Making Content Meaningful

A Guide to Adapting Existing Global Health Content for Different Audiences

K4Health™
Knowledge for Health

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Cover photo credit: © 2010 Sumon Yusuf, Courtesy of Photoshare. Shahana Begum talks on a mobile phone with a Health Care Center to refer a pregnant mother to the clinic in Mymensingh, Bangladesh.

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Introduction

The open educational resources movement—a growing movement to share knowledge, ideas, resources, and teaching methodologies—is increasing in part because of growth in digital technologies.

"At the heart of this movement is the simple and powerful idea that the world's knowledge is a public good and that technology in general and the World Wide Web in particular provide an extraordinary opportunity for everyone to share, use, and reuse knowledge."[1]

The abundance of openly accessible health content—from eLearning courses and multimedia resources to guidance documents and research papers—presents a remarkable opportunity for teaching, learning, and sharing. Accessibility to and use of these resources can be a matter of life and death. A literature review showed that there is a lack of knowledge in some low- and middle-income countries about diagnosis and management of common diseases. This can lead to suboptimal, ineffective, and dangerous health care practices.[2] The need for a knowledgeable health workforce is critical to address the dual epidemics of noncommunicable and infectious diseases in low-and middle-income countries.

Open health content, however, is not sufficient by itself. It is important to provide it in the appropriate context and the language of the people who will use it. For example, a family planning eLearning course that is only in English is worthless when offered to non-English proficient community health workers. Likewise, a program that sends antenatal health messages by SMS (short message service or text message) to pregnant women is futile for an audience with low literacy. Despite the abundance of evidence-based health content, not all of it is relevant or ready to use.

How do you make existing open health content useful? The answer is adaptation. Adaptation is the process of using existing content to create content that is relevant and accessible (digitally or otherwise) in a given context. Adaptation is both evidence based and innovative—taking content proven in one context and applying them in another. Educators, trainers, content providers, and even technologists must be able to identify knowledge needs and adapt evidence-based content to address these needs.

> *"Addressing the lack of locally relevant content is critical to ensuring that mobile and digital technologies are inclusive and that end-users fully maximize the technologies' transformative potential."* [3]

Who This Guide Is For

The intended users of this guide are program managers and implementers working in the health and development sectors who are interested in taking advantage of openly accessible health content—without having to develop content from scratch—to better serve their clients and communities. On a broader level, this guide is for anyone interested in adapting, repackaging, and redistributing open access educational content in different delivery formats.

The Knowledge for Health (K4Health) project developed this adaptation guide to expand the reach, usefulness, and use of evidence-based global health content, specifically as it relates to family planning.

K4Health uses knowledge management approaches to help improve global health programs in low- and middle-income countries. Knowledge management is a systematic process of collecting and curating knowledge and connecting people to it so they can act effectively.

How To Use This Guide

Before
Understand and Scan

During
Design and Deliver

After
Evaluate and Learn
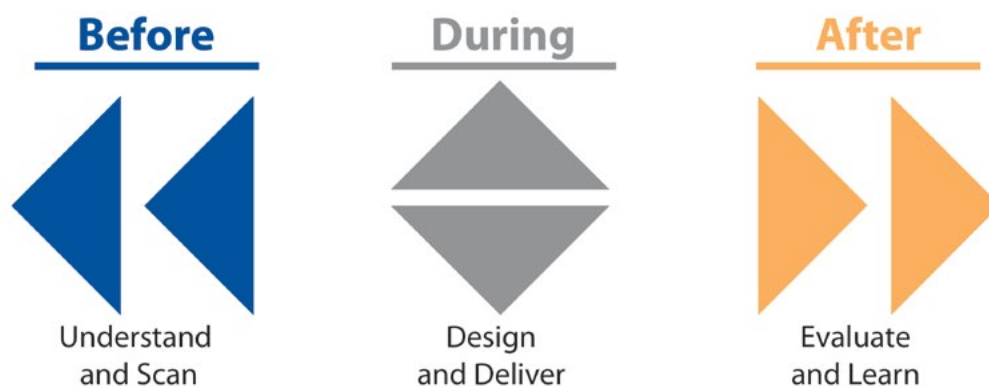
In this guide, we propose a content adaptation framework with three phases: **Before**, **During**, and **After**.

Before is the formative stage when you **Understand and Scan** the audience, the audience's needs, and the existent content that is available. **During** is the implementation stage when you **Design and Deliver** to adapt the existent content. **After** is the evaluation stage when you **Evaluate and Learn** from the experience and develop ideas for next steps.

Each phase includes a set of steps along with specific tips and examples of existing content. We provide hypothetical scenarios to help you understand these concepts in action, and practice activity sheets to guide your own adaptation activity. Through the course of this guide, you will find that adaptation is not an isolated process; it often requires the input of multiple stakeholders. You are therefore encouraged to review this guide and work through the activities with members of your organization who might be involved in the adaptation activity.

There are three general types of adaptation:

- Adaptation that makes content appropriate to a specific **cultural context**
- Adaptation that changes content into a local **language**
- Adaptation that makes content available through a different **delivery** format that is appropriate for the local context

Our aim is that this guide can be applied to most adaptation efforts that use open access educational content, digital or otherwise.

The case studies at the end of the second phase *(Design and Deliver)* **provide real-life examples and lessons learned based on a variety of different delivery formats:**

Case Studies	Page
Adapting global family planning training curricula and research for easy-to-read SMS in Kenya and Tanzania	**30**
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Accredited social health activists (ASHAs) learn to use an mHealth application called mSakhi at the Community Health Centre (CHC) in Badagaon, Uttar Pradesh, India.
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Before: Understand and Scan

The Understand and Scan phase is the formative planning stage of the adaptation process. *Who is the intended audience? What information do they need? What content exists that can be used or adapted?*

Before

STEP 1: Define the audience

STEP 2: Conduct a knowledge needs assessment

STEP 3: Determine the learning objective(s)

STEP 4: Evaluate existing content

Understand and scan
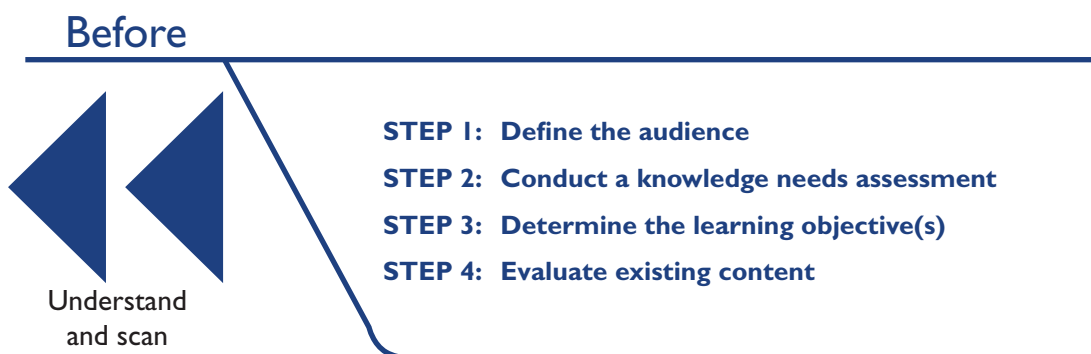
Step 1: Define the Audience

Who am I trying to reach?

In this first step, you will define the audience.

Consider the following scenario:

Fatima works at the Ministry of Health (MOH) in Mahidtial (a fictitious country) as the family planning and reproductive health program officer. The MOH recently issued a policy to integrate family planning (FP) counseling and services into the maternal, newborn, and child Health (MNCH) services offered by community health workers (CHWs) in Mahidtial. As part of their two-year training program, CHWs received a brief training on FP. Fatima has been asked to lead the activity of refreshing CHWs' FP knowledge, especially as it relates to contraceptive pills and condoms and counseling for other contraceptive methods that require a referral to district hospitals. As part of the formative research process, she and her team identified district X to pilot the rollout due to the reported high unmet need for family planning spacing methods among postpartum women.

In the scenario described above, the audience is CHWs in district X. After defining the audience, consider the context in which they live and work. Understanding their needs is crucial to making the content relevant to them.

Ask the following key questions:

- What does the audience want and need to learn?
- What are the audience's current literacy levels (i.e., general literacy level, health literacy level, and digital literacy level)?
- Where, from whom, and how do they currently seek information on a particular health topic?
- What are the most commonly spoken languages among the audience?
- What are the potential challenges they face (for example, sociocultural norms, literacy, and access to technology)?

Use Activity Sheet 1 as a template to assess the audience's needs and circumstances as they relate to issues of access, infrastructure, technology and tools, time, and resources. These will be taken into account in Step 2: Conduct a knowledge needs assessment. Consider whether to involve other people in this activity, including the audience, to provide critical input. If you do not have a specific audience or adaptation activity in mind, use the hypothetical scenario for practice.

