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Introducing WHO's sexual and reproductive health guidelines and tools into national programmes

Principles and processes of adaptation and implementation

World Health Organization

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Acknowledgements

This document provides general principles for a systematic approach to the adaptation and adoption of guidelines developed by WHO to improve sexual and reproductive health. Its purpose is to encourage the implementation of evidence-based interventions identified in various WHO sexual and reproductive health practice guides. The introduction of interventions depends on the circumstances, contextual issues and development stages of programmes.

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1. Introduction[1]

The Departments of Reproductive Health and Research (RHR) and Making Pregnancy Safer (MPS) at the World Health Organization (WHO) have developed a series of guidelines and tools to promote evidence-based practices in sexual and reproductive health within programmes.

The guidance developed by WHO/RHR and WHO/MPS includes:

- **norms, standards and protocols** designed to inform the development and revision of national policies and standards;
- **programmatic guides** to inform the development of sexual and reproductive health programmes;
- **tools and clinical guides** designed to be used by health-care providers in clinical settings, according to evidence-based norms.

The guidance covers a range of themes, including maternal and neonatal health, family planning, prevention and control of reproductive tract infections and sexually transmitted infections (RTIs/STIs) and the prevention of unsafe abortion. The various documents are based on scientific evidence and have been developed by WHO/RHR and WHO/MPS as generic global materials that are not specific to any one national context.

Definitions and rationale

To be used and implemented successfully within national programmes, WHO's sexual and reproductive health guidance must be introduced through well-planned and consensus-driven processes of adaptation and implementation. Depending on the nature of the guidance being considered, the adaptation and implementation processes may either involve the updating and revision of existing national guidelines and tools, or the creation of a new national guideline or tool based on the WHO material.

Introduction of a guideline or tool is an all-embracing process whereby externally developed guidance is integrated into a national or local programme. It includes adaptation and implementation.

Adaptation transforms an externally developed guideline or tool into an accepted product that fits a particular country's or region's needs, circumstances and context. It may include the updating or revision of existing national guidelines and tools.

Implementation is a specified set of activities or interventions designed to ensure that new guidance is applied within programmes and that evidence-based practices are successfully utilized by health-care providers.

A well-planned and participatory introductory process helps to ensure that new guidance is accepted, promoted and utilized at the national or sub-national level. This document outlines the principles of adaptation and implementation promoted by WHO/RHR and WHO/MPS, and recommends a process to follow when introducing guidelines and tools into programmes.

[1] This document is presented as a document for national introduction efforts but the same principles and processes apply for subnational introduction.

Who is this document for?

This document is designed to be used by *policy-makers, programme managers and other health professionals* who are embarking on a process to introduce evidence-based practices in sexual and reproductive health into their national or local programmes.

Many of WHO's guidelines and tools in sexual and reproductive health are also accompanied by technical adaptation guides that contain specific recommendations on content that can be adapted, and the present document may be used in conjunction with such guides. This document gives an overview of the principles and process of adaptation, rather than technical information on specific content that might be adapted.

2. Key principles

WHO recommends that the adaptation and implementation of its guidance in sexual and reproductive health be conducted according to the following six key principles. Adherence to these principles will help to ensure that evidence-based practices are effectively introduced into the country.

2.1 Build consensus

For new guidance to be successfully adapted and implemented within a programme, *it is important that relevant stakeholders participate from the beginning and are involved in the adaptation and implementation processes.*

The adaptation of a guideline or tool offers an opportunity for the various stakeholders to come together and reach consensus on what needs to change, why it needs to change, and how the change can be used to shape policies and programmes. The adaptation process also helps to ensure harmonization between different departments, organizations and agencies who are working on programmes with similar objectives. The involvement of stakeholders is discussed under Step 3 on page 9.

Involvement in an adaptation process also leads to ownership – both of the practices and the document itself. Those who "own" the document will be in a position to promote its use and the recommendations it contains. Stakeholders will be more willing to accept and promote new practices if they can understand why the policy change has been made and the rationale on which it is based.

2.2 Build on what exists

Almost all programmes have existing guidelines and tools on sexual and reproductive health care. These may be service delivery guidelines, protocols, reference manuals, job aids, supervisory checklists, and information, education and communication materials, etc. There may also exist ongoing strategies that are aiming to achieve similar goals and objectives to the new WHO guidance. *When planning the introduction of new WHO guidance, it is very important for the decision-makers to take existing tools and programmes into consideration.* It may not be necessary to develop a separate process to implement a new guideline or tool if, for example, it could be incorporated into existing guidelines.

2.3 Identify possible barriers and facilitating factors

The provision of high-quality care involves a number of factors, many of which cannot be addressed or "fixed" with either guidelines or tools alone. Certain factors, if not taken into account, may act as barriers to the successful uptake of new practices by the provider; others can be identified that may facilitate the introduction of new practices. Such factors include:

- Human resource issues (including education, training, supervision, remuneration, and deployment of health personnel).
- Laws and policies that may impact upon the provision and uptake of services.

- Health infrastructure and management (including physical infrastructure, referral systems, clinic management, patient flow, and supplies and equipment).
- Sociocultural and economic environment (including gender norms, access to services, and religious or cultural beliefs).

A process of guideline introduction that takes these underlying elements into account is more likely to be successful than one which overlooks them.

2.4 Ensure adaptations are evidence-based

WHO guidance in sexual and reproductive health is developed on the basis of scientific evidence, including biomedical, clinical, epidemiological and behavioural research. WHO's global recommendations are usually agreed upon through consensus by international experts based on systematic reviews or extensive literature reviews.

When guidelines or tools are adapted in countries, *it is important that the group responsible for adaptation can understand the rationale for the new guidance.* In some instances, the group may need to review the evidence base, which may be available through WHO, or in other cases technical experts can be approached to help explain the scientific rationale for the new recommendations. It may also be important to take into account and evaluate other "local" evidence – for example, operations research findings, disease prevalence data, or health systems research – which would impact upon how the guidance is applied in the local context.

In some instances, it may be difficult to promote the value of new practices. Making research evidence available during an adaptation process can provide information to help persuade those who are attached to unnecessary, harmful or ineffective practices.

2.5 Plan scale-up from the beginning

Agreeing on the necessity of a new guideline or tool is only one small step in a long process of guideline implementation. Commitment from programme managers must be in place to ensure that the evidence-based practices can reach the people who need them: the health-care provider in the clinic and the patient/client. *Long-term planning is necessary to ensure progression of pilot projects to national scale-up.* Even if resources are not available initially to implement guidance nationally, it is important to plan resource mobilization in any guidance introduction process.

