



ESPERIENZA
PERSONALE

Informed Health Choices

Newsletter, March 2020

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CORRERE,
TI ROMPE LE
GAMBE!



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Contributors

Contributors



Front page: drawing from a student participating in the primary school pilot in Italy, illustrating the key concept about *personal experience being a bad basis for a claim*. “Personal experience. Claim. Running leads to broken legs.”

Updates

The IHC Network



The IHC Network

The IHC network consists of people who are developing, evaluating or contextualising IHC resources. Activities are ongoing or planned in over 20 countries, including Australia, Basque Country, Brazil, Chile, China, Croatia, French speaking countries, German speaking countries, Greece, Iran, Ireland, Italy, Kenya, Mexico, Norway, Poland, Rwanda, South Africa, Spain, Uganda, United Kingdom, and the United States.

The IHC website

The [IHC website](#) changes gradually each year to reflect the people and activity involved in our work, and we will continue to update the

website content and simplify navigation in 2020.

In 2019, we reorganised parts of the main menu, and added “Secondary school resources” to reflect current work.

We also added a language menu across the top of the website, linking to corresponding pages and resources in the following languages:

- Español(Spanish)
- Norsk(Norwegian)
- Ikinyarwanda
- Kiswahili
- Français (French)
- 简体中文 (Chinese)

In 2020, we hope to add the following language pages with links to translated learning resources:

- Italian
- Basque
- Persian
- Portuguese
- Ireland (English for use in Ireland)

Translation and contextualisation

We develop all our resources with translation in mind: the [IHC primary school resources](#), [IHC podcast](#), [Thatsaclaim.org](#) website and the [Key Concepts poster](#).

Translation is not the only way to adapt a learning resource to another setting. Often other kinds of changes are necessary, such as changing foreign-sounding names or substituting examples in the text with more commonly known diseases and treatments. Some teams choose to make more radical adaptations to the layout or content. We call this process “contextualisation”, which can include any or all the following activities:

- *Translation* of resources to another language
- *Minor or major adaptations* of the content
- *Piloting* in classrooms or other settings to understand what kind of changes are suitable
- *Context analysis* of considerations for implementing or scaling up use

People from many different countries have translated and contextualised our resources for use in their settings. It’s not mandatory to carry this work out as a research project, though many teams do. [We welcome new queries from any interested parties.](#)

We recommend that changes beyond language translation should be informed by piloting the resources with people who represent the target audience (such as students and teachers). We also recommend that teams consider conducting a [context analysis](#), and

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that they place this activity early in a contextualisation project, rather than at the end. This is to ensure that findings are uncovered in time to inform adjustments to the resources.

Finished translations of the IHC Primary school learning resources are available for downloading in [Spanish](#), [French](#), [Kinyarwanda](#), [Kiswahili](#) and [Norwegian](#) on our website. Translation of the English-language IHC podcast is available in [Luganda](#). Teams in Spain, Basque Country, Iran, China, Brazil, Ireland and USA are currently translating, adapting, piloting or finalising versions of various resources which will be likely be available on our website in 2020.

Guides

Based on our own and others' experiences, we have tried to make it easier for people who want to adapt IHC learning resources to understand what contextualisation work entails, what resources might be needed, how each activity might be carried out in light of available time, resources and ambition level. Following is an overview of the current set of guides.

See [IHC guides for contextualising and piloting resources](#).

Contact: Sarah Rosenbaum

Primary school resources



The Informed Health Choices (IHC) project started in January 2013 with a 5-year grant from the Research Council of Norway. A summary of that project can be found [here](#). In that project we:

- Developed a list of [Key Concepts](#) that people need to understand and apply when claims about the effects of treatments (and other interventions) are made, and when they make health choices
- Developed and validated [evaluation tools](#) to assess an individual's ability to apply the IHC Key Concepts
- Designed and user-tested learning-resources to enable [primary school children](#) and [their parents](#) to understand and apply some of the Key Concepts

- Evaluated the effectiveness of those learning-resources in randomised trials and followed-up participants to assess the extent to which they retained and applied what they learned
- Collected in-depth qualitative data from observations, interviews and focus group discussions to investigate ways of scaling up effective use of the resources, potential adverse effects and other potential benefits of the interventions
- Prepared a [database of learning-resources](#) intended to help people understand and apply one or more of the IHC Key Concepts
- Prepared a [plain language glossary](#) of health research terms
- Translated, piloted, and user-tested the IHC primary school resources in Kenya and Rwanda

The final paper from that project was published in February, and Allen Nsangi and Daniel Semakula have completed their PhD dissertations, which they will defend later this year. Here is a list of the main publications from that project:

The IHC Key Concepts

Austvoll-Dahlgren A, et al. [Key Concepts that people need to understand to assess claims about treatment effects](#). J Evid Based Med 2015; 8:112-25.

Chalmers I, et al. [Key Concepts for Informed Health Choices: A framework for helping people learn how to assess treatment claims and make informed choices](#). *BMJ Evid Based Med* 2018; 23:29–33.

Oxman AD, et al. [Key Concepts for assessing claims about treatment effects and making well-informed treatment choices](#). *F1000Res*. 2018; 7:1784.

The IHC learning resources

Informed Health Choices Group. [The Health Choices Book: Learning to think carefully about treatments. A health science book for primary school children](#). Oslo: Norwegian Institute of Public Health, 2016.

Informed Health Choices Group. [Teachers' Guide for The Health Choices Book: Learning to think carefully about treatments. A health science book for primary school children](#). Oslo: Norwegian Institute of Public Health, 2016.

The Informed Healthcare Choices Group. [The Health Choices programme podcast](#). Kampala: Makerere University, 2016.

Development and evaluation of the learning resources

Semakula D, et al. [Development of mass media resources to improve the ability of parents of primary school children in Uganda to assess the trustworthiness of claims about the effects of](#)

[treatments: a human-centred design approach](#). *Pilot Feasibility Stud* 2019; 5:155.

Nsangi A, et al. [Development of the informed health choices resources in four countries to teach primary school children to assess claims about treatment effects: a qualitative study employing a user-centred approach](#). *Pilot Feasibility Stud* 2020; 6:18.

Nsangi A, et al. [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; 390:374–88.

Semakula D, et al. [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; 390:389–98.

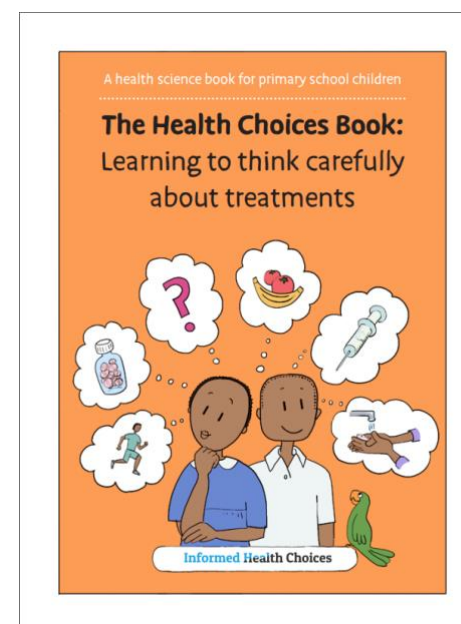
Nsangi A, et al. [Effects of the Informed Health Choices primary school intervention on the ability of children in Uganda to assess the reliability of claims about treatment effects, 1-year follow-up: a cluster-randomised trial](#). *Trials* 2020; 21:27.

Semakula D, et al. [Effects of the Informed Health Choices podcast on the ability of parents in Uganda to assess the trustworthiness of claims about treatment effects: one-year follow-up of a cluster-randomised trial](#). *Trials* 2020; 21:187.

Nsangi A, et al. [Informed health choices intervention to teach primary school children in low-income countries to assess claims about treatment effects: process evaluation](#). *BMJ Open* 2019; 9:e030787.

