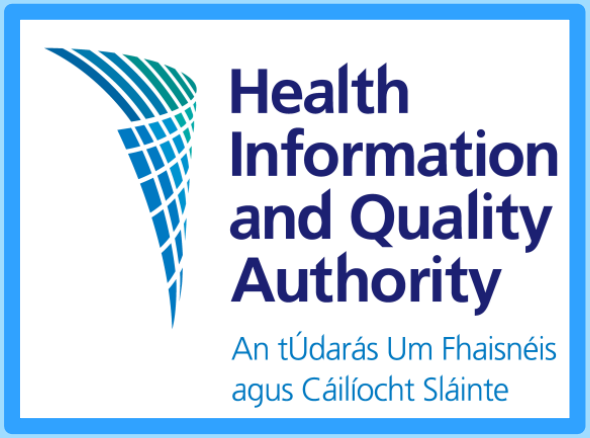
HTA methodology at HIQA

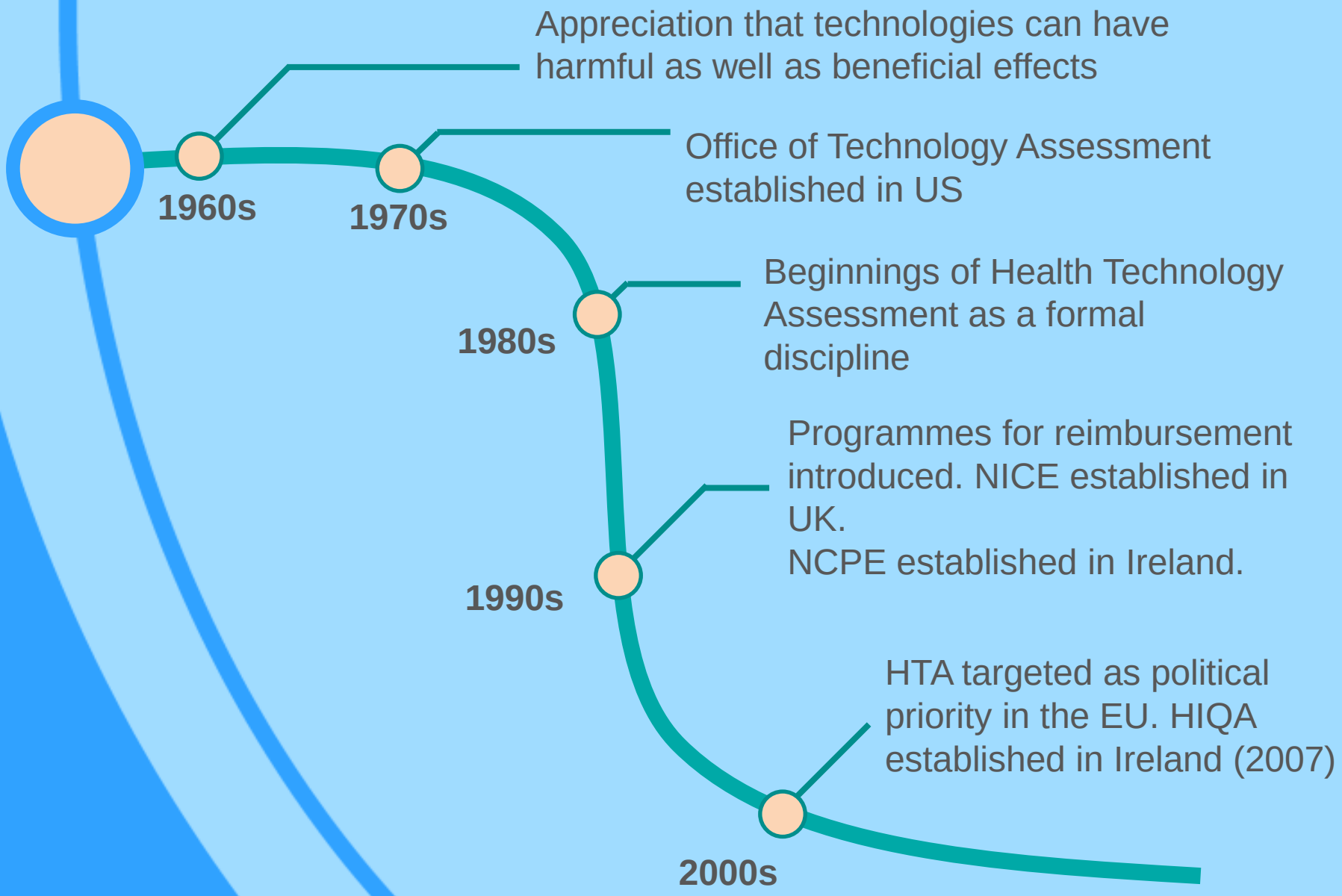
Conor Teljeur



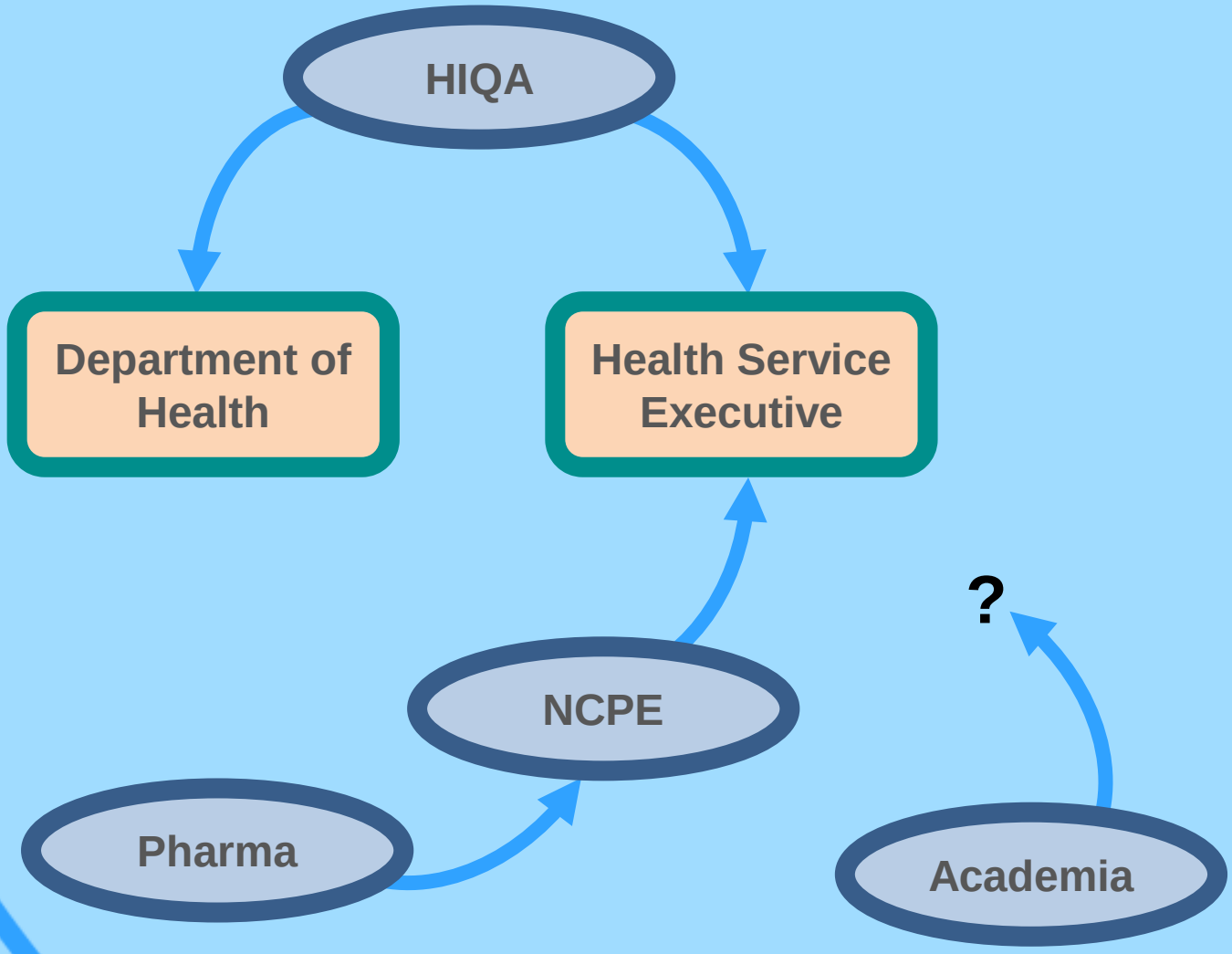
What is HTA?

"**Health technology assessment (HTA)** is a multidisciplinary process that summarises information about the medical, social, economic and ethical issues related to the use of a health technology in a systematic, transparent, unbiased, robust manner. Its aim is to inform the formulation of safe, effective, health policies that are patient focused and seek to achieve best value." (EUnetHTA)

Timeline of HTA



Structure of HTA in Ireland



Who are HIQA?