2.6 Implement a range of interventions to change provider practices

To ensure that evidence-based guidance is implemented in clinical practice, *a range of interventions must be put in place in order to promote changes in the behaviour and attitudes of health professionals*. The passive dissemination of guidelines and tools is not sufficient to change practice. The selection of the interventions depends on the local context as well as the nature of the guideline that will be adapted and implemented. Various implementation strategies are discussed in the next section.

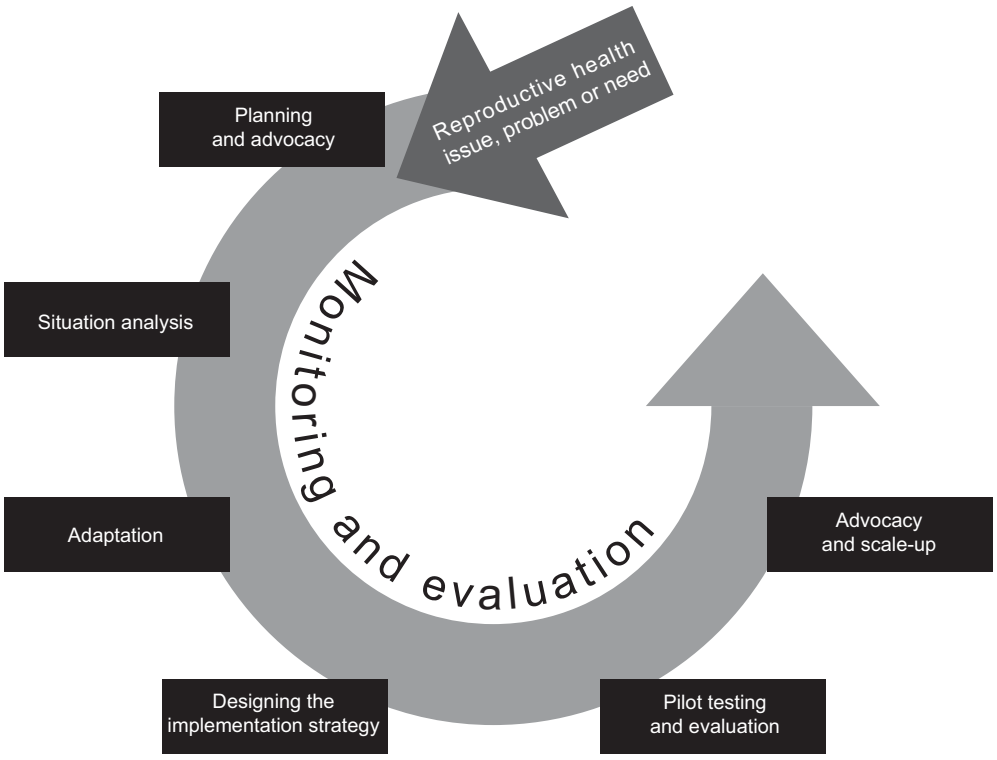
3. A suggested process to introduce guidance

Figure 1 shows the different steps in a *suggested process* to introduce WHO guidance into programmes. This process will vary to some degree in different settings and will not always be linear. For example, a situation analysis may already have been conducted prior to introduction of new guidance. The process may also become cyclical, i.e. once a guideline or tool is implemented, ongoing monitoring and evaluation or operations research may show it is necessary to make further revisions or to introduce new practices into other areas.

The process to introduce WHO guidance may also vary according to the nature of the guideline or tool being introduced. In many instances, WHO guidance may be used to update existing service delivery guidelines, and therefore the process proposed here to introduce the guidance may be made simpler. It is important that the process remains flexible, depending on the needs and situation of the programme.

This section outlines the key elements of the suggested process.

Figure 1 : Suggested 6-step process to introduce guidance



3.1 Planning and advocacy - Step 1

The process to introduce new guidance into a programme is usually initiated after a specific sexual and reproductive health problem has been identified and a need has been expressed for new or updated guidelines and tools to tackle this problem. In some instances, the need for the guidance may be obvious, while in others it may only be identified after a detailed situation analysis has been conducted (Step 2). In other situations, it may be necessary to promote the value of new guidance in order

for programme managers to determine that it is needed. At a minimum, it will be important to consider carefully the existing materials and programmes (see Box 1). This will help to identify if a new guideline or tool needs to be implemented or if existing ones need to be updated.

Box 1: Considering existing materials and programmes

- Are there existing guidelines and tools on the specific topic? Are they up to date? How will the new guidance relate to the existing materials?
- What are the gaps and inconsistencies between the new and existing guidelines and tools?
- Is implementation of the new WHO guidance necessary to improve the quality of care?
- Would it be more practical, feasible and cost-effective to integrate the WHO standards into existing guidelines and tools, rather than create new guidelines or tools?
- Do the advantages of the new guideline or tool outweigh the time, effort and resources to be spent on the process of introducing it into programmes?
- Would the content of the new guidance be in conflict with any other existing materials?
- What existing interventions, activities or projects would continue to be implemented or be used alongside new guidance, such as training programmes, quality improvement programmes, community-based programmes, etc.? Are there any potential synergies with these activities?

Coordination

It is important that an effort to introduce a new guideline or tool throughout a programme is led by the relevant local authority. Though it may be supported by other organizations or institutions, only the local authority can ensure that all the relevant stakeholders are involved. Its full support for introduction of new evidence-based guidance is essential for success.

During the planning stage, the key institutions or individuals responsible for introduction of the guidance may come together to form a *guideline resource team* who jointly plan and coordinate the whole process. A guideline resource team would usually consist of between three and five people: a core group representing the key organizations or departments involved. It may be larger or smaller, however, depending on the process and context. Since the process of introducing new practices can be a long one, the team must be committed to ensure that practices are taken to scale.

It is also important to designate a *coordinator* who would have the clear responsibility for the introduction of the guideline or tool. The coordinator can liaise between different groups, lead the adaptation process and plan the implementation process. The coordinator should have a good technical understanding of the guideline or tool and the specific area of sexual and reproductive health focus. She or he should also be able to communicate well with all the different groups involved. Usually the coordinator will work for, or very closely with, the local authority.