Semakula D, et al. [Informed Health Choices media intervention for improving people's ability to critically appraise the trustworthiness of claims about treatment effects: a mixed-methods process evaluation of a randomised trial in Uganda](#). *BMJ Open* 2019; 9:e031510.

Contact: *Andy Oxman*



Secondary school resources



We began a new four-year project funded by the Research Council of Norway in 2019. The objective of this project is to develop and evaluate IHC learning resources for secondary school students in Kenya, Rwanda, and Uganda. We aim to create flexible, digital resources that can be adapted for use in other contexts.

Stakeholder engagement

We will engage teachers, students, and other stakeholders throughout the project. The degree of engagement will vary. We develop the learning resources together with teachers and students, using [human-centred design](#). This approach is characterised by iterative cycles of idea generation, prototyping, user-testing, analysis and revision which will see us

co-create IHC resources for secondary school students.

The key stakeholders are secondary school teachers and students, the users for the resources. Other stakeholders include head teachers, policymakers, curriculum developers, parents, teacher trainers, and health professionals.

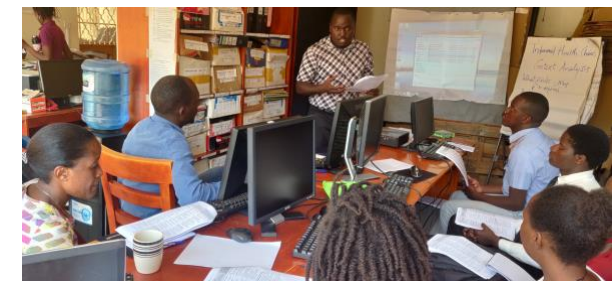
We will engage teachers and students in planning and implementing the project through teacher and student networks in each country. We will engage other key stakeholders through a national advisory group in each country, including policymakers, curriculum development officers, school heads, and parent and civil society representatives. In addition, we will engage researchers with expertise in education, health, research methods, design, information and communication technology and science communication in an international advisory group. We also will engage colleagues with an interest in adapting, developing, evaluating and implementing IHC resources in other countries through the [IHC Network](#).

Together with the teacher and student networks and the advisory groups, we will establish measurable success criteria that reflect the objectives of engaging stakeholders at the start of the project and evaluate the

extent to which those criteria were met at the end of the project. We will consider criteria related to whether:

- The stakeholders were informed and engaged to an appropriate extent
- The approaches (of informing and engaging) that were used were appropriate and worked as expected
- The level of involvement was appropriate
- The input was appropriate and whether it was used appropriately
- The intended outputs were delivered and appropriate
- The intended outcomes were achieved
- The efforts were worthwhile relative to what was achieved
- The appropriateness of group make-up (were important voices missing/not represented)

The final decision about the success criteria will be delegated to the networks and advisory groups.



Context analyses

We are using document analysis, school visits, and semi-structured interviews to clarify the context in which the learning resources will be used in Kenya, Rwanda, and Uganda. The objectives of the [context analyses](#) are to:

- Explore what demand there is for learning resources for teaching critical thinking about health in secondary schools
- Map where teaching critical thinking about health best fits in the curriculum
- Identify and examine relevant resources already in use
- Explore conditions for introducing new learning resources
- Describe what information and communication technology (ICT) is likely to be accessible in secondary schools for teaching and learning purposes
- Identify opportunities and challenges for developing digital learning resources

Some preliminary findings with implications for the design of the learning resources include:

Finding	Implication
Health and critical thinking are cross-cutting.	Design modules that can be used across different subjects, and provide support for inter-disciplinary teaching
Accessibility to and use of ICT varies across the three countries and within each country.	Design that can be used in schools with minimal ICT resources (e.g. a projector and a laptop) as well as in schools with smart classrooms (computer laboratories)
Many schools have limited internet connection.	Design resources that can be downloaded (with small file sizes) and used offline.
Resources developed by previous projects have not been sustained after the projects ended.	Partner with organisations responsible for learning resources in each country and ensure that they have ownership; include functionality that enables those organisations to modify and sustain the resources; use sustainable technological solutions.

Prioritising Key Concepts

We are using [an iterative process to prioritise which of the 49 IHC Key Concepts to include in learning resources](#) that we are developing for lower secondary schools in East Africa. A group of people familiar with the context in Kenya, Rwanda, and Uganda began by familiarising themselves with the concepts. They then pilot tested draft criteria for selecting and ordering the concepts. After agreeing on the criteria, they independently assessed all 49 concepts and reached an initial consensus – prioritising 29 Key Concepts. We are now mapping these concepts to the curriculum in each country and seeking feedback from teachers and other stakeholders. After considering the feedback, they will independently assess the concepts again and reach a final consensus.

Teaching strategies

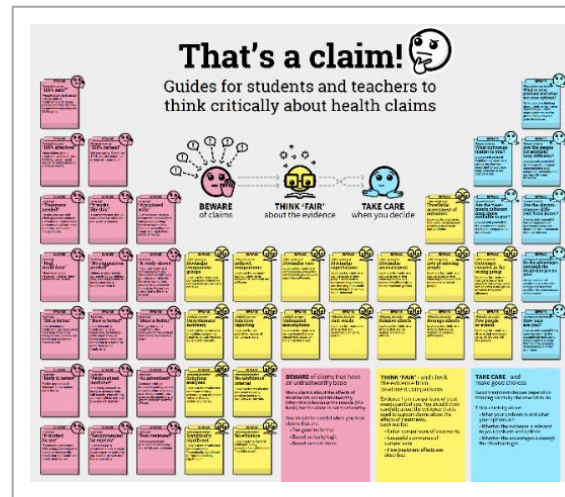
In addition to the context analyses, we are undertaking an [overview of systematic reviews](#) to inform decisions about which teaching strategies to use in the learning resources.

We are conducting the overview in two stages. In the first stage we are mapping characteristics of systematic reviews of teaching strategies. We are including reviews that assess the effects of teaching strategies

that can potentially be used in primary or secondary schools to help students learn to think critically, have a “Methods” section with explicit selection criteria, report at least one cognitive outcome measure, and were published within the past 20 years. In the second stage, we will prepare structured summaries of the systematic reviews that are most relevant to the design of the secondary school resources that we are developing and synthesize those findings.

So far we have screened over 6500 titles and abstracts, and retrieved 412 full-text articles. Of the 231 articles published in the last five years (2015 – 2019), 116 meet our inclusion criteria for the mapping review. Examples of systematic reviews with implications for the design of the IHC secondary school resources include reviews of the use of signalling to attract learners’ attention and highlight important information; pedagogical agents, scaffolding, prompts, games, role-playing, and inquiry-based learning.

Contacts: Allen Nsangi, Ronald Ssenyonga, Andy Oxman



Key Concepts

2019 update of the IHC Key Concepts

The **IHC Key Concepts** are principles for evaluating the trustworthiness of treatment claims, comparisons, and choices. The concepts can help people to:

- Recognise when a **claim** about the effects of treatments has an untrustworthy basis
- Recognise when evidence from **comparisons** of treatments is trustworthy and when it is not
- Make well-informed **choices** about treatments

The IHC Key Concepts provide a framework for:

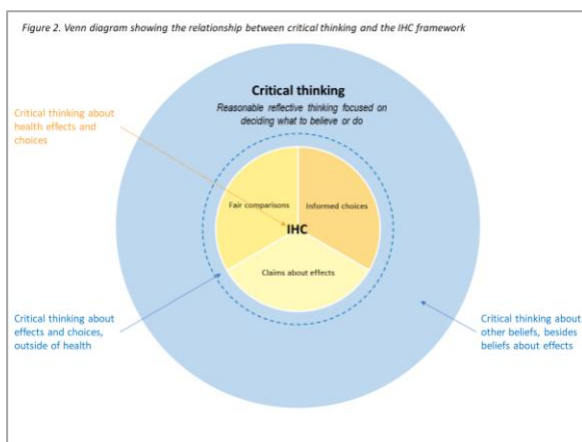
- Developing and evaluating resources to help people learn to think critically about treatment claims
- Organising, coding, and retrieving other teaching and learning materials
- A database of multiple-choice questions that can be used for assessing people’s ability to apply the IHC Key Concepts

We started to develop this framework in 2013. We published the first version in 2015 and have updated it yearly since then. This year, we have added five new concepts:

- Assumptions that fair comparisons are not relevant can be misleading.
- Your own prior beliefs may be wrong.
- Consider the baseline risk or the severity of the symptoms when estimating the size of expected effects.
- Consider how important each advantage and disadvantage is when weighing the pros and cons.
- Important uncertainties about the effects of treatments should be reduced by further fair comparisons.