Activity Sheet 1: Understanding Your Audience

Access	How does the audience prefer to access new knowledge and learning?	
	What content formats (for example, in person, on paper, online, and by phone) are relevant to their culture and fit within their capabilities?	
Infrastructure	What level of Internet access exists among the audience? How does it vary? How comfortable are they using the Internet?	
	Does the audience own mobile phones? What types of phones (basic, feature, smart)? What is their comfort level using mobile phones?	
	How easy is it to reach the audience in person? Where do they meet offline as well as online?	
Technology and Tools	Are they connected to social media (for example, Facebook, Twitter, and LinkedIn)?	
	What are the most feasible delivery channels for reaching this audience?	
Time	How much time does the audience have for a learning experience?	
	Would a learning experience that blends instruction with on-the-job application be feasible for them?	
Resources	What kinds of resources (for example, personnel, finances, and materials) do you have available to support a learning experience for the audience?	

Source: Adapted from the *K4Health Blended Learning Guide.*[4]

Step 2: Conduct a Knowledge Needs Assessment

What are the knowledge gaps? What does the audience need to learn?

In Step 1 you defined the audience. Now it's time to assess their knowledge needs. You can do this by using existing information or carrying out your own assessment to understand gaps in knowledge.

Recall the scenario with Fatima who works as a program officer at the MOH in Mahidtial. Once she understood the issues of access, infrastructure, technology and tools, time, and resources of nurses in district X, she assessed their knowledge needs.

In collaboration with the hospital and two health centers in district X, Fatima developed a paper-based survey to distribute to CHWs at the hospital and health centers during a monthly team meeting. CHWs were asked to complete them and give them to their supervisor at the end of the meeting.

Survey questions included:

- What are some of the benefits for spacing births? Of having a small family?

- What are some short-acting family planning methods? Long-acting methods? Permanent methods?

- After a client has a baby, what information do you provide to them about family planning?

- What information do you provide to newly married couples about family planning?

- What contraceptive pills are commonly available? How do they work?

- What are the benefits of contraceptive pills? What are possible side effects?

- What condoms are commonly available? How do they work?

- What are the benefits of condom use? What are possible side effects?

The survey results revealed to Fatima that most nurses were familiar with the benefits of spacing births and having a small family and the commonly available contraceptive pills and condoms. However, they were less familiar with the differences between short-acting, long-acting, and permanent methods and what information they should give to specific types of clients.

As this scenario demonstrates, Fatima used the survey to gather information about the learning needs of CHWs in district X. The survey was used as a needs assessment—a tool to identify differences between current knowledge and desired knowledge. These differences represent gaps in knowledge that can be addressed with adapted content that is specific to the audience's needs.

Table 1 describes and compares three methods you can use to conduct a knowledge needs assessment.

Table 1. Methods for Conducting Knowledge Needs Assessments

Method	Description	Strengths	Weaknesses
Focus group discussion	Structured discussion that brings together a group of people to provide their opinions on a topic.	• Can yield insights about the intended audience's attitudes and beliefs • Allows for more rapid collection of information than from individual interviews	• Takes time to plan and conduct • Participant response can be largely affected by group dynamics
In-depth interview	Semi-structured interview with open-ended questions designed to elicit in-depth responses. Interviews can be conducted in person or by telephone.	• Personal interviews can yield detailed information • Provides opportunity to ask follow-up questions	• Takes time to plan and conduct • Results are not always representative • Analysis can be time-consuming
Survey	Structured questionnaire that includes closed-ended and some open-ended questions. Can be administered in person, by telephone, or online.	• Can be done quickly • Provides precise data that is easy to analyze • Confidentiality of participants is easier to maintain	• Response rate cannot be determined • Participant self-selection biases the sample • Online surveys are only available to those with Internet access

Source: Adapted from the *K4Health Guide for Conducting Health Information Needs Assessments*[5] *; The Art of Knowledge Exchange: A Results-Focused Planning Guide for Development Practitioners*[6] *;* and *A guide to assessing needs: essential tools for collecting information, making decisions, and achieving development results.*[7]

Step 3: Determine the Learning Objective(s)

What are the desired outcomes? What should the audience know or be able to do?

After identifying the knowledge needs of the audience, it is time to determine the learning objectives. Learning objectives are goals that describe what the audience will know or be able to do as a result of a learning activity or intervention.

For this step, we look at Bloom's Taxonomy, a framework used in education that classifies what we expect or intend our audience to learn from an activity or intervention. The Bloom's Taxonomy framework (Figure 1) illustrates how to move from lower levels of knowledge (remembering) and comprehension (understanding) to higher levels of knowledge (applying, analyzing, evaluating, and creating). Below each level of the framework are examples of verbs that can be used to formulate a corresponding learning objective. For example, the ability to *define* the benefits of spacing births demonstrates basic knowledge of family planning and healthy timing and spacing of pregnancies. And the ability to *compare* the differences between short-acting, long-acting, and permanent methods, for example, demonstrates a higher level of knowledge.

Figure 1. Bloom's Taxonomy

Evaluation
Design, assemble, construct, conjecture, develop, formulate, author, investigate

Synthesis
Appraise, argue, defend, judge, select, support, value, critique, weigh

Analysis
Differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

Application
Execute, implement, solve, use, demostrate, interpret, operate schedule, sketch

Comprehension
Classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

Knowledge
Define, duplicate, list, memorize, repeat, state

Source: Adapted from *A taxonomy for learning, teaching, and assessing: a revision of Bloom's taxonomy of educational objectives.*[8]

After identifying the audience (Step 1) and their knowledge needs (Step 2), determine which level of knowledge in the taxonomy to change. This will help identify the desired learning objective(s) of the content adaptation process. The objective(s) should be **SMART**:

Specific: *Is the desired outcome and audience clearly specified?*

Measurable: *Can the achievement of the objective be quantified and measured?*

Appropriate: *Is the objective appropriate given the learning intervention?*

Realistic: *Can the objective be realistically achieved with the available resources?*

Timely: *In what time period will the objective be achieved?*

Recall the scenario with Fatima and the knowledge needs of CHWs in district X.

The knowledge needs assessment survey results revealed to Fatima that most CHWs in district X were not familiar with the differences between short-acting, long-acting, and permanent methods of contraception and what information they should provide to specific types of clients, such as postpartum women and newly married couples.

Based on these results, she and her team developed the following objective that addresses the CHWs' knowledge needs: **By the end of the in-service training program, CHWs in district X will have a 50% increased knowledge about the difference between short-acting and long-acting family planning methods, as measured by a post-intervention survey.**

The MOH evaluated whether the objective met the **SMART** criteria. Let's see . . .

Specific?   Yes! It specifies the audience (CHWs in district X) and the intended outcome (increased knowledge about the difference between short-acting and long-acting family planning methods)

Measurable?   Yes! Levels of awareness can be measured in a post-intervention survey. Ideally, a pre-intervention survey would establish a baseline.

Appropriate?   Unknown. The content of the training program would need to be evaluated to determine whether it addresses awareness of the different types of family planning methods.

Realistic?   Unknown. Whether the 50% increase is a realistic expectation would need to be evaluated.

Timely?   Yes! The time frame is specified as the end of the in-service training program.

Now, it's your turn! For practice, use the example objective in Activity Sheet 2 to determine whether it addresses each **SMART** criteria.

Activity Sheet 2: Is This Learning Objective SMART? Explain Why.

By the end of the in-service training program, 100% of CHWs in district X will be able to correctly counsel postpartum clients on the benefits of spacing births and the range of contraceptive methods available to them as reported in post-visit client facility surveys.

Specific:

Measurable:

Appropriate:

Realistic:

Timely:

Now that you have had some practice, develop a **SMART** learning objective for your adaptation activity by filling in the blanks in Activity Sheet 3.

In addition to developing the learning objective(s), determine how you will verify that the objectives are met. Your objective statement should explicitly state how success will be measured.

Activity Sheet 3: Develop Your Own SMART Objective

By _____, _____ will be able to

[WHEN? Define the timeline]   *[WHO? Define the audience]*

_____

[WHAT? Define what they will be able to do, using a learning verb]

by/from _____ with _____.

[HOW? Explain how this will be done]   *[HOW? Define how to measure success]*

Step 4: Evaluate Existing Content

Is the existing content appropriate to use? What is no longer relevant?

In the last step of the *Understand and Scan* phase, you will review existing content to see if it can be reused or easily adapted to meet your **SMART** objective(s) and the audience's knowledge needs, and how it might be adapted.

Once again, we return to Fatima, the program officer in Mahidtial.

At this point, Fatima's team has developed a **SMART** learning objective that addresses the CHWs' knowledge needs: By the end of the in-service training program, CHWs in district X will have a 50% increased knowledge about the difference between short-acting and long-acting family planning methods, as measured by a post-intervention survey

Rather than creating a new training plan from scratch, Fatima and her partners look for existing content and materials that they can potentially adapt and use for CHWs in district X. A year earlier, in collaboration with MOH, the Mahidtial Medical Association developed LARC guidance documents, including fact sheets and job aids, for nurse midwives at a national seminar. Given the credibility of the source and the relevance of the content, Fatima's team intends to use these documents and incorporate them into the training plans for CHWs in district X.

As the scenario above highlights, there are a number of factors to consider in determining whether existing content is appropriate for adaptation. In the scenario, they determined that the existing content was appropriate based on its relevance and the credibility of its source.