The Health Information and Quality Authority is an independent authority established to drive high-quality and safe care for people using our health and social care services in Ireland.

HIQA has a remit to evaluate the clinical and cost-effectiveness of health technologies (including drugs) and to provide advice arising out of the evaluation to the Minister and the HSE.

HIQA has about 240 staff, ~6 in HTA.

What do we do?

- Health technology assessment
- Develop national methodological guidelines
- Support the development of national clinical guidelines
- International collaboration (EUnetHTA, HTAi, HTAN, INAHTA, ISPOR…)
- Support capacity enhancement across the health sector

How do we do HTA?

- Scope out the topic and agree terms of reference
- Appoint an evaluation team and convene an expert advisory group
- Gather and analyse the evidence in line with the national HTA guidelines.
- Publish a very long report and advise the decision maker
- Process typically takes 6 to 18 months

Is that it?

HTA guidelines

We are responsible for writing the national HTA guidelines.

The content is developed by reviewing best practice and is in line with the EUnetHTA guidelines.

The suite of guidelines includes: economic evaluation, budget impact analysis, clinical effectiveness, stakeholder engagement, and retrieval and interpretation of economic evaluations.

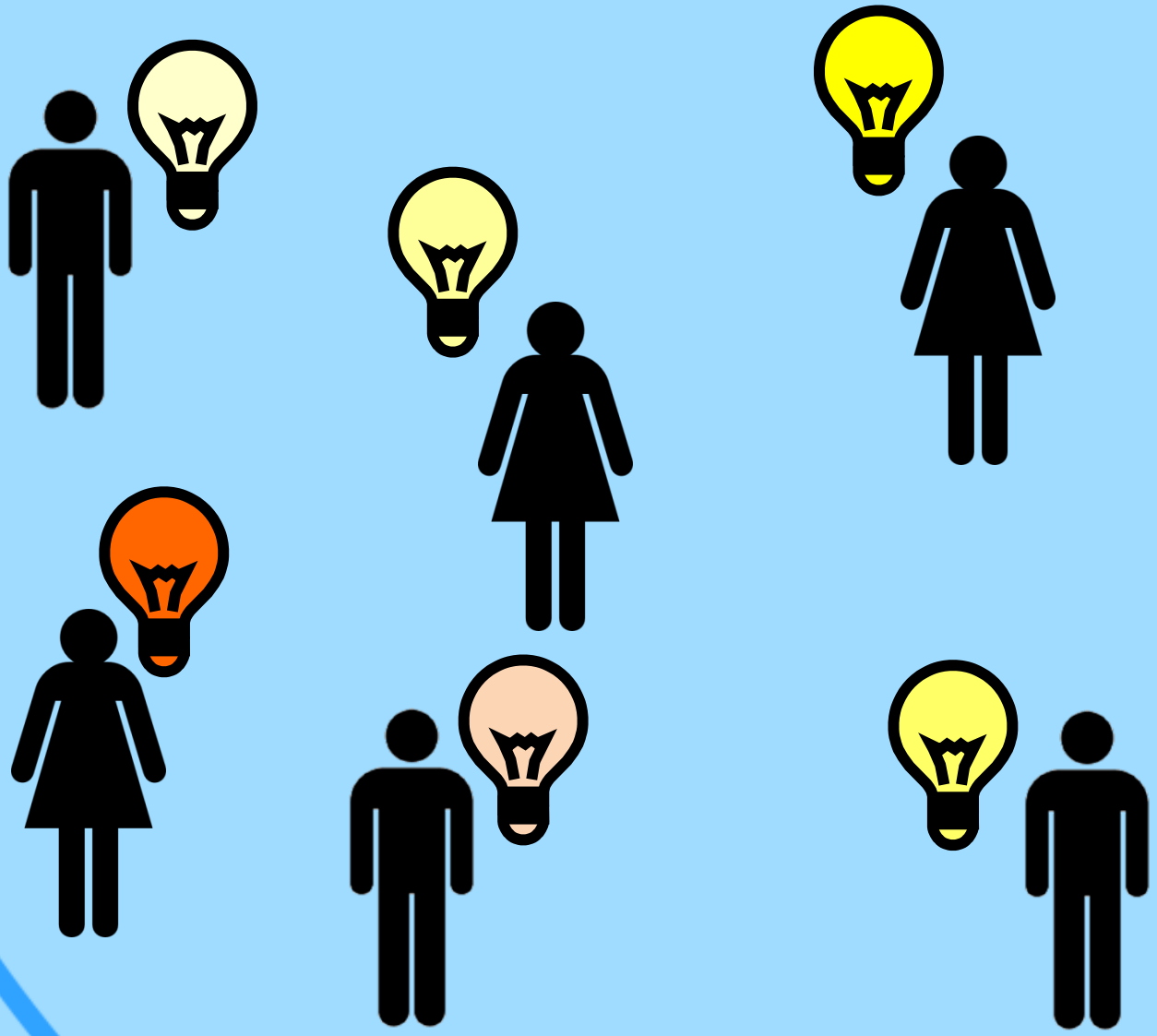
Quality assurance framework

With a small team, managing quality assurance is important.

We have a quality assurance framework that identifies best practice across the various elements of a HTA.

All aspects of a HTA must be reviewed by at least one other experienced member of the team – we rely on many eyes spotting ~~mistakes~~ potential deficiencies.

Where do our topics come from?



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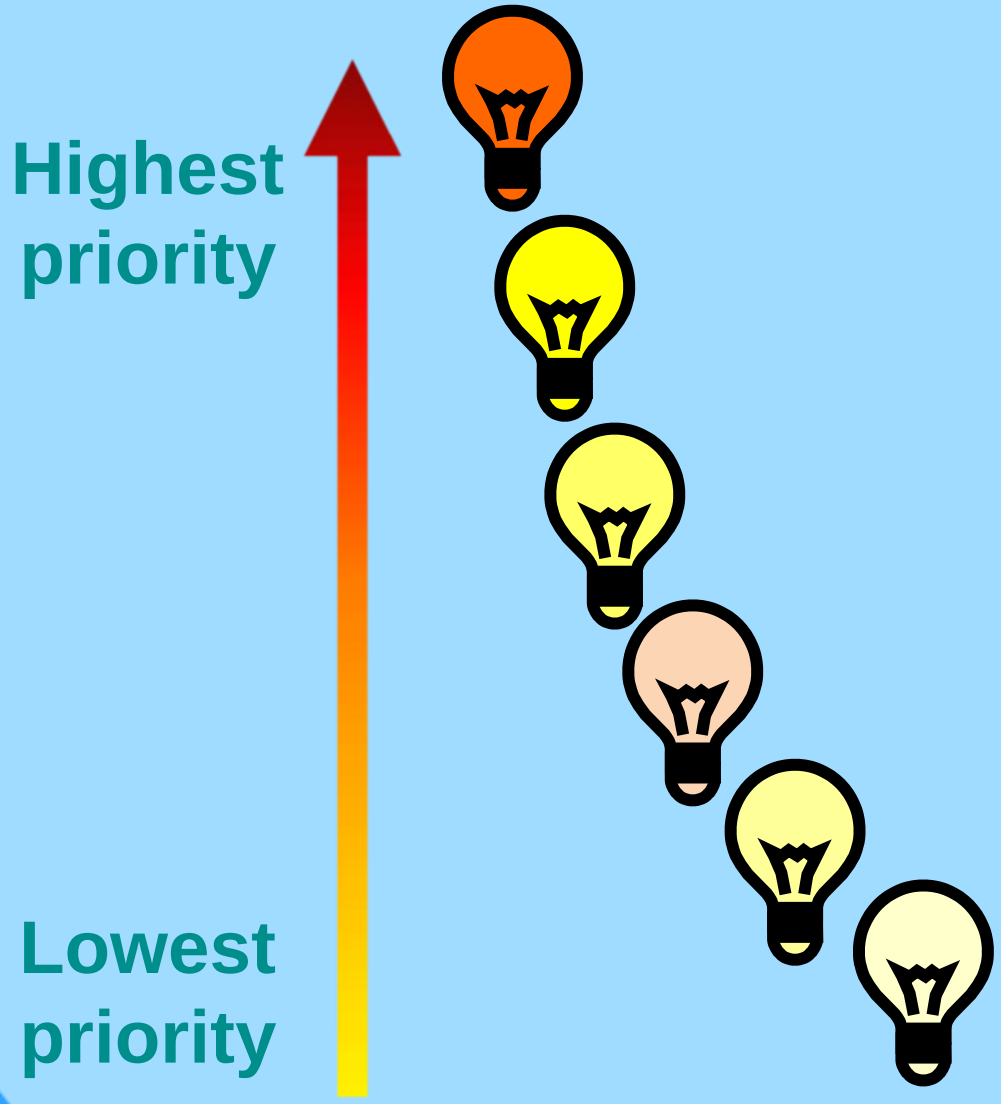


Where do our topics come from?

