PART

Two

Planning and Managing a Program

Part Two of this manual provides information on how to systematically plan and manage a cervical cancer prevention and control program. The processes described can be used to design a new program or to strengthen an existing program, and can be adapted to reflect local situations and circumstances.

Chapter 3 provides information on the organization and role of a team to plan an effective cervical cancer prevention program. It also describes the essential components of a program, introduces the principle of quality of care, and gives details on the first step in planning.

Chapter 4 describes the second step of program development—needs assessment—with sample interview questions provided in an appendix.

Chapter 5 considers the remaining steps of program development: creating a program action plan, determining budget allocations, and setting up systems for service delivery and quality management prior to launching a program.

CHAPTER

3

Initiating the Planning Process

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Key Messages

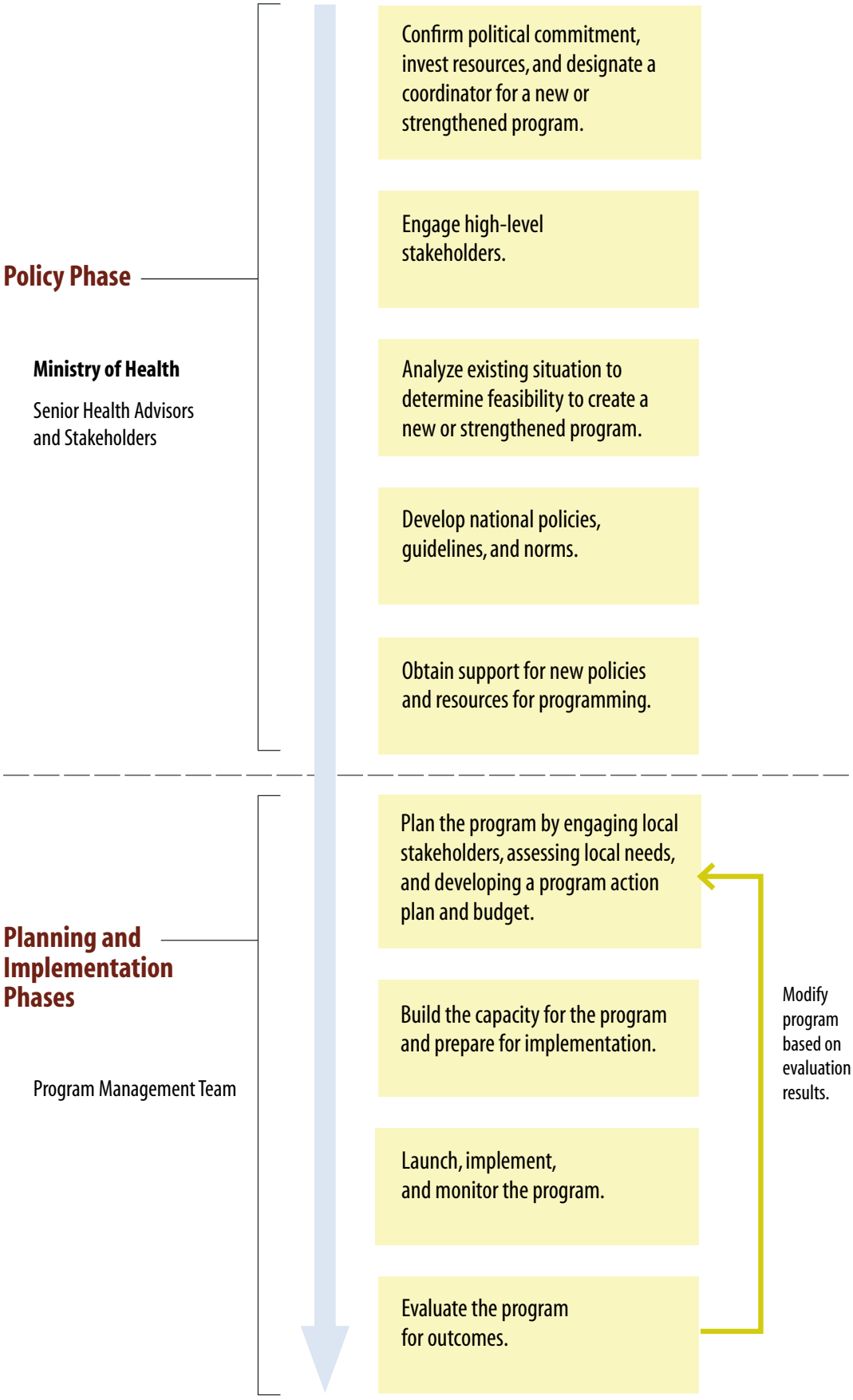
- The national cervical cancer prevention and control program coordinator establishes a multidisciplinary management team, and together they plan, implement, and evaluate the program.
- A cervical cancer prevention and control program consists of three service delivery components that must be linked together: community information and education (I&E), screening services, and diagnostic and/or treatment services. Critical to the effectiveness of these components are training, monitoring and evaluation, and policy.
- Engaging key stakeholders is crucial before starting program planning and implementation.
- Defining and ensuring good-quality work processes and systems at all levels is the responsibility of the management team with assistance from the stakeholder advisory group and task groups.

