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Illustrated print materials for health and family planning education

Printed materials meant to convey health messages are apt to make a more striking and lasting impression on their audience if they are well illustrated. But coming up with good illustrations takes time, effort and care. The Program for Appropriate Technology in Health (PATH) has found that the best way of ensuring that illustrations will be understood and accepted is to develop them with the help of representatives of the target audience.

The Program for Appropriate Technology in Health (PATH) is an international nonprofit organization involved in the transfer of health and family planning technology. This article will briefly discuss some of PATH’s experiences in working with local organizations around the world, including the National Association of Nigeria Nurses and Midwives (NANNM), to develop well-illustrated communication materials that are appropriate for the cultures in which they will be used.

Health workers routinely use print materials to reinforce their interpersonal communication with their target audiences or to support messages relayed by other media, such as radio or theatre. Good illustrations can improve print materials enormously, not only by making them more interesting to the audience, but also by making messages easier to grasp and remember.

Illustrations can show things that are normally invisible (such as internal anatomy), portray an action and corresponding consequence, or demonstrate the process of growth or change. Illustrations are often the ideal medium for addressing sensitive issues. Moreover, good illustrations are critical for print materials intended for audiences with poor reading skills, especially rural people who may use the materials in the absence of a health worker to read out or explain the text.

However, it is not always easy to come up with good illustrations. Illustrations that accompany text must convey clearly and accurately the same message as the text.
Inaccurate illustrations may inadvertently reinforce misinformation. For some textual messages, it is relatively easy to prepare complementary illustrations. For example, “You will be examined by a doctor”, or “The nurse shows the available methods to the couple, and the couple selects one method” are fairly easy to show in pictures. But it can be very difficult to develop illustrations that show cause and effect or physical motion, or that address culturally sensitive or abstract matters.

In addition, developing print materials with illustrations can be more expensive and time-consuming than developing materials without illustrations. Illustrated materials often require the additional time and expense of an artist as well as increased printing costs. Frequently, several different versions of an illustration must be prepared before the illustration is clear, accurate, and acceptable to both project staff and the target audience.

Audience involvement

Any materials development project should involve members of the target audience to ensure that the materials developed are accurate as well as understandable and acceptable to the audience that will use them. Focus group discussions and pretesting are two very effective ways of ensuring this involvement.

Focus group discussions are in-depth discussions in which eight to ten people, under the guidance of a facilitator, talk about issues that are of particular importance to a given project. The facilitator asks open-ended questions—questions that cannot be answered with a simple “yes” or “no”—and guides the discussion about the target audience’s knowledge, beliefs, attitudes, concerns and practices related to a given subject. The project staff may then use this information to develop messages—both textual and pictorial—that are accurate and acceptable to the audience.

In pretesting, interviewers show drafts of prepared materials to representatives of the target audience and ask them open-ended questions that encourage the respondents to say what they see in the illustrations and what the message means to them. This helps staff to find out if the materials are understood, if they convey the intended messages, and if both the messages and the materials are appropriate.

It is important that materials be pretested in their draft stages so that changes can be made based on the audience’s initial reactions and suggestions. Each new or revised version of an illustration or textual message should be pretested again, and revised as necessary, until it is accepted and understood by the audience. For this reason, the process of developing illustrated materials may require more pretesting than the development of materials without illustrations.

Developing illustrated materials: experience in Nigeria

In Nigeria, one project aimed to develop messages and illustrations for booklets that would make people throughout the country more aware of the health risks associated with harmful traditional practices such as female circumcision, early childhood
marriage, and nutritional taboos during pregnancy. To aid the development of these materials, the project staff organized focus group discussions in the three main regions of Nigeria to gather information on the different circumcision practices prevalent locally, the reasons behind the practices, and the health issues relating to these practices.

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The discussions involved members of the target audience, including men, circumcised and uncircumcised women, and parents of circumcised and uncircumcised girls.

These discussions brought to light valuable information, not previously disclosed through surveys on female circumcision, about unconventional types of female circumcision as well as unorthodox reasons for the continuation of the practice. Among other things, they revealed that traditional practices and the underlying reasons varied greatly between the three regions. To address these different practices and beliefs, staff decided to develop a different version of the booklet for each region. Each booklet would depict messages appropriate for the region in which it would be used and would include illustrations showing local people, clothing and scenery. Text for each booklet would be prepared in the local language.

But the discussion results also showed that, in spite of the regional differences, in every region members of the target audience were unaware of the serious risks associated with female circumcision, particularly the risk to infant girls of bleeding to death. To inform the audience about this risk, project managers decided to portray the message both textually and visually in all three versions of the booklet. Draft illustrations of this and other messages were prepared for the Yoruba version, and the first pretests were conducted with representatives of the target audience.