The list now includes 49 concepts. In response to feedback, we have also edited the list of concepts to make their descriptions more consistent, we have edited some of the explanations, we have added 10 new competences, and five new dispositions.

Other critical thinking frameworks



We undertook a systematic review to compare the IHC Key Concepts framework to other frameworks intended to promote critical thinking about claims and choices, and to inform further development of the IHC framework.

Twenty-two frameworks met our inclusion criteria. The purpose of the IHC Framework is similar to that of two frameworks for critical thinking and somewhat similar to that of a framework for evidence-based practice. Those frameworks have broader scopes than the IHC Framework. An important limitation of broad frameworks is that they do not provide an adequate basis (concepts) for deciding which claims to believe and what to do. There was at most some overlap between the concepts, competences, and dispositions in each of the

22 included frameworks and those in the IHC Framework.

We concluded that the IHC Key Concepts Framework appears to be unique. We also identified ways of improving the IHC framework and other frameworks.

Other types of interventions



Individuals and organisations across a wide variety of fields are working to enable people to make evidence-informed decisions. These efforts include synthesising the best available evidence in systematic reviews, making that evidence more accessible, and teaching people to make evidence-informed decisions. Unfortunately, we tend to work in silos within our own field, sometimes learning from colleagues in other fields.

Together with colleagues from 13 other fields, we agreed on a core set of Key Concepts that are relevant for interventions across our 14

fields. This includes agricultural, economic, educational, environmental, international development, informal learning, management, nutrition, planetary health, policing, social welfare, speech and language therapy, and veterinary interventions. Starting with the IHC framework, we reached a consensus on a common framework for thinking critically about claims, comparisons (evidence), and choices that includes most of the concepts in the IHC framework.

These [Key Concepts for Informed Choices](#) were published in *Nature* in August 2019. The [“That’s A Claim!” website](#), which includes adaptations of the Key Concepts for seven fields, was launched in conjunction with publication of the Key Concepts in *Nature*.

Contact: Andy Oxman

Claim Evaluation Tools

Norwegian adults do not understand many concepts that are essential for assessing healthcare claims and making informed choices

Over the past decade, there has been increasing interest in enabling patients and the public to think critically about healthcare in Norway. For example, in the last 10 years three websites have been developed that aim to empower patients and the public to assess the trustworthiness of health claims

(sunnskepsis.no, www.informedhealthchoices.org, and no.testingtreatments.org). Critical thinking has also been the focus of popular television shows that target common claims about treatment effects and illustrate how such claims can be tested using rigorous study designs. In collaboration with the Norwegian national television network (NRK), a group of researchers now part of the IHC Network carried out randomised trials with the aim of educating the public about the need for fair comparison of treatments.*

To our knowledge only one survey in Norway has attempted to measure the ability to understand and apply any of the IHC Key Concepts in a representative sample of

Norwegian adults. That study only addressed four of the Key Concepts. Consequently, we wanted to map the ability of Norwegian adults to assess treatment claims and make informed health choices, using MCQs from the [Claim Evaluation Tools item bank](#). The findings of this study can be used to inform the development of learning resources and communication of information to patients and the public, and for international comparisons. The study was conducted by Astrid Dahlgren, Kjetil Furuseth-Olsen, Christopher James Rose and Andy Oxman.

A cross-sectional study of Norwegian adults

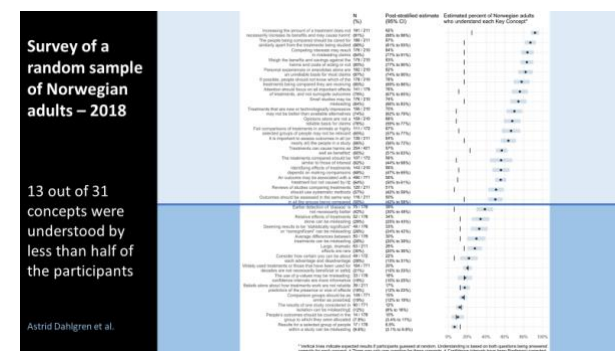


We mailed 4500 invitations to Norwegian adults. A total of 771 people responded. Respondents were randomly assigned to one of four online tests that included multiple-choice questions that test understanding of Key Concepts people need to understand to assess healthcare claims. They also included questions about intended behaviours and self-

efficacy. One of the four tests was identical to one previously used in two randomised trials of educational interventions in Uganda, facilitating comparisons to Ugandan children, parents, and teachers. We adjusted the results using demographic data to reflect the population.

As part of this study we also tested the validity and reliability of the four tests we administered using Rasch analysis.

What Norwegian adults understand



Half of Norwegian adults understand 18 of the 30 Key Concepts. On the other hand, less than half understood 13 of the concepts. We estimate that more than 80% of Norwegian adults understand these five concepts:

- Increasing the amount of a treatment does not necessarily increase its benefits and may cause harm.

- Competing interests may result in misleading claims.
- Personal experiences or anecdotes alone are an unreliable basis for most claims.
- The people being compared should be cared for similarly apart from the treatments being studied.
- Weigh the benefits and savings against the harms and costs of acting or not.

On the other hand, Norwegian adults appear to do no better than if they were to randomly guess the answers to questions about these seven Key Concepts:

- Beliefs alone about how treatments work are not reliable predictors of the presence or size of effects.
- The results of one study considered in isolation can be misleading.
- Widely used treatments or those that have been used for decades are not necessarily beneficial or safe.
- Comparison groups should be as similar as possible.
- People's outcomes should be counted in the group to which they were allocated.
- Results for a selected group of people within a study can be misleading.
- Deeming results to be “statistically significant” or “nonsignificant” can be misleading.

Based on self-report, most Norwegians are likely to find out the basis of treatment claims, but few consider it easy to assess whether claims are based on research and to assess the trustworthiness of research.

Overall, the results for Norwegian adults were better than the results for Ugandan children in the intervention arm of the trial and parents, and similar to those of Ugandan teachers in the intervention arm of the trial.

The MCQs are appropriate for use in a Norwegian setting

We validated the questionnaires using robust methods. Although the results of the Rasch analysis are promising, it suggests the potential for improvements. Across all four tests, we found that only five MCQs warranted improvement. However, Rasch analysis of two of the tests was underpowered, so the validity and reliability of these should be assessed again in future studies. Overall, our Rasch analysis suggests that the MCQs we tested can be used for educational and research purposes in Norway. This evaluation is also the first step in developing a calibrated item bank that can be used for Computer Assisted Testing.

Gender and being a health professional are not important predictors

We did not find gender or having a health professional background to be a good

predictor of participants' understanding of the Key Concepts. This is consistent with other studies and findings that both health professionals and patients feel challenged finding, appraising, and applying relevant evidence for use in health decisions. However, unsurprisingly, we found that people with higher education have higher health literacy skills. This is also consistent with findings from the European health literacy survey.