Introduction

Systematic planning and investments in health services are required for a well-managed cervical cancer prevention and control program. In many countries, however, it has been observed that there is little accountability, planning, or attention given to programmatic structure and management, rendering screening and treatment services less effective than they could be.

As described in the previous chapter, planning and implementing the program is preceded by a national-level policy phase. This phase establishes the foundation for programming and includes designating a program coordinator. Before moving from the policy phase to planning the program, the coordinator should establish a management team, and together they should engage local stakeholders. Figure 3.1 illustrates the various steps in the program planning and implementation process and how they relate to the policy phase.

FIGURE 3.1. The policy and program management process



The program coordinator must have the appropriate mandate, authority, and resources to direct the program with the multidisciplinary management team. The team should lead the planning, implementation, and evaluation of the program. This would apply to the creation of a new program or to the strengthening of an existing program. Depending on the country's health system, a management team would function at a national or subnational level.

The principal roles of the management team are to:

- Involve local stakeholders in the planning and implementation of the program.
- Assess local needs for the program.
- Develop a program plan and budget.
- Provide overall management, budgetary, and evaluation support during program implementation.
- Coordinate activities between the various program components.

Members of the management team should possess the skills and expertise needed to carry out the principal roles. Sharing responsibilities will be necessary among all members of the team, as will tapping the experience and perspectives of stakeholders and community members. Forming small task groups for specific components of the program plan and its implementation is one good strategy for ensuring that the expertise of team members is strategically leveraged. For example, a task group may be established to oversee a local needs assessment or to oversee the development of an information system, and the task group could report back to the management team on its recommendations. One model for how a management team may operate is provided in the next box.

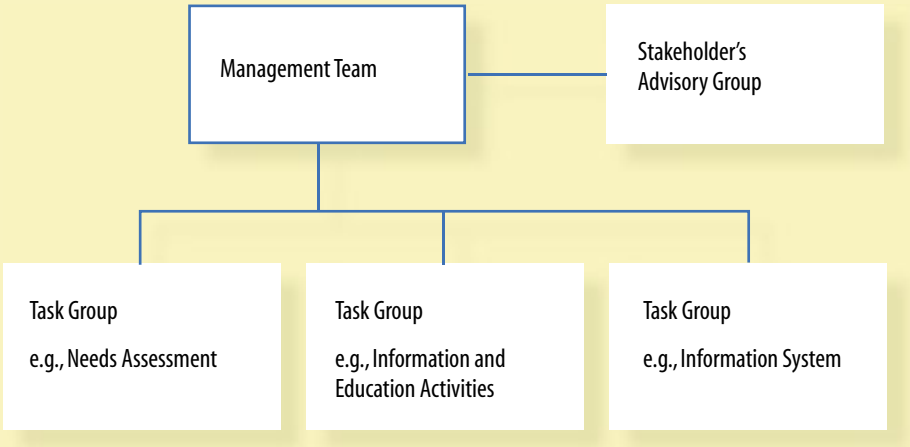
Management teams play an essential role in program planning, implementation, and evaluation.

