

**Additional file 2. Summary of findings****Barriers and facilitators**

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<b>TEACHERS</b>			
<b>Skills and competencies</b> <ul style="list-style-type: none"> <li>The skills required to teach the IHC content are largely those that any good teacher would have, like creativity, communication skills, and time management skills.</li> <li>Science teachers teachers saw value in the content and felt they were best suited to teach it.</li> </ul>	<b>Individual interviews, Observational data</b>	High	No concerns regarding methodological limitations, relevance, coherence and adequacy.
	<b>Individual interviews, FGDs</b>	Moderate	Minor concerns regarding methodological limitations (most data is from one FDG), no concerns regarding relevance, coherence and adequacy
<b>Understanding of the content being taught</b> <ul style="list-style-type: none"> <li>The IHC content was new for most teachers and some were concerned about how well they understood the content.</li> </ul>	<b>Individual interviews, FGD</b> ). Also supported by the teachers' end of term assessments	High	No concerns regarding methodological limitations, relevance, coherence and adequacy of data.

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<p><b>Sufficient training</b></p> <ul style="list-style-type: none"> <li>Teachers saw the training workshop for teachers as useful and felt that the methods used in the workshop were appropriate for introducing the project, and for familiarising the teachers with the content and how to teach it to the children.</li> <li>Some teachers perceived the need for a longer training workshop.</li> <li>Teachers thought the Teachers' Guide was useful.</li> </ul>	<p><b>FGD, Individual interviews.</b> Also supported by the teachers' end of term assessment.</p> <p><b>FGD, Individual interviews.</b> Also supported by the teachers' end of term assessment and the lesson assessments.</p> <p>Supported by the teachers' end of term assessment and the lesson assessments and the lesson evaluations.</p>	<p>High</p> <p>Moderate</p>	<p>No concerns regarding methodological limitations, relevance, coherence and adequacy.</p> <p>Minor concerns regarding methodology (most data is from FDGs), no concerns regarding relevance, moderate concerns regarding coherence, no concerns regarding adequacy of data</p>
<p><b>Self-efficacy</b></p> <ul style="list-style-type: none"> <li>While some teachers felt that their training equipped them to teach new materials, others started out lacking confidence in teaching the content for the first time. However, many found that the children's enthusiasm for the lessons made them more confident. By the end of the term none of the teachers indicated that they lacked confidence in their ability to teach the lessons. Moreover, most teachers indicated that they liked teaching something new.</li> </ul>	<p><b>FGD Individual interviews.</b> Also supported by the teachers' end of term assessment and the lesson assessments.</p>	<p>Moderate</p>	<p>No concerns regarding methodology (even though most data is from FDGs, in this case it is also supplemented by observational data), no concerns regarding relevance, coherence and adequacy.</p>
<p><b>Compatibility with teaching styles and contexts</b></p> <ul style="list-style-type: none"> <li>Most of the teachers found that the design of the IHC lessons was compatible with their teaching styles. However, most teachers found that they had to adapt the instructions to fit their teaching style.</li> </ul>	<p><b>FGD Individual interviews</b> Also supported by the teachers' end of term assessment.</p>	<p>High</p>	<p>No concerns regarding methodology, relevance, coherence and adequacy.</p>

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<p><b>Attitudes</b></p> <ul style="list-style-type: none"> <li>Teachers mostly had positive attitudes towards teaching the IHC lessons, particularly in relation to the content being new and valuable to them as well as to the children.</li> </ul>	<p><b>FGD, Individual interviews</b> Also supported by the teachers' end of term assessment.</p>	High	No concerns regarding methodology, relevance, coherence and adequacy.
<p><b>Beliefs</b></p> <ul style="list-style-type: none"> <li>The majority of teachers had beliefs that were in conflict with some of the examples and sometimes directly in conflict with a Key Concept, particularly the concept that widely used treatments or treatments that have been used for a long time are not necessarily effective or safe.</li> </ul>	<p><b>FGD, Individual interviews</b></p>	High	No concerns regarding methodology, relevance, coherence and adequacy.
<p><b>Emotions</b></p> <ul style="list-style-type: none"> <li>Teachers experienced both positive and negative emotions while delivering the IHC lessons. The negative emotions were mostly related to the teachers' working conditions and the stress of teaching something new as an add on to what they were already doing. The positive emotions related to feelings that the IHC content was interesting and important.</li> </ul>	<p><b>FGD, Individual interviews</b></p>	High	No concerns regarding methodology, relevance, coherence and adequacy.
<p><b>Motivation</b></p> <ul style="list-style-type: none"> <li>Teachers were motivated to teach the IHC lessons for several reasons, including their perception that the content was important, the way in which the IHC program was introduced to them, and support from the IHC team and school authorities.</li> </ul>	<p><b>FGD, Individual interviews.</b> Also supported by the teachers' end of term assessment.</p>	High	No concerns regarding methodology, relevance, coherence and adequacy.