Lessons learned and next steps

The results of this study can inform the development and evaluation of educational interventions that address Key Concepts that Norwegians appear to poorly understand. Up to now, few such interventions have been evaluated. There is a need to evaluate interventions for health professionals as well as for the general public to help ensure that they can think critically about treatment claims and choices. The results also can inform the development and evaluation of strategies for improving communication of information about the effects of treatments by researchers, health professionals, and others.

Studies like this one in other countries would help to map similarities and differences in people's abilities across different countries and settings. Such information could help to determine the extent to which interventions

should be tailored to address different Key Concepts for different populations.

Health professionals and others who communicate health information should be aware that patients may not be able to think critically about treatment claims and may therefore struggle to process information necessary to making informed decisions.

Contact: Astrid Dahlgren

* Five studies:

How should the impact of different presentations of treatment effects on patient choice be evaluated? A randomized trial

The effect of alternative summary statistics for communicating risk reduction on decisions about taking statins: a randomized Trial

The effect of alternative graphical displays used to present the benefits of antibiotics for sore throat on decisions about whether to seek treatment: a randomized trial

What is the effect of how outcomes are framed on decisions about whether to take antihypertensive medication? A randomized trial

A Televised, Web-Based Randomised Trial of an Herbal Remedy (Valerian) for Insomnia; A pragmatic randomised trial of stretching before and after physical activity to prevent injury and soreness

IHC around the world



Australia

A randomised trial in Australian high schools

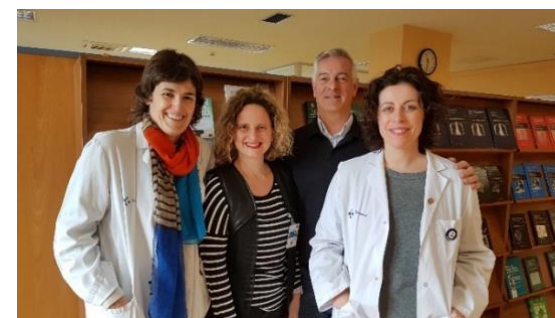
We are working on an IHC project in Australia under the guidance of Professors Tammy Hoffmann and Chris Del Mar, from the Institute for Evidence-Based Healthcare (IEBH), formerly known as the Centre of Research in Evidence-Based Practice (CREBP), in Queensland. Our project involves a cluster-randomised trial within Australian high schools (grades 7 – 9) to assess the effects of an educational intervention designed to improve students' ability to identify and critically assess health claims in the media.

Following ethics approval late last year, we are on track to begin recruitment during the first school term this year. We plan to both directly approach schools and to advertise the

study via relevant forums which we hope will increase school (and student) participation. The intention is to complete the study by the end of Term 2, then begin reviewing the data. We will keep you posted.

Contact: Leila Cusack

Basque Country



At the beginning of summer 2019, we contacted two schools in our area. One in the city (almost 200,000 inhabitants) and the other in a town of 20,000 inhabitants about 60 km away from the capital.

The willingness to collaborate was enthusiastic from the moment they were presented with the objective, the method, and the international experiences.

Our goal is to evaluate the plausibility (acceptance, adequacy, etc.) of this project and its resources in our environment.

Public education in the Basque Country is carried out in Basque. For this reason, we have translated the resources into Basque.

In total there are about 400 students with 18 teachers involved.

We have translated all the IHC primary school resources. They are currently in print. At the beginning of March, they will be distributed in the 2 schools.

Meanwhile, we are training the teachers of the 2 schools. We have finished the training of two half-days in one of the schools and this week we will finish the training in the other.

We have obtained funding from various sources for these tasks, including the hospital, the Basque Government Education Delegation, and the Osakidetza-Basque Health Service.

We are very sorry that we were unable to meet in Chile, as planned, at the Cochrane Colloquium and to have missed that opportunity to learn from the experience of other groups in the IHC Network. We are eager to collaborate in this project and in successive international initiatives.

Contact: Jose I. Emparanza

Brazil

We are a group of researchers, professors, students, physicians, educators and data scientists that became fascinated by the cross-sector potential of the IHC project of making an impact in healthcare and education. We started in mid-2019 aiming to explore and evaluate how the IHC primary school resources could be implemented in schools within different socioeconomic scenarios. Brazil is a vast country marked by large inequalities, including profound differences in access and quality of school education. To ensure our efforts would be effective, we have started our activities by establishing a working group* with representatives based on these different realities (urban and rural regions ranging from the north to the south of the country).

Our first steps included translation of the IHC resources and review of key documents on teaching critical thinking about health in primary education. Additionally, we studied proposals for the development of a new guideline for national curriculum implementation. Some members of the working group met in a consensus meeting where they evaluated the quality of the translation of the Claim questionnaire. We also presented the IHC project to local

education authorities in the states of Bahia and São Paulo to get their views on the project and to ask for guidance on how best to approach schools in the respective localities.

Currently, we are obtaining feedback on our translation from different stakeholders, including children. We are visiting schools and conducting semi-structured interviews as part of the context analysis to evaluate: (a) the demand for the learning resources, (b) fit to the curriculum, and (c) implementation issues, including the time available to teach the material and opportunities in terms of information and communication technology. We are also working on a protocol to collect and analyse speech samples of children's narratives using natural language processing to build a lesson assessment tool.

In 2020, we plan to run a full-scale pilot study of the primary school learning resources in São Paulo and Bahia and to start the dissemination of the IHC project in Brazil. We are also conducting a context analysis in order to include schools in Rio de Janeiro. This initiative is linked to the [Oxford-Brazil Evidence-Based Medicine Alliance](#), based at the Centre for Evidence-Based Medicine, University of Oxford.

All the procedures adopted by our group during the planning and execution phases

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have been guided by the example protocols provided by the IHC team.

We welcome enthusiastic colleagues from other parts of Brazil to join us in these exciting activities.

**Current members of our working group are: Joana Balardin, Edson Amaro, Marina Damin, Priscila Lopes and Regis Vieira from Hospital Israelita Albert Einstein in São Paulo; Márcio Galvão Oliveira and Daniela Soares from Universidade Federal da Bahia in Vitória da Conquista; Ana Paula Pires dos Santos from Universidade do Estado do Rio de Janeiro; Paulo Nadanovsky from Fundação Oswaldo Cruz in Rio de Janeiro and Universidade do Estado do Rio de Janeiro; Rachel Riera from Escola Paulista de Medicina; Luis Eduardo Fontes from Faculdade de Medicina de Petrópolis; and David Nunan from University of Oxford.*

Contact: Joana Balardin

China

In 2015, working closely with Andy and Astrid, we started IHC project and its related activities (such as claim questions) in China. Over the past five years, more than 20 graduate students and 50 undergraduate

students have been involved in and are working on these projects in China.



What have we done in the past year?

We have translated the IHC primary school learning resources to Chinese, including the IHC key Concepts, the *Health Choices Book*, the exercise book, and Claim questionnaires. We translated selected multiple-choice questions (MCQs) from the IHC Claim Evaluation Tools database to Mandarin and created a test including 24 MCQs covering 11 Key Concepts. The paper

[Evaluating people's ability to assess treatment claims: Validating a test in Mandarin from Claim Evaluation Tools database](#) has been published in the *Journal of Evidence-Based Medicine*.

We have translated some items of the [IHC website](#) and uploaded the part of the content.

We developed a protocol for a pilot study and user testing of the IHC primary school resources and have obtained ethical approval. In a primary school in Lanzhou, IHC primary school resources were used by about 30 grade-three-to-five pupils in fourteen lessons. They completed the Claim questionnaire in January 2020.

After the pilot, we collected feedback and suggestions for adaptation to the Chinese context from users and an advisory committee.





What are we up to now?



We are exploring some methods and getting feedback about how the resources might be made more useful, easy to use, understandable, reliable, and well suited for use in China. It is worth mentioning that drama-based education approaches are very effective in improving students' understanding and the usefulness of books.

Therefore, we have used it and adapted the book to write an original pantomime, which is currently being modified based on user feedback.

