safety and crime and disorder risks associated with the potential introduction of extended smoke-free environments within the city;
- to outline proactive actions to reduce the crime and disorder associated with increased numbers of smokers on streets in busy hospitality corridors throughout the city;
- to outline preventive measures to improve community safety associated with increased numbers of smokers on streets in busy hospitality corridors throughout the city; and
- to provide recommendations for the group of responsible authorities.
Membership will include representatives from the Police, Urban Planning Department, Trading Standards, Community Safety Team, Public Health, the business community and others as appropriate.

The big smoke debate has successfully engaged all sectors within the city. The integrated impact assessment has already delivered positive local policy change in favour of robust measures to maximize opportunities to achieve comprehensive smoke-free environments within the city. Brighton & Hove City Council passed a motion in support of the national legislative agenda to enforce smoke-free policies in all workplaces. The City Council has acknowledged that it has a vital role within the Community Partnership and the City Health Partnership to engage with other parts of the public sector, the private sector and voluntary and community sectors in implementing a range of smoke-free policies. The City Council is developing a Smoke Free Charter, banning smoking in all its public buildings and workplaces and in children’s play areas in parks and the waterfront.

This work was presented at the Francophone Network of Healthy Cities at France’s Ministry of Health in January 2005. A journal article will be published in *Social and Preventive Medicine*.

The integrated impact assessment was a successful approach to engage all sectors in the health debate for tobacco control. The well-planned process gave local politicians confidence to listen to views from all sectors and to develop a new policy that reflects these views. The integrated impact assessment approach has been highly praised within the city. A similar approach will be used in 2005 to assess views on how best to reduce obesity within the city through a big weight debate – involving the community and the leisure and food industries.

### 3.6.3 Transport policy and inequality in health: a health impact assessment of Edinburgh’s transport policy

**Background and initiation**

The correlation between health and transport is widely known. Good transport infrastructure and policy would lead to better public health status in the general population. HIA can be used to highlight this correlation and to improve the decision-making process related to the health impact of transport policies. Further, HIA has the potential to reduce inequality in health. In Edinburgh, the transport policy was planned to be redeveloped. This made it possible for the health and local authorities to cooperate on HIA of these new plans (38).

**Process**

An expert group was created to undertake the HIA. The group consisted of council transport planners, representatives from the health board, experts in transport, the local community as well as university public health staff. The expert group selected a rapid, prospective approach for the HIA. Five main determinants of health were analysed:

- road crashes
- physical activity
- access to goods and services
- community networks
- pollution.
The expert group selected two members to carry out an literature review and a policy analysis about the relationships between the determinants of health and transport. The results from the analysis were explained and discussed in several meetings with the members of the expert group. The evidence of the health effects was considered in terms of the most vulnerable groups. The risks were graded on a scale.

**Results**

The results highlighted the risks for vulnerable groups. This led to the knowledge that HIA is a good instrument for providing evidence-based information for decision-makers. Another advantage was that a closer relationship was built with partners of the health and local authorities.

### 3.6.4 Community-led health impact assessment in Belfast, Northern Ireland

**Background and initiation**

Belfast Healthy Cities led a community HIA pilot project in 2004 (39). The community HIA pilot was funded by the Department of Health as part of piloting HIA methods within the new public health strategy. The main difference between community HIA and HIA is that communities are facilitated to identify the proposal on which a HIA will be conducted. It is based on the community development approach to health and is a bottom-up process in which the communities initiate a HIA process to enable them to influence decision-makers directly and improve their health and well-being.

**Process**

The first community HIA to be piloted in Belfast was the development of the Enler Site on the Bally Been Estate. Members of the community and representatives from the statutory and voluntary sector were being trained in carrying out an HIA by applying the approach of learning by doing. This meant that the people involved in this project were learning at the same time that they were performing the work. Several stages were involved, including: establishing an intersectoral steering group chaired by a member of the community; producing a community health profile that included statistical information on the determinants of health but also information on proposals coming into the area; and training on health, inequality in health, HIA and facilitation skills. The proposal for Enler Site development was selected as the proposal on which to conduct HIA. The economic appraisal of the Enler Site development pointed out several different outcomes in relation to the six options, from doing nothing to a range of other options, allowing comparison with the alternatives. In the participatory stakeholder workshops, all relevant stakeholders were invited to discuss and answer several questions concerning the proposal: the positive and negative health effects of the proposal and the barriers and conflicts surrounding the implementation of the proposal.