Orientation and advocacy

Once the need for new guidelines or tools has been established, the guideline resource team may need to interact with key decision-makers at different levels or with other relevant organizations to explain the need for new guidance. Orientation and advocacy can be conducted informally through small meetings with key individuals, and more formally through an orientation workshop. It is usually important to involve opinion leaders, professional bodies or other "champions" who can give weight and authority to the need for changes in practice. An orientation workshop can have several objectives, which include:

- articulation of the problem to be addressed through introduction of guidance;
- familiarization with the new guidance, including highlighting "what is new";
- further discussion on the need for a new guideline or tool;
- review of information collected during a situation analysis (see Step 2 below);
- determining key objectives and goals of implementation of new guidance;
- building partnerships;
- mobilizing resources, in particular resources for adaptation, pilot testing and scale-up;
- identifying other key stakeholders.

Initiating monitoring and evaluation

A system to monitor and evaluate the implementation of new guidance should be put in place early in the introductory process. Early planning activities can be used to establish key process and outcome indicators. Data collection usually starts at the time of a baseline situation analysis, and continues through full scaling up and national implementation of the guidance. It is important that there is an ongoing sharing of results from monitoring and discussion of their implications for scale-up. Various monitoring and evaluation tools can be used to assist in this (shown in the Annex).

3.2 Situation analysis - Step 2

Analysing the current situation is usually an important step in the process to introduce new guidance. *In most countries, situation analyses, surveys and programme reports will already exist.* It may only be necessary to pull together this relevant information and review it as a group. In some settings, however, it may be important to do a more rigorous situation analysis. Analysing the current situation is usually necessary to:

- collect **baseline data** to monitor and evaluate the progress and impact of any implementation process;
- identify important **differences** between WHO recommendations and local practices that would need to be taken into account during an adaptation process;
- identify programmatic **opportunities** to support the introduction of new guidance, and the **specific programmatic context** that may affect adaptation;
- identify **other factors** that may need to be considered for guidance to be implemented successfully;

- identify the **levels of health care** where it is practical and feasible to implement new guidance;
- **plan** the process of guideline introduction.

Examples of information that can be collected during a situation analysis are shown in Box 2. If new situation analysis data must be collected, the various tools and methodologies listed in the Annex may help. In some instances, it may be necessary to make a more in-depth analysis to evaluate the capacity of the service delivery system to offer quality services. Such an assessment could take several months and would need to be carefully planned and carried out.

Box 2: Information that may be helpful from a situation analysis

- Current use of guidelines, tools and other materials (see Box 1).
- Ongoing programmes related to sexual and reproductive health in the country.
- Identification of key organizations providing services, training or support in the relevant area (ministries, nongovernmental organizations, training institutions, donors, etc.).
- Other training information, including:
  - any previous or current in-service training programmes and relevant elements of pre-service education;
  - pre-service training curricula and materials.
- Supervisory mechanisms and tools.
- Relevant demographic and epidemiological data (e.g. contraceptive prevalence, STI/HIV epidemiology, maternal and neonatal health morbidity and mortality), disaggregated if possible (e.g. by sex, region, age, socioeconomic status and ethnicity).
- Human resources issues, including:
  - deployment of health personnel (which health-care providers are providing what services and at which level of care?);
  - supervision;
  - payment (how are health-care providers remunerated? how could this affect provision of services?).
- Private sector involvement in the provision of services and commodities.
- Laws, policies and regulations related to the provision of services that may affect uptake of new practices.
- Information from health services research, including:
  - quality of care within services, including current practices;
  - integration of services;
  - utilization of services and client/patient flow.
- Information from social science research including client/patient and provider perspectives and behaviours.
- Clinical and facility audits (including the availability of supplies and commodities at the different levels of care).

It will usually be advisable for the guideline resource team to convert this list into a checklist, based on each individual guideline or tool, for use in the guidance introduction process.

3.3 Adaptation - Step 3

Adaptation transforms an externally developed guidance or tool into an accepted product that fits a particular country's or region's needs, circumstances and context. It may include the updating or revision of existing national guidelines and tools.

Why adapt?

Every country has its own particular context within which sexual and reproductive health services are provided. Although some externally developed guidance may be used with little or no adaptation, it is important for programme managers to review new WHO guidance to ensure that it is applicable to the national or sub-national context. The adaptation process also promotes local ownership and builds consensus around the new guidance.

Most documents will require at least some changes to make them suitable for use within the local programme. Tools designed for providers may require more extensive adaptation to make them usable.

Key adaptation issues to consider include:

- Epidemiological context: adaptation to different prevalence levels of HIV, malaria, or RTIs and STIs; differing sensitivity patterns to drugs; etc.
- Health system context: adaptation for different levels of the health-care delivery system; different capacities and competencies of providers; commodities; supplies; referral systems; etc.
- Legal and policy context: sometimes adaptation is necessary to make guidance consistent with existing laws and policies. It is also important to identify areas for advocacy for changes in laws and policies.
- Existing programmes and strategies: adaptation to make linkages in new guidelines or tools with related programmes and projects.
- Resource context: adaptation to make production and dissemination of the guideline feasible, given available resources for the programme.

Involving stakeholders in adaptation

The adaptation process offers an opportunity to involve key stakeholders in the broader process to introduce guidance. Different technical areas will have different stakeholders, some more crucial than others, but the list shown in Box 3 could be considered when working on sexual and reproductive health guidelines. The guideline resource team will usually be able to identify relevant stakeholders.

Involving stakeholders from an early stage will promote ownership and buy-in, and will facilitate the implementation process. Such a participatory and transparent process will also increase acceptability of the new practices or guidelines.

Adaptation also offers an important mechanism for the various stakeholders to become familiar with new guidance or with a new guideline or tool, especially if the

orientation process outlined above (see page 7) was limited. They may be involved in adaptation in different ways. Some may be able to offer technical input into the adaptation process, some may contribute to other core activities such as training, and others can act as advocates for the new practices within their own institutions.

Box 3: Possible stakeholders to be involved in adaptation of sexual and reproductive health guidance

- Relevant government ministries or units, including those who may not actually be responsible for the implementation of new guidance but who would still have a stake in the process.
- Professional bodies and associations: obstetrics and gynaecology, paediatrics, nursing and midwifery or dermato-venereology associations.
- Relevant experts in family planning, maternal and neonatal health, or RTIs/STIs.
- Nongovernmental organizations involved in sexual and reproductive health service delivery: family planning associations, safe motherhood programmes, youth organizations, other service delivery and training organizations.
- Relevant private sector representatives: private sector health-care providers and organizations, social marketing organizations, pharmacists involved in service delivery, and pharmaceutical companies.
- University or other teaching institutions involved in research, service delivery, or provider training.
- Representatives from technical agencies working in sexual and reproductive health or RTIs/STIs, including local or regional experts from WHO and other international agencies.
- Representative end-users (both providers and clients/patients).
- Donors involved in sexual and reproductive health service delivery.
- Community groups: women's groups, religious groups, and youth groups.

