Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte



A Guide to **Health Technology Assessment** at HIQA

October 2016

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is an independent authority established to drive high quality and safe care for people using our health and social care services in Ireland. HIQA's role is to develop standards, inspect and review health and social care services and support informed decisions on how services are delivered.

HIQA aims to safeguard people and improve the safety and quality of health and social care services across its full range of functions.

HIQA's mandate to date extends across a specified range of public, private and voluntary sector services. Reporting to the Minister for Health and the Minister for Children and Youth Affairs, HIQA has statutory responsibility for:

- **Setting Standards for Health and Social Services**
- **Regulation**
- **Monitoring Children's Services**
- **Monitoring Healthcare Safety and Quality**
- **Health Technology Assessment**
- **Health Information**

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1. Foreword

The Health Information and Quality Authority (HIQA) has a statutory remit to evaluate the clinical and cost-effectiveness of health technologies, providing advice to the Minister for Health and to the Health Service Executive (HSE). The findings of an evaluation, called a health technology assessment (HTA), may also have implications for other stakeholders in the Irish healthcare system, including patient groups, the general public, clinicians, other healthcare providers, academic groups and the manufacturing industry.

This guidance document provides an overview of what HTA is and how it is conducted by HIQA. It explains what information is considered in a HTA and how that information is used to produce advice to ensure that investment and disinvestment decisions are well informed and evidence based. It also outlines what the outcomes of the HTA process are and how HTA is used in decision-making. This document is intended to be useful for all stakeholders, ranging from members of expert advisory groups convened to advise HIQA on specific HTAs to members of the general public who are interested in learning more about HTA and how it is used in the Irish healthcare system.

This guidance was developed in consultation with HIQA's Scientific Advisory Group, which provides broad representation from key stakeholders in healthcare in Ireland.

HIQA would like to thank the members of the Scientific Advisory Group and its Chairperson, Professor Michael Barry from the National Centre for Pharmacoeconomics, and all who have contributed to the production of this guidance.

Dr Máirín Ryan
Director of Health Technology Assessment
and Deputy Chief Executive
Health Information and Quality Authority

2. Overview of health technology assessment

What is Health Technology Assessment?

Health technology assessment (HTA) is a multidisciplinary research process that collects and summarises information about a health technology. The information can cover a range of fields, including clinical effectiveness and safety, cost-effectiveness and budget impact, organisational and social aspects, and ethical and legal issues. The information is collected and presented in a systematic, unbiased and transparent manner.

The health budget in Ireland is finite. To invest in a new technology means that it may be necessary to stop or reduce funding for another technology or service. To make that choice, it is important that accurate and reliable evidence is presented to support decision making. The goal of HTA is to provide that independent evidence.

The use of HTA as a means of supporting health policy and reimbursement decisions is becoming increasingly common internationally.

What qualifies as a health technology?

The term 'health technology' encompasses a wide range of health interventions. 'Technology' includes any intervention that may be used to promote health; to prevent, diagnose or treat a disease; or in rehabilitation or long-term care.

Technologies include, but are not limited to:

- drugs, including vaccines
- medical devices, including equipment such as surgical robots and implantable devices
- diagnostic tests, for example, tests to detect colorectal cancer
- surgical procedures, such as coronary artery bypass
- public health interventions, for example, a colorectal cancer screening programme
- support systems, such as electronic patient records
- organisational features, for example, the establishment of centres of excellence.

A health technology does not have to be a medical intervention given directly to a patient. It may be as broad as a restructuring of how an aspect of the health service is organised and delivered, such as the transfer of a service from secondary to primary care settings.

The technology does not need to be new, and a HTA can look at changing existing services through reallocation of resources or through standardising current services. For example, patients attending different hospitals for the same issue may not receive the same treatment. A HTA could look at the impact of providing the same treatment to all patients.

A HTA can also be used to inform decisions about discontinuing ineffective technologies and, thereby, support the best use of available resources.

Who carries out HTAs in Ireland?