**Results**

The results were analysed through each option to determine which would be the best one that later could be recommended and were then presented to the proposers. The results highlighted the potential negative and positive health effects and also suggested interventions to address the effects. The results were warmly received, and the proposers welcomed the timing of the HIA, in that the proposers indicated that they would include some of the recommendations and interventions in the specifications for the builders involved in the construction of the site. The proposers are a not-for-profit company, which also supported the implementation of the results.
3.6.5 Health impact assessment of a land-use plan in Cambridgeshire, England

Background and initiation

When local government considers future land-use plans, the local health authorities are not always included as a key partner. In Cambridgeshire, England, the former Cambridgeshire Health Authority formed a partnership with local government to address this issue (40). A structure plan is a strategic land-use planning document that provides a framework for development within a specified area. The plan was considered and written for the period up to 2006, and a new plan was intended to be written for a period up to 2016.

Process

The Cambridgeshire County Council and Peterborough City Council decided to jointly review the plan and commissioned a set of consultants to carry out an HIA of the plan. In the end, they decided to carry out a health impact review, which differs from HIA as the estimations are based on previously published reviews of similar health effects. The objectives of the health impact review were:

- to ensure the public health and health service objectives are fully integrated into the review of the structure plan;
- to identify in broad terms the impact on public health and health services that are likely to arise as a result of the structure plan;
- to ensure that the opportunity to plan for public health benefits is maximized and that any negative effects are minimized;
- to plan for the provision of both primary and secondary health service facilities;
- to provide a toolkit for primary care trusts and local strategic partnerships to use in influencing the development of local plans; and
- to assess the value of health impact review as a tool for achieving the objectives of the Cambridgeshire Health Improvement Plan.

The health impact review was developed according to the following stages:

- describing the main health characteristics in the plan;
- analysing the key health issues;
- preparing a series of health objectives relevant to land-use planning against which the structure plan policies were assessed;
- conducting detailed analysis of the predicted health effects; and
- drawing up conclusions and recommendations for improving the plan to reflect more on health issues.

Results

The health effects were assessed for several determinants of health, also explaining the vulnerable groups affected and the nature and scale of the health effects. The major advantage was that the health authority and the consultants had the opportunity to read the emerging chapters for the plan extending to 2016 and making recommendations directly to the authors of the plan to include more healthy options. This allowed key health issues to be considered at the
beginning of the process and meant that input from a health perspective as the document and policies emerged. A lesson learned from the health impact review was the developing of working relationships. The working languages of land-use planners and the health sector are very different, and creating a common basis is needed to understand one another. Health impact review was considered a useful tool to highlight the health effects of the land-use plan.

### 3.6.6 Social well-being impact assessment, Longbenton Estate, Newcastle, England

#### Background and initiation

The University of Northumbria in Newcastle undertook social well-being impact assessment during 2000 of the proposal for the redevelopment of the community facilities on Longbenton Estate (41). The researchers renamed the HIA social well-being impact assessment, as the aim of the assessment was wider than assessing health effects. Longbenton Estate has higher levels of poorer health and material deprivation than the country as a whole. It was therefore very important to ensure that any major initiatives planned for Longbenton Estate take into account the health and well-being of the residents. This actual proposal was to develop a new centrally located multi-purpose community building such as sports facilities, café, library, facilities for group activities and local organizations as well as building a “school for the future” offering a range of child health services.

#### Process

A steering group was created with representatives from the city administration as well as researchers and politicians. The steering group was responsible for developing the terms of reference for the assessment. The assessment was then carried out in several steps.

First, stakeholders representing the public and various local organizations and institutions were invited to take part in a focus group or a structured interview where all the potential effects of the proposal got listed. Second, the listed effects were then assigned priority through selection criteria such as the certainty of occurrence, effects that would be measurable, effects affecting vulnerable groups and the degree of severity. The criteria went through a second selection based on the number of consultants suggesting the impact, source of suggestion, effects that were previously well known and that met more than one of the first criteria.

#### Results

The potential effects were presented as occurring during the construction phase or during the operation phase. The main affected determinants of health were generally negative during the construction phase: for example, employment rates, working conditions, building site safety, noise, traffic flows, disruption of mobility and networks. The main affected determinants of health were generally positive during the operation phase such as job and training opportunities, better working conditions, better services, meaningful pastimes for children, more opportunities for physical activity and less stress and depression. Additional interviews with key people responsible for redeveloping the community facilities were carried out to gather the evidence and conduct the analysis for the most vulnerable groups. North Tyneside Challenge has already taken these findings into consideration while planning for new facilities.
3.6.7 Environmental health risk assessment as a pre-study to health impact assessment in Györ, Hungary

Background and initiation

The planning process for a local environment and health action plan started in 1998 in the city of Györ, Hungary. In environmental health, risk assessment is a very important task based on the amount and quality of pollutants existing in the districts. It was decided to carry out an environmental health risk assessment prior to the local environment and health action plan to influence the plan (42). The type of assessment was rapid because time was limited. The assessors therefore only complied already available data.

