HEALTH IMPACT ASSESSMENT GUIDANCE
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1. Introduction

This guidance manual explains what Health Impact Assessment (HIA) is and the stages involved in conducting it. It has been revised and updated based on the experience of HIA practitioners and includes new tools which have been developed to assist each step of the HIA process. It aims to provide a user friendly and practical framework to guide policy-makers and practitioners in undertaking HIA. All HIA tools contained in this guidance and further information on HIA may be found at http://www.publichealth.ie/hia

The guidance has been endorsed by the Department of Health, Social Services and Public Safety in Northern Ireland and the Department of Health and Children in the Republic of Ireland.

In Northern Ireland HIA is supported from a policy perspective by the Investing for Health Strategy which was developed by all government departments through the Ministerial Group on Public Health (MGPH) and chaired by the Minister of Health, Social Services and Public Safety (DHSSPS). Investing for Health contains a commitment to develop a methodology to enable all government departments to identify and evaluate the health impacts of new policy developments.

In the Republic of Ireland HIA is supported from a policy perspective by the health strategy Quality and Fairness: a health system for you. This strategy contains a commitment to develop HIA methodology and to support other government departments and agencies to conduct HIAs.
2. Health and health inequalities

2.1 Definition of health
The World Health Organization (WHO) defines health as ‘a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity’. In keeping with this definition, HIA includes consideration of the potential impacts of a proposal on physical, mental and social health.

2.2 Social determinants of health
Health is determined not only by access to quality healthcare services and lifestyle choices but also by the social and economic conditions in which people live. These include many factors which lie outside the healthcare sector, such as housing, employment, transport and access to fresh food. Policies and actions formulated in these non-healthcare sectors have a significant impact on people’s health and wellbeing. For example, a housing sector scheme on damp proofing is likely to significantly improve respiratory health, particularly for vulnerable residents such as the elderly and young children. Similarly, a transport sector policy to promote active forms of travel is likely to improve levels of physical activity with subsequent health benefits.

Figure 1 below illustrates the many determinants of health. Further information on the social determinants of health can be found in Appendix 1.

Figure 1 Social determinants of health

![Diagram showing social determinants of health](image-url)
2.3 Health inequalities
Health inequalities refer to the avoidable and unjust gap in health outcomes between those at the top and bottom ends of the social scale. People in higher socioeconomic groups are more likely to live longer and enjoy more years of good health than those in lower socioeconomic groups. There are also notable differences in the health experiences of men and women. As health inequalities often mirror social inequalities, addressing the social determinants of health can impact positively on health inequalities.
3. Health Impact Assessment

3.1 Definition
HIA is 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.

3.2 Rationale
Policies, programmes and projects from many areas affect health and should take into account their impact on health and health inequalities. HIA is a tool which can be used to achieve this by assessing potential health impacts of proposals in a systematic and transparent way.

3.3 Background
HIA has been developing internationally since the early 1990’s. It is now used in many European countries, Australasia, North America, Africa and Asia.

In the European Union, the Amsterdam and subsequent Treaties support the consideration of health in policy making across all sectors. This is reflected in the EU Health Strategy Together for Health 2008 – 2013 and the second programme of Community action in the field of health (Health Programme) 2008 – 2013.

WHO has developed a HIA programme and set targets for member states to develop HIA mechanisms by 2010. The report of WHO’s Commission on Social Determinants of Health, recommends Health Equity Impact Assessment as a tool to build policy coherence for health equity.

3.4 Aims of HIA
HIA seeks to inform and enhance the decision-making process in favour of health and health equity. It aims to maximise potential positive health impacts and minimise potential negative health impacts of a proposal.

HIA can contribute to improved health by:
• raising awareness among decision makers of the relationship between health and the physical, social and economic environments
• demonstrating how a proposal may affect the health of a population
• providing recommendations on how a proposal could be modified to maximise opportunities for health gain and minimise chances of health loss.
HIA can contribute to reducing health inequalities by:
- raising awareness among decision makers of the unequal distribution of health and illness
- demonstrating how a proposal may affect the health of particular groups within a population
- providing recommendations on how a proposal could be modified to reduce health inequalities or prevent existing inequalities being exacerbated.

HIA can contribute to better decision-making by:
- following a clear, transparent process
- ensuring recommendations are evidence based
- helping those affected by the proposal to participate in policy formation and contribute to decision-making.

3.5 Values of HIA
WHO has outlined the values which provide a sound ethical framework for conducting a HIA. These values are:
- Democracy – HIA allows people to participate in the development and implementation of proposals that may impact on their lives
- Equity – HIA assesses the distribution of impacts of a proposal on the whole population, with a particular reference to how the proposal will affect vulnerable people (in terms of age, gender, ethnic background and socioeconomic status)
- Sustainable development – Where appropriate, HIA considers both long and short term impacts
- Ethical use of evidence – HIA uses the best available evidence from different disciplines and methodologies and places an emphasis on using transparent and rigorous processes to synthesise and interpret this evidence.

3.6 HIA and other assessments
There are considerable parallels between HIA and other impact assessments including Environmental (EIA), Poverty (PIA), Human Rights (HRIA) and Equality Impact Assessment (EqIA). HIA derives its approach and framework from EIA but was developed partly as a consequence of EIA not placing sufficient emphasis on human health. Strategic Environmental Assessment (SEA) goes some way towards addressing this deficit at policy level as there is a requirement to consider effects on population and human health.

In Northern Ireland Integrated Impact Assessment has been developed by the Office of the First Minister and Deputy First Minister (OFMDFM) and health forms an important component of this.
4. Conducting Health Impact Assessment

4.1 Issues to consider

The following issues should be considered:

4.1.1 Support

At the outset it is useful to identify the support that is likely to be available for HIA. This can be a critical factor in commencing or in determining the ease with which HIA can be conducted and recommendations implemented. This may include reviewing relevant government or political processes and the identification of resources available to conduct the HIA.