In Ireland, HTAs are carried out by a range of public bodies and research groups. These include the following:

- **HIQA** undertakes HTAs to inform national-level policy decisions and national health service decisions
- the **National Centre for Pharmacoeconomics (NCPE)** assesses the cost-effectiveness of medicines being considered for reimbursement on the Community Drugs Schemes and for selected medicines provided through hospitals
- the **Health Service Executive (HSE)** assesses the clinical and cost-effectiveness of medical devices being introduced to the market
- the **pharmaceutical industry** undertakes HTAs in support of applications to have products reimbursed through the Community Drugs Schemes and hospitals
- **academic groups** undertake HTAs on behalf of the healthcare industry and for research purposes.

What is the basis for HTA in Ireland?

HIQA's remit for HTA comes from the Health Act 2007. Specifically, HIQA can evaluate the clinical and cost-effectiveness of health technologies, including drugs, and provide advice to the Minister for Health and the HSE.

The Health (Pricing and Supply of Medical Goods) Act 2013 enables the HSE to consider cost-effectiveness along with other factors when making decisions about reimbursing medicines. The NCPE collaborates with the HSE Corporate Pharmaceutical unit to assess the cost-effectiveness of all new medicines applying for reimbursement on the community drugs schemes.

There have been a series of agreements between the State and the Irish Pharmaceutical Healthcare Association that sets out the conditions under which medicines will be funded by the State.

What is evaluated in a HTA?

The content of a HTA will vary depending on the decision being supported. For example, a full HTA to support a national decision will typically collect and summarise evidence under a number of fields or domains. These domains include:

- description of the technology – what it is used for and how it works
- burden of disease – who gets the disease and what are the typical outcomes
- clinical effectiveness and safety – how does the technology affect outcomes and are there any harms associated with its use
- cost-effectiveness and budget impact – is the technology good value for money and is it affordable
- organisational and social aspects – how does the technology impact on patients and the organisation of services
- ethical and legal issues – does the technology have any ethical or legal implications.

Depending on the policy question being addressed, some of the domains may be of limited relevance. For example, if the technology is not found to be clinically effective, then consideration of the other aspects may not be necessary.

Who uses HTA?

The information presented in a HTA may be used by a variety of people to support decisions about what interventions to provide and use. These decisions may be at a national, regional, local or individual patient level.

The people who use HTA findings in Ireland can include:

- policy makers, for example the Department of Health
- payers, such as the HSE or health insurance companies
- providers, including hospitals
- clinicians and patients
- pharmaceutical companies
- manufacturers of medical devices and equipment
- academics.

HTAs are used to support national-level policy decisions. For example, the decision to introduce a national colorectal cancer screening programme was underpinned by a HTA. The findings of a HTA may inform decisions about who should receive an intervention, when and where and if it should be provided, and by whom. That is, the HTA can influence the patients eligible for an intervention, the settings in which it is provided, and how it might be administered.

Within local settings, such as a hospital group, HTAs may be used to inform decisions about which products to use. HTAs are also used to support the development of clinical guidelines.

3. HTA process in HIQA

Who can request HIQA to undertake a HTA?

In relation to HIQA, HTAs are typically formally requested by the Minister for Health or the HSE to inform decisions on national-level programmes or investments. However, the need for a HTA may be identified through service providers or users, such as a clinical programme or a patient representative group. Anyone can contact HIQA directly to highlight a potential HTA topic.

How does HIQA select which HTA topics will be carried out?

To ensure that we carry out HTAs of maximum benefit to the healthcare system, we use a prioritisation process to select HTA topics.

Within the prioritisation process, we gather high-level information on four areas of impact: clinical, economic, policy and organisational. Topics are then ranked on the basis of the four areas of impact.

An advisory group comprising key stakeholders, including the Department of Health and HSE, is then involved in selecting the most relevant topics. A key feature of relevant topics is that they are linked to an imminent decision.

How do we determine the scope of a HTA?

We carry out an initial review to determine the type and extent of information available on the topic. We also look to see whether HTAs have already been carried out on the same topic in other countries.

Working with the decision-maker, we determine what questions will be answered in the assessment. If the HTA has too narrow a scope, then it may not provide enough information to support a decision. On the other hand, if the scope is too broad, then it may not be possible to gather and interpret all the evidence within a reasonable timeframe.

How do we manage a HTA?

We appoint an evaluation team comprising people that work in HTA in HIQA. After determining how long the project will take, we identify key milestones and assign tasks to members of the team. Depending on our capacity, it is sometimes necessary to engage experts from outside HIQA to write sections of a report, for example, the ethical or medico-legal analysis. These external experts typically have an academic or clinical background.

