HIGHLIGHTS

- ❑ **What the printer needs to know to provide reliable cost estimates**
- ❑ **Importance of working closely with the printer**
- ❑ **Other printing considerations—for example, paper quality, type of binding, number of colors, and size of initial print job**
- ❑ **In-house alternatives to printing**

VIII. Printing

Creating print materials requires considerable effort by those responsible for developing and testing them and those who actually print them. A crucial phase in materials development begins when the item(s) to be printed goes to the printer. Mishaps during this phase can jeopardize the results of developmental activities. Spend time working closely with all people involved in printing the materials to ensure they understand what the final product should look like, what resources are available to pay for it, and when the job needs to be completed.

A. Printing Considerations

Printing costs vary tremendously by country, subject, type of material (booklet, poster, flip chart, etc.) and format (size, colors, style). When preparing to print, always consider the following:

- Request cost estimates, references, and samples of work from at least three printers. The printers will need to know:
  - The size of the material
  - The number of pages
  - The type of paper to be used for the pages and for the cover
  - The number of colors to be used in printing the material
  - Whether the material includes any photographs
  - The number of copies to be printed
  - Printing and distribution deadline
- Consider the quality of each printer's previous work, the printer's responsiveness to deadlines, and the recommendations of other clients.
- In some countries, the more copies you print, the lower the "unit price" (price for each copy). For example, in one country, 5,000 copies of a booklet cost $3,750 to print. The unit price was $0.75 each ($3,750/5,000 = $0.75). Ten thousand copies cost only $5,000 to print (unit price = $0.50).
- When printing a booklet, find out from printers whether certain numbers of pages are more cost-effective to print. Sometimes booklets with a total number of pages that is a

multiple of four avoid wasted paper and higher costs. Pages printed on both sides are usually cheaper.

- Ask for advice about page sizes, and choose the most cost-effective size based on the paper sheet the printer uses regularly.
- Type of paper another consideration when budgeting for printing. There are many types of paper (e.g., bond, cover, colored, book). Paper is also measured by weight; the heavier it is, the thicker it is. Bond is the cheapest paper in the United States for small print jobs (e.g., fliers and leaflets). Twenty-pound bond paper is usually the best bond weight for the price. For books, 60 pound "book" paper is economical. Colored paper is more expensive. For the cover of a booklet or pamphlet, consider using heavy book paper (70 pound) instead of cover paper; it is usually less expensive and saves on bindery costs.
- One of the biggest factors in printing cost is the type of binding and whether the cover is "scored." Scoring is the process used in folding the heavier-weight cover paper so it will lay flat when the document is closed. Binding choices include saddle stitch, spiral, velo, tape, and others. Ask the printer what bindings their equipment can produce, and request samples. There can be large differences in cost between bindings, so get comparative quotes.
- In pamphlets, paper folds should always be along the "grain" of the sheet to ensure ease of opening and to help the pamphlet lie flat when opened. In the printer's "price book" for paper, one of the dimensions of the size of the paper is underlined. This indicates the grain direction of the sheet and affects how the sheet folds.
- If the printer is producing negatives for a print job, request a "blue line" before printing. This is an exact duplicate of what the document will look like once it is printed, but is produced on yellow paper with blue ink. It will show the text, graphics, screens, color separations, etc. The blue line allows you to check for errors prior to the printing process. Typically, there is no charge for a blue line, but there are charges for corrections, unless the errors were the printer's mistakes.
- Carefully consider how many colors you can afford to use. Multiple colors will increase printing costs. Always count black as one color.
- If possible, use black letters on white paper for text, rather than white letters on dark paper, as this is easier for low-literate people to read.
- If the materials will be copied or photocopied by other organizations, choose a format that is easy to copy (e.g., leaflets rather than stapled booklets). Keep in mind that dark colors do not photocopy well.