Consider the following factors to determine whether to use an existing resource:

Credibility of resource: *Does the information come from a reliable source? Is the information accurate and supported by evidence?*

Resource components: *Are there technical guidelines, case studies or scenarios, quiz questions, graphics or multimedia, or other important elements that could be reused?*

Relevancy of content: *Is the presented information largely up to date and relevant for your current audience, in terms of reading level, language, or cultural appropriateness? Is it already presented in a way that you can use it? Or will it require additional content or editing?*

Technology capacity: *What technology capabilities do you have to repackage existing content into a format accessible and appropriate for the audience?*

Human capacity: *What human resources do you have to make any content-related or technology changes?*

Permissions: Make sure you have permission to use or repurpose the content. This can generally be done in two ways:

1. Some content has been specifically developed and made available for further use, reuse, and adaptation. See the Training Resource Package for Family Planning website (www.fptraining.org) and the ORB website (www.health-orb.org) for examples.

2. In other cases, you may need to view a resource's privacy and terms of use information or check to see if there is language or a visual icon representing a Creative Commons license or the Public Domain Mark 1.0. For examples of each, see Appendix A.

When you are unsure if you have permission to adapt a resource or content, contact the author or organization directly. We also recommend acknowledging and crediting the original source whenever possible, even if it is published with an open license. Citing your sources enhances your own credibility and the perception of your product. Directly taking any words from a source or even paraphrasing from a source without crediting the appropriate author is considered plagiarism and is a violation of ethical standards.

The Currency, Relevancy, Authority, Accuracy, Purpose test (Appendix B) is another useful tool that can evaluate the quality of a resource.

Tips for Evaluating Content Found Online

When searching online for existing content, consider the following tips to evaluate their quality.[9]

- **Check the domain:** .gov, .edu, .org refer to government, educational institutions, and non-profit organizations, respectively. Generally, the information in these types of sites is considered to be from a credible source. (Note that many country codes, such as .us, .uk, and .de are no longer tightly controlled and may be misused.)

- **Check the author:** Hold the author to the same degree of credentials, authority, and documentation that you would expect from something published in a reputable print resource (book, journal article, good newspaper).

- The page should be dated.

- Sources should cited with footnotes or links.

Special Consideration for Graphics and Multimedia

Photographs, graphics, video, and sound files can be rich sources for adaptation. It takes time, tools, and skill to adapt any content, but even more so for graphics or multimedia.

Consider the following questions:
- Does the audience have a reliable Internet connection and do they know how to download or view multimedia content?

- Do you need special equipment or software to adapt the multimedia content?

- Does your staff have the capacity to adapt the content, or can you hire someone?

If you answer "no" to the last two questions, there are free tools (for example, Microsoft Paint and Movie Maker) and websites (Photoshare.org, Camstudio.org, Picresize.com, and Audacity) that can help you to start to adapt and create multimedia content.

If you do not have content available, Boxes 1 and 2 provide a list of resources for digital health content and family planning and reproductive health technical training content.

Box 1. Digital Health Content for Adaptation

- *ORB* (mPowering) offers frontline health workers and trainers access to openly licensed content that can be used on mobile devices.
  www.health-orb.org

- *OppiaMobile* (Digital Campus) is a learning platform that offers a variety of mobile-ready courses on primary health care to enhance the training of health workers.
  digital-campus.org/courses/browse

- Medical Aids Films has a collection of more than 200 downloadable video films in 20 languages, which cover topics in maternal, newborn, and child health.
  www.medicalaidfilms.org

- Global Health Media has a collection of downloadable videos on a range of health topics, including newborn and child care and breastfeeding.
  globalhealthmedia.org/videos

- HealthPhone™ is a video reference library that includes over 2500 downloadable health videos available in a wide number of languages.
  www.healthphone.org

- *Hesperian Health Guides* (Hesperian) offers a variety of digital tools for health promotion, designed for people with limited computer or Internet access.
  hesperian.org/books-and-resources/digital-commons

**Box 2. Family Planning and Reproductive Health Technical Training Content
for Adaptation**

Existing content for possible adaptation may include international guidance from the
World Health Organization, country-level protocols, training curricula, and other job aids.
The content of the following evidence-based family planning and reproductive health
technical training resources can be adapted to address the scenario presented in
this guide:

- *The Postpartum Family Planning Compendium* (World Health Organization) is a digital
platform that helps health providers access World Health Organization guidelines.
http://www.who.int/reproductivehealth/news/pfpc/en/

- The Reproductive Health Library (World Health Organization) is an electronic review
journal that contains summaries of reviews on reproductive health interventions.
apps.who.int/rhl/videos/en/index.html

- *Family Planning: A Global Handbook for Providers* (K4Health) offers clinic-based health
care professional the latest guidance on providing contraceptive methods.
www.fphandbook.org

- *"Do you know your contraceptive choices?" Wall Chart* (K4Health) contains information
about specific family planning methods and is available in eight languages.
www.fphandbook.org/wall-chart

- *The Training Resource Package for Family Planning* (K4Health) contains curriculum
components and tools needed to design, implement, and evaluate training. It offers
resources for family planning and reproductive health trainers, supervisors, and
program managers. **www.fptraining.org**

- *Facts for Family Planning* (K4Health) presents a comprehensive collection of key
information and messages for those who communicate to others about family
planning. **www.fphandbook.org/factsforfamilyplanning**

- *ReproLinePlus* (Jhpiego) is a site that provides information, expertise, and opportunities
to support high quality health systems in limited-resource settings. **reprolineplus.org**

- *The Global Health eLearning Center* (USAID, K4Health) provides eLearning courses and
certificate programs in a range of global health topics, including Family Planning
Methods and Family Planning. **www.globalhealthlearning.org**

Women learn to use an mHealth application on mobile phones in Nigeria.
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During: Design and Deliver

During

Design
and Deliver

STEP 5: Determine the appropriate delivery format

STEP 6: Repurpose the content

STEP 7: Test the adapted content in the delivery format

STEP 8: Promote and deliver adapted content

The ***Design and Deliver*** phase contains the main process of adaptation.
How will the information be delivered? What needs to be transformed? How will this be done?

Step 5: Determine the Appropriate Delivery Format

What format will address the audience's needs?

Once you have identified existing content with appropriate information for the audience, consider how to deliver the adapted content. For example, you can adapt existing audio content into SMS or vice versa. Job aids can be transformed into an eLearning course. Content from an eLearning course can be adapted into video or even as part of a blended learning initiative. The delivery format does not always have to change. For example, existing audio content can be transformed into new adapted audio content for a different audience.

While the combinations and possibilities may seem endless, it's important to consider the needs of the audience and issues of access, infrastructure, technology and tools, time, and resources from the **Understand and Scan** phase to decide what the delivery format should be for the adapted content. The case studies at the end of this phase provide real-life examples and lessons learned based on a variety of delivery formats.

Activity Sheet 4 includes a list of common formats of content. You can use this activity sheet to help you map out which delivery format(s) you plan to use for the adapted content. Note that it is common to use multiple delivery format(s) to reinforce learning objectives for your intended audience.

Activity Sheet 4: Choose Your Adaptation Delivery Format

In the left column, check the box next to the format that best describes the original content you have. In the right column, check the box(es) next to the format(s) that best describes the format(s) you would like to use to adapt the content. This is your **adaptation delivery format.**

Format of Original Content	Desired Format of Adapted Content
❏ eLearning	❏ eLearning
❏ Webinars	❏ Webinars
❏ Apps	❏ Apps
❏ Interactive voice response (IVR) phone systems	❏ Interactive voice response (IVR) phone systems
❏ SMS (short message service or text message)	❏ SMS (short message service or text message)
❏ Job aids	❏ Job aids
❏ Checklist	❏ Checklist
❏ Diagrams	❏ Diagrams
❏ Templates	❏ Templates
❏ Forms	❏ Forms
❏ Audio	❏ Audio
❏ Video	❏ Video
❏ Animations	❏ Animations
❏ Traditional classroom-based courses	❏ Traditional classroom-based courses
❏ Hands-on workshops	❏ Hands-on workshops
❏ Other: _____	❏ Other: _____

Note: For resources that can help determine whether a mobile format is appropriate for the audience's needs, see Appendix C.

Step 6: Repurpose the Content

What needs to be adapted? How do I best adapt the content?

There are three main kinds of adaptation:

- Adaptation that makes content appropriate to a specific **cultural context**
- Adaptation that changes content into a local **language**
- Adaptation that makes content available through a different **delivery** format appropriate for the local context

Your adaptation activity might include just one or a combination of the approaches above. At the end of this phase, we highlight the case studies listed below to demonstrate these combinations of adaptation.

Table 2. Case Studies

Case Study	Adapted for Context	Adapted for Local Language	Adapted for Delivery Format
Adapting global family planning training curricula and research for easy-to-read SMS in Kenya and Tanzania	✓	✓	✓
Repackaging eLearning health content as a mobile app for community health workers in Ghana	✓		✓
Adapting eLearning health content to an interactive voice response (IVR) training course for medical training students in Kenya	✓		✓
Adapting a family planning health guide as a mobile app for frontline health workers in Tanzania	✓	✓	✓
Adapting health videos for a Southeast Asian audience from a sub-Saharan African audience	✓	✓	

During this transformation process, it is critical to consider what you learned about the audience from the **Understand** and **Scan** phase. Any concepts, messages, or materials that you develop should be relevant and meaningful, and specific to the audience.