Translation

Translating WHO's guidance into local languages may be done either before or after the adaptation and field-testing processes, depending on the needs and context. It is important that the guideline resource team members plan sufficient time to ensure they have an accurate and high-quality translation. *WHO advises that any translations of its guidelines and tools should be reviewed by local sexual and reproductive health experts*. Experience has shown that many translations of generic materials are done in haste and thus contain many technical errors. It may also be helpful to develop a glossary of terms, to ensure that the medical terminology is translated correctly and consistently.

If the team is working in a country with multiple local languages and dialects, it may be important to produce several different local language versions of each guideline or tool. This is particularly important for tools which will be used or seen by patients and clients.

Subnational adaptations

In the same way that global guidance needs adaptation to national situations, national guidance, particularly in large countries, may need to be adapted to a sub-national context. Certain approaches may work in one area and not in another. Opportunities for introducing changes in service delivery differ from setting to setting.

Review to determine changes

The guideline resource team will need to plan a process to:

- determine the gaps, i.e. to review new guidance in light of current policies and practices;
- review relevant data that may influence changes to be made (usually obtained during the situation analysis);
- decide upon the changes required to make the guideline or tool appropriate for use in the programme.

The review process may be undertaken in different ways. Usually, the stakeholders can meet together to form an *adaptation working group* to enable open discussions and dialogue. If the group is large, the review can be undertaken in subgroups, or even in smaller working group meetings. Specific technical areas may require special meetings with key experts.

It may also be useful to appoint an individual expert who can review the WHO guidance prior to any working group meeting. The reviewer can clearly highlight the differences between the new guidance and present policy, and also prepare suggested adaptations. Findings can then be presented to the adaptation working group. During this process, it is important to promote the fact that many of WHO's evidence-based recommendations will need to be adopted without adaptation.

When determining the need to make changes, it may be possible to consult one of WHO's *technical adaptation guides,* which have been developed for individual guidelines or tools. These documents highlight key content areas in the specific documents that can or should be adapted. As of December 2006, specific technical adaptation guides exist for the following guidelines and tools:

- *Decision-making tool for family planning clients and providers* (2005).
- *Guidelines for the management of sexually transmitted infections* (2003).
- *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice* (2003).
- *Sexually transmitted and other reproductive tract infections: a guide to essential practice* (2005).

During an adaptation working group meeting, it may be useful to invite external facilitators or consultants to assist with the discussions. If the WHO recommendations on sexual and reproductive health are likely to be debated, it would also be important to bring the *evidence base*, i.e. the WHO standards and protocols as well as the research papers, literature reviews and/or systematic reviews that they were based on. It may be helpful to invite a WHO expert or consultant who can explain the evidence base and the rationale for the recommendations, or to invite experts from

different programmes or countries who have already gained experience in adapting the specific guidance within their programme.

An adaptation working group meeting also offers an opportunity to discuss some of the other factors that may affect successful implementation of the guidance, many of which may have come to light during the situation analysis. Possible factors to consider may include:

- **Structural**, e.g. financial disincentives to providing high-quality care.
- **Organizational**, e.g. skills and competencies of providers, facilities or equipment.
- **Peer group**, e.g. local standards of care not in line with desired practices.
- **Individual**, e.g. knowledge, attitudes and skills of providers.
- **Provider–client/patient interaction**, e.g. patriarchal client/patient-provider relationships.

While the adaptation working group may be able to deal with some issues, others may need to be considered when planning implementation. Tackling some barriers may also require specific adaptations to the guideline or tool. Any recommendations during this process must be fed back to the larger stakeholder group.

Field-testing

Field-testing is conducted with the intended audience of a material being introduced (usually providers and clients/patients), and ensures that it is user-friendly and understandable. It provides feedback on the format and content of the guide. A field test is different from a pilot test (discussed below), as it does not evaluate the complete programme to introduce guidance (including training, supervision, and information, education and communication materials), nor does it evaluate the effectiveness and impact of the guidance. Field-testing may, however, be combined with the pilot test. If WHO guidance is being incorporated into existing national manuals or materials, field-testing may not be necessary.

If a WHO tool or clinical guide for providers is being introduced, either the generic WHO guide can be field-tested *prior to adaptation* in order to inform the adaptation process or, alternatively, the local material may be field-tested *after* the adaptation process.

Various methodologies can be used to conduct field-testing, including focus groups, interviews and questionnaires. In some instances it may also be necessary to test a guideline or tool with clients/patients, in particular if it contains communication materials aimed at them.

Any guideline or tool that is significantly adapted after field-testing may require re-testing, to ensure that changes made are working.

Production of the national adaptation

In some cases, making changes to a guideline or tool after a review process or a field test may take considerable time, in particular if it is necessary to ask experts to rewrite or revise sections of the document. A writer may need to be contracted.

Key aspects to consider when producing an adaptation include:

- **Format**. Reformatting may take time and needs to be planned for. It is important to consider the need to maintain easy access to information and to ensure that the flow of a revised document still works. If WHO recommendations are being used to update existing national standards and protocols, the team may need to consider the need to design user-friendly job aids to accompany national guideline documents.
- **Illustrations**. They may need to be adapted to the national context.
- **Language**. If an official WHO language is being used, the terminology may need adapting.

It will also usually be necessary to appoint a graphic layout specialist to work on the national version. She or he will need to work carefully with technical staff to ensure that all changes are made correctly.

Once changes have been made, it will be necessary to undertake a careful review of the adaptation to check for errors and inconsistencies.

3.4 Designing the implementation strategy - Step 4

> Implementation is a specified set of activities or interventions designed to ensure that new guidance is applied within programmes and that evidence-based practices are successfully utilized by health-care providers.