We select topics with support from decision makers.

Topics are ranked based on a range of criteria, such as disease burden, clinical effectiveness, budget impact.

The outcome of a HIQA HTA is advice – NOT a binding recommendation. We only evaluate technologies that are linked to a decision.

What sorts of topics have we covered?

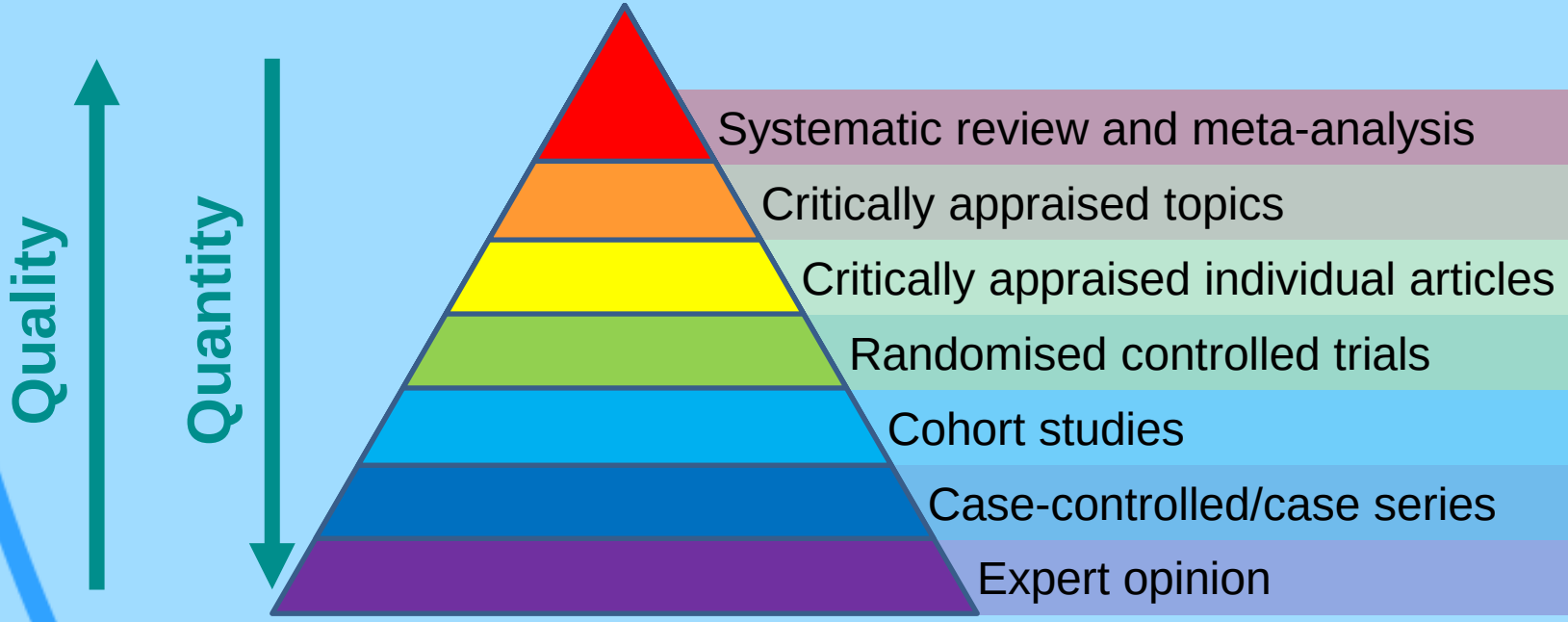
- HPV DNA screening
- Smoking cessation interventions
- Chronic disease self-management
- Public access defibrillation
- Selective BCG vaccination
- Prion filtration
- Colorectal cancer screening

Specifying the research question

The research question needs to be broad enough to include the issues relevant to making an informed decision, and narrow enough that it can be answered in a timely manner.

The choice of comparator can be tricky, as sometimes current practice is ill-defined. We may include a comparator of ‘no intervention’, which can give rise to ethical issues if doing something is not cost-effective compared with doing nothing.

Clinical effectiveness



Clinical effectiveness

By default we include a systematic review of clinical effectiveness in accordance with Cochrane methodology.