- It is most cost effective to make drawings the same size as they will appear in the pamphlet; otherwise the printer must make reductions requiring either separate camera shots or photostats ("stats"). Stats are cheaper than separate camera shots, and are made by a commercial graphic artist.
- Try not to print a photo across a fold. It is not visually effective and it is difficult to do successfully. More work is required to make sure the two sides match, which adds expense.
- Expect additional cost if the material includes a colored illustration that will extend to the sides of the page or into the fold of a pamphlet, which is called a "bleed". White type against colored or half-toned background also costs more and photocopies poorly.
- Consider printing small quantities of the material initially, so that changes can be made if necessary. However, in some countries this decision must be weighed against the lower unit cost of printing a larger quantity, as mentioned earlier.
- Project managers should retrieve negatives from the printer as soon as print jobs are completed. Store them in a cool, dark, safe place so they can be re-used if the materials are reprinted at a later date.
- Camera-ready artwork should be accessible to staff artists so that necessary changes can easily be made before the materials are reprinted.
- Computers make it possible to produce professional-looking materials in-house. If the document will be created on project computers and provided to the printer on a disk for printing, arrange a meeting to discuss software options before preparing the document. The printer's and the project office's computers must use compatible software that will allow the printer's staff not only to see the document on the computer screen, but also to output the document for printing.
- If the document will be prepared on a computer disk for the printer, the project manager should speak with the typesetter before preparing the document, taking into account the press specifications. The size of the press determines the parameters (such as margins) for each page.

B. Alternatives to Printing

Not all pictorial BCC materials require a large-scale printing. Depending on the nature, objectives, and budget of a particular project, a lower-cost alternative may be equally effective. For example, a project that decides to post pictorial messages in village community gathering places may decide that staff and community members can purchase sturdy, heavy paper and draw (or trace) and color/paint the final pretested draft version of the posters they wish to distribute. Or, in some countries there is a tradition of painting cotton on silk cloth. Both fabrics can be used to prepare attractive and durable posters or banners.

Similarly, if the project plans to provide flip charts, flash cards, or trigger cards—pictures used to "trigger" a discussion—for peer educators and/or health providers, but only plans to work initially with a small number of such educators and/or providers, staff and volunteers could make these items by hand. Project staff may begin with hand-drawn visuals and as the project expands, they can update the posters, flip charts, etc. (based on evaluation feedback; see Chapter X), and then contact printers later in the project's evolution. If the project has good photographic capabilities, staff may decide to take photos to use in flash and/or trigger cards, and duplicate sets for each counselor and peer or community educator. This decision should not be made before staff have carefully pretested such photographs and are certain that the meanings of any behavior change messages are clearly understood, and that the visual presentation (photos in lieu of hand-drawn illustrations) is acceptable.

A six-panel leaflet with pictorial messages augmented with simple text can be photocopied on standard-sized white or colored paper, folded by hand, and used by counselors, peer educators, and others to explain key messages to their project audiences. Keep in mind that such materials are often less eye-catching, and less likely to be valued enough to be retained and shared with others. Also, if something is copied on colored paper, the viewer will see yellow, blue, or pink people and other objects used to convey the messages. This can be distracting, especially for the low-literate viewer. But photocopying is another option that needs to be considered, especially in locales where access to photocopying equipment is widespread, thereby reducing per-copy costs, or where the need for large quantities of handouts is not yet evident.

Some cultures have centuries-old traditions of using indigenous media such as puppetry, marionettes, and story-telling. Again, depending upon the setting, project scope, and

available resources, these media can be used successfully to transmit public health messages. In such cases, even though the messages will be transmitted orally, both the messages and the scripts need to be designed and pretested in the same way as described in Chapters IV and VII.

HIGHLIGHTS

- ❑ **Program staff need training in order to use new print material(s) effectively**
- ❑ **Tips for how to use print materials designed and developed for low-literate audiences**
- ❑ **The importance of distribution—and of knowing where the materials have gone**

IX. Training and Distribution[32]

Once materials are developed, tested, and printed, train health workers or other community development staff in how best to use these new teaching aids. Figure 41 lists some tips for using print materials effectively.

Figure 41. Tips for Using Print Materials Effectively

Tips for Using Print Materials Designed for Low-Literate Audiences

Posters

- Display posters in high-visibility places, such as clinics, hospitals, community centers, churches, marketplaces, banks, kiosks, and gas stations. Put them in places protected from rain and wind. Ask permission first so that the poster is not torn down and thrown out. Make sure that posters are securely mounted so that they cannot be easily removed/stolen.
- Use posters to stimulate group discussion.

Flip Charts and Flash Cards

- Always stand facing the audience when using a flip chart.
- Hold or position the flip chart so that everyone in the group can see the illustration, or move around the room with the flip chart if the whole group cannot see it at one time. Point to the picture when explaining it.
- Involve the group. Ask them questions about the illustrations.
- Use text (if any) as a guide; do not depend on it. Memorize the main points and explain them in your own words as you show the picture.