A Management Team for a Cervical Cancer Prevention and Control Program

A management team, headed by a program coordinator, could be composed of individuals with varying skills and competencies, such as:

- Health administration and management.
- Public health, data collection, and analysis.
- Medical and clinical skills such as nursing, general medicine, gynecology, oncology, and pathology.
- Laboratory management.
- Community health education, social sciences.
- Training.
- Logistics and supplies management.

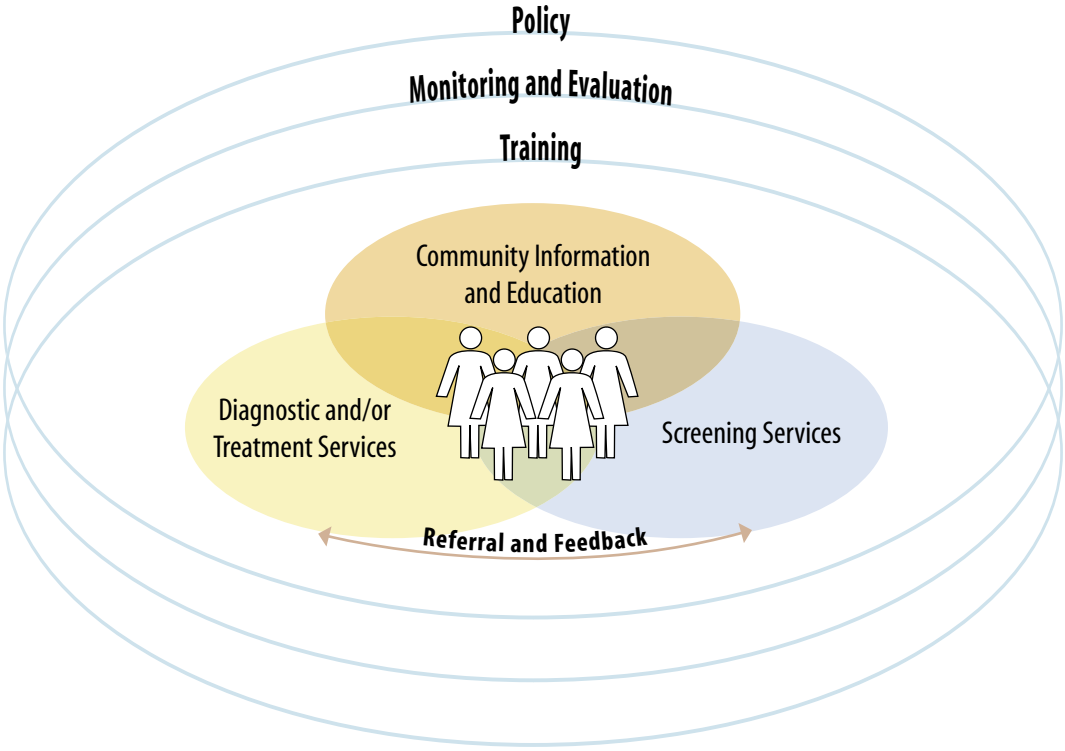
A stakeholder advisory group can support the management team in program planning and ensuring quality during implementation.



Components of the Program

The success of a program depends not only on the screening and treatment methods, but also on the resources and requirements necessary to deliver screening and treatment to a large group of women who need these services, as well as the willingness and ability of the women to avail themselves of these services. When planning a new or strengthened cervical cancer prevention program, the management team will need to consider all the necessary components of such a program. As illustrated in Figure 3.2, women's needs and concerns should be at the center of program planning and implementation. The three main service delivery components that must be linked together—community I&E, screening services, and diagnosis and/or treatment services—are encompassed by three elements that are critical to program success and quality of care: training, monitoring and evaluation, and policy.