4.1.2 Ensuring a broad understanding of health and its determinants

Health in HIA is understood to encompass physical, mental and social wellbeing. It also emphasises the social, economic and environmental determinants of health (see Figure 1). This perspective is essential in helping to decide where a HIA might be appropriate, the type of research needed and if any specialist assistance is required. A growing number of resources are available which demonstrate clear links between many non-healthcare sectors and health (see Appendix 1).

4.1.3 Timing

It is important to be clear about what stage the policy, programme or project is at when undertaking HIA. This will impact upon the level of influence the HIA recommendations may have. HIA may be undertaken prospectively, concurrently or retrospectively:

Prospective HIA: Ideally HIA should be carried out prospectively, i.e. when the proposal is being developed, so that HIA recommendations have the potential to influence decisions being made.

Concurrent HIA: A concurrent HIA takes place while the policy, programme or project is being implemented. This can be particularly useful to inform a review process. It overcomes the problems sometimes faced in prospective HIA in accessing detailed information about the proposal.

Retrospective HIA: A retrospective HIA is carried out on a policy, programme or project that has already been implemented. This can be useful when a similar proposal is being planned to ascertain health impacts of the one already in existence. Retrospective HIA differs from
evaluation as it focuses on how health has been affected which may not have been an explicit objective of the policy, programme or project.

In deciding when to undertake a HIA, it is important to be clear about who is making key decisions and to identify key decision points in a given proposal for a new policy, programme or project.

4.1.4 Level
HIA can be conducted at different levels depending on a range of factors including:

- the status and complexity of the policy, programme or project
- locally determined health priorities and targets
- the potential scale and severity of health impacts
- the quality of the evidence base and availability of data
- the support for HIA at regional and local level
- the resources available to conduct HIA.

The terms desktop, rapid and comprehensive are used to describe the different levels of a particular HIA:

*Desktop HIA*: This is conducted quickly and with limited resources. Only evidence which is easily accessible is used. A desktop HIA is usually conducted when there is only a short timeframe available or if the scale of the proposal does not warrant more in-depth investigation.

*Rapid HIA*: This type of HIA includes a broader range of evidence but is still conducted within tight time and resource constraints.

*Comprehensive HIA*: This is undertaken over a longer period of time and involves more resources. It is useful when the potential scale and severity of health impacts warrant an in-depth investigation.

The HIA process, described in the next section, should be followed whichever level of HIA is undertaken.
4.2 HIA process
The HIA process consists of a series of steps which are described here as discrete stages. However experience shows that the different stages can overlap with each other, for example, screening and scoping are sometimes carried out as one exercise.

Figure 2 The HIA process

Screening

Screening says NO: stop
Screening says YES: proceed

Scoping

Community profile

Data collection:
Qualitative and quantitative methods

Appraisal

Impact analysis: Data collated and assessed

Recommendations

Priority health impacts identified

Implementation of recommendations

Monitoring and evaluation
4.2.1 Screening
Screening quickly and systematically establishes whether a HIA is appropriate or necessary. It can indicate:

- potential health impacts of a policy, programme or project
- potential impacts on vulnerable sections of the population
- if there is a need for a more detailed assessment
- if HIA is the best way to effectively address health and equity issues.

If a decision is made to proceed with HIA, this stage provides an outline of areas of concern to be considered when conducting the HIA. If it is decided not to proceed with HIA, screening provides a record of why that decision was reached. Additionally, conducting screening can raise awareness of health impacts among decision makers and prompt them to consider these in the future.

Use a screening tool
Using a screening tool (see Appendix 2) helps with the tasks involved in screening. The main purpose of the screening tool is to give a structure to discussions or meetings with stakeholders. It aims to prompt consideration of health impacts that may otherwise be overlooked.

Who should be involved in screening?
It is strongly recommended that screening is carried out by more than one person. Involving key informants and major stakeholders can help ensure a broader perspective and promote ownership of the process at an early stage. Members may include, for example, someone with health knowledge, the initiator of the policy, representatives from relevant government, non-government and voluntary sectors and a representative from the community likely to be affected by the proposal. Keeping the number of people involved fairly small at this stage (perhaps 5 or 6 people) will make it easier to manage.

Understand the proposed policy, programme or project
Study the proposal and its background and context. Understand its rationale and aims and objectives. Consider the health impacts of similar policies elsewhere.
Prepare for the screening meeting
Prior to the meeting it might be useful to circulate the following information:
• a summarised description of the policy, programme or project
• aspects of the policy, programme or project open to negotiation and those which are not
• any easily accessible information on the population affected by the proposal
• sections of the population likely to be particularly vulnerable to the proposal.

Establish health impacts and affected population groups
At the meeting have a brainstorming session to get the stakeholders’ and key informants’ perspectives on what the health impacts might be and what population groups might be affected and how. Out of a list of potential health impacts identified, attempt to prioritise them. This will help to focus resources on the most significant impacts on which to conduct the HIA. The screening tool can help to structure this exercise.

Make the process transparent
The screening tool also provides transparency for the process, enabling the recording of decisions and demonstrating thorough consideration of the health implications.

4.2.2 Scoping
The scoping stage produces the blueprint for the HIA and how it is managed. It establishes a foundation for the rest of the assessment. Appendix 3 provides a scoping tool which lists items to consider when developing a work plan for the HIA.