We are working with an expert committee to optimize the resources to the curriculum in China.

We are also adapting the book based on user feedback, including changing the characters in the story.

What's next?

We will continue to conduct the pilot targeting rural primary school students to ensure that the learning resources are well-suited for use in different regions of China.

We plan to publish the Chinese version of *The Health Choices Book* in 2020 and to publish an article describing its development and testing.

We will apply for funding to use validated questionnaires for conducting a provincial or national cross-sectional survey and conduct a controlled trial in Lanzhou, China.

We will disseminate more Key Concepts to help the public critically appraise health claims and use research to inform their decisions.

Contacts: Jingyi Zhang, Qi Wang, Yaolong Chen

Croatia

The Croatian IHC journey is continuing



Very soon after embarking on this journey we realised that the IHC project has the potential to show us ways we weren't aware of. It still does, and we keep following.

So, with all the ups, despite all the downs, time lags and a chronic lack of it, along with a couple of project rejections, we continue with our work.

Most of our time recently has been dedicated to preparations for the randomised trial that we plan to conduct during the 2019-2020 school year. Because, it will involve interventions within the school curricula, a formal approval from the Croatian Agency for

Science and Education is required including the necessary documentation. We have completed preparing for the planned lessons, with evaluation sheets for each lesson to allow evaluation of the expected learning outcomes and translation of the learning resources, including *The Health Choices Book*, *The Teachers' Guide*, the *Exercise Book* and the Claim questionnaire. We also have obtained written approvals from the principals of all primary schools agreeing to participate in the project. That took us a while, but now, after all that work and months of correspondence with the reviewers, we are happy that just recently we received formal approval from the Agency to implement the IHC educational activities in primary schools in our city. Most of the reviewers' comments were requests for clarifications of the content, particularly the terminology.

The translated materials are now being proofread. Most of this work was done by our colleague Diana Aranza, a nurse and a teacher at the University of Split in the Department for Health Studies. She is a PhD student, a hard worker, a great lady and a friend.

We also have conducted a qualitative study with primary school teachers. We wanted to learn about the experiences and attitudes of primary school teachers with teaching about health, their competencies, the learning

resources they use, and expected outcomes. We especially wanted to explore possible barriers and factors that might facilitate teaching critical thinking about health-related topics. The objective was to understand the context in which the IHC primary school resources will be used. We conducted five focus groups with teachers involved in health education. All recorded materials have been transcribed and the data analysis has been completed.



During the past months we have continued to have meetings with primary school teachers, during which we talk about the IHC project and present the **IHC Key Concepts** and **resources**. The presentations were organised through the teachers' councils. So far, we have presented the project to over 300 primary school teachers in Croatia. At these meetings we have administered a questionnaire on teachers' attitudes regarding the project and the IHC resources. Preliminary results were presented at the Croatian Cochrane Symposium last year.

We are also validating the Claim questionnaire that we will use.

Inspired by the activities done within the IHC Network and observations of the needs around us, a range of possible activities and new ideas have been emerging. The need for resources for this work made us realise this is something that should be part of a large-scale project. Therefore, we are applying for a national grant, again, and are hoping for the best. So, keep your finger crossed for us, and we'll be keeping you posted. 😊

Contacts: Tina Poklepovic

German speaking countries

We have just presented preliminary data of our Claim validation study at the annual conference of the Network for Evidence-based Medicine in Basel, Switzerland. After a thorough adaptation of the items to German teenage language, we tested three item sets in a sample of about 600 secondary school students in Germany and Austria. Preliminary results show that – except for very few items – the three sets of multiple-choice questions showed a good fit to the Rasch model. Therefore, we will soon be able to provide the German language version on the website and a publication should follow soon.

In addition, we presented further comparisons with other instruments that measure health literacy (an adapted and shortened version of [HLS-EU](#) for adolescents, [eHeals](#), knowledge about health related topics, and reading comprehension).

Under the main theme of the conference – “Useful patient-relevant research” – we also discussed which competences patients need to engage in various groups and where they can obtain these competences. Training for these competences for patients and the public is not currently available in Germany and Austria.

Finally, we concluded that it is time for us to step forward and apply for a European grant.

For the working group –

Contact: Anke Steckelberg

Iran

The Informed Health Choices Persian team has continued its activities to conduct a pilot trial of the IHC primary school resources after translating the [book](#). We hope to conduct the trial in the next school year in Iran, which starts in the autumn of 2020. We aim to conduct a full-scale randomised trial in the autumn of 2021.

We also have started translating the “[That’s a claim!](#)” [website](#) into Persian, starting with the Key Concepts for thinking critically about Health. We hope to finish translating these sections by the summer this year.

Alongside these activities, we still are continuing educating the Iranian community regarding critical thinking in health in our social media accounts. This has been of concern recently in Iran, as some traditional medicine practitioners have gained attention which may be hazardous.

کتاب انتخاب‌های سلامت:
یاد بگیرید که چگونه با دقت
در مورد درمان‌ها فکر کنید

.....

یک کتاب علمی مربوط به سلامت
مخصوص دانش‌آموزان ابتدایی



Contacts: Ahmad Sofi–Mahmudi, Sara Moradi,
Pouria Iranparvar, Maryam Shakiba

Ireland

It's great to have the opportunity to contribute to the IHC Newsletter and fill you in on our activity over the last year.

As noted in the 2019 Newsletter, as a group of healthcare practitioners, researchers and a primary school teacher, we are huge fans of the IHC initiative and were delighted to have the chance to introduce it to Ireland. We mentioned last year that given the different national curriculum and educational priorities in Ireland, we wondered if and to what extent contextualisation of the content and delivery of the IHC programme would be required. The extent to which this contextualisation is needed – and what, (if any), those adaptations should be – remains the focus of our on-going work.

Dara (a Principal Teacher in a primary school) is undertaking this work as part of an MPhil Study) and he remains the backbone of the project. His knowledge of the culture of schools and the people therein has been invaluable. He brings together the worlds of health research and that of primary school education. Connecting these worlds has kept him busy and a considerable amount of fieldwork has taken place since our last update.

With the support of the wider team, Dara has conducted interviews with 11 key stakeholders within the primary school education sector in Ireland. Guided by the IHC data collection resources, he asked the stakeholders to provide feedback on the IHC resources (including content and delivery). The programme has been facilitated in three schools. Teachers were interviewed before they started formal preparation for the programme. Data were then collected using the methods suggested by the IHC team (e.g. non-participant observation of some of the teaching sessions, focus groups with children, and interviews with teachers after the classes had completed the programme). The data generated by these multiple sources and different participant groups have been analysed to give us insight into the needs of those within the primary school setting in Ireland.

Some of the main findings of the first round of engagement with schools and stakeholders have highlighted to us the need to map the IHC programme to the primary school curriculum in Ireland. This mapping is required so that the teachers easily can see the benefits of the programme in the context of curricular requirements. The teachers also need pre-programme preparation that focuses on helping them develop a greater understanding of the Key Concepts – not on

how to teach. Both children and teachers wanted real life examples of health claims that relate to their own cultural context. While they saw the value of those in [The Health Choices Book](#), they also wanted some scenarios and examples set closer to home. Drawing on these and other findings, we have developed (currently in draft format) some additional scaffolding to support the teachers understanding of the concepts. We have provided some local examples to complement the narrative of the children's textbook, and we have worked on demonstrating explicitly the contribution the IHC primary school resources can make to learning outcomes in the primary school curriculum.

We are currently back in the research field. The IHC programme (with our additions) is now running in a 4th school and we are in the process of reviewing. We will update you as soon as we can in relation to this stage, and we will share our learning once it's out of the draft phase.