Process

The aim of the environmental health risk assessment was to analyse the changes in the health status of the population due to pollution of the environment. The process of human risk assessment consisted of the following steps:

- characterizing the sources of pollution and the polluted environmental elements at the city level;
- characterizing the general health status by the main groups of diseases and causes of death;
- collecting data on the environmental elements for each district;
- characterizing the population living in the area and determining the most important pathways of exposure in the districts;
- characterizing the degree of the effects of exposure;
- identifying the chemical and toxic character of pollutants and characterizing the genotoxic and non-genotoxic effects;
- determining the level of environmental health risk in the given district;
- ranking districts based on the range of the human risk burden; and
- making recommendations for the measures to be taken and setting priorities to reduce harmful effects.

Results

The potential effects of air pollution, noise, odours, existing soil contamination and hazardous waste potentially harmful to the environment and the level of health risk characteristic of the districts were determined. Recommendations were made to take measures to reduce risks. These recommendations on the measures were discussed with the citizens, the representatives of the city council, nongovernmental organizations and representatives of the private sector in each of the 11 districts. Immediately thereafter, a forum took place in the city hall where the representatives from all districts discussed the proposed priority list. The committees of the city council discussed the proposal and the potential effects and then the city council made a decision.

Several issues were successful in the assessment: the multidisciplinary, intersectoral work, participation from the public and the focus on inequality in environment and health. Issues that could be improved included more than just the methods being used in the HIA, and this should take place not only before the proposal is implemented but rather during the whole process.
References


29. Summary report on the pilot health impact assessment of the new health energy efficiency scheme. Sheffield and London, Centre for Regional, Economic and Social Research at Sheffield Hallam University, the London School of Hygiene & Tropical Medicine & University College London, 2001.

Annex 1

HEALTH IMPACT ASSESSMENT SCREENING FRAMEWORK

Although several screening tools and checklists are available in the published and grey literature, it is more appropriate to create your own screening tool based on the circumstances and conditions in your own community.

Use the table below and the following advice.

1. Go to column 1 – significance of the proposal – and add questions based on the criteria in this column you think are relevant for your proposal.
2. Go to column 2 – nature of the effects on health – and add questions based on the criteria in this column you think are relevant about the nature of the effects on health.
3. Go to column 3 – determinants of health – and add questions about the determinants of health you think are relevant and/or important.
4. Go to column 4 – vulnerable groups affected – and add questions about the people or groups in the population that may be affected as relevant in your community.
5. Go to column 5 – capacity and resources – and add questions based on the criteria shown about the capacity in the organization to conduct the HIA and resources available for it that you think are relevant.

<table>
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<tr>
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<tbody>
<tr>
<td>Size of the financial investment</td>
<td>Number of people affected</td>
<td>Level of income</td>
<td>Young people</td>
<td>Availability of funding</td>
</tr>
<tr>
<td>Level of priority (high, medium or low)</td>
<td>Geographical area affected</td>
<td>Housing</td>
<td>Older people</td>
<td>Availability of staff</td>
</tr>
<tr>
<td>Level of acceptance in the community (welcoming, neutral, concern or conflict)</td>
<td>Frequency of effects</td>
<td>Social contact, support, cohesion and integration</td>
<td>Unemployed people and their families</td>
<td>Level of skills</td>
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<tr>
<td>Level of interest from partner organizations</td>
<td>Duration of effects</td>
<td>Air quality</td>
<td>Single parents and their families</td>
<td>Level of experience</td>
</tr>
<tr>
<td>Level of effects on services</td>
<td>Magnitude of effects</td>
<td>Water quality</td>
<td>People with low income and their families</td>
<td>Availability of data</td>
</tr>
<tr>
<td></td>
<td>Occurrence of effects</td>
<td>Noise</td>
<td>Students</td>
<td>Availability of evidence</td>
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<tr>
<td></td>
<td>Potential for effects to be cumulative</td>
<td>Access to open and green spaces</td>
<td>People who are physically ill</td>
<td>Availability of information on previous assessments</td>
</tr>
<tr>
<td></td>
<td>Potential for effects to interact with other effects</td>
<td>Access to education, health and social services</td>
<td>People who have mental problems</td>
<td>Number of stakeholders and their willingness to become involved</td>
</tr>
<tr>
<td></td>
<td>Potential for effects on future generations</td>
<td>Access to community, leisure and sports facilities</td>
<td>People with disability</td>
<td>Time available</td>
</tr>
<tr>
<td></td>
<td>Potential for different effects on different population groups</td>
<td>Crime and community safety, including antisocial behaviour</td>
<td>People with a learning disability</td>
<td>Opportunity for HIA to inform decision-making process for the proposal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fear of crime and antisocial behaviour</td>
<td>Caregivers</td>
<td></td>
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<td></td>
<td></td>
<td>Discrimination and harassment</td>
<td>People from ethnic minority groups</td>
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<td>Refugees and asylum-seekers</td>
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<td>Homeless people</td>
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1 Gabriel Gulis and Erica Ison developed this screening framework.
Annex 2