Proposal analysis
Proposal analysis identifies which elements of the proposal will be subject to HIA. It is important to read and fully understand the aims of the proposal in order to identify which sections the HIA should focus on. Engaging with those responsible for developing the proposal at an early stage may provide easier access to information as it becomes available.
Establish a steering group
A HIA steering group is usually set up at this stage or may evolve from the group who conducted the screening. The nature and size of the group depends on the complexity of the proposal, the resources available and the time available to conduct the HIA.

Who should be on the steering group?
Identify the main stakeholders and get them involved. Community participation forms an important part of HIA. Professionals from the relevant policy areas, representatives from affected communities, the voluntary sector and other stakeholders should be represented. Their input will contribute to informed and balanced results at the end of the process.

Attempt to get a good mix of skills on the steering group
Useful skills include community involvement, public health knowledge and understanding of evidence, research skills (such as literature review, data analysis, qualitative research, stakeholder consultation), negotiation skills, project management and policy analysis. Representatives with access to relevant data could be very useful. Other skills required vary according to the proposal type and the depth of the assessment but could include specialist skills in social sciences, epidemiology and health economics.

Who will manage the HIA process?
The group should decide this. In some cases it may be the person with lead responsibility for developing the policy, in other situations it may be the person who initiated the HIA process or another organisation interested in health.

Develop a work plan
The steering group should develop a work plan for the HIA which includes clearly defined deadlines and measurable outputs. The scope of the work plan will be dictated by the amount of time and other resources available. It is essential to find out at an early stage when key decisions will be made about the proposal so that HIA recommendations are delivered in advance of this. The contents of the work plan will be largely dictated by the following:

Aims and objectives of the HIA
Use SMART (Specific, Measurable, Achievable, Realistic and Timely) principles to develop the aims and objectives.
Values
Consider what values the HIA steering group will adopt for conducting the HIA. These may include for example, transparency, equity, sustainability, participation and inclusiveness.

Non-negotiable issues
There may be aspects of the policy, programme or project that are not open to negotiation. These should be clearly identified at the outset.

Boundaries
What geographical area and what communities or population groups will the HIA consider?

Resources
Assess financial and human resources available to conduct the HIA. The London Health Observatory has developed a HIA calculator which can be used to estimate how much the HIA will cost, available at http://www.lho.org.uk/viewResource.aspx?id=9735. Consider what additional resources may be available from organisations represented on the steering group.

Methods
Decide on the methods which will be used to gather evidence from the literature and from the community and other stakeholders. A detailed description of methods used to gather evidence is contained in section 4.2.3.

Monitoring and evaluation
The steering group should also include monitoring and evaluation arrangements in the HIA work plan.

Decide whether or not to engage an external HIA consultant
It may be advantageous to engage an external consultant. This person could be used to coordinate the process from beginning to end or to undertake one aspect of it. They could be used for a number of resource intensive tasks such as documenting decisions, recording the results of appraisal, identifying the impacts missed by stakeholders, finding evidence, prioritising health impacts and helping frame recommendations. An external HIA consultant should have public health knowledge and skills and expertise in conducting HIAs. It is important for the HIA steering group to keep control of the process and ensure its quality.

Record decisions for transparency
A record of all activity should be documented and archived. This is important to ensure that the assessment is transparent.
4.2.3 Appraisal
The appraisal stage is where evidence of potential health impacts is gathered, considered and prioritised. The methods used for data collection and analysis will vary according to the level of HIA.

Gathering information on potential health impacts of the proposal
A range of information is needed to ensure that HIA recommendations are evidence based. Consideration needs to be given to evidence from a range of sources, which are relevant to the proposal and also the population. In some cases information may already have been collected and this should be used when it is relevant and appropriate to the issues under investigation. The depth of information obtained from the following areas will depend on the level of HIA being conducted.

Community profile
Building a community profile helps to better understand the population affected by the proposal, identify potentially vulnerable groups and establish a baseline against which possible future health impacts can be assessed. Belfast Healthy Cities has produced guidance on developing a community profile, available at http://www.belfasthealthycities.com/images/stories/PDFs/guidelines.pdf

A community profile might include:
- general attributes of the population including size, density, distribution, age and sex, birth rate, ethnicity, socioeconomic status
- health status of the population, particularly the at-risk groups
- levels of employment or unemployment
- health behaviour indicators
- environmental conditions such as transport infrastructure, housing make-up, details on air, water and soil
- geographical location of at-risk groups.

Information for community profiling is available from a number of agencies including:
- The Northern Ireland Statistics and Research Agency (NISRA) http://www.nisra.gov.uk/
- Northern Ireland Neighbourhood Information Service (NINIS) http://www.ninis.nisra.gov.uk/
Government departments, local authorities and community/voluntary groups may also be able to provide useful data.

**Policy analysis**

The policy environment into which the proposal is being introduced needs to be understood by those conducting the HIA. Understanding where the proposal sits in the wider social, economic, political and cultural policy context will help to inform the appraisal and ensure recommendations are appropriate. Policy analysis involves reviewing government and other relevant agency policy related to the proposal. Having a good mix of skills and knowledge represented on the HIA steering group can help to ensure that the policy context for the proposal is understood. A policy analysis tool is available in Appendix 4.

**Literature review**

A literature review should be undertaken to find evidence which supports or refutes the assumptions made at the screening stage about the potential health impacts of the proposal. It is important when conducting a literature review that questions are clear and focused and relevant to the local context of the HIA. Further information on reviewing the literature is available at: http://www.publichealth.ie/whatishealthimpactassessment/hiamethodology

It may be useful to check with colleagues and topic experts to identify key databases, websites and other sources of information. Systematic reviews should be used where these are available. Additionally, it can be useful to review other HIAs which have been conducted on similar proposals. HIA Gateway website provides links to a number of HIAs conducted internationally, available at http://www.hiagateway.org.uk
**Quantitative and qualitative evidence**

Quantitative evidence is evidence, data or information which is expressed in numerical terms. The objective of quantitative research is to develop and employ mathematical models, theories and/or hypotheses pertaining to natural phenomena. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships.