Once the situation analysis and adaptation have been completed, the guideline resource team will need to plan and review in detail the implementation strategy. The implementation strategy may involve the integration of the WHO guidance into an existing service delivery programme, or may involve the elaboration of a new programme based on new guidance. In some cases, implementation of the guidance may require significant changes in service delivery, for example when integrating STI/RTI control into other sexual and reproductive health services. Certain planning tools can assist in the identification of key activities and in designing a monitoring and evaluation framework (see the Annex for a list of tools and methodologies).

Planning implementation

Issues to consider include:

- **Overall goals and objectives.** First outlined in the initial planning stages, the goals and objectives of implementation can be reviewed and revised after the situation analysis to ensure they are realistic and achievable.
- **Indicators and time-frame.** Process, outcome and impact evaluation indicators should be included.
- **Target audience.** Which cadre of providers is the guidance aiming to reach? Will certain providers be targeted first? How will others be reached? At which stage in the implementation process?

- **Opportunities to build on.** How can the programme integrate the introduction of the new or updated guideline or tool into training, supervision or dissemination activities that already are planned or funded?
- **Barriers to deal with.** Certain issues may have arisen during the situation analysis or during the adaptation process that could inhibit application of new guidance. Solving these problems may need to be incorporated into the programme design to ensure success.
- **Resources.** What resources are available now? How can these best be used? Is further resource mobilization needed? What resources are needed for scaling up? What resources are needed to maintain the programme in the future?

Key areas of focus for implementation

It may be advisable to assign *subgroups or task teams* to elaborate plans for each of the key areas related to implementing the guidance or to assign relevant staff for these areas. Some of the supporting interventions may require cooperation and input from other groups, organizations or ministries.

Possible areas of focus include:

- **Production.** Interim production of guidelines or tools may need to be organized for a field test or pilot test, as well as full-scale production for the scale-up phase. When considering production formats, it is important to balance cheaper production costs with the need for user-friendly designs (which may often be more expensive to produce). For example, a document that has divider sheets with tabs may cost more, but it may be easier to locate information and the guidance is thus more likely to be used by providers.
- **Dissemination.** The dissemination of guidelines is a key step in the implementation process, but *unplanned or ad hoc dissemination of guidelines to clinics is not recommended: proper orientation and/or training is required.* Any dissemination strategy must integrate the physical distribution of books with proper orientation, training and supervisory strategies, as discussed below.
- **Advocacy and orientation.** Further advocacy and orientation activities will need to be planned to gain support at all levels for new guidance or practices. For example, if the introduction of new guidance has been planned by a central ministry, then advocacy or sensitization may be needed with regional or local authorities. As with the initial advocacy, personal contact and informal communication are particularly important, e.g. briefings for regional decision-makers. Again, local influential experts can be mobilized to advocate for new practices. There must also be orientation for the end-users of the guidance (usually providers): different strategies may be needed to inform them about the new practices and convince them of their importance. Orientation may be combined with training events. Communication materials will usually need to be developed or existing ones updated to support orientation and advocacy, including research briefs, presentations, and information, education and communication materials (e.g. posters, leaflets, flipcharts and job aids).

- **Training.** New training materials may need to be developed or existing ones adapted or updated. Both *in-service* and *pre-service* training will usually need to be considered. Updating or revising medical, nursing and midwifery curricula will usually involve collaboration between departments of health and education and professional bodies. In some circumstances this can be a long process, but it is imperative for new practices to become institutionalized. For all training, it will usually be necessary to re-train the local trainers in new practices.
- **Supervision.** For new practices to be successfully adopted by health-care providers, the health workers will need to be well supported by supervisors and managers. It may be necessary to update or create supervisory tools, such as checklists, performance evaluation tools and patient monitoring forms.
- **Logistics.** In some instances, implementation of new guidance will require new supplies and commodities, which will need to be carefully planned and managed.
- **Monitoring and evaluation.** During the implementation phase, process and outcome indicators will need to be selected for different levels of care. Various monitoring and evaluation tools can be used, as listed in the Annex.
- **Other areas.** Depending on the nature of the guidance, other areas may need intensified focus, such as human resource issues (including payment, deployment and supervision of health personnel), laws and policies, health infrastructure and management (including referral systems, clinic management, supervision, patient flow and equipment), or the sociocultural and economic environment (including gender norms, access to services, and religious or cultural beliefs). Demand creation and other health promotion activities may also be necessary to encourage the use of certain services: community health promotion strategies may need to be developed.

Strategies to encourage providers to adopt new practices

One of the primary objectives in the implementation of evidence-based guidelines and tools is usually to promote changes in the practices and behaviour of providers who are currently providing services. Research[2] and experience from countries has shown that, while many different approaches can be used to instil these changes in practice, some strategies are more effective than others. Box 4 gives an overview of different strategies and their effectiveness, which can be considered in the design of interventions.

[2] Bero LA et al. Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings. *British Medical Journal,* 1998, 317:465-468.

Box 4: Strategies to change provider practices

- **Interactive training workshops.** Those training workshops that allow discussion and include practice sessions are usually an effective first step in changing practices.
- **Reminders about the new practices.** When providers are reminded of the newly taught practices, for example through job aids, checklists, information leaflets or supervisory materials, this increases the chances that changes in behaviour will be sustained.
- **Educational outreach visits.** Follow-up visits from trainers, supervisors, programme managers or mentors are very effective at encouraging the adoption of new practices.
- **Audit and feedback.** The monitoring of performance through surveys or supervisory tools, coupled with constructive feedback to providers on their performance, is also very effective at ensuring the application of new practices.
- **Use of local opinion leaders.** Influential providers or specialists can have an important role in encouraging the adoption of new practices.
- **Local consensus building.** Involving providers in local planning when introducing new guidance can be an important supportive strategy to ensure providers accept the new practices.
- **Client/patient-mediated interventions.** When information about new practices is given to clients/patients, or when clients/patients are informed of their rights to quality care, this can be an effective strategy to encourage their providers to adopt these same practices.
- **Distribution of educational materials.** To be effective, producing educational materials must be coupled with the other strategies outlined above. The passive dissemination of guidelines, tools or other materials, on their own, is known NOT to be effective at changing practices.
- **Classroom lectures.** Again, lecture-based training workshops are known NOT to be effective at changing provider practices on their own. They may be made more effective if combined with other strategies, but interactive training workshops are much more effective to encourage changes in provider behaviour.

All of these strategies can be made more effective if they are implemented as a package of interventions, allowing providers to hear messages about new practices in several ways.