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<p><b>Positive learning environment</b></p> <ul style="list-style-type: none"> <li>Most teachers were confident in their ability to create a positive learning environment for the children generally, and specifically during the IHC lessons</li> </ul>	<p>FGD, Individual interviews Observational data</p>	High	No concerns regarding methodology, relevance, coherence and adequacy.
<b>CHILDREN</b>			
<p><b>Literacy</b></p> <ul style="list-style-type: none"> <li>Most of the teachers thought that content and the language used in <i>The Health Choices Book</i> was appropriate for primary-five children in Uganda. This enabled the children to read and understand the content.</li> </ul>	<p>FGD, Individual interviews Observational data. Also supported by the teachers' end of term assessment, and the lesson evaluations.</p>	High	No concerns regarding methodology, relevance, coherence and adequacy
<p><b>Attendance</b></p> <ul style="list-style-type: none"> <li>Absenteeism, mainly resulting from parents' failure to pay school fees, was a major hindrance to children attending IHC lessons.</li> </ul>	<p>FGD, Individual interviews Observational data</p>	Very low	Minor concerns regarding methodology (most data is from individual interviews), some concerns regarding relevance (all but one respondent are from private schools), some concerns regarding coherence, serious concerns regarding adequacy of data.
<p><b>Motivation to learn</b></p> <ul style="list-style-type: none"> <li>Children were highly motivated to participate in the IHC lessons by the content and design of the materials, how the teachers taught the lessons, and observers' visits.</li> </ul>	<p>FGD (Individual interviews Observational data</p>	High	No concerns regarding methodology, relevance, coherence and adequacy
<p><b>Attitudes</b></p> <ul style="list-style-type: none"> <li>Children generally had a positive attitude towards the IHC materials and content.</li> </ul>	<p>FGD, Individual interviews Observational data</p>	High	No concerns regarding methodology, relevance, coherence and adequacy

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<p><b>Beliefs</b></p> <ul style="list-style-type: none"> <li>Some teachers and fewer children identified conflicts between the children's beliefs about the effects of some treatments and the IHC lessons. This was the case particularly in relation to the Key Concept that widely used treatments or treatments that have been used for a long time are not necessarily beneficial or safe</li> </ul>	Individual interviews	Low	No concerns regarding methodology, moderate concerns regarding relevance and serious concerns regarding adequacy of data.
<p><b>Home environment</b></p> <ul style="list-style-type: none"> <li>The children reported sharing what they learned and practicing it at home. Parents appeared positive about this and teachers pointed out the importance of engaging families and communities for the lessons to have a wider impact.</li> </ul>	Individual interviews FGD	Moderate	No concerns regarding methodology, moderate concerns regarding relevance, coherence and adequacy of data.
<p><b>Differentiated instruction</b></p> <ul style="list-style-type: none"> <li>The IHC materials facilitated flexibility to communicate in local languages. This enabled children to better understand the content.</li> <li>The IHC lessons facilitated the use of creative teaching methods that enabled children with different capabilities to participate in large classes. These included role playing, use of learning aids, and classroom discussions using a child centered approach.</li> </ul>	Individual interviews FGD Observational data	Moderate	No concerns regarding methodology, relevance, coherence and minor concerns regarding adequacy of data (unless we consider CLAIM data).
	Individual interviews, FGD (Observational data, Lesson Evaluation forms. Also supported by the teachers' end of term assessment, and the lesson evaluations.	High	No concerns regarding methodology, relevance, coherence and adequacy