Qualitative evidence is evidence, data or information that is expressed in terms of the meaning of acts or events, which distinguishes between data in terms of quality or form rather than quantity. Qualitative research places emphasis on understanding through looking closely at people’s words, actions and records. The task of the qualitative researcher is to find patterns within those words (and actions) and to present those patterns for others to inspect while at the same time staying as close to the construction of the world as the participants originally experienced it.

Both types of evidence are important in HIA. The HIA should focus on the quality of the evidence regardless of whether it is quantitative or qualitative. The crucial test of the validity of evidence for HIA should be the robustness of the research design and the validity of its conclusions.

**Stakeholder information**

The local community and other stakeholders are valuable sources of evidence and can provide insight not available elsewhere on how the proposal might affect health. Engagement with key informants and stakeholders can take place through a variety of means including interviews, focus groups and stakeholder workshops. A task based approach to gathering evidence from stakeholders is available at http://www.publichealth.ie/eventsandresources/hiatools
Assessing the quality of evidence

The HIA aims to provide a number of evidence-based recommendations but there may be disagreement over what constitutes acceptable evidence. These are some of the issues encountered with collecting evidence and suggested ways of dealing with them.

Lack of evidence
It may be difficult to find evidence to show the direct health impacts of public policy decisions, particularly at a local level. For this reason evidence from other similar geographical areas is frequently used and extrapolated to apply to local conditions.

Time constraints on gathering evidence
There may not be enough time to carry out local research so readily available existing evidence will have to suffice.

Speculative nature of evidence
Where evidence exists, much of it shows associations rather than direct causal connections between policy actions and health impacts. For example, there is an association between poor housing conditions and certain types of illness but there is disagreement about the strength of the association and whether one directly causes the other.

Apply the precautionary principle
To address this issue, HIA adopts the WHO approach and applies the precautionary principle when dealing with evidence. This means that where there are threats of serious damage to health, a lack of full scientific certainty should not be used as a reason for postponing measures to minimise this damage.

Decision makers’ views on evidence
If the crucial decision makers on the policy, programme or project want to see particular types of evidence used, then highlighting this evidence will improve the chances of the recommendations to maximise health being accepted.
Collating information
The next step in appraisal is to assemble all the information that has been gathered to date in preparation for prioritising impacts. It may be useful to insert information into a table (see Appendix 5) which links the potential health impacts identified in the proposal with the evidence gathered.

Prioritising potential health impacts
Depending on the complexity of the proposal and level of HIA undertaken, there may be a large number of potential health impacts identified. Some groups choose to form recommendations for each impact identified however it is advisable to agree some form of ranking system to help decide where most efforts should be made in ensuring certain recommendations are implemented. Prioritised impacts should reflect the aims, objectives and values of the HIA. Furthermore appropriate consideration should be given to different types of evidence.

Issues which may influence prioritisation include:
• the likelihood of the impact occurring (likely, speculative or unlikely)
• the scale of the impact if it does occur (severe, moderate or minimal)
• the number of people likely to be affected (many, some or few)
• the timescale in which the impact may occur (short, medium or long term)
• whether the impact will affect some groups within the population more than others (inequalities)
• issues highlighted as areas of concern by stakeholders (stakeholder concerns).

All the evidence used to support prioritisation of potential health impacts should be documented by referencing, for example, studies, quotes from stakeholders or policy documents. The strength of evidence used should also be easily identifiable.

Appendix 5 provides a tool to assist in prioritising potential health impacts.
4.2.4 Recommendations

Forming recommendations
The steering group develops one or more recommendations for each (prioritised) health impact on how this aspect of the proposal could be modified to maximise health gain and/ or minimise health loss. Recommendations should:

- be practical and achievable
- identify a lead agency and others who may play a role
- specify timeframes where possible
- be wide ranging
- aim to be cost effective
- be relatively few in number.

Appendix 6 provides a tool in which recommendations can be documented.

Examples of recommendations from HIAs conducted in the Republic of Ireland and Northern Ireland are contained in Appendix 8.

Disseminating recommendations
Recommendations should be sent to the relevant lead agencies. This may require a period of negotiation where decision makers plans to implement recommendations are agreed. Ideally discussions will have begun in advance of this stage. A report describing the process, findings and policy revision options may also be produced for the proposal developers. Summary reports and other mechanisms of dissemination may also be produced to meet the different needs of stakeholders and target audiences. A tool has been developed to guide this stage of the process (see Appendix 6).

4.2.5 Monitoring and evaluation
Monitoring and evaluation is an essential part of the HIA. As well as assessing actual impacts on health in the longer term, it can help inform whether the aims and objectives set at the beginning of the HIA were achieved and whether the methodology used was effective or suitable. The following issues should be considered:

Process
Assess how the HIA process was undertaken, who was involved, and how useful
and valuable the process was. This can help determine whether the HIA added value to the decision-making process. Monitoring and evaluation of the process and methodology can be conducted by reading output documents, minutes, agendas and other material and obtaining steering group members’ points of view through a survey or interview.

**Impact**
Assess the impact of the HIA in terms of whether recommendations are subsequently accepted and implemented by the decision makers and if not, why not. The tool in Appendix 7 can assist with the process.

**Outcome**
Monitoring and evaluation should also consider the health outcomes of a proposal after a HIA has been conducted. It should aim to assess whether the anticipated positive effects on health, wellbeing and equity were in fact enhanced and whether negative ones were minimised.