Consider the following questions when adapting content for each delivery format:

- What key elements can be reused and adapted?
- What style and tone will work best for the audience?
- What is the appropriate length and technical depth of the adapted content?

Key Elements

The key elements are the focal point of any content. They are the pieces of content that you want to retain, containing the most pertinent information to be presented to the audience. This can be accomplished by a combination of text, graphics, audio, or video, depending on the literacy level of the audience. Box 3 includes best practices for using different types of key elements.

Box 3. Best Practices in Using Key Elements

Tips for any delivery format:
- Consider the local language, common slang, local expressions, traditions, taboos, and laws.
- Be mindful of the relevance and appropriateness of metaphors.
- Keep language simple.
- Consider brief stories or examples that the audience can relate to.

Graphics with text:
- Should be legible.
- Should be easy to understand.
- Should be simple. Remove unnecessary details and clutter.

Graphics without text (example, photos or other imagery):
- Make sure the imagery is objective and accurately represents or illustrates a real situation, subject, or physical location.
- Relevant and relatable to the audience.
- Was obtained in an ethical manner. Received permission from the subject.

Audio:
- Whenever possible, a native speaker should narrate.
- The narrator should speak slowly and clearly.

Video:
- Film in the country in which the learning intervention will be implemented.
- Model respectful behavior.
- Include voice-over whenever possible.
- Consider close-ups and animated content as appropriate for the subject matter.

Style and Tone

What is the right tone to take with the audience? How do they speak? What terms are they familiar with?

In general, content should be presented in a way that is engaging to the audience. Your tone may differ when you are trying to connect with a personal audience (for example, friends, family, and colleagues) compared with a professional audience (for example, donor agencies and an organizational audience). The content should be relevant and engaging. Relevancy can be further developed by being clear, concise, and accurate and by using illustrative examples.

In Box 4, we offer resources for writing and designing easy-to-understand content.

Box 4. Resources for Writing and Designing Easy-to-Understand Content

- *Simply Put: A guide for creating easy-to-understand materials* (U.S. Centers for Disease Control and Prevention) provides guidance on transforming complex scientific information into communication materials. **www.cdc.gov/healthliteracy/pdf/Simply_Put.pdf**

- *Communication Bulletin: Visual and web design for audiences with lower literacy skills* (USAID) provides guidance to social and behavior change practitioners about how to select and present information visually. **www.c-changeprogram.org/sites/default/files/C-Bulletin-6.pdf**

- *Voice & Tone* (The Rocket Science Group) is an interactive site that explains how to adapt voice and tone for the audience. **voiceandtone.com**

- *The Approaches to local content creation: realizing the smartphone opportunity* report (GSMA) explores the role that low-cost smartphones, digital skills, and content creation can play in creating a more locally relevant web. **www.gsma.com/mobilefordevelopment/programme/m4d-impact/approaches-to-local-content-realising-the-smartphone-opportunity**

Length

Do you want your message to cut through information overload? Be brief.

Once you have identified key elements—the pieces of the content that must be retained—think about how many words you need. This might depend on your adapted format; for example, Twitter and SMS have strict character limits. Can you get your messages across in the space you have? Even when you have more room to work with, a more concise message is more useful. Images and graphics can get messages across without words, but make sure those images will work on the audience's devices.

Consider the following principles for determining appropriate length based on instructional design guidance:

- Condense your sentences by breaking up long sentences (more than 20 words) with short ones.
- Avoid jargon, use simple language, and get to the point. Remember to keep it simple.
- Chunk content. Use short sentences or paragraphs. Use bullet points, imagery, and multimedia as appropriate for your delivery format.
- Eliminate unnecessary adjectives or descriptors.

In Box 5, we offer an example of how to apply these principles about length.

Box 5. Appropriate Length of Content

Background: K4Health collaborated with Dimagi (a social enterprise that delivers open-source technology in underserved communities) to adapt and translate Global Health eLearning Center family planning content for Hindi-speaking frontline health workers into a new learning app feature on Dimagi's CommCare—an open-source mobile platform. Recall the principles for determining appropriate length mentioned earlier. The screenshots show how these principles were applied to the two different delivery methods based on the audience for each platform.

BEFORE
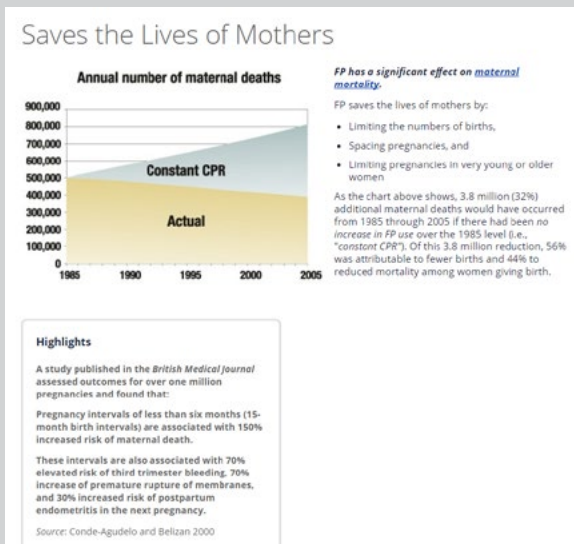
Text and graphic content on original Family Planning 101 eLearning course

AFTER
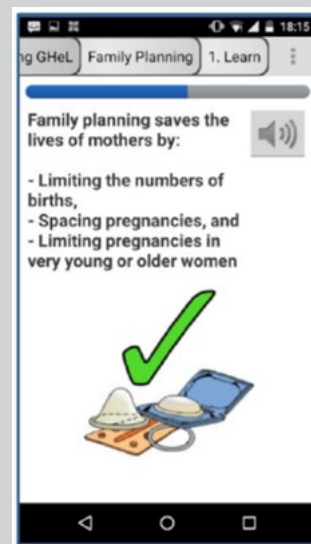
Screenshot of the English version of the adapted content on Dimagi's CommCare platform, which was ultimately translated in Hindi and audio recorded.

Step 7: Test the Adapted Content and Delivery Method

Iterate. Iterate. Iterate.

There is no mathematical formula for making content relevant or the delivery method successful. Testing, however, can get you closer to your objective. In this step, test your content by first soliciting feedback about your adapted content, and then using that feedback to inform your decisions about any changes that need to be made. You may have to cycle through this process multiple times.

Who to Involve

Think about who the end users are, and if possible, involve them in your feedback process. It may not be possible to have your end users test the final product. If that's the case, involve people who are familiar with the local context.

How to Receive Feedback

Usability testing experts have shown that testing only five users will uncover 85% of usability problems. To get relevant and honest feedback, it is important to ask questions without assumptions or judgment. Feedback discussions can be carried out in-person, through written responses, or virtually. Discussions could also be facilitated individually or in a small group setting.[10]

Keep the following tips in mind when eliciting feedback on the adapted content and the delivery method:

Show. Don't tell. Give users the adapted content in whichever delivery format you chose. Let them interpret the content themselves. Listen for any comments or questions they may have. Whenever possible, watch how they handle and interact with it. And listen to any comments or questions they may have.

Ask open-ended questions. Avoid asking leading questions that encourage users to answer in a predictable way. It is also useful to ask about their thoughts, experiences, and first impressions.

Be patient. It is important to wait for responses. If you ask a question during an in-person discussion, sit back for a few minutes. People will give feedback when they feel ready.

Consider the group dynamic. For group discussions, consider if there are hierarchical relationships that may hinder anyone's comfort level or openness to share their thoughts. If so, consider separating focus group discussions or individual interviews with a selection of users.

Depending on the extent of the feedback you receive from participants, you may have to further refine, test, and gather feedback before finalizing the adapted content and delivery method.

Step 8: Promote and Deliver the Adapted Content

How do I reach the audience?

Once you have developed and tested your adapted content and delivery method, it's time to share the content with the audience. Work with partners and use existing networks as part of your delivery strategy. Think about who the audience is, what motivates them, and how to reach them online and offline.

What Motivates Your Audience?

It is important to develop communication messages for both the audience as well as champion stakeholders. It is important to think about what motivates the audience. *Is a certificate of completion sufficient? Is or will the adapted content be accredited? Is a learning network or some kind of ongoing community building among the audience desirable?*

Methods for Reaching Your Audience

Generally speaking, promotion and delivery can be done at the community level or on a larger scale—national or international. At the community level, the content can be shared at community briefings with stakeholders. You may also want to consider conducting a formal or informal training session to introduce the audience to the material. This may be an optimal solution especially if the audience is unfamiliar with the chosen delivery method. On a larger scale, consider submitting to online publications, online mailing lists, working groups, or social media. Regardless of the level, there are generally two methods of delivery methods: written and oral. The following table shows examples of each of these.