Who are the stakeholders in a HTA?

The outcome of a HTA may affect numerous groups and individuals, including:

- patients
- carers and relatives of patients
- patient representative groups (disease-specific or general patient groups)
- clinicians and other healthcare professionals
- providers, such as hospitals
- payers, such as the HSE and health-insurance companies
- policy makers, such as the Department of Health
- Government and the Oireachtas
- methodological experts
- industry, such as pharmaceutical and medical device manufacturers.

Stakeholders are distinct from the general public as they have self-interest in a given HTA topic. Patients who will not benefit from the technology may also be affected if the outcome of a HTA results in reduced expenditure on services they require.

How do stakeholders input into a HTA?

At the outset of a HTA, we identify the key stakeholders for the specific topic. We then form an expert advisory group which will have direct involvement in the HTA, supporting the work of the evaluation team. Relevant stakeholder organisations are asked to nominate representatives, and individuals are invited to participate. Representatives of industry and insurance companies are not included in expert advisory groups, although they can be invited to submit relevant information.

Expert advisory groups play a critical role in HTAs. They provide the clinical, patient and organisational perspectives essential to understanding and interpreting the evidence as well as for formulating practical and relevant advice. Members of the expert group often provide additional data or contextual information in relation to the organisation or delivery of services in Ireland. This helps to ensure that the evidence in the assessment reflects conditions in Ireland.

A HTA typically requires two face-to-face meetings of the expert advisory group, held at the offices of HIQA. The expert group informs key decisions with regard to the conduct of the HTA, such as defining which domains will be included in the HTA. The expert group is also provided with draft versions of the HTA report for review.

In the interests of transparency and impartiality, members of the evaluation team and the expert group must identify any potential conflicts of interest at the outset of the project. Those with a potential conflict of interest may be precluded from direct involvement in the project.

When do we use public consultation?

Sometimes it is not possible to get representation from all of the stakeholders, for example, if we cannot identify an appropriate representative organisation. It may also be the case that the outcome of a HTA will affect the general public or is seen as being contentious. In these cases, it can be important to carry out a public consultation.

A public consultation usually lasts for six to eight weeks and is launched with media coverage to ensure public awareness. A draft copy of the report is made available and any member of the public may submit feedback. At the end of the consultation period, all of the feedback is collated and reviewed. We decide what changes need to be made to the report and document our response to each comment.

On publication of the report, we also publish a statement of outcomes, which includes the consultation feedback and our responses.

Who decides the findings of the HTA?

The findings of the HTA are written by the evaluation team with the support of the expert advisory group. The findings are based on the evidence included in the report.

It is not necessary for all members of the expert advisory group to endorse the advice, although a consensus is preferred.

How do we quality assure a HTA?

HIQA HTAs are used to inform national-level decisions. Poor quality HTAs can lead to poor decision-making and wasted resources. It is, therefore, important to ensure that HTAs are carried out to a high standard. Our processes involve adherence to our HIQA quality assurance framework for the conduct of HTA, for example, for systematic literature reviewing, data extraction, quality appraisal, economic model development and validation. The framework is based on a review of international best practice and is in line with the national HTA Guidelines produced by HIQA. The framework guides the evaluation team on HTA methods.

All aspects of HTA work are reviewed by at least two team members. Particular attention is paid to estimating clinical effectiveness and cost-effectiveness, as those elements often have an important influence on the findings.

Our expert advisory groups provide peer review of the draft report. We also typically include international methodological experts in our projects to ensure that we are using appropriate methods.

4. Content of a HTA

How do we determine what evidence is required?

In evaluating a health technology, we typically try to address a number of questions, including:

- Can the technology work?
- Does the technology offer benefits in practice?
- Does the technology represent a good use of resources?
- Is it affordable?
- Are there other important considerations?

The evidence must be sufficient to allow us to provide accurate and unbiased answers to those questions. As information is gathered, it may become apparent that additional evidence is required. For example, we may discover that a particular technology has a questionable safety profile. In that case, we may seek out additional information on adverse events, such as from the Health Products Regulatory Authority.

Additional evidence is usually gathered in relation to organisational, social, ethical and legal issues.