CHECKLIST FOR SCOPING OR SETTING THE TERMS OF REFERENCE FOR HEALTH IMPACT ASSESSMENT

The answers to the following questions will form the basis for the scope or terms of reference for your HIA.

1. **Information about the proposal undergoing HIA**
   - On what proposal will you be conducting HIA?
   - Will you be assessing the whole proposal or only certain parts or aspects of it?
   - If you are assessing only parts or aspects of the proposal, which are they?
   - Which document or set of documents about the proposal will you be using for the HIA? *For example, the document could be a draft policy or strategy, an action plan, or a planning application.*
   - Is there more than one option for the proposal that you have to assess? *For instance, the proposal could be about providing the same service but in different ways, or it could be about developing the same plot of land but with different land uses on it, such as residential versus employment uses. In some cases, even if no options are associated with the proposal, you may think it is appropriate to assess proposal implementation versus doing nothing to give you a “baseline”.*
   - Are there any aspects of the proposal that are non-negotiable? If so, which aspects?
   - What are the target groups for the proposal?

2. **Aims and objectives of the HIA**
   - What are the aims for the HIA on this proposal? *Try not to have more than three (a maximum of four) aims; otherwise meeting them all is difficult.*
   - What are the objectives for the HIA on this proposal? *Try not to have any more than six or seven (a maximum of eight) objectives; otherwise meeting them all is difficult.*
   - What values will you be using to guide your work on the HIA?

3. **Effects of the proposal that set the parameters for the HIA**
   - Which geographical areas will be affected by the implementation of the proposal?
   - Which communities or populations will be affected by the implementation of the proposal?
   - Which vulnerable, marginalized and/or disadvantaged groups will be affected by the implementation of the proposal?

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2 Erica Ison developed this checklist.
• Are there any local conditions or circumstances relevant to the implementation of the proposal that need to be taken into account during the HIA?

• What are your initial thoughts about the potential effects of the proposal on health and well-being? Are there any effects – positive or negative – that you think could be significant or important? If so, what are they?

4. Stakeholders for the HIA
• Who are the stakeholders (anyone involved in or affected by the proposal under study) for this HIA?

• Who might be key informants for the HIA?
  
  A key informant is a stakeholder who, by virtue of their knowledge, experience or standing in the community, has information of particular value to the HIA.

5. Methods and information for the HIA
• What methods will you use to identify effects on health? If you are planning to consult stakeholders as part of the HIA, make it clear whether you will use different methods for different groups of stakeholders.

• What information, data or evidence do you need to conduct the HIA? If you do not have some of this information, which organization(s) will have it?
  
  The information for an HIA can be routine and non-routine data collected locally, evidence from the published literature and reports of other assessments on the same type of proposal or possibly on the same community or population.

6. Management arrangements and funding for the HIA
• What are the management arrangements for the HIA? Outline whether there will be a steering group and/or a management group, and identify who will be responsible for conducting the HIA (HIA assessor). Define the roles and responsibilities of the people involved and the lines of reporting.

• What are your sources of funding for the HIA, and how much money is available to you?

• What costs will be involved in conducting the HIA?

7. Influencing decision-making with the results of HIA
• What is the decision-making process for the proposal, and at what point(s) in the process could you use the results of the HIA?

• Who are the decision-makers for the proposal? What is their time scale?

• Given the time scale for the decision-making process, what is the time scale for the HIA, including important milestones in the process?

8. Dissemination of the results of the HIA
• How will you provide decision-makers with the results of the HIA?

• How will you disseminate the results of the HIA to other groups of stakeholders?
9. Monitoring and evaluation

- How will you evaluate the process of HIA?
- How will you monitor the acceptance of any suggestions or recommendations made about the proposal because of the HIA?
- How will you monitor whether the suggestions or recommendations that were accepted were actually implemented?
- How will you monitor and evaluate indicators or trends in the determinants of health and in health outcome in relation to the proposal?