The health impacts of a policy may take many years to become apparent and the HIA steering group may not be available to measure these impacts once the assessment is complete. For this reason, indicators to measure the longer term health impacts of the proposal should be framed while doing the HIA and these should be included as a discrete strand of the ongoing monitoring of the policy or project.

4.3 **The HIA report**
A brief report describing the process, findings and policy revision options may be produced. It may be appropriate to also produce a full HIA report for decision makers and other stakeholders involved in the HIA. Other feedback mechanisms such as newsletters and posters may also be considered.
Appendix 1: Further information on social determinants of health

The Institute of Public Health in Ireland (IPH) has produced review documents in four areas, education, the built environment, employment and transport, illustrating the connections between these policy areas and health. A brief overview of key health impacts identified in each review is given below. The full reports, together with supporting ‘sources of information’ documents, can be accessed at http://www.publichealth.ie/hiaresources.

Health impacts of education
Health outcomes associated with education
Evidence shows that those with lower levels of education die younger, experience higher rates of illnesses such as cardiovascular disease and strokes and are also less likely to engage in healthy behaviours such as physical activity.

Route to health through education
Education provides opportunities for employment and potentially higher income levels. It enhances individuals’ social skills and levels of social capital, both of which are associated with better health. Personal development and attitudes are enhanced with higher levels of education which can lead to a greater sense of control and an increased likelihood that healthier behaviours will be adopted.

Supporting healthy behaviours and attitudes in the school environment
The school environment can support health through school settings approaches to healthier lifestyles for young people. Physical education (PE) and travel to school patterns such as walking or cycling are important for health. Exercise habits established in childhood are a key indicator of levels of physical activity in adulthood and therefore the education system can support the development of such habits.
Health impacts of the built environment

Acknowledging the historic links between public health and planning, this review considers how modern illnesses are affected by the built environment.

Buildings

The way in which buildings are designed and used has many impacts on health. Adequate space, light, temperature and noise control are all essential for good health. This has been demonstrated across a wide range of building types including schools, hospitals and homes. Cold, damp homes can lead to respiratory and cardiovascular health problems, especially for vulnerable groups such as the elderly, chronically ill and very young. Children living in buildings with limited space for play are more likely to suffer behavioural problems and multi-occupational dwellings are associated with mental health issues. Well designed and maintained buildings can reduce the likelihood of injuries, for example falls amongst the elderly.
Public spaces and networks
Public spaces and networks influence physical, mental and social health in a number of ways. Access to good quality, well-maintained public spaces, efficient, modern public transport systems and walkable neighbourhoods can encourage physical activity, increase the likelihood of social interaction and contribute to better air quality.

Figure 4  Health impact of the built environment\(^\text{10}\)
Health impacts of employment

Unemployment and low income
Unemployment affects both physical and mental health and is an important determinant of health inequalities in adults of working age. Unemployed people have a higher risk of morbidity and premature mortality. They also have a higher risk of lower levels of psychological wellbeing ranging from symptoms of depression and anxiety to self harm and suicide. Unemployment affects family income levels that impact on other health determinants, for example, housing and nutrition.

Job insecurity
Job insecurity is associated with negative attitudes to work and negative impacts on health. For example, mild depression and self-reported health status tends to deteriorate among those anticipating a job loss. Insecure jobs also tend to involve high exposure to work hazards of various kinds. Less skilled, manual workers tend to be most exposed to low paid, temporary or insecure jobs. Downsizing, which can lead to increased job insecurity, has been shown to be associated with long periods of sick leave due to musculo-skeletal disorders and trauma.

Type of work
Jobs involving a high psychological demand but with low control over working conditions are associated with health-related harm. High demand, low control work is more common among lower socioeconomic groups and non-permanent workers and is associated with increased risk of heart disease, musculo-skeletal disorders, mental illness and sickness absence. Social support in the workplace has been shown to mitigate this job strain.

Health impacts of transport

Air pollution
Motor vehicles are responsible for nitrogen dioxide, carbon dioxide and Particulate Matter (PM) emissions. Air pollution episodes are associated with rises in death and hospital admissions. Ambient levels of air pollution are associated with raised morbidity and mortality. Air pollution also contributes to climate change.

Road traffic injuries
Effects of road traffic injuries include mortality and injury for bicycle users, pedestrians, motorists and passengers. Perceived danger from traffic restricts
children’s independent mobility and reduces the amount children exercise, with long term implications for children’s physical and mental wellbeing.

**Physical activity**
Physical activity reduces the risk of heart disease, stroke, diabetes, hypertension, depression, cancer and osteoporosis. A transport policy that encourages exercise through cycling or walking will maximise health.

**Community severance**
This is caused by major roads being built through a community, with residents cut off from safe access to shops, schools and other parts of their social network. Social contact is beneficial to health but studies in the USA show that social contact tends to fall as traffic increases.

**Noise**
Traffic noise contributes to stress-related health problems such as hypertension and minor psychiatric illness. It can also cause loss of sleep and may interfere with concentration.

**Access/Mobility**
Access to education, work, shops, health care and social networks are important determinants of health. A transport policy needs to ensure that access is enabled for all sectors of the community, not just car users.