We also tried the review of reviews approach….

For devices and public health initiatives the evidence is often tricky to gather, appraise and synthesise.

The fact that a HTA is required often points to potentially equivocal or poor quality evidence.

Evidence synthesis

For drugs, there are often (by necessity) results available from at least one RCT.

For devices, to date the picture has tended to be less clear. Having a small number of studies of dubious quality is not generally a sound basis for meta-analysis.

There is a need to use multiple sources of evidence, coupled with expert clinical support for interpretation, to generate supportable effect estimates.

Epidemiological data

Data on burden of disease can be problematic. The nature of how health service utilisation data are recorded in Ireland can create challenges in gathering epidemiological data (even prevalence and incidence data).

We tend to use a pragmatic combination of local and international data, with as much sense-checking as possible.

Cost data

Data on costs can be problematic. (I'm getting a feeling of *déjà vu*…)

Ireland has a two tier health system, and has some cost data for the 40% who get care free at the point of access. The data for so-called private patients is not as good.

Sometimes we have to resort to micro-costing or else borrow from international data, which is not ideal.

Economic evaluation

We typically do a systematic review of cost-effectiveness studies before we start developing an economic model.

It tells us what sort of results to expect, and gives us pointers for how to approach the problem. It might even suggest who to approach for an existing model.

The available quality appraisal tools have limitations and it can be challenging to determine applicability.

Perspective and discounting

The base case is, by default, taken from the perspective of the publicly-funded health service.

However, occasionally a societal or quasi-societal perspective is justified. The structure of the Irish health system, particularly in terms of primary care, means that costs can easily be shifted to patients.

Discounting is 5% applied to both benefits and costs.

Cost-effectiveness analysis

For models, we try to beg, borrow or steal in preference to developing a *de novo* model.

The model typically simulates the population for as long as they will plausibly get benefits.

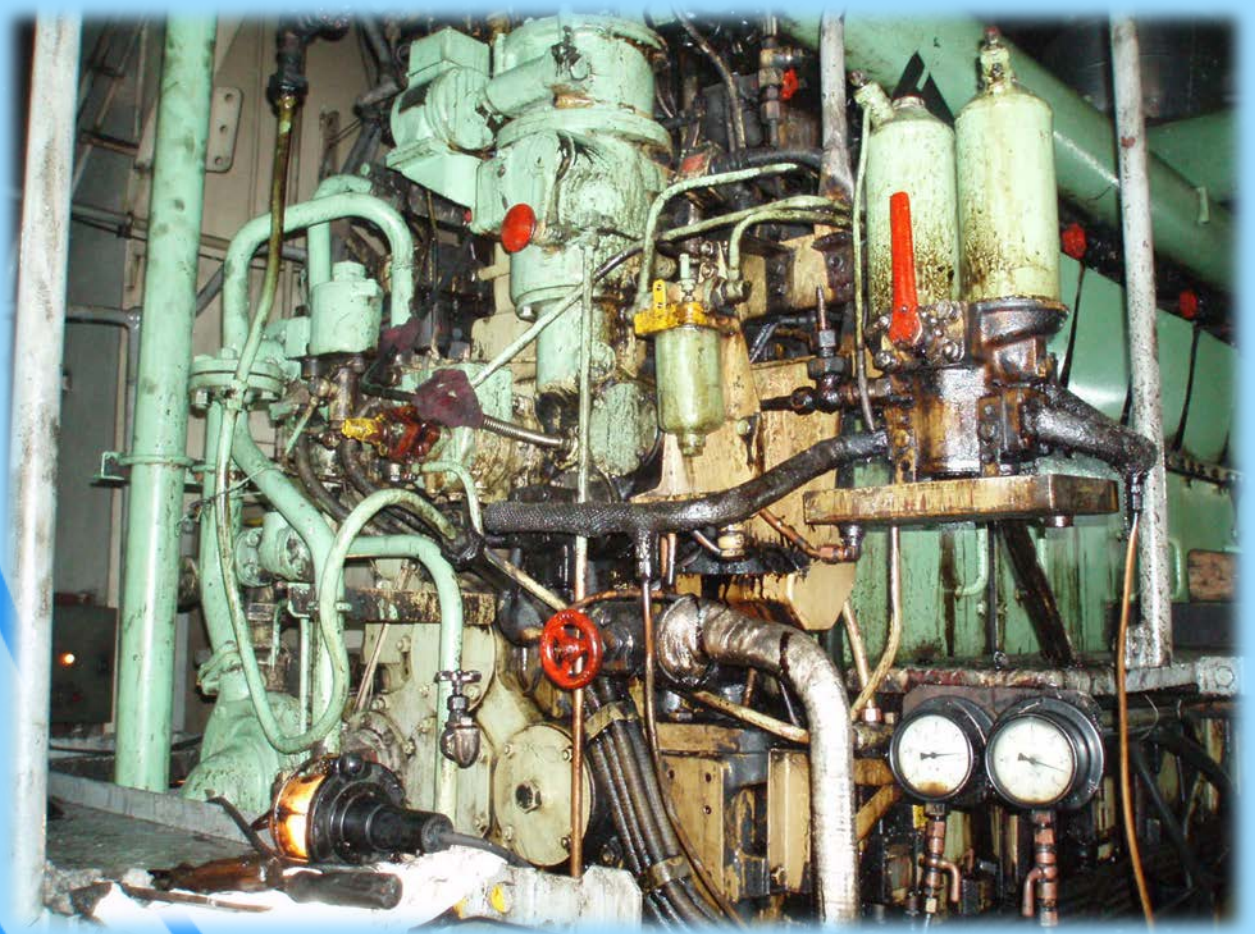
Our default approach is a cost-utility analysis.

