

Norwegian Institute of Public Health, Division for Health Services: Impact case 1

Institution: Norwegian Institute of Public Health
Administrative unit: Division of Health Services
Title of case study: Informed health choices by individuals, professionals, and policy makers.
Period when the underpinning research was undertaken: 2012-2022
Period when staff involved in the underpinning research were employed by the submitting institution: 2012-2022
Period when the impact occurred: 2014-2022

1. Summary of the impact

We have developed, evaluated, and disseminated:

- [EDUCATIONAL RESOURCES EDUCATIONAL RESOURCES](#) to teach people how to assess health claims.
- [TOOLS TO IMPROVE THE USE OF RESEARCH EVIDENCE](#) in guideline development and policy decisions:
 - o [Evidence to Decision-frameworks](#) that facilitate structured and transparent decision making.
 - o Approach <https://www.cerqual.org/> for assessing [confidence in findings from qualitative research](#) and using that evidence to inform decisions.

This research has improved the use of research evidence in healthcare decisions.

2. Underpinning research

EDUCATIONAL RESOURCES

In a project funded by the Research Council of Norway from 2013-2018 ([Supporting informed healthcare choices in low-income countries](#)), we collaborated with colleagues in Uganda, Rwanda, and Kenya and other members of the [Informed Health Choices network](#) to develop and evaluate tools for teaching primary school pupils and their parents how to critically assess health claims. The project resulted in widely disseminated educational resources. The resources were developed through extensive user testing employing human-centred design. They included a [cartoon book story](#) about 12 key concepts (principles) for deciding what to believe and what to do for our health. The resources were evaluated in a cluster-randomized trial and a parallel process evaluation. We found that the educational resources were highly effective in improving the children’s ability to assess health claims. A [podcast for parents](#) was also shown to be effective. (Researchers: Andy Oxman, Astrid Dahlgren, Sarah Rosenbaum, Simon Lewin, Jenny Moberg, Matt Oxman, Atle Fretheim)

TOOLS TO IMPROVE THE USE OF RESEARCH EVIDENCE

We initiated the GRADE Working group in 2000. Together with other members of the group, we led the development and evaluation of [Evidence to Decision-frameworks](#). This work included consultation with stakeholders, an international survey of policy makers, workshops, and user testing. The frameworks provide a structured and transparent approach to support policy making informed by the best available research evidence, while making the basis for decisions accessible to those whom they will affect. This work was [funded in part by the EU](#) from 2011-15. (Researchers: Andy Oxman, Signe Flottorp, Claire Glenton, Simon Lewin, Sarah Rosenbaum, Jenny Moberg).

We also led the development and evaluation of [GRADE-CerQual](#) for assessing confidence in qualitative evidence and using qualitative evidence to inform decisions. This work took place between 2012 to 2022. [We employed a pragmatic and iterative approach](#) that included talking to experts in the field of qualitative evidence synthesis, developing consensus through multiple face-to-face meetings and teleconferences, and seeking feedback from ongoing engagement with the qualitative evidence synthesis community and organisations that commission, produce, or use systematic reviews. (Researchers: Simon Lewin, Claire Glenton, Heather Munthe-Kaas).

Key researchers involved in the research underpinning the impact case:

- Andy Oxman, Senior Researcher
- Simon Lewin, Senior Researcher
- Claire Glenton, Senior Researcher (until 2022)
- Heather Munthe-Kaas, Researcher
- Sarah Rosenbaum, Senior Researcher
- Signe Flottorp, Senior Researcher
- Astrid Dahlgren, Researcher (until 2018)
- Jenny Moberg, Researcher
- Matt Oxman, Researcher/PhD-student (2016–)
- Atle Fretheim, Senior Researcher (Head of Unit)