3.5 Pilot testing and evaluation - Step 5

Pilot testing offers an opportunity to evaluate the implementation of guidance within a programme, assessing all interventions needed to introduce guidance on a small scale. It can evaluate training, supervision, materials, provider performance, client behaviours and any other related factors that will affect national implementation. Pilot testing should also be considered as the first step in a national scale-up, and so should not be planned as an event on its own. Box 5 discusses methods for pilot tests.

Pilot testing may not always be necessary, for example when introducing a simple intervention or when introducing interventions that have been well tested in other similar programmes or countries.

It is usually important to hold a stakeholder meeting to discuss and *review the results of pilot tests*. If problems are encountered, they can be discussed by the larger group, and solutions can be found to overcome them.

Box 5: Methods for pilot tests

Questions that can be answered by pilot testing:

- What is the process of implementation?
- Is the training effective?
- Are the guidelines/tools feasible to implement?
- Are the guidelines/tools effective to implement?
- Are clients/patients receiving better quality of care as a result?
- Are clients/patients more satisfied?
- What can be learnt from the implementation process to inform the scale-up process?

Sample size and location. Pilot tests are usually conducted in a small number of health-care service delivery points. These centres can be either located in one district or dispersed throughout a country in different districts. If health-care delivery varies greatly throughout one country, it may be important to ensure that interventions are tested in different settings. It is also important to test in different types of services, for example in both rural and urban centres.

Study design. Pilot tests usually involve a pre-/post-intervention evaluation within a selected health-care delivery setting. With a pre-/post-test design, the team collects baseline data before introduction of the guidance and its associated interventions, and then evaluates their impact after a specific time period. Usually the interventions are implemented for a short period, between one and three months. It may also be possible to conduct a controlled study as an alternative study design, when interventions are introduced in one district or group of clinics and health facilities and the effect is compared with a similar district or group of facilities where interventions have not been introduced. It may be difficult, however, to find two similar districts or to control for pre-existing differences between the two settings.

Indicators. Indicators need to be defined both to measure the impact of the guidance and to evaluate the associated interventions needed to implement the guidance. Indicators to evaluate quality of care, including provider knowledge and practices, client/patient satisfaction, and use of guidelines or tools should be selected. Process, outcome and impact evaluation indicators will need to be selected.

Evaluation methodology. Both quantitative and qualitative evaluation methods can be used when measuring impact of guidance on quality of care. Possible methodologies include focus group discussions, provider and client interviews, questionnaires, mystery clients and facility inventories. Observational studies can be used to evaluate provider performance including audio tape or video tape analysis.

3.6 Advocacy and scale-up - Step 6

Reviewing and disseminating the results of a pilot test is an important mechanism to promote the scaling up of the project. Advocacy materials can be developed and meetings can be organized to demonstrate positive results, offering an opportunity

for resource mobilization and buy-in with the various stakeholders, as well as the occasion to discuss scale-up.

Although scale-up should follow smoothly from a pilot test, it can be a complex process which may be achieved through different strategies or approaches (see Box 6). There may also be external factors that can influence the success of any scale-up.

Key lessons of scaling up interventions

Based on a framework for scale-up currently being developed by WHO,[3] several key lessons have been learnt about taking new practices to scale within national programmes. These lessons are based on an extensive review of experiences from the field:

- **Begin with the end in mind.** Scaling up should be planned early in the guidance introduction process. It should not be considered only after a pilot test has been conducted.
- **The resource environment must be taken into account.** The costs of taking a programme to scale, i.e. ensuring nationwide implementation, must be carefully considered from the beginning, and programmatic goals must be adjusted to the likely funding situation.
- **Communicate pilot test successes and share lessons learnt.** Documentation of successful pilot projects is essential for advocacy and fund-raising. In some instances, it may also be helpful to show success on the ground through demonstration sites: policy-makers and decision-makers can be invited to observe at first hand how new guidance or new interventions are being successfully implemented.
- **Using a phased approach to bring projects to scale over time can be important.** Research demonstrates that the process to scale up programmes is best achieved gradually, allowing for lessons to be learnt and adaptations to be made over time. This is particularly important when the implementation of new guidance implies the development or reconfiguration of an entire programme. In some instances, however, it may be beneficial to implement on a wide scale more rapidly. For example, if new guidelines or tools have been proved to be effectively introduced through pilot testing, it would be important to introduce the new practices to all providers as soon as is feasible, so as to avoid inequalities in service provision or the development of misconceptions among providers.
- **Policy windows of opportunities should not be missed.** There may be times when sexual and reproductive health is high on the political agenda, for example after the election or appointment of new supportive decision-makers. This gives an opportunity to gain resources and for programmes to promote new practices. However, policy windows are usually open only for short periods of time: the resource team must plan how to sustain the momentum once the policy window has closed. In addition, the team should ensure that a drive to push a programme through during a policy window does not compromise the quality of the programme.

[3] Simmons R, Shiffman J. Scaling up health service Innovations: a framework for action. In: Simmons R, Fajans P, Ghiron L, eds. *Scaling up health service delivery: from pilot innovations to policies and programmes.* Geneva, World Health Organization, 2007 (in press).

- **In decentralized systems, local level decision-makers should be involved in the planning process.**
- **Involving new partners later can bring benefits and risks.** New partners can join the programme to promote wider scale-up. The original guideline resource team may need to help build the institutional capacity of these new organizations, in particular their training capacity. When bringing in new partners, the team must ensure that the programme's original goals and objectives are maintained.
- **Monitoring and evaluation must continue.** Once implementation of a programme has been initiated, it is important to continue to monitor and evaluate its activities. This allows the impact of the programme to be assessed and the determinants of successful scaling up to be understood.

Box 6: Approaches to scaling up

Decision-makers will need to consider different approaches to plan the scale-up of a programme to introduce new guidance and practices. These are not exclusive strategies, and a combination of different approaches may be used. All of these strategies can also be supported by other national or institutional changes to promote the application of new guidance, in particular legal or policy action.

1) Expansion/horizontal scale-up

This is when the new guidance or a new programme is rolled out nationwide in a phased approach, either:

- by starting in one location, and then replicating the programme (training, dissemination, etc) in other regions; or
- by focusing first on one group of providers, then replicating the implementation strategy to other groups of providers.

In some countries, different donor agencies may be responsible for programmes in different regions of the country, and scale-up may therefore need to be conducted region by region. In others, health systems may be decentralized: experiences in implementing guidance in one region may be shared with other regions to encourage the application of the best practices.