**Inequalities**
The effects of a transport policy do not fall evenly on all sectors of society. Pedestrians and cyclists are more prone to injuries than drivers. People with higher incomes can live away from a main road and will not suffer as much from air pollution, noise or community severance. Those with easier access to leisure facilities are more likely to exercise more.
## Appendix 2: Screening tool

Available online at [http://www.publichealth.ie/hia](http://www.publichealth.ie/hia)

### Section one: Background and context

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<thead>
<tr>
<th><strong>Title of proposal being screened</strong></th>
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<tbody>
<tr>
<td><strong>Date screening conducted</strong></td>
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<td><strong>Person(s) involved in the screening process (name, organisation represented and job title if applicable)</strong></td>
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<td><strong>What stage of development is the proposal at?</strong></td>
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<td><strong>Briefly outline the importance of the proposal from:</strong></td>
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<td>An economic/business perspective</td>
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<td>A political perspective</td>
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<td>A community perspective</td>
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<td><strong>What resources are available to conduct a HIA? (Consider both human and financial)</strong></td>
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<td><strong>Are decision makers likely to be open to recommendations to amend the proposal?</strong></td>
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Section two: Potential impacts on health determinants

Instructions for completing the table

The first column contains a list of issues that are known to influence health (health determinants). These are grouped into social and economic conditions, structural issues and individual and family issues.

STEP 1: Assess the likelihood of the proposal impacting on this health determinant and record as:

- **Likely** (it is likely that the proposal will impact on this health determinant).
  Code as L
- **Unlikely** (it is unlikely that the proposal will impact on this health determinant).
  Code as U
- **Not known** (there is insufficient information in the proposal to assess whether or not it will impact on this health determinant).
  Code as NK

*If the health impact is considered likely, continue to step 2. If the health impact is considered unlikely or is not known, proceed to step 3 or move on to the next health determinant.*

STEP 2: List the groups most likely to be affected by the proposal. Examples of different population groups are given below (this is not intended to be a complete list).

- Infants and toddlers
- Children and young people
- Working age people
- Older people
- Rural population
- Urban population
- Males/ females
- Single/ married people
- Gay/ lesbian people
- People with dependants
- Racial and ethnic groups (particularly minority groups)
- People with particular religious beliefs
- People with particular political opinions
- People with disabilities
- Chronically ill people
- Homeless people
- Unemployed people
- Economically disadvantaged people
- Others
Social and economic conditions that influence health

<table>
<thead>
<tr>
<th>Likelihood that the proposal will impact on this health determinant (L/ U/ NK)</th>
<th>Groups most likely to be affected by the proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td></td>
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<tr>
<td>Employment</td>
<td></td>
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<tr>
<td>Childcare</td>
<td></td>
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<tr>
<td>Crime and fear of crime</td>
<td></td>
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<tr>
<td>Community interaction</td>
<td></td>
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<tr>
<td>Access to fresh food</td>
<td></td>
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<tr>
<td>Access to sports and other opportunities for physical activity</td>
<td></td>
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<tr>
<td>Access to cultural and other recreational activities</td>
<td></td>
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<tr>
<td>Access to healthcare services</td>
<td></td>
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<tr>
<td>Access to social welfare services</td>
<td></td>
</tr>
<tr>
<td>Access to other community services</td>
<td></td>
</tr>
<tr>
<td>Access to public transport</td>
<td></td>
</tr>
<tr>
<td>Other social or economic conditions (list)</td>
<td></td>
</tr>
<tr>
<td>Structural issues that influence health</td>
<td>Likelihood that the proposal will impact on this health determinant (L/ U/ NK)</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
</tr>
<tr>
<td>Public buildings</td>
<td></td>
</tr>
<tr>
<td>Commercial buildings</td>
<td></td>
</tr>
<tr>
<td>Green space (including parks)</td>
<td></td>
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<tr>
<td>Other public spaces</td>
<td></td>
</tr>
<tr>
<td>Road safety</td>
<td></td>
</tr>
<tr>
<td>Transport infrastructure</td>
<td></td>
</tr>
<tr>
<td>Communications infrastructure (internet/telephone)</td>
<td></td>
</tr>
<tr>
<td>Energy sources</td>
<td></td>
</tr>
<tr>
<td>Waste management infrastructure</td>
<td></td>
</tr>
<tr>
<td>Water quality</td>
<td></td>
</tr>
<tr>
<td>Air quality (indoor and outdoor)</td>
<td></td>
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<tr>
<td>Soil quality</td>
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<tr>
<td>Noise</td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td></td>
</tr>
<tr>
<td>Other structural issues (list)</td>
<td></td>
</tr>
</tbody>
</table>
### Individual and family issues that influence health

<table>
<thead>
<tr>
<th>Likelihood that the proposal will impact on this health determinant (L/ U/ NK)</th>
<th>Groups most likely to be affected by the proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diet</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Physical activity</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Substance use (legal and illegal)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Sexual activity</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Household income</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Family cohesion</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Other individual and family issues (list)</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Section three: Screening outcome

Tick the appropriate outcome

<table>
<thead>
<tr>
<th>Overall, health impacts are unlikely or relatively minor and easy to address.</th>
<th>Where appropriate, make recommendations to decision makers on how such impacts may be addressed. Do not proceed with HIA.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, health impacts are likely or unknown.</td>
<td>Taking into account issues raised in section one, proceed with HIA.</td>
</tr>
</tbody>
</table>
### Appendix 3: Scoping tool

Available online at http://www.publichealth.ie/hia

<table>
<thead>
<tr>
<th>Title of the proposal on which the HIA is being conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aim of the HIA</td>
</tr>
<tr>
<td>Values underpinning the HIA</td>
</tr>
<tr>
<td>Objectives of the HIA</td>
</tr>
<tr>
<td>(Consider core values)</td>
</tr>
<tr>
<td>Boundaries of the HIA</td>
</tr>
<tr>
<td>(e.g. geographical, population)</td>
</tr>
<tr>
<td>Time scale for the HIA</td>
</tr>
<tr>
<td>Non-negotiable aspects of the proposal</td>
</tr>
<tr>
<td>Steering group membership</td>
</tr>
<tr>
<td>• Suggest maximum of 12 members</td>
</tr>
<tr>
<td>• include decision makers of the policy, programme or project on the group</td>
</tr>
<tr>
<td>Main stakeholders:</td>
</tr>
<tr>
<td>• Who is likely to be affected?</td>
</tr>
<tr>
<td>• Are key stakeholders represented on the steering group?</td>
</tr>
<tr>
<td>Key informants for the HIA:</td>
</tr>
<tr>
<td>• Who can provide useful information on how the proposal is likely to impact on health?</td>
</tr>
<tr>
<td>Who will be responsible for gathering evidence in the following areas?</td>
</tr>
<tr>
<td>• Literature review</td>
</tr>
<tr>
<td>• Community profile</td>
</tr>
<tr>
<td>• Stakeholder workshops</td>
</tr>
<tr>
<td>• Proposal and policy analysis</td>
</tr>
</tbody>
</table>