Booklets and Brochures

- Explain each page of the material to the client or the person being counseled. This allows her or him both to observe the pictures and listen to the messages.
- Point to the picture, not to the text. This will help the client to remember what the illustrations represent.
- Observe your audience to see if they look puzzled or worried. If so, encourage them to ask questions and discuss any concerns. Discussion helps establish a good relationship and builds trust between presenter and clients. Clients who have confidence in their health workers will often transfer that confidence to the method or health practice selected.
- Give materials to clients and suggest that they share them with others, even if they decide not to use the medicine, health practice, or procedure described.

The training process need not be elaborate or lengthy, but staff at all programmatic levels should know why and how the materials have been prepared and why using them will make their job easier, more pleasant, more efficient, and more effective. Unless people understand the advantages of the materials, the materials will not be used properly, or perhaps will not be used at all.

Set up systems for distributing the materials so that they are used effectively. (See Appendix C, Form No. 8, Sample Monthly Record Form for Distribution of Educational Materials.) A common problem with attractive materials is that they may be used to decorate offices of colleagues instead of being given to members of the target population(s). Sometimes materials are deemed so important that they are carefully locked in a closet and never used.

Emphasize that the objective of materials development is distribution and correct use with the intended audience. Set up a supervisory system that monitors extent and correctness of use. Suggestions for monitoring use of materials can be found in Chapter X, Evaluation.

HIGHLIGHTS

- ❑ **The importance of evaluating print materials**
- ❑ **Methods—including interviews, group discussions, and observation—for evaluating the effectiveness of new material(s)**

X. Evaluation

Evaluating materials:

- Shows how the materials are actually being used by community workers and clients.
- Shows whether the materials were effectively distributed.
- Provides more information about whether or not the materials are accepted and clearly understood by the target population.
- May prove to managers that the money allocated to BCC activities was spent carefully and is a good investment.
- Allows the materials developers to adapt to the changing needs of population groups with whom the program works.

Some programs prefer to hire an external evaluator; others may have an evaluation person on the staff of their organization. (See Figure 42.)

One or more of the following methods may be used to evaluate the effectiveness of materials:

- Interview persons who were introduced to the material by a fieldworker, clinician, or peer educator. Did they understand the material? Do they still have it? When do they use it? Have they shown or given it to friends? How did the material affect their decision whether to use the product or practice the behavior? Can they recall the information contained in the material?
- Hold group discussions to obtain feedback on materials from clients as well as service providers (See Figure 40 for examples of questions for pretesting materials with text. Many of these questions can be used in a group discussion once the materials are being used.)
- Observe project staff and peer educators to evaluate how materials are being used and whether the materials are helping them to educate their peers.

Figure 42. Getting Feedback from Consumers Who Used the Material

A project staff person from Botswana gets feedback from someone who used the new informational material.

- Attend a clinic posing as a "mystery client" to learn how materials are really being used by health personnel.
- Conduct intercept interviews with clients or potential clients outside the clinic setting to learn what messages they heard and whether they saw the support material.
- Provide something in the material that requires the reader to take an action that can be measured, such as providing a coupon to purchase a female condom or other health product offered by the project.
- Observe community members practicing a new behavior that is promoted in the materials, such as caring for a very sick relative or taking TB medication.

When using these techniques, solicit suggestions for improving the choice and representation of the messages. After completing this stage of evaluation, project staff will better understand how well the materials are understood, accepted, used, and distributed, and whether the materials' effectiveness justifies the cost.

HIGHLIGHTS

- ❑ **The materials development process explained in this manual has been used effectively to develop print materials for low-literate populations in over 45 countries.**
- ❑ **This same process can be used to develop materials for other audiences, on other topics, and/or with other media. (For more information on a variety of BCC materials and methods, including some advantages and limitations of each, see Appendix F.)**