2) Functional scale-up: the "add on" approach

Rather than instituting a national programme around one guideline or tool, it may be more effective to add onto existing training or quality-improvement strategies. This is usually successful if the existing programme is successful and is able to adapt easily to incorporate new training or guidance within it.

3) Cascade approach

Implementing guidance may also be conducted from a central level, cascading down to the regional, district and municipality levels. If a national training of trainers is to be conducted, efforts must be made to ensure the quality of training is maintained during the scale-up. Adequate training and supervisory materials must be made available before a cascade approach is implemented.

4) Spontaneous diffusion

This approach relies on the spontaneous spread of new practices from individual to individual, without promotion from the national level. This kind of scaling up saves the effort and costs of a purposeful scale-up. It is a risky strategy, however, since it can allow incomplete or superficial transfer of the new practices. It may also be a very limited strategy if providers do not perceive a need to apply new practices.

4. Conclusion

It is important that those embarking on a process to introduce a new WHO guideline or tool into their sexual and reproductive health-care programme consider that these materials are not simply documents that must be distributed, but rather that they contain health-care practices which must be introduced to providers through a well-planned process of adaptation and implementation.

Procedures to implement guidance and change practices can seem long and overwhelming, but it is important to follow the principles and processes suggested in this document if change is to be sustained at the service delivery level. Even the simple updating of national guidelines with new recommendations may require other programmatic interventions, such as training or the development of supervisory materials, to ensure that updates are implemented. When the implementation of new guidance requires changes in the way services are delivered, a comprehensive introductory process is usually necessary.

A collaborative and participatory adaptation process fosters ownership and buy-in among policy-makers, professional bodies and other national experts. Once a national version has been created or updated and then endorsed, the process to implement the new guidance at the service delivery level must be carefully planned. Providers can only implement a new practice if: (a) they have been convinced of the need for it; (b) they have been trained in how to carry it out; (c) they are encouraged by supervisors to adopt it; (d) they have materials (guidelines, job aids, checklists) to support them in implementing the practice; and (e) their service delivery environment enables them to implement it. It is often tempting to disseminate guidelines without taking these issues into consideration, but experience has shown that, without due attention to the points mentioned, changes in quality of care will not be sustained.

5. Annex: Additional resources

Monitoring and evaluation tools and guidance

General guidance

BOND. *Monitoring and evaluation guidance notes*: http://www.bond.org.uk/pubs/guidance/4monitorandevaluate.pdf (accessed on: 11.04.06)

MEASURE Evaluation. *A guide to monitoring and evaluation of capacity-building interventions in the health sector in developing countries:* http://www.cpc.unc.edu/measure/publications/pdf/ms-03-07.pdf (accessed on: 11.04.06)

MEASURE Evaluation. *Sampling manual for facility surveys for population, maternal health, child health and STD programs in developing countries:* http://www.cpc.unc.edu/measure/publications/pdf/ms-01-03.pdf (accessed on: 11.04.06)

Columbia University. T*he design and evaluation of maternal mortality programs:* http://www.cpc.unc.edu/measure/publications/html/ms-02-09-tool10.html (accessed on: 11.04.06)

MEASURE Evaluation. *Compendium of child survival monitoring and evaluation tools:* http://www.cpc.unc.edu/measure/publications/html/ms-00-08.html (accessed on: 11.04.06)

Family Health International. Evaluating programs for HIV/AIDS prevention and care in developing countries: http://www.fhi.org/en/HIVAIDS/pub/Archive/evalchap/index.htm (accessed on: 11.04.06)

Using evaluation for programme planning

MSH. *Using evaluation as a management tool:* http://erc.msh.org/TheManager/English/V6_N1/V6_N1_En_Issue.pdf (accessed on: 11.04.06)

WHO. *Beyond the numbers: reviewing maternal deaths and complications to make pregnancy safer:* http://www.who.int/reproductive-health/publications/btn/index.html (accessed on: 11.04.06)

MEASURE Evaluation. *Quick investigation of quality (QIQ): a user's guide for monitoring quality of care in family planning:* http://www.cpc.unc.edu/measure/publications/pdf/ms-01-02.pdf (accessed on: 11.04.06)

Indicators

WHO. *Reproductive health indicators for global monitoring:* http://www.who.int/reproductive-health/publications/rhr_01_19/index.htm (accessed on: 11.04.06)

WHO. *Monitoring reproductive health: selecting a short list of national and global indicators:* http://www.who.int/reproductive-health/publications/hrp_97_26/index.htm (accessed on: 11.04.06)

WHO. *Selecting reproductive health indicators: a guide for district managers:* http://www.who.int/reproductive-health/publications/HRP_97_25/HRP_97_25_abstract.en.html (accessed on: 11.04.06)

Population Technical Assistance Project. *Pocketbook of family planning and reproductive health indicators for program design and evaluation:* http://www.poptechproject.com/pdf/Pocketbook.pdf (accessed on: 11.04.06)

MEASURE Evaluation. *Compendium of indicators for evaluating reproductive health programs:* http://www.cpc.unc.edu/measure/publications/html/ms-02-06.html (accessed on: 11.04.06)

The Futures Group International. *Maternal and neonatal program index (MNPI):* http://www.cpc.unc.edu/measure/publications/html/ms-02-09-tool17.html (accessed on: 11.04.06)

Situation analysis tools and guidance

Specific tools

WHO. *The strategic approach:* http://www.who.int/reproductive-health/strategic_approach/intro.en.html (accessed on: 11.04.06)

WHO. *The programme guidance tool for RTIs/STIs* (in press, please contact rhrpublications@who.int)

WHO. *Safe motherhood needs assessment:* http://www.who.int/reproductive-health/MNBH/smna_index.en.html (accessed on: 11.04.06)

EngenderHealth. *COPE self assessment process:* http://www.engenderhealth.org/pubs/pubs_quality.html (accessed on: 11.04.06)

MEASURE Evaluation. *Quick investigation of quality (QIQ): a user's guide for monitoring quality of care in family planning:* http://www.cpc.unc.edu/measure/publications/pdf/ms-01-02.pdf (accessed on: 11.04.06)

PATH. *A tool to assess program capacity: adding services to manage reproductive tract infections:* http://erc.msh.org/newpages/english/toolkit/rti-path.pdf (accessed on: 11.04.06)

IntraHealth. *Performance improvement: stages, steps, tools:* http://www.intrahealth.org/sst/ (accessed on 11.04.06))