At the beginning of an assessment, we determine which domains will be addressed. We only gather evidence for domains that are included in the assessment.

An evaluation of a change to a system that would not impact on patient outcomes, such as the introduction of a service in Ireland that patients can currently access abroad through the HSE Treatment Abroad Scheme, could be carried out without an in-depth review of clinical effectiveness.

What is clinical effectiveness?

Clinical effectiveness describes the ability of a technology to achieve a clinically significant impact on a patient's health status. By clinically significant, we mean an impact that makes a difference that a patient would identify as important.

Clinical effectiveness can be measured using a wide range of outcomes or endpoints. Examples of endpoints include quality of life, blood pressure and survival. The choice of endpoint depends on the purpose of the technology and the population that will benefit from the technology.

What is the difference between efficacy and effectiveness?

Efficacy is the extent to which a treatment has the ability to achieve the intended effect under ideal circumstances. For example, under ideal circumstances a patient would always take the correct dose of medicine at the correct frequency.

Effectiveness is the extent to which a treatment achieves the intended effect in the typical clinical setting. For instance, a patient in a typical clinical setting may sometimes take the wrong dose of their medicine or may miss a dose occasionally. By not taking the medicine as described, the patient might not achieve the best outcome possible.

Studies of efficacy usually precede studies of effectiveness. That is, the first goal is to determine if a technology can work. The second goal is to determine if it works in practice. Both efficacy and effectiveness studies provide valuable information about treatment effect.

What do we compare a technology to?

When we evaluate a technology, we compare it to an alternative. That alternative is normally routine care for the patient population of interest. For instance, if we are evaluating a keyhole approach to surgery, we may compare it to traditional open surgery for the same indication. In the case of novel interventions, they may have to be compared to best supportive care.

What we choose to compare a technology with is important and should at least reflect what is used in routine practice. The choice of comparator has implications for the estimated cost-effectiveness. We may also include technologies that are not routinely used, for example, if they are in routine use in other countries. The choice of comparators is influenced by the availability of sufficient evidence to support an analysis.

Why consider safety?

Use of a technology may result in adverse events – these are unwanted and usually harmful outcomes.

An assessment will include adverse events that reflect the safety of a technology. Harms caused by a technology provide an important counterbalance to benefits and can include harm to the patient (for example, side effects of vaccines) or to the clinician providing the technology (for instance, radiation exposure during diagnostic X-rays).

It is generally anticipated that the benefits of a technology will exceed the potential harms.

What benefits to patients are typically considered?

An assessment attempts to capture the benefits to patients as a change in health status. Typically we summarise that change in terms of quality-adjusted life years (QALYs). The QALY captures measures of both the quantity and quality of life.

Some health interventions are intended to extend life by reducing mortality, for example, many cancer treatments. Other interventions, such as antihistamines for hay fever, are aimed at reducing symptoms. Some technologies may extend life but be associated with adverse reactions that reduce quality of life. By using QALYs, it is possible to capture the combined effects of an intervention on both length of life and quality of life.

A major benefit of using QALYs is that we can directly compare technologies with different purposes. For example, it allows us to compare a blood pressure lowering drug for people with hypertension with a glucose control drug for people with diabetes. In both cases the patient benefits can be expressed as QALYs and compared on the same scale.

What costs are included?

In terms of costs, a HTA is carried out from a particular perspective. In Ireland, we usually take the perspective of the publicly-funded health and social care system. This means that we consider all the costs that would accrue to the publicly funded healthcare system. Those costs include staff, equipment and capital expenditure. Staff costs include pay-related costs, such as pension contributions and overheads.

Some technologies may have consequences for costs to patients or others outside the HSE. For example, an intervention might place a greater care burden on family members of a patient. In those cases, in addition to the publicly funded healthcare system perspective, we can also take a societal perspective, whereby a much wider set of costs may be considered.

What is cost-effectiveness?

Cost-effectiveness compares the costs and benefits of two or more courses of action. The analysis is interested in the incremental difference between the technologies – what is the additional cost to achieve a unit of additional benefit?

The cost-effectiveness is often summarised as the incremental cost-effectiveness ratio (ICER). The ICER is the difference in cost divided by the difference in benefit, usually in the form of QALYs. Values between zero and €20,000 per QALY are considered good as they imply a low cost for additional benefit.