Contact: *Linda Biesty (on behalf of the team of Dara Glynn, Declan Devane, Sandra Galvin)*

START – Schools Teaching Awareness of Randomised Trials



Shaping the scientists of tomorrow and the critical thinkers of today

Health Research Board – Trials Methodology Research network (HRB-TMRN), National University of Ireland Galway, Ireland

Everyday children are faced with health claims in the media, some reliable and some not so reliable. A team at the National University of Ireland (NUI) Galway has developed a fun initiative to help children develop an understanding of the conduct of randomised trials so they can better understand why we need robust methods when assessing any claim, but in particular health claims. The long-term goal of this work is to help the public separate false health claims from credible information.

START (Schools Teaching Awareness of Randomised Trials) is an annual competition for primary school children developed in Ireland. Now in its 5th year, the initiative challenges primary school children aged 8-12 to design, conduct and analyse their own randomised trial in the classroom. The competition runs from September to May, with an annual awards ceremony held on (or near) International Clinical Trials Day, May 20th.



This initiative is part of the Public Engagement stream of the Health Research Board – Trials Methodology Research Network. Since its inception, the START competition has received over 45 school-based trials, designed and conducted by children. The success of START was largely due to its alignment with several aspects of the Irish School curriculum, with teachers

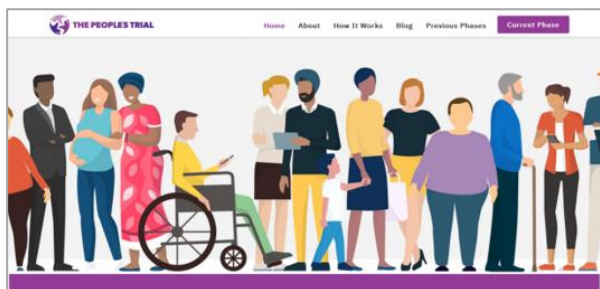
describing the initiative as a “new teaching tool”. To date, the trials have addressed simple questions relevant to school children’s lives, such as the impact of cartoons on test papers, does positive encouragement increase running speed, and does reading aloud in class improve memory.

Plans are in place to bring START to Scotland in 2021 and the network is keen to share the concept of START, including the resources, with interested groups. For further information please contact HRB-TMRN@nuigalway.ie.

Contact: Sandra Galvin



The People's Trial



The People's Trial is the first public-led, online randomised trial. Every step of the way has presented new challenges as we worked on bringing randomised trial processes into an online participatory process. Luckily, help, knowledge and expertise – both in trials and public engagement – was only a call out away as The People's Trial had a fabulous steering group. No call for help went unanswered.

The People's Trial was created by the Health Research Board-Trials Methodology Research Network (HRB-TMRN) and was funded by the HRB. In total, participants from 59 countries took part in the phases of The People's Trial and participants from 43 countries were randomised in the trial.

We set out to create The People's Trial to help the public learn about randomised trials, to understand why they matter, and to be better equipped to think critically about health claims. We spent a lot of time working on the

website; it needed to look right, be inclusive and be a bit fun too.

As the public were deciding all the major steps of the trial, the challenge was to create content that was accessible, educational, and relevant. Three white board videos were created initially to describe what The People's Trial was all about. The site opened to the public in early August 2019 and we were delighted to receive 155 potential trial questions. These questions then formed the basis of The People's Trial. Each phase was explained in turn using white board videos. Social media, especially Twitter, supported participation and provided a quick and simple forum for openly replying to questions about The People's Trial. The question for the trial was selected by the public in two rounds. The winning question was:

“Does reading a book in bed make a difference to sleep in comparison to not reading a book in bed?”



The public decided the trial design and how the question was answered, took part in the trial, and decided the best way to disseminate the findings of the trial. The People's Trial provided an opportunity for people to experience randomisation and learn about topics like research waste, it has been a wonderful learning experience for all concerned.



We are busy analysing the data and look forward to sharing the results – in the way the public decided we should. 😊

For more information and to be informed of the findings, please visit www.thepeoplestrial.ie and sign up for our newsletter.

Contact: Declan Devane

Italy



In the spring of 2019, we started translating the [IHC primary school learning resources](#).

Concurrently, we contacted the principal of Matteotti public primary school, in Florence, to introduce the project and ask for its incorporation in the 2019–2020 school year. We also contacted Luca de Fiore, Publisher of Il Pensiero Scientifico Editore, who offered to print – free of charge – *The Health Choices Book* and the *Exercise Book*, enabling us to start lessons and dissemination of the initiative in Italy.

Here is what we've done up to now:

- We have completed the translation of *The Health Choices Book* and the *Exercise Book*, which were printed in December 2019, and we're currently revising the *Teachers' Guide*.

- After being translated, *The Health Choices Book* was revised by two teachers and by ten children (not involved in the project). The children were randomly selected from the Matteotti primary school. Based on their feedback about the linguistic register, understandability, and adaptability to the Italian school context, we made some minor revisions to the text.
- The school boards approved the project and we agreed to start piloting in January 2020.
- Before the lessons' start, the [Claim Evaluation Tool](#) was administered to the children.
- In January 2020, we started classes. Our teaching method follows the instructions of the *Teachers' Guide*, and also includes qualitative feedback from children and teachers after each lesson. For example, in the second lesson, we had children draw a cartoon representing “personal experience” as an incorrect basis for a health claim and show it to peers. We found this to be a good way to involve them in peer-learning, and to find out if all children had understood the Key Concepts.
- As part of the pilot project, we are collecting quantitative and qualitative data from teachers and children with the aim of evaluating the following outcomes:
 1. understandability of the content
 2. acquisition and mastery of the content
 3. ability to transfer and apply the key concepts outside of healthcare
 4. barriers
 5. facilitators
- The last (10th) lesson will consist of individual oral interviews and re-administration of the Claim Evaluation Tool to the class. Three months after the end of the lessons, we will return to the school for a brief follow-up.

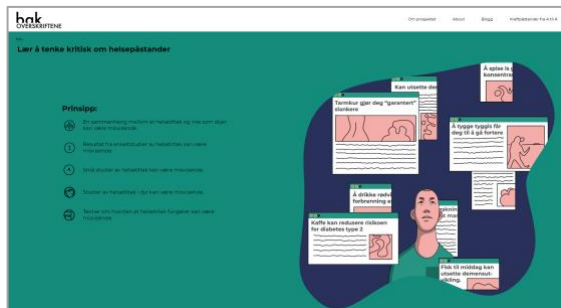
The aim of this pilot project is to evaluate how users experience use of the IHC primary school resources in an Italian primary school, and to provide guidance for future projects.

Next steps will include the dissemination of the IHC project through social media, mass media, and national events straddling fields of education and science. For example, in January 2020, the Italian pilot project was presented during the “4 Words Congress” (National Congress of the Forward Project, organized by the Epidemiology Department of Regione Lazio and Publisher Il Pensiero Scientifico) and it will be presented at the International Science Festival in Bologna, April 2020.

Contacts: *Camilla Aderighi and Raffaele Rasoini*

Norway

Bak overskriftene ("Behind the Headlines")



Using health claims in the mass media to help university students master IHC Key Concepts

In the March 2019 newsletter, we introduced Bak overskriftene (Norwegian for “Behind the headlines”), not to be confused with the British service [Behind the Headlines](#), which inspired our project.

We continue to develop an intervention with two main phases. First, students are introduced to [IHC Key Concepts](#). Second, they use claims from the mass media to illustrate those concepts themselves, in brief, popular science-style reports.

The reports are published on [the new project website](#), which was also developed by students.

The project takes advantage of mass media content, including news stories and social media posts, being simple, relatable and entertaining. Meanwhile, the same concepts are fundamental to assessing scientific literature, which is difficult for inexperienced students.

In other words, the intervention can be a steppingstone to critical appraisal of research and evidence-based practice (EBP) for students in the health sciences. At the same time, the project is important for all students, as well as others, since everyone is faced with health claims and choices.