Cost-effectiveness analysis

We like to think of our models as perfect descriptions of reality...

Cost-effectiveness analysis

... Of course, reality tends to be somewhat messy!



Cost-effectiveness analysis

We summarise our findings using the incremental cost-effectiveness ratio and budget impact.

For drugs, the willingness-to-pay threshold ranges from €20,000/QALY to €45,000/QALY.

There is no formal willingness-to-pay threshold for non-drug interventions.

Other domains

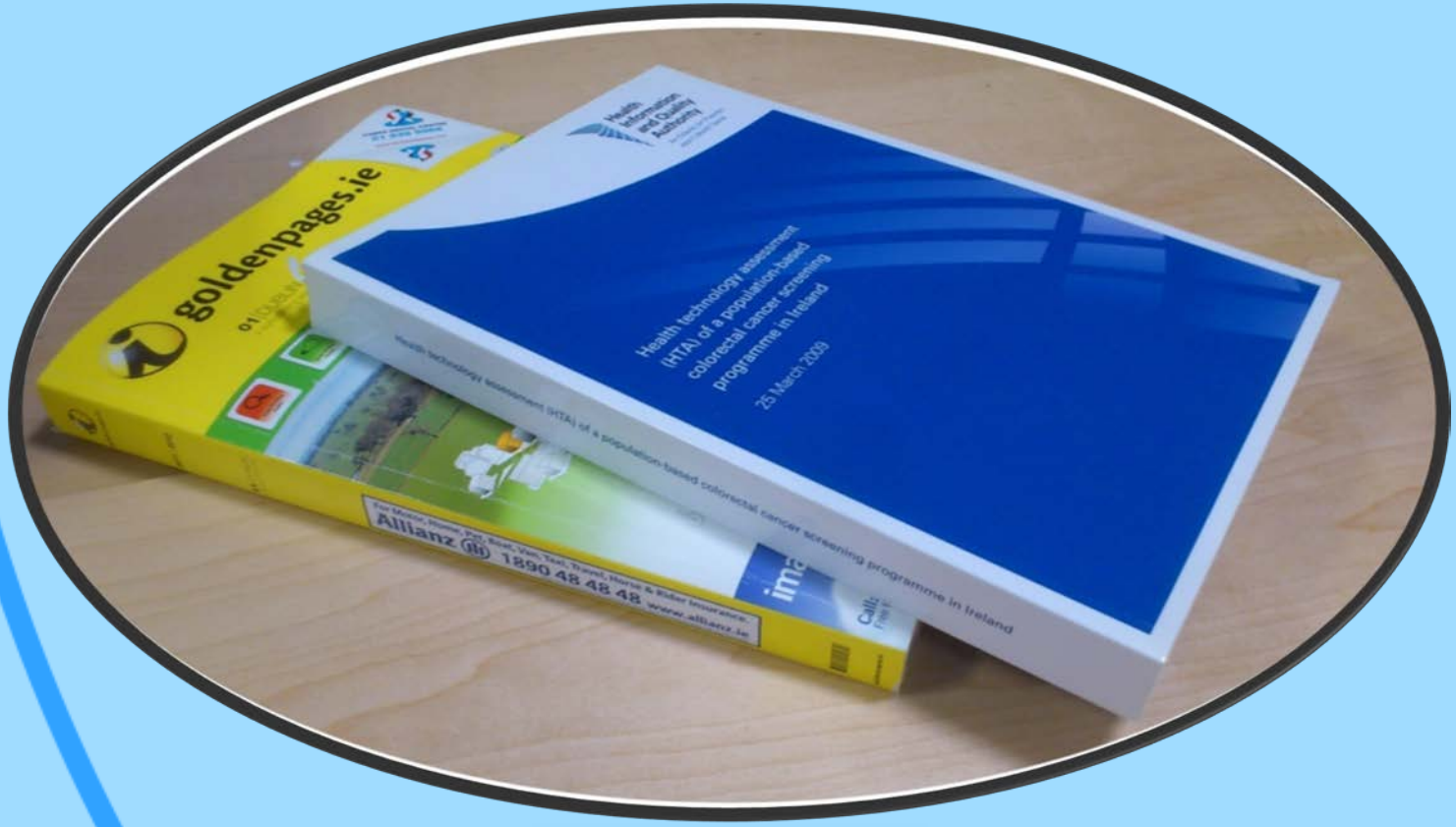
We also consider organisational, ethical and social issues. We typically use the EUnetHTA Core Model to address these questions.