Cost-effectiveness is often measured over a time horizon that is long enough to capture all the costs and benefits that might accrue to the intervention. For example, a vaccination programme that is given to children to provide lifelong immunity from an illness should take into account the benefits in adulthood.

What is willingness-to-pay?

Cost-effectiveness is often summarised using an ICER, which tells us the additional cost per additional unit of benefit. To understand whether the ICER represents a cost-effective option, we compare it to a willingness-to-pay threshold. That threshold indicates how much the decision-maker is willing to spend to get an extra unit of benefit.

The willingness-to-pay threshold in Ireland is defined for medicines that are provided though the community drugs schemes and hospitals. The thresholds have been agreed between the State and the Irish Pharmaceutical Healthcare Association (IPHA), and they are reviewed periodically. For all other technologies, the willingness-to-pay is not clearly defined in Ireland. It has varied over time as the resources available for healthcare have changed. Figures of €20,000 and €45,000 per QALY have been used in Ireland. Neither figure was based on a formal assessment of willingness-to-pay. For this reason, results are often presented in relation to a range of willingness-to-pay thresholds.

What is budget impact?

While cost-effectiveness provides information about the efficiency or value for money of an intervention, it does not tell us about how much it will cost in real terms. To address the question of affordability, we consider the budget impact of a technology.

The budget impact is usually an annual figure for a short time horizon, such as five years. It takes into account the capital investment required and the size of the patient population.

A technology might be cost-effective but not affordable. For example, a technology might cost an extra €10,000 and provide patients with one additional QALY. At €10,000 per QALY, it would be considered a cost-effective intervention.

However, if the target population was 100,000 people each year, then the annual budget impact would be €1 billion, which is not affordable. Equally, a technology may be affordable but deliver fewer benefits than the alternatives. For this reason, both measures are considered and used to inform the advice in the HTA.

Why do we consider organisational and social issues?

The introduction of a new technology or intervention can alter or disrupt how services are organised with potential consequences for patients and carers. The technology may, for example, change the setting or locations in which care is provided. As such, information on restructuring is important for the decision-maker, as it can raise awareness of practical difficulties in achieving the changes necessary. This section can also highlight issues of expertise shortage or minimum patient numbers required to maintain a safe service. Although we include staff in the estimate of the cost of a service, this may not recognise that there is limited or insufficient availability of certain specialists. This type of issue is addressed in the organisational section.

This section can also highlight where structural changes may be required before any benefits might be seen. Preventive programmes, such as vaccination, may require substantial investment and reorganisation at the outset, and yet the full benefits may not be seen for decades.

Changes to a service can have significant consequences for patients and carers. A new intervention may result in a shorter hospital stay but a greater burden on community-based rehabilitation and family support.

Understanding these changes and reporting on the potential impact on society can be important information for the decision-maker.

What sort of ethical and legal considerations arise in HTA?

There are a number of key ethical considerations during a HTA. For example, does the technology challenge patient autonomy and the ability to provide informed consent? Does the technology potentially harm people other than the patient? Can introducing the technology impact fairness, justice and solidarity (for example, does it reallocate resources in a manner that is fair or unfair and is it for the greater good)?

A decision-maker must balance the interests of individuals and wider society. This is clear in cases where the resources required for an intervention imply reduced provision of other services or interventions. It must also be considered whether an intervention may negatively impact on the rights of the individual.

There may also be legal consequences associated with providing or denying access to a technology. A technology should not infringe a patient's rights to autonomy and privacy.

There may also be legal issues regarding the regulation, licensing and purchasing of technologies. A HTA will highlight potential issues that the decision-maker may need to investigate more formally.

Where do we get data for a HTA?

A HTA requires detailed information across the domains considered, including the technology, clinical effectiveness, costs and epidemiology. The information comes from local, national and international sources.

Local data could, for example, be a regional patient register or equipment costs from a single hospital. National data typically come from Irish organisations, such as the HSE, National Cancer Registry and Central Statistics Office. International data are often used in relation to clinical effectiveness and are primarily sourced from peer-reviewed scientific literature, such as medical journals. We also rely on expert opinion typically from the expert advisory group, to fill in gaps in the available evidence.