Table 3. Written and Oral Methods to Reach Your Audience

Written Methods	Oral Methods
• Newspapers • Notice boards • Leaflets and flyers • Distribution cards • Newsletters • Mailing lists • Email • Facebook page or groups • Twitter • SMS (short message service or text message) —either to individuals or a closed user group • Websites • Media (press release)	• Direct phone calls • Schedule face-to-face meetings • Briefings • Training workshops • Roadshows • Conferences • Community meetings • Regularly scheduled meetings among hospital/ facility/university staff/students • Media (interview) • Hotline or helpdesk

Adapted from[12]

Box 6. Helpful Resources for Leveraging Information and Communications Technology for Promotion and Delivery Efforts

- *Social Media for Health and Development is an eLearning course available on the Global Health eLearning Center (USAID, K4Health). The free 2-hour course introduces the basic principles of social media, how to use social media to disseminate health and development information, and how to measure social media activities.*
www.globalhealthlearning.org/course/social-media-health-and-development

- *Online Communities of Practice for Global Health is an eLearning course available on the Global Health eLearning Center (USAID, K4Health). The free 2-hour course describes the key steps in creating, nurturing, and monitoring an online community of practice.*
www.globalhealthlearning.org/course/communities-practice-global-health

Use Activity Sheet 5 as part of your promotion strategy plan for your adaptation content.

Activity Sheet 5: Plan Your Promotion and Delivery Strategy

Step 1: Write down who the audience is and the name of some key influencers in the first column.

Step 2: Write down the main promotion and delivery methods for reaching the audience in the second column.

Step 3: Identify and write down who can carry out this promotion and delivery strategy to the audience in the third column.

| Audience and Name of Key Influencers	Delivery Methods	Who Is Responsible for Taking Action

Case Studies

Adapting Global Family Planning Training Curricula and Research Into Easy-To-Read SMS in Kenya and Tanzania | FHI 360

In 2008, with funding from the U.S. Agency for International Development (USAID), FHI 360's Program Research for Strengthening Services (PROGRESS) project began developing Mobile for Reproductive Health (m4RH), an opt-in SMS-based health communication program that provides information about nine family planning methods and a clinic database for accessing the methods. It was piloted and evaluated in Kenya and Tanzania from 2010 to 2011 in collaboration with several partners including the ministries of health (MOH) in both countries and Text to Change, the technological partner.

FHI 360 conceptualized, developed, and deployed m4RH as part of a research study aimed at determining the feasibility of providing family planning information via text message, the reach of this communication channel, and impact on family planning use. FHI 360 took a systematic approach to adapting evidence-based global and locally relevant guidelines to the 160 character limit of SMS, with all content undergoing extensive user input and testing.

For the initial message development in Kenya and Tanzania, FHI 360 reviewed global resources that were already well synthesized. In an interview conducted for this case study, they mentioned specifically the *Family Planning: A Global Handbook for Providers*[11] as a "key resource because of it has well-synthesized key messages at the beginning of every chapter." They also reviewed relevant global and local training curricula, research reports, and programmatic documentation (for example, from family planning-focused strategic behavior change communication projects).

Figure 2. Synthesizing "key points" from *Family Planning: A Global Handbook for Providers* into a SMS message
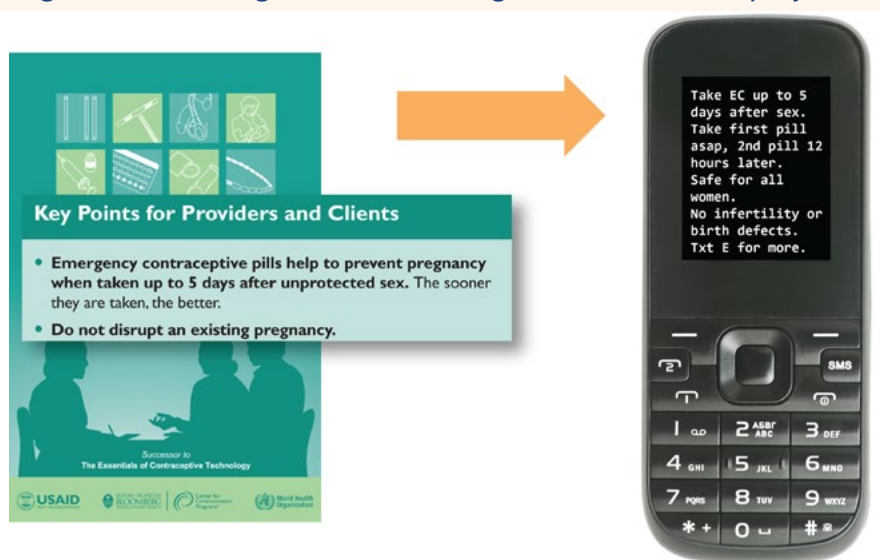
They conducted two levels of expert review of the proposed messages: global expert consultation and in-country stakeholder consultation of family planning experts, clinic partners, and the MOH. Once the messages were refined based on the consultations, they were translated and reviewed again in English (Kenya) and Swahili (Tanzania). They were then tested with the audience in family planning clinics with female and male clients, who viewed the messages and provided feedback on language, comprehension, relevance, and trustworthiness.

Results from the pilot indicated that women, men, young people, and couples used m4RH to learn about the range of family planning methods. Users found m4RH easy to use and understand and reported increased family planning knowledge as well as some behavior change.

Since the pilot was completed, FHI 360 has expanded m4RH, developing and testing new messages using the same approach applied in the pilot. In Tanzania, FHI 360 has developed additional family planning content to further address side effects and common rumors and misconceptions associated with different family planning methods. FHI 360 has also adapted the program for young people in Rwanda, Tanzania, and Uganda. The youth adaptation process involved developing new messages about HIV, sexually transmitted infections (including human papillomavirus), sex and pregnancy, and puberty, as well as ensuring that the basic contraceptive messages are appropriate for young people.

The process for adapting the m4RH content to other country settings and audience groups includes the following:

Conduct stakeholder group technical meetings to determine and prioritize content areas. Stakeholder input is vital to understanding method availability, contextual issues, as well as what the sexual and reproductive health laws and policies (especially as they relate to abortion, age of consent, and homosexuality) are in a given country. This is important to consider in developing messages that are factual but won't be perceived by lawmakers as encouraging something that is illegal. Review endorsed local materials as well as any updated global best practices. Share messages with stakeholders for their review and inputs. Conduct focus group discussions with the audience, and in the case of youth in Rwanda, for example, with their caregivers as well.

In some countries, the stakeholders and audience requested more emphasis placed on content areas indirectly related to family planning and reproductive health, such as the impact of alcohol or gender-based violence. FHI 360 used a similar approach as outlined above in developing messages related to those topics as well.

Key lessons learned:

- Engage global and local content experts throughout the message development and testing process.
- Don't reinvent the wheel entirely—use existing content to help craft messages.
- Consider the country context, audience (their age and where they might be in terms of their development and family planning and reproductive health needs), and knowledge needs.
- Always test messages with the audience.
- Develop a promotion and delivery plan. Because m4RH is an opt-in system, its use is highly dependent on how much it is promoted.

Repackaging eLearning Health Content as a Mobile App for Community Health Workers in Ghana | Concern Worldwide/ Grameen Foundation

Community health nurses (CHNs) are often the primary providers of maternal, newborn, and child health care (MNCH) in rural Ghanaian communities. However, CHNs face substantial challenges to address the health care needs of their communities, which are geographically diffused and often under-resourced. While CHNs serve a crucial role, they are the least credentialed nurses within the Ghana Health Service (GHS) and have limited opportunities for career advancement. Their experience reflects global trends: although there are more in-service training programs developed for health workers than ever before, a continuum of learning from preservice to in-service training is sorely lacking.

From February 2014 to December 2015, K4Health collaborated with GHS and Grameen Foundation to give CHNs in five rural districts of Ghana access to professional development courses via an Android app. The Android app, developed by Grameen under Concern Worldwide's Care Community Hub Project, was designed in response to challenges that CHNs reported had impacted their motivation and job satisfaction. These challenges included not feeling valued by clients, not being recognized by supervisors, lack of access to information and tools, and lack of peer support. CHN on the Go had five modules to address the various challenges of the CHNs, including a planner, point-of-care tool, and a learning center. K4Health provided educational content for the app's learning center through the USAID Global Health eLearning Center website (**www.globalhealthlearning.org**), which K4Health manages. The technology for the learning center was developed by Grameen based on OppiaMobile, an open-source mobile learning platform developed by Digital Campus.

The Global Health eLearning Center can be accessed via phone; however, it still requires an Internet connection. On the other hand, the CHN on the Go app allows for courses, once downloaded, to be viewed without an Internet connection. In addition, it is a free global resource, with content developed for a broad audience of public health program managers, health service providers, and policy makers, not specific to any one country or health cadre. To meet the needs of CHNs working in rural settings in Ghana, K4Health, Grameen, and GHS undertook a systematic approach to adapt content from the Global Health eLearning Center to make it more relevant and accessible to the local context.

K4Health reviewed the Global Health eLearning Center family planning and MNCH course content for suitability for CHNs and the local needs in Ghana based on family planning methods availability and CHN's roles and responsibilities in Ghana. The content was then reviewed by Grameen and GHS in detail for language and clarity, content relevance, appropriateness for CHNs, conformity with GHS health protocols and policies, and appropriate photos or other imagery that reflected the Ghanaian context. During this stage of the adaptation process, GHS created additional content for key topics not included in the original courses. The review process highlighted the collaborative nature of the effort, with multiple departments of the Family Health Division of GHS working together to revise the content for local context.

The app with the adapted content was launched in two phases to ensure two rounds of training with CHNs and their supervisors, testing, and iterative improvements to both the technology and the content based on user feedback.