IntraHealth. *Performance improvement: family planning and prevention of mother-to-child transmission of HIV/AIDS services:* http://www.intrahealth.org/images/stories/pubs/fppmtct_integration_toolkit.pdf (accessed on: 11.04.06)

MSH. *Using service data: tools for taking action:* http://erc.msh.org/TheManager/English/V13_N3/V13_N3_En_Issue.pdf (accessed on: 11.04.06)

General guidance

WHO. *Beyond the numbers: reviewing maternal deaths and complications to make pregnancy safer:* http://www.who.int/reproductive-health/publications/btn/index.html (accessed on: 11.04.06)

MSH. *Using national and local data to guide reproductive health programs:* http://erc.msh.org/TheManager/English/V6_N2/V6_N2_En_Issue.pdf (accessed on: 11.04.06)

MSH. *Conducting local rapid assessments in districts and communities:* http://erc.msh.org/TheManager/English/V7_N1/V7_N1_En_Issue.pdf (accessed on: 11.04.06)

MSH. *Local rapid assessment reference guide:* http://erc.msh.org/TheManager/English/V7_N1/V7_N1_En_Supp.pdf (accessed on: 11.04.06)

MSH. *Turning research into action: the decision-linked research approach:* http://erc.msh.org/TheManager/English/V8_N3/V8_N3_En_Issue.pdf (accessed on: 11.04.06)

Planning tools and resources

Guidance on the logical framework/project planning matrix

BOND. *Logical framework analysis:* http://www.bond.org.uk/pubs/guidance/logical-fa.pdf (accessed on: 11.04.06)

AUSAID. http://www.ausaid.gov.au/ausguide/ (accessed on: 14.12.06)

CIDA. http://www.acdi-cida.gc.ca/cida_ind.nsf/49d9f10330ed2bb48525677e00735812/c36ebd571b6fa02985256c620066cd6f?OpenDocument (accessed on: 11.04.06)

FAO. http://www.fao.org/WAIRdocs/x5405e/x5405e0p.htm (accessed on: 11.04.06)

ADB. http://www.adb.org/Documents/Guidelines/Logical_Framework/ (accessed on: 11.04.06)

Other planning tools

WHO. *The WHO strategic approach:* http://www.who.int/reproductive-health/strategic_approach/intro.en.html (accessed on: 11.04.06)

WHO. *A framework to assist countries in the development and strengthening of national and district health plans and programmes in reproductive health: suggestions for programme managers:* http://www.who.int/reproductive-health/publications/RHR_02_2/index.html (accessed on: 11.04.06)

WHO. *The mother–baby package: implementing safe motherhood in countries:* http://www.who.int/reproductive-health/publications/MSM_94_11/MSM_94_11_table_of_contents.en.html (accessed on: 11.04.06)

WHO. *The mother–baby package: implementing safe motherhood in countries. Costing spreadsheet:* http://www.who.int/reproductive-health/economics/download.en.html (accessed on: 11.04.06)

IntraHealth. Performance improvement: stages, steps, tools: http://www.intrahealth.org/sst/ (accessed on: 11.04.06)

Other guidance on programme design or management

WHO. *Working with individuals, families and communities to improve maternal and newborn health:* http://www.who.int/reproductive-health/publications/RHR_03_11/index.html (accessed on: 11.04.06)

WHO. *Advancing safe motherhood through human rights:* http://www.who.int/reproductive-health/publications/RHR_01_5_advancing_safe_motherhood/index.html (accessed on: 11.04.06)

WHO. *Considerations for formulating reproductive health laws:* http://www.who.int/reproductive-health/publications/rhr_00_1/index.html (accessed on: 11.04.06)

MSH. *Developing plans and proposals for new initiatives:* http://erc.msh.org/TheManager/English/V2_N4/V2_N4_En_Issue.pdf (accessed on: 11.04.06)

Columbia University. *The design and evaluation of maternal mortality programs:* http://www.cpc.unc.edu/measure/publications/html/ms-02-09-tool10.html (accessed on: 11.04.06)

JSI. *Guide to leveraging: how to mobilize and diversify resources for reproductive health:* http://www.seats.jsi.com/publications/leverag_guide.pdf (accessed on: 11.04.06)

MAQ. *Managing programs to maximize access and quality: lessons learnt from the field:* http://www.maqweb.org/maqdoc/vol3.pdf (accessed on: 11.04.06)

AdvanceAfrica. *Scaling up family planning and reproductive health programs:* http://www.advanceafrica.org/publications_and_presentations/Technical_briefs/TB_Scaling_Up.pdf (accessed on: 11.04.06)

MSH. Management briefs:

Learning to think strategically: http://erc.msh.org/TheManager/English/V3_N1/V3_N1_En_Issue.pdf (accessed on 11.04.06)

Planning for sustainability: assessing the management capabilities of your organization: http://erc.msh.org/TheManager/English/V5_N4/V5_N4_En_Issue.pdf (accessed on 11.04.06)

Using evaluation as a management tool: http://erc.msh.org/TheManager/English/V6_N1/V6_N1_En_Issue.pdf (accessed on: 11.04.06)

Managing for quality: http://erc.msh.org/quality/ (accessed on: 11.04.06)

Mobilizing local resources to support health programs: http://erc.msh.org/TheManager/English/V11_N2/V11_N2_En_Issue.pdf (accessed on: 11.04.06)

Using continuous quality improvement to strengthen family planning programs: http://erc.msh.org/TheManager/English/V2_N1/V2_N1_En_Issue.pdf (accessed on: 11.04.06)

Scaling up HIV/AIDS programs: a manual for multisectoral planning: http://www.msh.org/resources/publications/scalingup.html (accessed on: 11.04.06)

Managing performance improvement of decentralized health services: http://erc.msh.org/TheManager/English/V13_N1/V13_N1_En_Issue.pdf (accessed on: 11.04.06)

Coordinating complex health programs: http://erc.msh.org/TheManager/English/V12_N4/V12_N4_En_Issue.pdf (accessed on: 11.04.06)

Leading changes in practices to improve health: http://erc.msh.org/TheManager/English/V13_N3/V13_N3_En_Issue.pdf (accessed on: 11.04.06)

Bringing services to hard-to-reach populations: http://erc.msh.org/TheManager/English/V6_N4_En_Issue.pdf (accessed on: 11.04.06)

All MSH Management briefs: http://erc.msh.org/TheManager/ (accessed on: 11.04.06)

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