FIGURE 3.2. Components of a cervical cancer prevention and control program



Service delivery components

Community information and education

These activities are necessary to inform and educate women and men in communities about cervical cancer both to encourage and support women to participate in screening services and to ensure the program reaches its coverage goals. These activities should be implemented in communities, health facilities, and through various media. Linkages must be established between the community and the health facilities.

Screening services

Screening services, including counseling before and after screening, must be available and accessible. All clients must be informed of their test results, and there should be efficient tracking systems for all clients who need rescreening or referral for diagnosis and/or treatment. Where cytology or HPV DNA tests are used, laboratories must have the capacity to process the samples with minimal delays, use uniform reporting terminology, and have appropriate mechanisms to optimize the quality of test results. Linkages must be established and maintained through referral and feedback (counter-referral) between laboratories and the health facilities and between the various levels of health services.

Diagnosis and/or treatment services (precancer and cancer)

Cervical cancer screening services must be linked to accessible treatment for women with precancerous cervical lesions. Where prevention strategies include diagnostic and confirmatory steps, colposcopy and biopsy services must be

available, with links between screening and diagnostic services to histopathology laboratories. In general, colposcopy and biopsy services should be available to evaluate suspected invasive lesions. Cancer management services, including surgery (or, at the very least, palliative care), should be available for women with invasive cancer. Information and counseling should be integral parts of all treatment services.

In each of these components, the availability of trained staff, functioning equipment, and supplies is necessary for effective program implementation. Links between each component are necessary to ensure appropriate client management and continuity of care.

Three critical activities for program success

The service delivery components are supported by three activities that are essential for both establishing and sustaining quality services.

Policymaking

Policies provide the foundation and guidelines for all aspects of the program and delivery of services. They are usually developed at the national or subnational level and involve several essential steps (as discussed in Chapter 2). Key policy decisions that drive the program include the screening and treatment methods, target age group for screening, frequency of screening, the desired population coverage, the regulations permitting mid-level health providers to perform clinical procedures, and whether the program will be vertical or integrated into other health services.

Training

Training requirements are driven by reproductive health policies. Training itself is usually implemented via the institutions and structures that routinely train health workers, and it requires a commitment of resources to be sustainable. All staff involved in each component should be trained and competent in their particular roles. The knowledge, attitudes, and skills necessary to carry out their roles should be determined, and training provided or reinforced, as necessary, to ensure that the members of each staff are able to perform their roles to standard norms. This applies to outreach workers providing community I&E; to non-medical support staff at the clinic; to medical staff providing screening, diagnosis, and treatment services; to staff assigned to data collection and analysis; and to the supervisors who are responsible for ensuring performance quality.

Monitoring and evaluation

Monitoring and evaluation involves defining goals based on national policy, conducting ongoing activities to ensure that quality services are provided to enable reaching these goals, collecting and analyzing data related to these goals, and taking timely corrective action to uphold quality of care and program performance. Monitoring and evaluation should cover all service components, including laboratory service.

Quality of Care: Addressing Clients' Rights and Providers' Needs

A quality focus in all areas of service provision is important, since the quality of the services will influence the program outcomes. Therefore, attention must be given to ensuring quality in service delivery during the planning, implementation, and evaluation of the program. Two overarching principles of quality assurance are supporting clients' rights and addressing providers' needs. For quality services, providers need to be able to meet the clients' rights by offering:

- Complete and accurate information.
- Access to services.
- Informed decision-making.
- Safety of services.
- Privacy and confidentiality.
- Dignity, comfort, and expression of opinion.
- Continuity of care.

The program will need to have the systems and capacity in place to support the work of the providers, which include:

- Good quality management and supervisory support at the facility and district levels.
- Information, training, and skills development.
- Adequate supplies, equipment, and infrastructure.

Sources: EngenderHealth 2004, Huezo and Carignan 1997.

Engaging Stakeholders

The first step in developing a program involves engaging stakeholders to participate in the planning and management of the program. Stakeholders' involvement and sense of ownership are critical for the successful implementation of the cervical cancer prevention program. To make certain that programs address women's needs and concerns, special efforts should be made to involve women in developing, implementing, and evaluating program interventions and informational messages.