At the end of the 2019 spring semester, we completed the pilot discussed in the last IHC Newsletter. In addition to testing an initial version of the intervention with a small, interdisciplinary group of students at Oslo Metropolitan University (OsloMet), we tested a condensed version with students in a science communication course at the University of Oslo.

Here is some of the anonymous feedback from students:

- “I read news reports more closely and try to look at thing from different angles. I assess claims using more or less the ‘recipe’ from the project, to see if they are up to the mark.”
- “I learned that randomised trials are important for the quality of research and that you should look at the size of the population studied. Often conclusions are drawn on a poor basis.”

- “I have thought about how I myself can set up the study design when I am going to do my own research, for the study to be as trustworthy as possible.”

In general, students expressed that the project is important; it is relevant for all students; and health claims in the media are engaging.

In 2020, we will implement the intervention in a new introductory EBP course at OsloMet, for bachelor students in all the health sciences programmes – approximately 1600 every year.

The project was initiated and continues to be led by the Faculty of Health Sciences at OsloMet, in collaboration with other faculties at the university. It has been developed by a working group with students and faculty from a variety of programmes.

For more information, in English, visit <https://bakoverskriftene.oslomet.no/about> or contact Matt Oxman (maox@oslomet.no).

Contact: Matt Oxman

Exploratory study of lower secondary science education

The aim of compulsory school science is to develop students' scientific literacy, including their ability to appraise the evidence supporting claims. Health is an area of science immediately important to everyone, yet few studies explore how health claims are approached in school science. We conducted a three-part study to:

1. Explore [science teachers' perceptions and reported practices](#) related to teaching critical appraisal of health claims, using interpretive description to conduct and analyse interviews with 25 teachers.
2. Explore [how 10th grade students' scientific literacy corresponds to their proficiency in identifying and appraising a health claim](#) about prevention in a brief, fictitious news report – analysing test data from a science achievement survey of 2229 students.
3. Systematically reviewing [the effects of school-based educational interventions for improving adolescents' abilities in critically appraising health claims](#).

Key study findings and implications are summarised in the table.

Contact: *Lena Nordheim*

Findings	Implications
Science teachers	
...acknowledged an interest in health issues among students, noting media's influence on their engagement. They described classroom discussions of media-related health claims as casual, unstructured, and often initiated by the students themselves.	...should draw upon health issues spontaneously raised by students to create enthusiasm for learning critical appraisal. However, ad-hoc learning should supplement rather than substitute planned learning activities that are linked to curricular goals.
...expected students to identify and appraise information during health education projects, but they reported few strategies to enable students to undertake these tasks. Teachers often equated critical appraisal with "source criticism", which is a skill that is taught in humanities subjects.	...need to recognise the difference between assessing the credibility of sources and assessing the evidence behind claims, acknowledging the latter as an aspect of scientific literacy that could be taught as part of ongoing information-seeking activities in school science.
...emphasised factual health knowledge rather than aspects of scientific literacy relevant for critical appraisal, reflecting their own lack of expertise in assessing claims.	...should receive training during their pre- and in-service education to foster the scientific literacy needed to appraise claims (e.g., key features of scientific methods and justifications for their use), including support to teaching these skills effectively to their students.

Findings	Implications
Students	
...with average scientific literacy were able to identify the health claim in the news report. Only high-achieving students (\geq upper quartile on the scientific literacy scale), less than one-third of students, were able to identify the claim <i>and</i> make requests for evidence needed to appraise that claim.	...are not taught the scientific literacy necessary to appraise health claims, underscoring the need for teacher training and support to promote these skills in science classrooms.
...who requested evidence predominantly emphasised a few methodological aspects (e.g., sample characteristics), the study's results and their theoretical justifications.	...should have opportunities to learn a broader range of aspects that align with the IHC Key Concepts people need to know to assess health claims.
School-based interventions	
...may improve students' knowledge and skills relevant to critically appraising health claims, but the certainty of the evidence was too low to draw definite conclusions.	...should be developed through cross-sector partnerships, involve an in-service component, and undergo well-designed evaluations to determine their long-term impact on both teachers and students.

Spain



In 2017 we started our collaboration with Informed Health Choices team. Our main goal is to explore and evaluate how IHC resources can be optimally implemented in Spanish context.

What has been the progress so far?

- We have translated and produced the [IHC primary school resources in Spanish](#).
- We have translated the [IHC Key Concepts to Spanish](#).
- We have submitted to F1000Research the [protocol for a pilot study](#) to explore both the students' and teachers' experience

when using IHC primary school resources in schools in Barcelona.

- We have been awarded a grant from the Instituto de Salud Carlos III (PI19/00068) to explore how the IHC primary school resources can be used in the Spanish context. The project includes three studies:
 - 1) a review to identify, describe and map educational resources used to support teaching of the IHC key concepts in the our context,
 - 2) a qualitative study with semi-structured interviews to explore the perceptions of the different stakeholders (parents, teachers, school principals, editors, primary care paediatricians and nurses, and policy makers) in relation to teaching critical thinking in healthcare in our context, and to identify factors that could potentially facilitate the implementation of IHC resources in our context, and
 - 3) validation of the Claim Evaluation Tools.
- We have incorporated a new researcher in the IHC-Barcelona team: Laura Samsó Jofra (MD, specialist in psychiatry, and now completing a specialty in preventive medicine and public health). Laura's PhD thesis will be based on the IHC research conducted in our context.

- We have contributed to a review of frameworks for critical thinking: [Comparison of the Informed Health Choices Key Concepts Framework to other frameworks relevant to teaching and learning how to think critically about health claims and choices: a systematic review](#).

What are we up to now?

- We are conducting a pilot study with 4th and 5th-year primary school students (9 to 11-year-olds) from three schools in Barcelona: [Escola Sant Martí](#), [Escola Virolai](#), and [Institut Escola Antaviana](#).
- We are developing a context analysis protocol to explore what demand there is for learning resources for teaching critical thinking about health in primary schools in our context.



- We are translating the “That’s A Claim!” website for [primary school children](#) and for [older learners](#) to Spanish.
- We are collaborating with the [CHOICE project](#) team in an [overview of systematic reviews the effects of teaching strategies](#) on learning to think critically in primary and secondary schools.

What are our plans?

- Right now, our focus is on finalising the pilot study in schools in Barcelona that are using the IHC primary school resources and disseminating the results.
- We will also validate the Claim Evaluation Tools and evaluate the ability of children to assess claims about treatments in our context.
- We plan to collaborate with [Epistemonikos](#) to complete the translation of the “That’s A Claim!” website to Spanish.

Contacts: *Laura Martínez García, Laura Samsó Jofra, Pablo Alonso Coello*

UK

A new Cochrane UK blog

In January 2020, Cochrane UK launched a new special series of blogs: “Oh, really?” 12 things to help you question health advice. Each blog will highlight something important to consider when faced with health claims.



How can we make sense of what we’re told about our health?

We are constantly bombarded with health advice. Being able to question what we’re told could equip us to make well-informed health decisions. That’s the aim of the [IHC Key Concepts](#) developed by the Informed Health Choices project team. Each Key Concept is something that is important for people to

consider when faced with a claim about a treatment, to help them to:

- **Recognise when a claim about the effects of treatments has an untrustworthy basis.** For example, when it may be too good to be true.
- **Recognise when evidence from comparisons of treatments is trustworthy and when it is not.**
- **Make well-informed choices about treatments.** For example, assessing the relevance and importance of the evidence to you.

12 blogs about 12 things to help you question health advice

The Key Concepts are useful for helping people question health advice, so Cochrane UK has launched a new blog series about them. There are currently 49 Key Concepts. While all of them are important, Cochrane UK has selected 12 as the focus for 12 monthly blogs. Each blog will explain one Key Concept.