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<b>TEACHING MATERIALS</b>			
<p><b>Value of the material</b></p> <ul style="list-style-type: none"> <li>Most of the children, teachers, and parents liked the IHC materials because they found them beneficial, interesting, and fun for the children.</li> <li>Teachers valued that the IHC content addressed both social and academic issues.</li> </ul>	<p><b>Individual interviews FGD Observational data</b></p>	High	No concerns regarding methodology, relevance, coherence and adequacy
<p><b>Compatibility with the curriculum</b></p> <ul style="list-style-type: none"> <li>Teachers that taught the IHC lessons all agreed that the IHC content was important, that it should be added to the curriculum, and that it was compatible with the primary school curriculum for science.</li> </ul>	<p><b>Individual interviews</b></p>	High	No concerns regarding methodology, relevance, coherence and adequacy
<b>SCHOOL SYSTEM AND ENVIRONMENT</b>			
<p><b>Time constraints</b></p> <ul style="list-style-type: none"> <li>Nearly all the teachers in the trial were able to complete all nine IHC lessons, but not always to their satisfaction. Support from the school authorities was important for ensuring that they had adequate time.</li> <li>The majority of the children confirmed that they attended all nine lessons, but some children did not have enough time to complete the exercises and classroom activities.</li> </ul>	<p><b>Individual interviews, FGD Observational data, Lesson Evaluation Forms</b></p>	High	No concerns regarding methodology, relevance, coherence and adequacy
	<p><b>Individual interviews, FGD Observational data, Lesson Evaluation Forms</b></p>	Low	No concerns regarding methodology, some concerns regarding relevance (all respondents are from private schools), some concerns regarding coherence, serious concerns regarding adequacy of data.

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<b>Incentives and disincentives</b> <ul style="list-style-type: none"><li>• Support of the school leadership and conducive working conditions, as well as feeling that the IHC lessons were important, appear to have been sufficient incentives for teaching the IHC lessons,</li><li>• To the extent that the IHC lessons require additional work, it may be important (as well as appropriate) to compensate teachers for this. In addition, certificates recognizing the teachers' achievements might be appreciated.</li></ul>	Individual interviews, FGD	Low	No concerns regarding methodology, some concerns regarding relevance (majority of the respondents were head teachers and two senior teachers with 30 plus years of experience), some concerns regarding coherence, serious concerns regarding adequacy of data

## Potential adverse and beneficial effects table

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<p><b>Adverse effects</b></p> <ul style="list-style-type: none"> <li>Teachers and parents expressed concerns about the potential for conflict between children and adults resulting from children challenging the authority of adults. However, they did not report actual conflicts.</li> <li>Although nearly all teachers thought it was important to teach children to think critically, they had mixed feelings about being challenged by children.</li> </ul>	<p><b>FGD, Individual interviews</b></p>	High	No concerns regarding methodology, relevance, coherence and adequacy
<p><b>Beneficial effects</b></p> <ul style="list-style-type: none"> <li>Nearly everyone interviewed thought that the children learned something important from the IHC resources and many thought that it improved their decision-making.</li> <li>Other potential benefits of the IHC program were seen to include learning and improved decision-making among teachers and parents, improved relationships between children and adults, and improvements in English and numeracy.</li> </ul>	<p><b>FDG, Individual interviews.</b> Also supported by the teachers' end of term assessment.</p> <p><b>FDG, Individual interviews</b></p>	High  High	No concerns regarding methodology, relevance, coherence and adequacy  No concerns regarding methodology, relevance, coherence and adequacy

## Scaling up

Summary of findings	Methods contributing to study finding	CERQual assessment	Explanation of CERQual assessment
<p><b>Factors that could affect scaling up use of the resources</b></p> <ul style="list-style-type: none"> <li>Teachers, parents, and children support spreading the IHC program to other schools and other ages.</li> <li>Teachers noted that it was important to collaborate with the Ministry of Education and the National Curriculum Development Centre in order to incorporate the IHC lessons into the primary school curriculum.</li> <li>Community involvement and sensitization of all of the school staff is important for scaling up the IHC program.</li> </ul>	<p><b>FGDs, Individual interviews</b></p> <p><b>FGDs, Individual interviews</b></p> <p><b>FGD, Individual interviews</b></p>	<p>High</p> <p>Moderate</p> <p>High</p>	<p>No concerns regarding methodology, relevance, coherence and data adequacy.</p> <p>No concerns regarding methodology, relevance, coherence and adequacy</p> <p>No concerns regarding methodology, relevance, coherence and adequacy</p>