3. References to the research

1. Nsangi A, Semakula D, Oxman AD, Austvoll-Dahlgren A, Oxman M, Rosenbaum S, Morelli A, Glenton C, Lewin S, Kaseje M, Chalmers I, Fretheim A, Ding Y, Sewankambo NK. [Effects of the Informed Health Choices primary school intervention on the ability of children in Uganda to assess the reliability of claims about treatment effects: a cluster-randomised controlled trial.](#) *Lancet*. 2017 Jul 22;390(10092):374-388. doi: 10.1016/S0140-6736(17)31226-6.
2. Semakula D, Nsangi A, Oxman AD, Oxman M, Austvoll-Dahlgren A, Rosenbaum S, Morelli A, Glenton C, Lewin S, Kaseje M, Chalmers I, Fretheim A, Kristoffersen DT, Sewankambo NK. [Effects of the Informed Health Choices podcast on the ability of parents of primary school children in Uganda to assess claims about treatment effects: a randomised controlled trial.](#) *Lancet*. 2017;390(10092):389-98. doi: 10.1016/s0140-6736(17)31225-4
3. Oxman AD, Aronson JK, Barends E, Boruch R, Brennan M, Chalmers I, Chislett J, Cunliffe-Jones P, Dahlgren A, Gaarder M, Haines A, Heneghan C, Matthews R, Maynard B, , Oxman M, Pullin A, Randall N, Roddam H, Schoonees A, Sharples J, Stewart R, Stott J, Tallis R, Thomas N, Vale L. [Key concepts for making informed choices.](#) *Nature*. 2019;572(7769):303-6. doi: 10.1038/d41586-019-02407-9.

4. Rosenbaum SE, Moberg J, Glenton C, Schunemann HJ, Lewin S, Akl E, et al. [Developing Evidence to Decision frameworks and an Interactive Evidence to Decision tool for making and using decisions and recommendations in health care](#). *Glob Chall*. 2018;2(9):1700081. doi: 10.1002/gch2.201700081.
5. Lewin S, Glenton C, Munthe-Kaas H, Carlsen B, Colvin CJ, Gülmezoglu M, Noyes J, Booth A, Garside R, Rashidian A. [Using qualitative evidence in decision making for health and social interventions: an approach to assess confidence in findings from qualitative evidence syntheses \(GRADE-CERQual\)](#). *PLoS Med*. 2015 Oct 27;12(10):e1001895. doi: 10.1371/journal.pmed.1001895.
6. Lewin S, Glenton C. [Are we entering a new era for qualitative research? Using qualitative evidence to support guidance and guideline development by the World Health Organization](#). *Int J Equity Health*. 2018 Sep 24;17(1):126. doi: 10.1186/s12939-018-0841-x.

4. Details of the impact

EDUCATIONAL RESOURCES

The primary school resources that we developed enabled children, teachers, and parents to think critically about health choices, as documented by a [randomized trial](#) with over 10,000 pupils (published in 2017), a [process evaluation](#) (published in 2019), and a [one-year follow-up study](#) (published in 2020). The process evaluation found that teachers, children, their parents, and education authorities liked the educational resources and felt that the content was important. This and the children's enthusiasm motivated the teachers. Nearly everyone interviewed thought that the children learnt something important and many thought that it improved their decision-making. The follow-up study found that children retained what they learned for at least one year. These resources were the [first of their kind](#) and received substantial [media attention](#). This included, for example, a [BBC documentary](#). The resources have been [translated to 14 languages and adapted versions have been \(or are being\) introduced and tested in schools in other countries between 2017 and 2022](#). The Informed Health Choices (IHC) [Network](#), which grew out of this work, includes people from 26 countries who are developing, evaluating, or contextualising educational resources for thinking critically about health choices.

We developed an [item bank of multiple-choice questions](#) that assess an individual's ability to think critically about health choices and used that as the basis for developing and evaluating the outcome measure used in randomized trials of the primary school resources and the podcast for parents. Questions from the item bank have been used to develop other evaluation tools and have also been translated to other languages.

The IHC [Key Concepts](#) serve as the basis for developing educational resources. The concepts are principles for deciding what to believe and what to do for our health. They help people to recognise unreliable claims, recognise reliable evidence, and make well-informed choices. Our research has inspired colleagues in agriculture, education, environmental policy, international development, management, nutrition, policing, social welfare, veterinary medicine, and [other disciplines](#) to adapt and use the IHC Key Concepts as a framework for supporting critical thinking about the effects of interventions.