The bloggers are using examples from their own experiences, whether as a patient, a health professional, or someone else making decisions about health. We are also using examples from Cochrane Reviews to illustrate each concept. Cochrane Reviews are globally recognized as the highest standard in

evidence-based health care. They bring together all the best available research on a particular health question, such as: “Are antibiotics effective and safe for reducing symptoms of a sore throat?” Cochrane Reviews are regularly updated to incorporate new research, so readers can base their treatment decisions on the most up-to-date and reliable health evidence.

Where to find the blogs

Read the first blog here: ‘[Expert opinion is not always right](#)’ by Professor Martin Burton, Cochrane UK’s Director.

Find the blogs on the [Evidently Cochrane](#) website and by following [@CochraneUK](#) on Twitter using the hashtag [#OhReally](#).

This series follows on from [a series of blogs written by students for Students 4 Best Evidence](#) which began in 2017, when [the Collins Dictionary announced its word of the year to be ‘fake news’](#). Three years on, concerns about being bombarded with dubious health information are still very much alive. This series feels as timely as ever. We hope these blogs will encourage readers to question health advice and make informed choices.

With thanks to [Informed Health Choices](#).

This post is adapted from a blog by Selena Ryan-Vig, Cochrane UK’s Communication and Engagement Officer, originally posted [here](#).

Contact: Selena Ryan-Vig

A podcast and video to share the critical thinking concepts in Scotland

At the University of Aberdeen, we are currently working with patients and the public to find better ways to involve them and communicate about numerical aspects of research. We believe improving critical thinking skills is a crucial element in facilitating communication between patients and researchers and empowering them to have active voices in research decision making. We have partnered with the local community radio, shmuFM, and their youth media group. The youth media group at shmuFM is composed of pupil volunteers from underprivileged schools in Aberdeen interested in media training, ranging in age from 11 to 18 years old.

We are developing communication tools with the youth media group to explain critical thinking skills related with numerical aspects of research, such as the difference between relative and absolute risks. The starting point is a health topic of their interest, mental health and social media, and looking for news

regarding it. We are going to discuss whether that news is trustworthy and what should the group (and the public) be paying attention to when making that decision. We will use the [Informed Health Choices framework](#) and its resources to inform that discussion. Finally, we will record a podcast and video to share the critical thinking concepts that are discussed with a wider audience. We will assess the impact of the podcasts on the youths’ attitudes towards critical thinking, as well as their critical thinking skills.

The goal is to raise awareness of critical thinking skills, so the youth media group and their listeners can develop a healthy dose of scepticism about the information around them. We believe this information can be equally useful for patients and members of the public interested in being active partners in research and plan to use the podcasts as a communication facilitator.

Contact: Beatriz Goulao

USA

Development and testing of the effects of an educational podcast to improve parents' critical appraisal of health services claims in the United States

Most research on the use of evidence-based practice in mental healthcare has focused on increasing supply through providers and organizations rather than on consumer factors that could upsurge demand. This study aimed to expand research on parent consumers of health information by investigating an educational media method for increasing their ability to critically appraise health practice claims for both physical and mental health conditions.

The investigation included several phases: 1) assessment of current levels of critical appraisal in U.S. parents; 2) development of an educational critical appraisal podcast to improve parents' ability to critically appraise physical and mental health treatment claims; and 3) examination of the podcast's efficacy.

We established a need for a critical appraisal podcast and developed a 32-minute long audio podcast to meet that need. Through an online pilot randomised trial, we randomly assigned 201 parents to listen to the experimental critical appraisal podcast

(n=105) or a control podcast (n=96). We found that parents who listened to the critical appraisal podcast demonstrated significantly better critical appraisal abilities than those who listened to the control podcast. We also found several correlates of critical appraisal skills.

The podcast includes the following episodes:

- Introduction
- Elderberry/flu (learning about comparisons)
- Cognitive behavioral therapy/depression (learning about fair comparisons)
- Vaccinations/autism/small studies (learning about fair comparisons and systematic reviews)
- Birth control pills/gaining weight (learning about associations)
- Burn/butter (learning about personal experiences)
- ADHD/stimulents and therapy (learning about benefits and harms)
- disciplining/spanking (learning about treatment used for a long time by many people)
- Recap and four questions to ask

It will be published on the Informed Health Choices website (under [Other resources](#)) in spring 2020.

Key Concept: 2.1 Comparisons; Episode 1

US PODCAST

INTRO

In this first episode, a man named Nelson and his aunt Maggie discuss a health claim as they shop together at the supermarket.

Nelson has a 4-year-old daughter named Lily, and he heard from other parents that elderberry plant supplements are the best natural and safe way to treat the flu in children.

Therefore, Nelson is planning to use elderberry if Lily gets the flu.

His aunt Maggie, a nurse, explains why the claim is not trustworthy.

Please pay close attention to aunt Maggie's explanation.

STORY

Nelson:
Aunt Maggie, today I am looking to buy some elderberry tea or other elderberry products for Lily.

I heard that this is the best natural treatment for Lily if she gets the flu.

Aunt:
I would question that claim if I were you.

Nelson:
Mm? why?

Aunt:
To be sure about the effects of a treatment, health researchers must compare it to another treatment!

Do you know if health researchers have compared treating the flu in children with elderberry versus not treating it with elderberry?

Nelson:
I'm not sure, I didn't know to look into that.

Aunt:
I would look into that because without such comparisons, you cannot know what would happen without the treatment.

Contacts: Vanesa Mora Ringle & Amanda Jensen-Doss



Contributors

Ahmad Sofi Mahmudi ahmad.pub@gmail.com

Allen Nsangi allennsangi@gmail.com

Andy Oxman oxman@online.no

Anke Steckelberg
anke.steckelberg@medizin.uni-halle.de

Astrid Dahlgren astrid@rbup.no

Beatriz Goulao beatriz.goulao@abdn.ac.uk

Camilla Alderighi
camilla.alderighi@gmail.com

Dara Glynn priomhoide@gmail.com

Declan Devane declan.devane@nuigalway.ie

Jingyi Zhang jingyizhang1394@163.com

Joana Balardin jbbalardin@gmail.com

Jose I. Emparanza ignacio.atal@cri-paris.org

Laura Martinez
laura.martinez.garcia@cochrane.es

Laura Samsó Jofra LSamso@santpau.cat

Leila Cusack
leila.cusack@student.bond.edu.au

Lena Nordheim
Lena.Victoria.Nordheim@hvl.no

Linda Biesty linda.biesty@nuigalway.ie

Matt Oxman maox@oslomet.no

Pablo Alonso Coello PALonso@santpau.cat

Qi Wang wangq87@mcmaster.ca

Raffaele Rasoini raffaele.rasoini@tiscali.it

Ronald Ssenyonga rssenyonga@musph.ac.ug

Sandra Galvin sandra.galvin@nuigalway.ie

Sarah Rosenbaum sarah@rosenbaum.no

Selena Ryan-Vig Selena.Ryan-Vig@ouh.nhs.uk

Tina Poklepovic tinapoklepovic@gmail.com

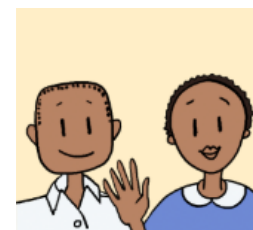
Vanesa Abigail Ringle
vanesa.ringle@miami.edu

Yaolong Chen chenyaolong21@163.com



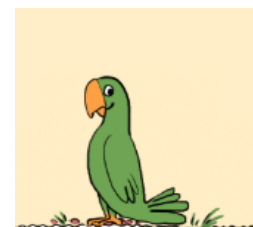
Drs Connie Compare and Francis Fair

Connie and Francis are general practitioners and professors. They teach and research informed health decision-making. They are main characters in The Health Choices Book.



John and Julie

John and Julie are primary school pupils and siblings. They are main characters in The Health Choices Book.



Kasuku (FKA Prattle)

Kasuku is a trouble-maker! Kasuku repeats claims about treatment effects without thinking carefully.