- Phase I introduced the adapted family planning courses on the app (July 2014)

- Phase II introduced the adapted MNCH courses on the app (November 2014)

In the end, 14 adapted Global Health eLearning Center family planning and MNCH courses were made available via the Android app. About 80% of the content is relevant and ready to use; however, the remaining 20% needed to be adapted for the job function of CHNs and the local context in Ghana. Of the 234 course certificates earned (earned by passing a course final exam with an 85% or higher), the five most popular courses account for 85% of the successful course completion and also represent the main areas in which CHNs provide counseling and services: diarrheal disease, family planning counseling, essential newborn care, malaria in pregnancy, and emergency obstetric and newborn care.

Figure 3. Global Health eLearning Center courses hosted on the Learning Center of the CHN on the Go app
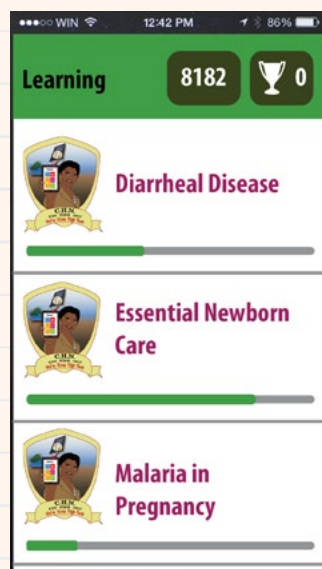
Key lessons learned:

- Engage local stakeholders at multiple levels of the health system.
- Align content with country protocols.
- Make sure the content is relevant to the audience's job responsibilities.
- Adapt and/or replace visuals to make them more locally relevant.
- Seek user feedback.
- Consider user incentives! Ultimately, the mLearning courses were accredited by Ghana's Nursing and Midwifery Council.

Adapting eLearning Health Content to an Interactive Voice Response Training Course for Medical Training Students in Kenya | K4Health

In response to a growing demand for customized training content in the field, K4Health began to explore new ways to deliver the free global health technical content available on the Global Health eLearning Center to reach a wider audience of health program managers and health providers working in low- and middle-income countries. While the proportion of households with Internet access has increased, accessibility and connectively continue to be an issue for the vast majority of people living in low- and middle-income settings. On the other hand, there are almost as many mobile-cellular subscriptions as people on Earth and more than three-quarters of them live in low- and middle-income countries.

A midwife uses her feature phone.
© 2015 Radha Rajan, Courtesy of Photoshare

Leveraging this reality, K4Health sought to test how easily and effectively Global Health eLearning Center quiz content could be adapted to an interactive voice response (IVR) platform. IVR is a technology—possible with any type of mobile phone—that delivers information via audio recordings and enables users to provide feedback by pressing a number key. IVR allows for the delivery of more robust information than SMS but does not require smartphones, Internet connectivity, or even full literacy because the information is audio recorded.

In 2015 K4Health, in partnership with the Kenya Medical Training College in Kitui, the District Hospital of Kitui, and IntraHealth International, launched the IVR family planning refresher training course. The IVR course content consisted of 20 multiple-choice and true/false questions selected from the online final exams of the Global Health eLearning Center Family Planning 101 and Family Planning Counseling courses and accompanying detailed explanations. K4Health with partners reviewed the final exams of the two courses and prioritized quiz questions that focused on either the methods readily available in Kenya and/or counseling messages specifically related to those methods.

Audio recordings of the questions, their solutions, along with an explanation of the solution were provided by a local staff member from IntraHealth International's Kenya office. Minimal adaptation of the source content was necessary. Instructions on how to complete the training were also recorded. The recordings were then loaded onto the IVR platform, a customized version of InSTEDD's Verboice API, which was selected as the activity's IVR platform for its ease in customizing content delivery schedules and retrieving use data for reporting.

The final exams from the Global Health eLearning Center courses served as the baseline assessment for the IVR refresher training course. It was discovered early in implementation that participants were unable to take the courses online due to limited Internet access. All participants were given paper copies of the courses and final exams to complete as part of the baseline assessment.

Then, as early as six weeks after completing the baseline assessments, participants began receiving the IVR training, delivered to their personal mobile phones. Whenever a participant was available and ready, they would text the IVR system to prompt a call, then respond to audio recorded questions using their phone's keypad. The system indicated whether the answer was correct or incorrect and provided a detailed explanation via audio recording.

Following a spaced education approach[a], all participants needed to answer all 20 questions correctly twice. Once a trainee answered a question correctly twice, the question was retired and not asked again. Successful completion of the course occurred when all questions were retired.

A midpoint assessment was conducted in March 2016 that included administering a usability survey and focus group discussions to determine the effectiveness of deploying Global Health eLearning Center quiz questions using IVR and SMS technologies. An endline analysis is underway to determine how well participants retained knowledge from the IVR refresher training course.

It was determined from this assessment that the IVR platform used in this activity was a successful method for delivering family planning content according to self-reported learner satisfaction.

Key lessons learned:

- Even when adapting English-language content, it is important to have local staff members review content for vocabulary and meaning, which might not translate to the local context.
- Training content should be relatable, so make sure audio recordings are done by native speakers taking into account local dialects and accents.
- Stakeholder engagement and local partnerships are critical, especially when rolling out a new technology.
- With IVR, content comprehension issues may not always be due to language or the quality of the audio recordings. The variety of mobile phones used by participants and their familiarity with how to use their keypad can also affect the users' experiences.

[a] *Developed at Harvard Medical School, spaced education uses an interval reinforcement methodology that is scientifically proven to increase knowledge retention from 3 months to 2 years, and changes even ingrained on-the-job performance.*

Adapting a Family Planning Health Guide as a Mobile App For Frontline Health Workers In Tanzania | Hesperian Health Guide/Community Based Initiative in Health, Water and Sanitation (COBIHESA)

Hesperian Health Guides, a partner of the Knowledge for Health (K4Health) Project, is a nonprofit organization that has developed and distributed health materials in over 80 languages. Hesperian Health Guides recently translated and adapted an English-language chapter on family planning from the *NEW Where There Is No Doctor* book to a mobile-friendly HealthWiki in Swahili, and then further adapted it to a mobile app for health workers providing family planning services in Tanzania.

Since its release in 2012, Hesperian's "Safe Pregnancy and Birth" mobile app has received wide global uptake and critical acclaim, winning the "She Will Innovate" competition run by Intel Corporation and Ashoka Changemakers[b], for providing comprehensive and accessible information that can be used by community health workers and midwives to support their interactions with pregnant women and their families.

Building on this success, Hesperian chose to develop a mobile app to support health workers in the delivery of family planning services in response to the heavy global demand for its online family planning content. Hesperian's online family planning content was accessed globally by more than 1.2 million users from August 2015 to August 2016 from 222 countries and territories.

Over 75% of users access HealthWiki with a mobile device, therefore a mobile app with structured navigation could be a better tool to support health workers to counsel and deliver family planning services. The mobile app also provides access to vital information offline, making it more feasible for use by health workers in the field.

The chapter on family planning in the book, *NEW Where There is No Doctor*, was originally vetted by expert reviewers, field-tested with community-based partners, and released in an English-language HealthWiki.

The process of adapting this content for a mobile app took place in two phases:

• Translation to Swahili and adaptation to a HealthWiki and

• Adaptation of the HealthWiki to a family planning mobile app.

Before beginning the first phase of translation and adaptation, Hesperian and COBIHESA worked together closely to identify elements of the English-language version that Tanzanian audiences may have trouble understanding or that did not translate culturally, such as sections that were not relevant to life in Tanzania or different names of family planning contraceptives.

Overall, Hesperian and COBIHESA found that contextual changes were minimal because family planning content is largely standardized and the original content mostly matched family planning practices in Tanzania.

[b]*http://hesperian.org/2012/11/15/hesperian-wins-award-for-safe-pregnancy-and-birth-mobile-app/*

COBIHESA then translated the information from English to Swahili and adapted it for HealthWiki. Hesperian's developer community reviewed the online HealthWiki for user interface design and experience. COBIHESA also did a full copyedit and review of the online content and assisted with site testing. Two technical experts in family planning and Swahili language reviewed the full module online before it went live.

Content adaptation for the mobile app began during the translation to Swahili. In Hesperian's model, content adaptation begins with considering differences in user interface and experience between a web page and mobile screen. Online content can serve many audiences, but mobile content must be tailored for one audience type. As a result, the first step was to define the use case before deciding on what content from the source text should be included in the mobile app.

> **A *use case* can be described as how the primary user (e.g., client, health program manager, or community health worker) interacts with the mobile app to achieve their goal of finding information on contraceptives, guidance on family planning programming, or support from a simple job aid.**

Hesperian's mobile app is designed primarily to serve as a counseling tool for community health workers to guide counseling conversations with clients or to support decision making. Hesperian determined this use case by looking at web analytics and field studies to identify which audiences use HealthWiki content the most and to understand what functionality would be most useful to them in a mobile app.

Once the use case was identified, Hesperian created an outline of the important levels of information that community health workers need in a mobile app for this purpose.