Table 3.2 suggests some of the recommended stakeholders. The management team should identify the individual stakeholders in their community and invite them to be involved in various aspects of program planning or implementation. Stakeholders could be invited to serve on a stakeholder advisory group or task group, or they could be invited to provide advice for specific activities, such as the design of educational materials.

TABLE 3.2. Recommended stakeholders to involve in planning and implementing a cervical cancer prevention and control program

Program components	Recommended stakeholders
Community information and education activities	• Health facility managers. • Clinic supervisors/area managers. • Health promotion staff. • Community-based NGO representatives. • Community members.
Screening services	• MOH officials. • District administrators. • Health facility managers. • Clinic supervisors/area managers. • Laboratory personnel (e.g., pathologist, cytotechnician). • Representatives of medical, nursing, and allied health professions. • Procurement and supplies staff. • Purchasers (e.g., health insurance organizations). • Community members.
Diagnosis and treatment services: precancer and cancer	Same as above and in addition: • Colposcopy center managers. • Treatment facility managers. • Clinicians (e.g., gynecologists/gynecological oncologists/radiotherapists). • Laboratory personnel.
Training	• Health facility managers. • Trainers and human resource officials. • Representatives of medical colleges. • Representatives of medical, nursing, and allied health professions. • Clinic supervisors/area managers. • Laboratory personnel. • Staff representatives (doctors and nurses). • Maintenance staff.
Monitoring and evaluation	• District/regional/provincial information system officers. • Clinic supervisors/area managers. • Health facility managers. • Laboratory managers and cytopathologists/ cytotechnologists. • Colposcopy and treatment facility managers and clinicians. • Researchers. • Health economists. • Community members.

Source: Adapted from Cervical Health Information Project (CHIP) 2004a.

An advisory group, comprising key stakeholders at the national or subnational level, can be a useful way to support the management team in program planning and ensuring quality during implementation (CHIP 2004a). In places where health advisory committees already exist, it would be useful to suggest including cervical cancer prevention and control as a topic on their agenda. If a suitable health committee does not exist, a new committee could be formed, ideally consisting of 10 to 15 members, to advise the management team and assist in overseeing program implementation and monitoring and evaluation.

Conclusion

Program planning should be based on the policy decisions, taking into consideration all the components of the program and focusing on providing quality services. The designated program coordinator working together with a multidisciplinary management team and task groups is accountable for directing the program from planning through implementation, paying particular attention to quality of care issues. The management team should identify individual stakeholders in the community whose participation in advisory and task groups is crucial to the success of program planning.

Further Reading

EngenderHealth. *Facilitative Supervision Handbook.* New York: EngenderHealth; 2001.

PATH. *Planning Appropriate Cervical Cancer Prevention Programs*. 2nd ed. Seattle: PATH; 2000.

World Health Organization (WHO). *National Cancer Control: Programmes, Policies, and Managerial Guidelines*. 2nd ed. Geneva: WHO; 2002[a].

Appendix 3.1. Checklist for Planning and Implementing a Program

Policy

- ☐ **Confirm political commitment.**
  - ☐ Invest necessary resources.
  - ☐ Designate program coordinator with mandate, authority, and resources to direct the program.
- ☐ **Engage high-level stakeholders.**
- ☐ **Conduct situation analysis.**
- ☐ **Develop/review policies, guidelines, and norms.**
  - ☐ Evaluate screening and treatment methods and approaches.
  - ☐ Establish target age group for screening.
  - ☐ Determine frequency of screening.
  - ☐ Determine desired population coverage.
  - ☐ Establish regulations authorizing mid-level providers to perform screening and treatment.
  - ☐ Determine whether program will be vertical or integrated.
- ☐ **Commit/solicit resource and obtain support for the new policies.**

Planning the program

- ☐ **Establish a management team.**
- ☐ **Engage local stakeholders.**
- ☐ **Assess local needs.**
- ☐ **Develop the program action plan.**
  - ☐ Determine local screening coverage goals.
  - ☐ Establish estimates for treatment caseload.
  - ☐ Review service delivery strategies.
  - ☐ Develop training plan for providers.
  - ☐ Information and education strategies
- ☐ **Develop the budget and allocate resources according to the program action plan.**