The initial draft illustration of the message “This mother takes her circumcised baby to the hospital as a result of complications from the circumcision (excessive bleeding)” is shown in Fig. 1. It was intended to illustrate a Yoruba woman with her circumcised infant daughter. The baby is supposed to be bleeding while a nurse tells the mother that her daughter could die from the circumcision. But when members of the target audience were asked what they saw in this illustration, they replied, “The baby is urinating; the mother is bored; the nurse is angry”. Some respondents did not even think that the baby was a girl. Clearly these perceptions did not coincide with what the picture was meant to convey.

Fig. 1
clear that the baby was bleeding—but they did not grasp the connection between the first and the second parts of the illustration. The respondents understood that the baby was in a hospital in the second part of the illustration, but they did not know where the baby was, or exactly what was happening, in the first part.

The next revision omitted the first part of the previous version, which had not helped to clarify the message of the illustration. The resulting two-part illustration (Fig. 3) showed (1) the circumcised baby bleeding on a table, surrounded by her mother, the nurse and the doctor, and (2) the body of the baby after she had bled to death. Extra blood was added to show more clearly that the baby had died from blood loss. This version was widely understood by the target audience and was the one finally used in the booklets.

**Adapting illustrated materials: an example from Pakistan**

Sometimes existing materials can be adapted for use with audiences other than those for which they were developed. Occasionally, the existing illustrations will be understood and well liked by the new audience, and only the textual information will need to be revised or translated. Usually, however, it is the opposite, the text being acceptable and the illustrations inappropriate.

Often both the illustrations and the text will need to be made suitable for the new audience. This was the case in a project to take a contraceptive package insert developed in the United Kingdom and adapt it for use in Pakistan.

When plans were made to distribute a contraceptive foam in Pakistan, it was at first thought that a direct translation of the original package insert into Urdu would
make the insert usable in the country. The insert had been developed and printed in the United Kingdom and was aimed at a generally literate European audience. However, in a country such as Pakistan, where the female literacy rate is less than 20%, culturally appropriate pictorial instructions are needed that are as clear and simple as possible. This is especially important when the instructions are to be used in the home, without a health worker who could read out the text or answer any questions.

Project staff in Pakistan felt that a direct translation of the original text and a few cutaway body illustrations would not provide clear instructions for women of low literacy and would lead to incorrect use of the foam. As a result, it was decided to revise the translated text. Pretesting of the translated package insert also indicated that the addition of simplified illustrations could enhance the consumer’s ability to use the foam correctly. Thus, both the text and the illustrations needed revision. Six basic instructional messages needed to be included in the package insert. As each message was difficult to depict in the tiny space available for it, the original layout was modified to accommodate larger illustrations.

During initial discussions with illiterate and barely literate women at maternity homes and family planning associations, staff realized that one of the difficulties in this project was the need to treat culturally sensitive issues appropriately. For example, illustrations showing frowning faces or negative images, vaginal cross-sections, or a woman with her hand over her genital area could be offensive to Pakistanis but were considered necessary by staff if the messages were to be conveyed completely and accurately.

The illustration which caused the target audience the most difficulty was the one showing a woman shaking the can of contraceptive foam. The first draft (Fig. 4) was understandably seen as a three-armed woman holding three cans; only 30% of the audience correctly understood the message. An alternative illustration (Fig. 5) was prepared but immediately rejected by staff, who knew from past experience that the significance of a disembodied limb is unlikely to be understood by groups with low literacy. A similar-looking photograph had also been tested but was not well understood. Project staff then tested the third illustration (Fig. 6), which was
understood by 67% of respondents but still posed problems for the women who did not understand the arrow to mean “shaking” or “movement”.

Fig. 5

The best clues for improving illustrations often come from the target audience. When the Pakistani women were asked for their suggestions for an appropriate illustration to show the woman shaking the can, they recommended that the woman simply raise her arm and lift her fingers from the lid of the can to show activity. When pretested, this fourth version of the illustration (Fig. 7) was understood by 95% of the respondents.

Illustrating how the foam applicator should be inserted into the vagina also caused difficulties. Three versions were tested. The first was not well understood (20%) as women could not see what was happening. The others were both perfectly understood (100%), but women preferred one of them because it showed the woman’s face. Staff were careful to get the reactions of various field educators regarding this illustration; all felt that it was acceptable because (a) it clearly showed the insertion procedure and (b) it would be used only in the package insert and not in materials that would be disseminated more publicly.

Both the English text and the Urdu translation were simplified in order to be better understood by audiences of low literacy, and the combined text and illustrations were pretested with illiterate and barely literate women. All pictures were modified until a 95–100% comprehension rate was achieved. This required four rounds of pretesting.

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PATH has found that involving the target audience in the process of developing health and family planning materials is the best way to ensure that the products will serve their purpose. This is true whether staff members are creating new materials, adapting existing materials, or evaluating the effectiveness of materials once they are completed. Continuous pretesting and revision—from the time staff recognize a potential need for print materials, through the development of text and illustrations and the production of the final piece itself—are crucial if the materials are to be accurate as well as understood, accepted and used by the target audience.