Next, content from the chapter on family planning was extracted to fit the outline. As the family planning information in the chapter was created to satisfy multiple audiences' needs, Hesperian expected challenges related to having both too much information and not enough information relevant to the community health worker's needs. During the adaptation process, content was heavily synthesized and content gaps were identified. The gaps were then filled with content from other Hesperian publications and resources, such as the original book *Where Women Have No Doctor*.

Key lessons learned:

- Start with vetted content that is relevant and appropriate to your audience.
- Carefully define the primary audience and how the tool will achieve its goal before refining the content. In this case study, the use case was defined to support frontline health workers, especially community health workers, to conduct counseling or to support decision making.
- Encourage adaptation to make the translation culturally relevant. Hesperian's model also encourages local ownership of translated materials, which increases the commitment to distribution and updating over time.

Adapting Health Videos for a Southeast Asian Audience from a Sub-Saharan Africa Audience | Medical Aid Films

Medical Aid Films uses film and innovative media to transform access in low-income countries to information about women's and child health. Bringing together leading health expertise, filmmakers, and frontline health workers, they create high-quality, resource-appropriate education and training for health workers and communities around the world.

Their collection of more than 200 films in 20 languages, which cover topics in maternal, newborn, and child health, are watched in more than 100 countries worldwide, reaching millions, and empowering them with knowledge that saves lives.

In 2014, Medical Aid Films worked with leading medical technology firm, GE Healthcare, with an innovative project to provide access to lifesaving information about pregnancy and childbirth for women in developing countries. The project used low-cost portable ultrasound scanners with inbuilt film content about pregnancy and reproductive health, reaching women across Southeast Asia and sub-Saharan Africa at a crucial point of engagement with health workers.

GE identified four existing films (warning signs in pregnancy, what pregnant women need to eat, steps to a normal delivery, and family planning), which could provide valuable educational content to show on their ultrasound devices. Medical Aid Films adapted the original scripts from 10 to 15 minutes in length to new versions of 5 minutes each—the optimum length to be shown on the ultrasound devices.

After collecting feedback from their team of technical advisors and local partners, they edited these films to produce a suite of four short ultrasound device-enabled films, and then translated and dubbed them into French, Swahili, and Portuguese for GE's focus countries in sub-Saharan Africa.

The second stage was to adapt this content for GE's other area of focus, Southeast Asia. Medical Aid Films shared the films with local partners in Cambodia, Vietnam, Indonesia, and Myanmar, collected feedback about how they should be adapted in terms of cultural sensitivities, country guidelines and local practices, and then adapted the scripts to incorporate this feedback.

This included local advice on nutrition in pregnancy, for example, available and recommended food types, and adapting the animated characters to have culturally appropriate clothing.

They filmed pieces-to-camera (when a presenter or a character speaks directly to the viewing audience through the camera) with two Southeast Asian midwives in the UK, worked with local filmmakers in Thailand, Myanmar, and Indonesia to film footage in local clinics, and adapted the animations in the original films to be culturally and geographically representative.

The films were reviewed at each stage by the team of advisors. Once completed, they then translated and dubbed the completed suite of four films for Southeast Asia into Khmer, Vietnamese, Bahasa Indonesian, and Burmese.

Video image from "Understanding Warning Signs of Pregnancy", 2011, Medical Aid Films

These films support health workers to scan and advise women, and will empower women with lifesaving knowledge. They are currently being used at 200 sites in Tanzania, Nigeria, East Malaysia, and Myanmar.

The films are freely available to partners upon request, under the Creative Commons license.

Medical Aid Films delivers their content through their website and social media platforms, through a mailing list of more than 2,000 subscribers, and through health networks such as Health Information For All. Their films are also viewed more than 2 million times each year on YouTube.

The organization works in partnership to evaluate the impact of films on increase in knowledge and change of practice in a range of education and training program with partners around the world.

Key lessons learned:

- Adapting content provides a cost-effective method to leverage existing content to make it engaging, appropriate, and accessible for new audiences.
- Translating technical medical content to simple language can be challenging, and it involves a consultative review process of material to ensure that it's user-friendly and accessible.
- It's important to work with local filmmakers to strengthen in-country capacity.
- Sourcing translation and dubbing into foreign languages can be difficult, particularly when working with health information, but it can transform your reach and engagement with audiences.

A community health worker uses an interactive audio/visual mobile phone-based health application to counsel a pregnant woman at her home in the Bahraich District, India.
© 2013 DS Panwar/India, Courtesy of Photoshare

After: Evaluate and Learn

After

> **STEP 9:** Evaluate whether the learning objective was met
>
> **STEP 10:** Consider scaling up
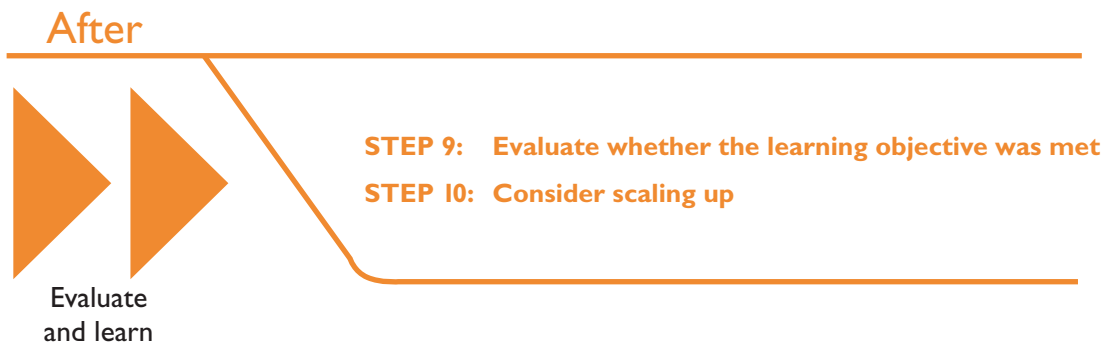
Evaluate and learn

Evaluate and Learn is the last phase of the adaptation process. The lessons learned from this phase will help you determine whether the adapted content has met the learning objectives of the intended audience, and what refinements you could make in the next iteration. What communication channels should you use to promote the adapted content to the audience? How will you know that the audience's learning objectives are met? Should you consider scaling up?

Step 9: Evaluate Whether the Learning Objective Was Met

Was it successful?

During the **_Understand_** and **_Scan_** phase, you should have developed a learning objective that explicitly states the intended purpose of the adapted content and how it can be measured. You can always refer back to the **_Understand_** and **_Scan_** phase and **SMART** objectives for more guidance.

> **Let's go back to the scenario with the MOH in Mahidtial as an example:**
>
> By the end of the in-service training program, CHWs in district X will have a 50% increased knowledge about the difference between short-acting and long-acting family planning methods, as measured by a post-intervention survey.
>
> The post-intervention survey would determine whether CHWs in district X had increased knowledge about the difference between short-acting and long-acting family planning methods. If there was a 50% increase in knowledge, then the learning objective was met.

As the example above shows, sometimes it can take a long time to find out if the learning objective was met. While important, the learning objective should not be your only measure of success. To get a multi-dimensional evaluation of your adapted content, you may also want to consider the reach, usefulness, and use of your adapted content as potential measures of success.

They are defined as follows:

- **Reach:** Distribution of the adapted content (often quantitative)
- **Usefulness:** User perceptions of satisfaction and quality of the adapted content
- **Use:** Knowledge gained or knowledge applied as a result of the adapted content

See Appendix D for a table on illustrative indicators for each of these measures.

Box 7 shows an example of the indicators that K4Health and the Grameen Foundation used in their adaptation activity. In Box 8, we provide a resource for monitoring and evaluating knowledge management programs.

Box 7. Indicators in Action

K4Health worked with the Grameen Foundation to repackage eLearning health content to a mobile app. They collected the following reach and use indicators to measure success:

- Number of community health nurses (CHNs) who started a course (for all of the courses)
- Number of CHNs who successfully completed a course (for all of the courses)*
- Number of final exam attempts before successfully completing a course (for all of the courses)
- Number/percentage of CHNs who successfully completed all of the courses in the family planning certificate program and in the maternal, newborn, and child health certificate program, respectively
- Number/percentage of CHNs who successfully completed the skills assessment

Successfully completed a course means that a CHN passed the final exam with an 85% or higher.

Box 8. Helpful Resource on Monitoring and Evaluating Knowledge Management Programs

Guide to Monitoring and Evaluating Knowledge Management in Global Health Programs (K4Health) introduces standardized practices to evaluate whether knowledge management projects, activities, and tools are effective at supporting global health and development efforts.
www.k4health.org/sites/default/files/km-monitoring-and-eval-guide.pdf

Step 10: Consider Scaling Up

To scale up or not?

Scaling up can be defined as expanding, adapting, and sustaining successful projects, programs, or policies in different ways over time for greater development impact.[13] Specific to the health sector, scaling up means "doing something in a big way to improve some aspect of a population's health." [14]

There are multiple dimensions of scaling up: **horizontal**, **vertical**, and **functional**.