IHC Key Concepts are included in the curriculum for bachelor students at the Faculty of Health Sciences, Oslo Metropolitan University, as part their training in knowledge-based practice. As part of this subject, they also receive training in breaking myths and exposing unreliable claims they

encounter in the media and other parts of society that deal with the effect of various forms of treatment. The University also hosts [Behind the Headlines](#), which is an interdisciplinary teaching and research project aimed at raising the students' competence in critically appraisal of health claims.

We currently are completing a second project funded by the Research Council of Norway (2019 to 2024) which built on the first project. As part of this research, we developed educational resources for lower secondary school students and evaluated the resources in [randomized trials](#) in Kenya, Rwanda, and Uganda.

TOOLS TO IMPROVE THE USE OF RESEARCH FINDINGS

Our research group took the lead on developing Evidence to Decision (EtD) frameworks as part of the EU-funded DECIDE project (2011-2015). This led to EtD frameworks tailored for [clinical practice guidelines](#) (2016), [public health and policy decisions](#) (2018), [coverage decisions](#) (2017), and [tests](#) (2016). More than [110 organizations](#) around the world, including the World Health Organization (WHO), now use GRADE (and GRADE EtD frameworks) to assess the certainty of evidence and strength of recommendations in guideline development and decision-making processes. Our team also led the development of the [interactive EtD](#) tool and [guidance](#) for populating and using EtD frameworks.

The GRADE-CERQual approach provides a transparent and systematic method for assessing confidence in the evidence from reviews of qualitative research and communicates this to end users, such as guideline panels or decision makers. The approach was [first published in an article in 2015](#) and has been refined since. WHO is a partner in the GRADE-CERQual-project and the WHO has included GRADE-[CERQual-assessments](#) in their guideline development processes and policy recommendations. A [literature search conducted in August 2020](#) identified 233 studies that had applied the GRADE-CERQual approach – a figure that is likely to have at least doubled by now. [Cochrane recommends](#) that authors of qualitative evidence syntheses apply the GRADE-CerQUAL approach.

5. Sources to corroborate the impact

1. Bermudez LG, Grilo SA, Santelli JS, Ssewamala FM. Informing health choices in low-resource settings. *Lancet*. 2017;390(10092):336-8. [https://doi.org/10.1016/s0140-6736\(17\)31290-4](https://doi.org/10.1016/s0140-6736(17)31290-4)

2. [This researcher may have discovered the antidote to health bullshit](#)

Julia Belluz and Alvin Chang, Vox 2017

3. [The Documentary: How children are fighting misinformation](#) (video, 3 minutes)

BBC World Service, with Sir David Spiegelhalter and producer Sandra Kanthal 2019

4. Muller L-M, Morris A, Sharples JM, Chislett J, Rose N, Chalmers H. How to assess claims about cognition and learning: The ACE Concepts. *Impact J R Coll Teach.* 2020;18:19.
<https://impact.chartered.college/article/how-to-assess-claims-cognition-learning-ace-concepts/>

5. [Informed Health Choices Newsletter 2023](#)

6. [Informed Health Choices, il corso che insegna il pensiero scientifico in medicina ai bambini- Corriere.it](#)

Corriere Dela Sera (Italian daily newspaper), reporting on use of Informed Health Choices teaching resources in schools in Italy.

7. The World Health Organization: [Evidence, policy, impact: WHO guide for evidence-informed decision-making](#) (this WHO-document includes 30 references to publications from our research group).

8. Vestrheim DF, Iversen BG, Flottorp SA, Denison EM-L, Oxman AD. Should individuals in the community without respiratory symptoms wear facemasks to reduce the spread of Covid-19?– Update 1. Oslo, Norway: Norwegian Institute of Public Health; 2020.
<https://hdl.handle.net/11250/2722757>

9. Glenton C, Lewin S, Norris S. Using evidence from qualitative research to develop WHO guidelines. WHO handbook for guideline development. 2014.
https://iris.who.int/bitstream/handle/10665/145714/9789241548960_chap15_eng.pdf

10. Wainwright, M., Zahroh, R.I., Tunçalp, Ö. et al. The use of GRADE-CERQual in qualitative evidence synthesis: an evaluation of fidelity and reporting. *Health Res Policy Sys* 21, 77 (2023).
<https://link.springer.com/article/10.1186/s12961-023-00999-3>