What is the hierarchy of evidence?

In gathering evidence, we are attempting to get the most accurate information possible. Different sources of information may have a higher or lower chance of being poor quality or at high risk of bias, in which case it may not be accurate. Poor quality evidence is not necessarily inaccurate, but it is more likely to be inaccurate than high quality evidence. The preference is to use the best available evidence in any particular context.

For example, if we are attempting to determine the clinical effectiveness of a technology, there may be reports available for a number of high-quality clinical trials. There may also be evidence from observational studies and local surveys. We might also have access to some case reports. In this case, a well-run clinical trial is the best evidence available and is preferred. However, a systematic review of all of the available clinical trials would provide the best level of evidence. The other information may provide additional evidence, but may be misleading; therefore, we attach less weight to it.

How do we appraise the data we use?

All data and information used in a HTA is checked for quality. The assessment of quality will depend on the context of how the data will be used in a HTA. A variety of quality assessment tools are available for data relevant to HTA. These tools typically highlight risk of bias rather than confirmed bias.

Where possible, we validate data by comparing information from multiple sources. When we use Irish data, we routinely compare to international figures to determine if Ireland is similar. If the Irish data are very different, then we look for plausible explanations to determine if the differences are real or due to data quality issues.

How do we make use of HTAs completed elsewhere?

A HTA may be repeated in numerous countries, as each will have its own requirements regarding cost and epidemiological data. However, some elements of a HTA, such as the assessment of clinical effectiveness, may be transferable across jurisdictions.

HIQA is involved in a collaboration of HTA agencies in Europe (EUnetHTA) which has the express purpose of improving information sharing and reducing duplication of work. The sharing of work is facilitated by using agreed methodology and processes when carrying out HTAs. Whenever possible, we use the work carried out in other agencies and we also make our work available to other agencies.

HIQA is also involved in other international collaborations, such as HTA International (HTAi), the International Network of Agencies for Health Technology Assessment (INAHTA), and the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). Through these collaborations, we contribute to and benefit from the knowledge and expertise of a wide network of HTA agencies.

5. Outcomes of an assessment

What can a HTA conclude?

The advice given in a HTA typically includes statements about the clinical and cost-effectiveness of the technology, the budget impact and other notable issues that arose in the assessment. The strength of the advice is dependent on the quality and quantity of evidence that underpins the HTA.

A HTA may recommend that certain treatments are not provided on the grounds that there is insufficient evidence to support their use or that they are a poor use of resources.

Our HTAs do not make binding recommendations, and the requester may include other considerations in decision-making.

How are the different domains balanced in the findings?

No single domain takes precedence over another when reporting the HTA findings. As the scope of the HTA is agreed with the decision-maker at the outset, all of the content is considered relevant to the advice. However, if during the course of a HTA it becomes apparent that certain domains are of critical importance, such as if the technology is not demonstrated to be clinically effective, then that feature may dominate the findings.

How do we publish?

A HTA is published as an electronic document that is freely available to the public through the HIQA website: www.hiqa.ie. In exceptional cases, HTAs have been published in hard copy. When publishing a HTA report, HIQA normally engages with the media to ensure that there is coverage of the publication and to raise public awareness.

The preparation of the HTA report is a deliberative process. Members of the expert advisory group sign a confidentiality agreement, and this applies until the report is published.

When do we publish?

A HTA report must be approved by senior managers and the Board of HIQA prior to publication. It is our normal practice to publish the report shortly after receiving final approval. The HTA report is supplied to the HSE and Department of Health at the time of publication.

What do we publish?

A HTA report is a comprehensive document. To maintain transparency, we attempt to include all the relevant information used in the process.

Because of the nature of a HTA, the report can be very technical. However, we follow the principles of plain English as much as possible.

To acknowledge the numerous potential audiences for a HTA, we include an executive summary, a plain language summary and a brief section outlining the advice to the decision-maker. For large reports, we sometimes make the executive summary and advice available as separate documents.

If there was a public consultation as part of the project, then we also publish a statement of outcomes that includes the feedback and responses.

How does a HTA fit into decision-making?