See how these dimensions of scaling up relate to an adaptation activity:

Horizontal scaling up refers to expanding coverage of a project, program, or policy across more people and/or a wider area. *For an adaptation activity, this would relate to expanding geographical reach and/or the intended audience of the adapted content.*

Vertical scaling up refers to creating the organizational or systematic process needed to permit going to a larger scale. *For an adaptation activity, this would relate to scaling up the delivery method.*

Functional scaling up refers to going beyond one sector (such as health or education). *For an adaptation activity, this would relate to expanding the sector reach of the adapted content and/or delivery method.*

In this step, consider whether the adapted content or adaptation activity should be scaled up at all, and if so, by how much, for how long, and in what direction(s) or dimension(s). By taking into consideration the evaluation results and potential operational costs, decide if scaling up is feasible and necessary; and if so, determine which aspect (for example, content, delivery method, geographic reach, or sector involvement) of the adaptation activity can and should be scaled up. Note that although scale up appears in the last step of this guide, the possibility of scaling up should always be considered in the beginning of any project or activity.

> ***Note:*** Content is only relevant if it takes into consideration the context. Adaptation is the process of taking solutions proven in one context and applying them to another, which may not always be easily replicable or scalable. Ultimately, it depends on the objectives of a given activity and the local context.

Box 8 shows two examples of scaling up—FHI 360 scaled up its SMS-based health communication program both horizontally and vertically and the Grameen Foundation is working on scaling up its CHN on the Go app to provide professional development courses for community health nurses in Ghana.

Box 9. Scale-Up In Action

FHI 360 successfully scaled up its Mobile for Reproductive Health (m4RH) program—an opt-in SMS-based health communication program that provides information about nine family planning methods and a clinic database for accessing the methods. It scaled up m4RH both horizontally beyond the two pilot countries (it is now in Rwanda and Uganda) and vertically—it is being adapted for a mobile app and Internet.org in Indonesia and Tanzania.

The Grameen Foundation and its partner Concern Worldwide are working on scaling up CHN on the Go, an app that provides professional development courses to community health nurses in five rural districts of Ghana. They are in discussions with the Ghana Health Service (GHS) to scale up CHN on the Go across the country. It is currently being considered as an add-on information, education, and communication (IEC) app to a GHS-developed data collection app, to provide health IEC materials to GHS staff, with the support of the United Nations Children's Fund. In one of the pilot regions, preparations are under way to scale up the app across the region, beyond the two pilot districts.

The content is also being scaled up beyond the Care Community Hub project pilot's five districts through a Jhpiego mLearning project for nursing and midwifery students. The learning center of the app was adapted by Grameen for Jhpiego to deploy their own content, as well as the 14 Global Health eLearning courses that were adapted through the Care Community Hub project.

Now What?

Now that you have reached the end of the adaptation process, it is time to reflect. What went well? What challenges did you encounter? What could be done differently next time?

There is no mathematical formula to adapt content perfectly. Translation—between languages, between media, between contexts—is, almost by definition, imperfect. Adaptation is iterative.

In summary, remember the following questions related to each phase of the process to help you better inform your content adaptation activities.

Before (*Understand and Scan*)

- *Who am I trying to reach?*
- *What are the knowledge gaps? What does the audience need to learn?*
- *What are the desired outcomes? What should the audience know or be able to do?*
- *Is the existing content appropriate to use? What is no longer relevant?*

During (*Design and Deliver*)

- *What format will address the audience's needs?*
- *What needs to be adapted? How do I best adapt the content?*
- *Iterate. Iterate. Iterate.*
- *How do I reach the audience?*

After (*Evaluate and Learn*)

- *Was it successful?*
- *To scale up or not?*

Like the adaptation process, this guide is iterative and can be improved based on your application of it. Please let us know: What works for you? What doesn't? How can we improve this guide to make it more useful for you?

Do you have stories to share about your experience with content adaptation—whether using this framework, or another, or none at all?

Your experience is an important aspect of our lessons learned. Please contact the authors at K4Health: **www.k4health.org/about/contact.**

Appendices

Appendix A:
Permission Policies for Repurposing Content

Privacy and Terms of Use

Excerpts from the Global Health eLearning Center's Privacy Policy and Disclaimer:

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"Information presented on this Web site is considered public information and may be distributed or copied freely unless identified as being subject to copyright protection. In return, we request only that any information, photos, and images copied from this site and that any photo credits or bylines be credited to the photographer or author."

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Appendix B:
Currency, Relevance, Authority, Accuracy, Purpose Test

Use the following list to help you evaluate sources. Answer the questions as appropriate, and then rank each of the 5 parts from 1 to 10 (1 = unreliable, 10 = excellent). Add up the scores to give you an idea of whether you should you use the resource (and whether your professor would want you to!).

Currency: *the timeliness of the information*………………………………………….................................. ☐

- • When was the information published or posted? _____
- • Has the information been revised or updated? _____
- • Is the information current or out-of date for your topic? _____
- • Are the links functional? _____

Relevance: *the importance of the information for your needs*………………………………………. ☐

- • Does the information relate to your topic or answer your question? _____
- • Who is the intended audience? _____
- • Is the information at an appropriate level? _____
- • Have you looked at a variety of sources before choosing this one? _____
- • Would you be comfortable using this source for a research paper? _____

Authority: the source of the information………………………………….. ☐

- • Who is the author/publisher/source/sponsor? _____
- • Are the author's credentials or organizational affiliations given? _____
- • What are the author's credentials or organizational affiliations given? _____
- • What are the author's qualifications to write on the topic? _____
- • Is there contact information, such as a publisher or e-mail address? _____
- • Does the URL reveal anything about the author or source? _____

Accuracy: the reliability, truthfulness, and correctness of the content……………................................ ☐

- • Where does the information come from? _____
- • Is the information supported by evidence? _____
- • Has the information been reviewed or refereed? _____
- • Can you verify any of the information in another source? _____
- • Does the language or tone seem biased and free of emotion? _____
- • Are there spelling, grammar, or other typographical errors? _____

Purpose: the reason the information exists…………………………………………………………… ☐

- • What is the purpose of the information? _____
- • Do the authors/sponsors make their intentions or purpose clear? _____
- • Is the information fact? opinion? propaganda? _____
- • Does the point of view appear objective and impartial? _____
- • Are there political, ideological, cultural, religious, institutional, or personal biases? _____

> *45 - 50 Excellent | 40 - 44 Good*
> *35 - 39 Average | 30 - 34 Borderline Acceptable*
> *Below 30 - Unacceptable*

Total: ☐

Appendix C:

Resources for Determining Appropriateness and Effectiveness of Mobile Solutions

- *The mHealth Planning Guide: Key Considerations for Integrating Mobile Technology into Health Programs* (K4Health) provides guidance on how to plan, implement, and evaluate the appropriateness and effectiveness of an mHealth solution.
https://www.k4health.org/toolkits/mhealth-planning-guide

- *mHealth: Mobile technology to strengthen family planning programs* (High-Impact Practices in Family Planning) is a brief that discusses the potential impact of mHealth and provides tips that represent a synthesis of lessons learned from published literature, gray literature, and in-depth interviews.
https://www.fphighimpactpractices.org/sites/fphips/files/hip_mhealth_brief.pdf

- *The Integrating Mobiles into Development Projects* (USAID) handbook provides a set of questions to ask when using or considering mobiles.
https://www.usaid.gov/sites/default/files/documents/1861/M4DHandbook_ August_2014.pdf

- *Mobile Technology in Support of Frontline Health Workers* (Johns Hopkins University Global mHealth Initiative) provides a comprehensive overview of the landscape, knowledge gaps, and future directions of mobile technology. **https://dl.dropboxusercontent. com/u/5243748/mFHW%20Landscape_2016%20Final.pdf**

- *Adaptation Framework for the Mobile Technical Literacy Toolkit* (GSMA) provides a 5-step framework specifically for delivering mobile literacy training workshops for women.
http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/03/GSMA_ mWOMEN_AdaptationFramework.pdf

Appendix D:
Example Indicators

Measures of Success	Example Indicators
Reach	***Primary delivery*** • Number of individuals served by adapted content • Number of copies distributed to existing lists • Number of formats used to deliver content ***Secondary delivery*** • Number of media mentions resulting from promotion • Number of times adapted content is reprinted, reproduced, or replicated by recipients • Number of downloads, page views, page visits (if applicable) ***Referrals and exchange*** • Number of links to web products from other websites • Number of people who made a comment or contribution
Usefulness	***User satisfaction*** • Number/percentage of intended users who read or browsed the adapted content • Number/percentage of who are satisfied with adapted content • Number/percentage of intended users who recommend the adapted content to a colleague ***Quality*** • Average duration of website visit (if applicable) • Average page views per website visit (if applicable) • Number/percentage of intended users who translate the adapted content
Use	***Learning (awareness, attitude, and intention)*** • Number/percentage of intended users who report that adapted content provided new knowledge • Number/percentage of intended users who report that adapted content reinforced existing knowledge • Number/percentage of intended users who can report correct information about knowledge; who are confident in using knowledge • Number/percentage of intended users who report that adapted content changed their view, opinions, or beliefs • Number/percentage of intended users who intend to use information and knowledge gained from adapted content ***Application (decision making, policy, and practice)*** • Number/percentage of intended users who apply knowledge to make decisions (personal or organizational) • Number/percentage of intended users who apply knowledge to improve practice (in program, service delivery, training, and research) • Number/percentage of intended users who apply knowledge to inform policy

Adapted from the Guide to monitoring and evaluating knowledge management in global health programs.[15]

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