1 Adapted from a tool developed by E. Ison
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who will be responsible for appraising the evidence and forming recommendations?</td>
<td></td>
</tr>
<tr>
<td>How will the results of the HIA be presented and disseminated?</td>
<td></td>
</tr>
<tr>
<td>What measures will be put in place to facilitate evaluation of the HIA?</td>
<td></td>
</tr>
<tr>
<td>How will the HIA budget be spent? Consider:</td>
<td></td>
</tr>
<tr>
<td>• Human resources</td>
<td></td>
</tr>
<tr>
<td>• Venue hire, catering and travel costs for meetings and workshops</td>
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<tr>
<td>• Costs associated with dissemination of the results</td>
<td></td>
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<tr>
<td>• Evaluation costs</td>
<td></td>
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<tr>
<td>Operating arrangements for the steering group including:</td>
<td></td>
</tr>
<tr>
<td>• Chair</td>
<td></td>
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<tr>
<td>• Date and location of meetings</td>
<td></td>
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<tr>
<td>• Secretariat</td>
<td></td>
</tr>
</tbody>
</table>

Institute of Public Health in Ireland
Appendix 4: Policy analysis tool
Available online at http://www.publichealth.ie/hia

This tool provides a framework to record information obtained relating to the policy environment. In the following table record:

- Policy – overview of the policy being analysed, including title and lifespan
- Organisation – who is responsible for implementation
- Aspects relevant to HIA – identify key areas of the policy relevant to the HIA.

<table>
<thead>
<tr>
<th>Policy</th>
<th>Organisation(s)</th>
<th>Aspects relevant to HIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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Appendix 5: Tools for collating information and prioritising impacts
Available online at http://www.publichealth.ie/hia

Collating information
This tool can be used as a structure to collate the information gathered as part of the HIA process. The tool enables the steering group to systematically record the evidence supporting or negating potential health impacts identified in the proposal.

In the following table:
Record the potential health impact identified in the proposal in column 1.
Place evidence from various sources in columns 2-5.

<table>
<thead>
<tr>
<th>Potential health impact identified in proposal</th>
<th>Community profile</th>
<th>Policy analysis</th>
<th>Evidence from literature</th>
<th>Evidence from stakeholders</th>
</tr>
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<tbody>
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</table>
Prioritising health impacts tool

This tool suggests one approach to prioritising potential health impacts identified. A prioritisation column may be inserted into the collating information tool to record decisions.

The criteria for prioritisation potential health impacts identified. A prioritisation column may be inserted into the collating information tool to record decisions. The criteria for prioritisation will depend on the specific circumstances of the HIA and some of the following could be used to assist this process:

- the severity of the impact if it does occur (severe, moderate or minimal)
- the number of people likely to be affected (many, some or few)
- the timescale in which the impact may occur (short, medium or long term)
- whether the impact will affect some groups within the population more than others (inequalities)
- issues highlighted as areas of concern by stakeholders (stakeholder concerns).
- the likelihood of the impact occurring (likely, speculative or unlikely)

Codes may be assigned to assist the steering group e.g. use L, S or U to document likelihood of the impact occurring.

<table>
<thead>
<tr>
<th>Potential health impact identified in proposal</th>
<th>Community profile</th>
<th>Policy analysis</th>
<th>Evidence from literature</th>
<th>Evidence from stakeholders</th>
<th>Prioritisation</th>
</tr>
</thead>
<tbody>
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</table>
Appendix 6: Tools for forming and disseminating recommendations

Available online at http://www.publichealth.ie/hia

The following tools provide templates to record the recommendations and how they will be implemented by the decision maker.

Step 1 Forming recommendations
Step 2 Disseminating HIA recommendations

**Step 1 Forming recommendations**
Record the recommendations agreed by the steering group to maximise health gain or minimise health loss.

<table>
<thead>
<tr>
<th>Prioritised Health Impact</th>
<th>Recommendation to maximise health gain</th>
</tr>
</thead>
<tbody>
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</table>

In Appendix 8 there are examples of recommendations from completed health impact assessments.
Step 2 Disseminating HIA recommendations

This tool can be used to approach each decision maker who is responsible for implementing the identified recommendations. This will provide an overview of how they intend to implement the recommendations relevant to their organisation.

The organisation conducting (or responsible for) the HIA should insert the relevant recommendation(s) into column 1 and the suggested timescale for implementation into column 2 prior to sending this to the identified organisation/decision maker who then completes column 3.

This report provides details of recommendations arising from the HIA conducted on

Please review each recommendation and its suggested timescale for implementation. In right-hand column, please indicate your organisation’s intentions regarding implementation, which may include:

- Likelihood of the recommendation being implemented
- Appropriateness of the suggested timescale for implementation
- Any other comments.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Suggested timescale for implementation</th>
<th>Organisational response re intention to implement</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

Please return the completed form to____________________ by ________________
Appendix 7: Reviewing the implementation of HIA recommendations

Available online at http://www.publichealth.ie/hia

This tool may be used as part of the evaluation stage of the HIA and be presented to decision makers responsible for implementing identified recommendations.