A HTA systematically gathers evidence under a series of domains to assist the decision-maker. As the advice is not binding, the decision-maker may also consider other issues in determining whether or not to provide a technology. A HTA cannot, for example, determine if there is sufficient budget available to fund a new technology. However, by including the budget impact in the HTA, the decision-maker can then assess funding options.

On completion of a HTA, we collect feedback from members of the expert advisory group about the quality of the HTA process. We also monitor uptake of the HTA report in terms of how many times the reports are accessed and the extent to which the advice impacts on decision-making. The information is used to identify how the HTA process can be improved to ensure it is of maximum benefit to the health system in Ireland.

What does a HTA not do?

A HTA does not tell the decision-maker what to do.

There is a fear that HTA and cost-effectiveness analysis is a method of rationing and preventing access to beneficial technologies. This is a misconception. The health budget is fixed, and unless additional resources can be found to fund a new technology, it must displace another activity. Cost-effectiveness analysis helps the decision-maker to judge whether one technology might be a better use of the available resources than other technologies.

It is sometimes said that cost-effectiveness analysis puts a price on a human life. This is incorrect: a cost-effectiveness analysis estimates the opportunity cost of a course of action. It provides information whereby the decision-maker can determine if they are willing to invest money in a technology on the basis of good use of available resources.

6. Further information

Members of the Scientific Advisory Group

Professor Michael Barry	National Centre for Pharmacoeconomics (NCPE)
Dr Orlaith Brennan	Irish Pharmaceutical Healthcare Association (IPHA)
Professor Kerri Clough	National Cancer Registry
Dr Anne Dee	Health Service Executive
Mr John Dowling	Irish Cancer Society
Professor Mike Drummond	University of York
Mr Shaun Flanagan	Health Service Executive
Dr Patricia Harrington	Health Information and Quality Authority (HIQA)
Dr Sinead Keogh	Irish Medical Devices Association (IMDA)
Dr Peter Kiely	Health Products Regulatory Agency (HPRA)
Dr Kathleen MacLellan	Department of Health
Dr Teresa Maguire	Department of Health

Dr Brendan McElroy	University College Cork
Mr Stephen McMahon	Irish Patients Association
Dr Derick Mitchell	Irish Platform for Patients' Organisations, Science & Industry (IPPOSI)
Dr Mairead O'Driscoll	Health Research Board (HRB)
Professor Ciarán O'Neill	National University of Ireland Galway
Ms Sarah O'Neill	Irish Medical & Surgical Trade Association (IMSTA)
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Professor Mark Sculpher	University of York
Professor Susan Smith	Royal College of Surgeons in Ireland (RCSI)
Dr Conor Teljeur	Health Information and Quality Authority (HIQA)
Dr Lesley Tilson	National Centre for Pharmacoeconomics (NCPE)
Professor Cathal Walsh	University of Limerick
Dr Valerie Walshe	Health Service Executive (HSE)

Examples of health technology assessments at HIQA

Cervical cancer screening – to examine the potential impact of changing from liquid-based cytology to human papillomavirus testing as the primary screening test for the prevention of cervical cancer in Ireland.

Smoking cessation – to assess the clinical and cost-effectiveness of various smoking cessation interventions and to advise on the optimal mix of interventions to maximise quit rates.

Selective BCG programme – to determine the impact of changing from a universal to a selective national neonatal BCG vaccination programme, whereby BCG vaccination would only be routinely provided to children considered at higher risk of contracting tuberculosis.

Public access defibrillation – to examine the implications of establishing a national public access defibrillation programme in Ireland to increase survival from out-of-hospital cardiac arrest. The HTA was instigated to support the Public Health (Availability of Defibrillators) Bill 2013, which proposed a substantial increase in the availability of static defibrillators compared to the present situation.

Colorectal cancer screening – to evaluate various options for a population-based colorectal cancer screening programme in Ireland, including different screening technologies and different age ranges of the population.

Useful websites

HTA in HIQA

https://www.hiqa.ie/healthcare/health-technology-assessment

European Network for Health Technology Assessment (EUnetHTA)

http://www.eunethta.eu/

International Network of Agencies for Health Technology Assessment (INAHTA)

http://www.inahta.org/

Health Technology Assessment international (HTAi)

http://www.htai.org/

International Society for Pharmacoeconomics and Outcomes Research (ISPOR)

http://www.ispor.org/

7. Contact us

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