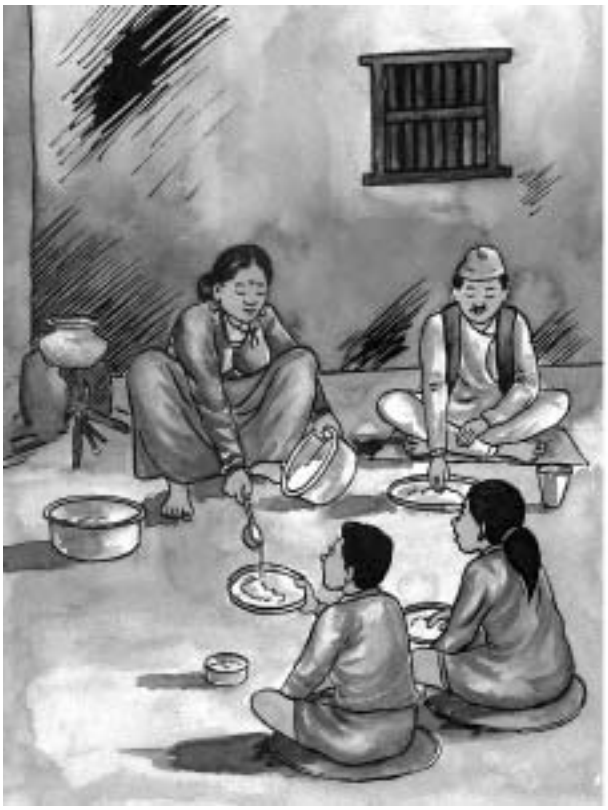
XI. Conclusion

This manual describes techniques used by PATH, FHI, and their respective colleagues in over 45 countries to communicate information to low-literate audiences. The essence of the materials development process described in the Guide is **continuing interaction** with representatives of the groups for whom the materials are developed. Members of the target audiences are "experts" about messages that need to be conveyed, and about how best to communicate these messages.

This methodology also applies to developing both print and non-print materials for audiences other than low-literate groups, and may extend beyond the scope of health and HIV/AIDS/STI prevention to other issues, such as water and sanitation, agriculture, nutrition, and food preservation. Regardless of the issue or audience, each step in the materials development process helps to ensure that graphically communicated messages will be understood and well received by intended audiences.

HIGHLIGHTS

- ❑ **Bibliography**
- ❑ **Resources**
- ❑ **Glossary of Acronyms**



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Resources

The following organizations may have additional information on materials for audiences with low literacy skills.

Academy for Educational Development
1875 Connecticut Avenue, NW, Suite 900
Washington, DC 20009-1202
ph (202) 884-8000, fax (202) 884-8408
E-mail: admindc@aed.org
Web site: www.aed.org

American Public Health Association
1015 15th Street, NW
Washington, DC 20005
ph (202) 789-5600, fax (202) 789-5661
E-mail: media.relations@apha.org
Web site: www.apha.org/media/

Association for Children and Adults with Learning Disabilities
4900 Girard Road
Pittsburgh, PA 15227
ph (412) 881-2253, fax (412) 881-2263
E-mail: info@acldonline.org
Web site: www.acldonline.org/

Healthlink Worldwide (previously AHRTAG)
Cityside, 40 Adler Street
London E1 1EE, UK
Tel: +44 20 7539 1570
Fax: +44 20 7539 1580
E-mail: info@healthlink.org.uk
Web site: www.healthlink.org.uk/

The Johns Hopkins University Center for Communication Programs
Population Communication Services
111 Market Place, Suite 310
Baltimore, MD 21202-4024
ph (410) 659-6300, fax (410) 659-6266
E-mail: webadmin@jhuccp.org
Web site: www.jhuccp.org/

International Clearinghouse on Adolescent Fertility (ICAF)
Advocates for Youth
1025 Vermont Avenue, NW, Suite 200
Washington, DC 20005
ph (202) 347-5700, fax (202) 347-2263
E-mail: info@advocatesforyouth.org
Web site: www.advocatesforyouth.org

Maternal and Child Health Bureau
Parklawn Building Room 18-05
5600 Fishers Lane
Rockville, MD 20857
ph (301) 443-2170, fax (301) 443-1797
E-mail: ctibbs@hrsa.gov
Web site: mchb.hrsa.gov/

Teaching Aids at Low Cost (TALC)
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Glossary of Acronyms

AIDS	Acquired Immunodeficiency Syndrome
AIDSCAP	AIDS Control and Prevention Project
BCC	Behavior Change Communication
CBO	Community-based Organization
CDC	Centers for Disease Control
CSW	Commercial Sex Worker
FGC	Female Genital Cutting
FGD	Focus Group Discussion
FGM	Female Genital Mutilation
FHI	Family Health International
HIV	Human Immunodeficiency Virus
IDI	In-depth Interview
IDU	Intravenous Drug User
IMPACT	Implementing AIDS Prevention and Care Project
JHU/CCP	Johns Hopkins University Center for Communications Programs
KAP	Knowledge, Attitudes, and Practices
MOH	Ministry of Health
MTCT	Mother-to-Child Transmission
NGO	Nongovernmental Organization
PATH	Program for Appropriate Technology in Health
PLHA	People Living with HIV/AIDS
STI	Sexually Transmitted Infection
SMOG	Simple Measure of Gobbledegook
TB	Tuberculosis
VCT	Voluntary Counseling and Testing
WHO	World Health Organization