The organisation conducting (or responsible for) the HIA should insert the relevant recommendation(s) into column 1 prior to sending this to the identified organisation/decision maker.

This report assesses the progress made towards implementing recommendations arising from the HIA conducted on ____________

Please review the recommendations listed. For each recommendation, please select the outcome which best describes its current status from the options listed below:
- insert √ if the recommendation has been fully implemented
- insert ? if the recommendation has been partially implemented or implemented with modifications
- insert O if the recommendation has provided the stimulus for additional actions (including unintended ones) for example an agency other than the one specified took some action
- insert X if there is no evidence to suggest that the recommendation has been taken on board.

Please note any available supporting evidence in the right hand column.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Outcome</th>
<th>Supporting evidence</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

Please return the completed form to____________________ by _________________
Appendix 8: Examples of recommendations from HIAs conducted in the Republic of Ireland and Northern Ireland

Listed below are examples of recommendations from HIAs completed in the Republic of Ireland and Northern Ireland. They demonstrate how HIAs can support healthy public policy to maximise health gains and minimise health loss from a proposal. Copies of all HIAs listed and others conducted across Ireland may be sourced at http://www.publichealth.ie/hia

A HIA of Traffic and Transport in Ballyfermot, Eastern Region Health Authority, 2005

- A key recommendation is that a local action group be convened in Ballyfermot to identify how the issues identified in the HIA may be addressed locally.
- It is recommended that Dublin City Council (DCC) endeavour to target resources to promote active transport, i.e. walking and cycling in Ballyfermot, within the agreed priorities of the South Central Area Committee and in line with DCC policy.
- It is recommended that the Health Promotion Department continue to seek resources to develop local health promotion teams and services and work with the General Manager of the Community Health Services in relation to this.
- It is recommended that a member of staff with a broad understanding of public health be assigned from the local Community Care Area Dublin West to the local implementation group to promote health and physical activity in Ballyfermot. The General Manager of Dublin West, who is a member of the URBAN II Board, is supportive of this.

Health Impact Assessment - Dove Gardens, Co-operation and Working Together (CAWT), 2005

- Traffic calming, signage and pedestrian areas should be designed into the new scheme (including ‘welcome’ sign).
- Achieve ‘secure by design’ certification for individual homes and the estate layout.
- Hold regular social meetings to update residents on developments and maintain social contacts and networks.
- Incorporate principles of a safe play environment within the whole area to allow children to play on the streets.

- To increase safety, and decrease crime and fear of crime, it is suggested that Belfast City Council and Translink consider building cycle shelters the design of which takes into account access, security and location and reduces the likelihood of vandalism, e.g. roofless.
- To encourage the uptake of public transport, it is suggested that Translink considers improving coordination among bus services and between bus and train services to facilitate interchange within and between modes of transport.
- To maintain the reductions in air pollution that may be achieved through strategic highway network capacity improvements, it is suggested that DRD Roads Service and Translink consider the simultaneous introduction of bus lanes/corridors to improve service quality and reliability and thereby encourage the uptake of public transport.

West Tyrone Area Plan (WTAP) 2019, Health Impact Assessment, Stage 1 – Interim report, Western Investing for Health, 2008

- Significant consideration needs to be given to facilitate rural economic development to provide employment opportunities and a source of income for those in the local area.
- WTAP should encourage the provision of walking and cycling routes in the countryside.
- The WTAP should ensure that accommodation needs of the Travelling community are given adequate consideration.
- Renewable energy targets should be set by the WTAP to ensure adequate zoning is allocated to assist Northern Ireland to achieve the target of 12% of all electricity consumed coming from indigenous, renewable energy sources as identified by the Strategic Energy Framework.

Health Impact Assessment of Doneraile Traveller accommodation proposal, Traveller Health Unit HSE South & HIA Ireland, 2008

- Provide internet access in homes to encourage education and home study for both children and adults.
- Develop a joint neighbourhood watch scheme between Travellers and the settled community supported by the Gardaí.
- Provide an opportunity for Traveller community to rename their neighbourhood (suggest name from Traveller language which relates to the local area).
- Put in place a traffic management plan which deals with anticipated increased traffic and makes provision for Traveller families pulling in and out of transient site.
Limerick Regeneration HIA: Phase 1: Physical regeneration, HSE West, 2008

- Develop a Communication Strategy that considers a wide variety of methods of communication with the aim of encouraging maximum participation from all residents. Hard to reach groups which may need particular attention are young people, older adults, travellers, those with a disability and those with low literacy.
- Give consideration to the development of a network of safe cycling and walking routes throughout the estates.
- Green areas should be surrounded by small attractive walls/hedging or other border that prevents access to the green by motorised vehicles with the aim of reducing joy riding on the green and burning out of cars.
- Involve older adults at all stages of the planning, including the planning and design of their home.

Limerick Regeneration HIA: Phase 2: Early school leaving, absenteeism and truancy, HSE West 2008

- Build upon and enhance the capacity of current Department of Education and Science and community initiatives to promote more positive parent-school - parent-teacher relationships.
- Give consideration to a first year transition or induction period, to facilitate the smooth transition from primary to post-primary school, particularly for vulnerable / marginal young people.
- Schools and local statutory and voluntary agencies should support the work of the local Drugs Task Force in the Limerick area.
- Limerick City should develop a communication strategy and an action plan that challenges national and local media practice to work in a balanced and responsible fashion – one that is mindful of people who have to live in ‘disadvantaged’/‘troubled’ estates.
References

4. WHO Regional Office for Europe (1999), Gothenburg consensus paper: health impact assessment; main concepts and suggested approach, Brussels: European Centre for Health Policy.