Organisational issues tend to be very important to the decision maker, as that is where capacity constraints and potential challenges for implementation are highlighted.

HTA outputs

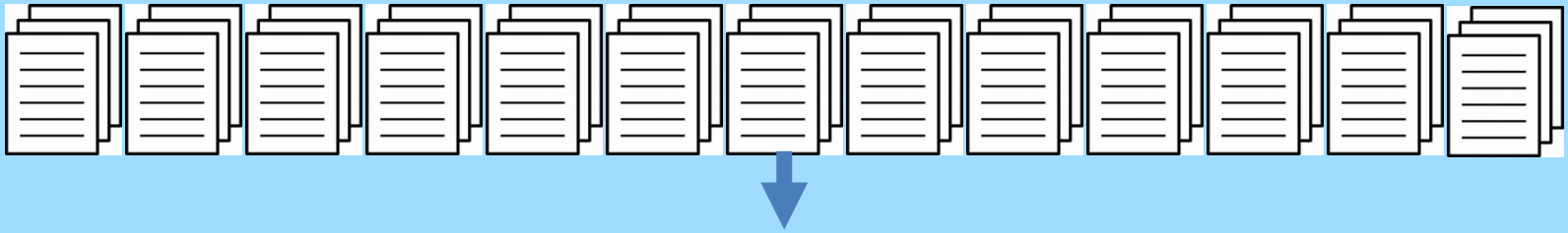
- Report
- Press release to guide coverage
- Infographic
- Media interviews (TV, radio, newspapers)
- Peer-reviewed scientific papers

HTA outputs

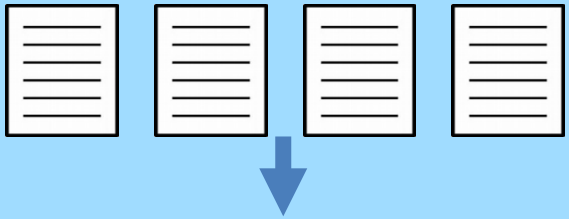

goldenpages.ie
Health technology assessment (HTA) of a population-based colorectal cancer screening programme in Ireland
25 March 2009
Health Information and Quality Authority
Allianz 1890 48 48 48

HTA outputs

A typical technical report is 45,243 words long...



... which is distilled into a 4,307 word executive summary



... which is summarised into a 1,124 word advice

... which is condensed into a 207 word blue box

Stakeholder engagement

Every project includes an expert advisory group comprising a range of stakeholders including service providers, clinicians and patient representation.

Topics that may be contentious or of substantial public interest are often also put out to public consultation.

We engage with stakeholders on an ongoing basis to ensure a wider appreciation of HTA.

Conclusions

- HIQA carries out predominantly non-drug HTAs to inform decision making by the Department of Health and HSE.
- We carry out HTA in accordance with best practice and in line with the EUnetHTA methodology.
- HTA is resource intensive and tends to be a messy business. To ensure maximum benefit to the healthcare system, it is important to make pragmatic choices and leverage off existing work.

Thank you for listening

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https://www.hiqa.ie/areas-we-work/health-technology-assessment

Guide to HTA in HIQA: http://goo.gl/z27yRD