Preparing to launch the program

- ☐ **Establish systems for service delivery.**
  - ☐ Develop program materials.
  - ☐ Provide orientation for community, stakeholders, and staff.
  - ☐ Ensure provider training and availability.
  - ☐ Procure and distribute equipment and supplies.
- ☐ **Establish systems for quality management.**
  - ☐ Build capacity to ensure quality.
  - ☐ Set up the system for supervision.
  - ☐ Define the quality indicators.
  - ☐ Set up the information system.
- ☐ **Launch the program with an inaugural event.**

Implementation

- ☐ Provide community information and education to address community and client needs.
- ☐ Deliver clinical services and ensure linkages between services.
- ☐ Ensure performance to standards of trained providers.
- ☐ Monitor and supervise the work of providers to ensure quality of care.
- ☐ Monitor and evaluate the program performance and outcomes.
- ☐ Modify the program based on monitoring and evaluation results.

CHAPTER 4

Assessing Program Needs

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Key Messages

- A local needs assessment enables the management team to identify what inputs are required to achieve the objectives of a cervical cancer prevention and control program.
- The assessment is best conducted through a participatory process involving a multidisciplinary team of stakeholders.
- The categories to be assessed include adherence to program policies, guidelines, and norms; program management issues; health services; information and education (I&E) activities; the community perspective; laboratories; infrastructure, equipment, and supplies; and information systems.
- It is important to obtain the perspectives both of the people involved in providing and those involved in receiving services for cervical cancer prevention.

Introduction

A needs assessment is a process of gathering necessary and relevant information from which informed decisions can be made about planning a new or strengthened cervical cancer prevention program. It is generally the second step in a program planning cycle (the first being to engage stakeholders) and is completed prior to developing or strengthening the program. The assessment involves the development of strategic questions, followed by the systematic collection and analysis of information. The purpose is to understand the perspectives of people involved in providing or receiving services and identify gaps in services. This chapter provides guidance on how to conduct a local needs assessment as a step in developing or improving a program.

What Needs to Be Assessed?

The areas that should be assessed are described below. The assessment team should first define the overall strategic questions that are to be answered by the needs assessment (e.g., what is needed in order to screen all women in the target age group?). This will help the team to determine in which areas to focus the needs assessment and what specific questions need to be answered. Sample questions, which would be adapted by the assessment team to fit the local situation, are provided in Appendices 4.1 to 4.7. As part of the background preparation, the assessment team members should familiarize themselves with demographic information, the cervical cancer situation in their country, and the structure of health services

Where there are no systems or structures in place for providing cervical cancer prevention services, the focus should be on assessing capacities described in this chapter with respect to launching new services. Obtaining feedback from key stakeholders in each area is essential to inform strategic decisions on how to effectively launch and sustain new prevention efforts.

Program policies, guidelines, and norms

The consistent use of existing program policies, guidelines, and norms at the local level is important for achieving a standard of care. The policies that govern the program and delivery of services, the clinical practice guidelines for screening and treatment of precancerous lesions, and the treatment guidelines for cervical cancer all clarify health care providers' understanding of their professional responsibilities. As such, the assessment team should determine the extent to which health professionals are aware of the existence of the policies and guidelines, their perceptions of these policies and guidelines, and the extent to which they follow them in their practice. This information can be gathered by interviewing administrators and health professionals from local health institutions. Appendix 4.1 contains suggested questions for interviewing administrators and health professionals.

Program management issues

A needs assessment must consider program management aspects in order to:

- Understand how services for cervical cancer screening and treatment currently are, or could potentially be, organized and delivered.
- Identify the key organizations involved in delivering these services, including potential leaders, coordinators, or area supervisors.
- Define the level of available resources and assess how services could be financed.
- Document the system for requesting and purchasing equipment and supplies, and for improving infrastructure.

Information can be collected by interviewing key authorities in the Ministry of Health (regionally and locally); those health professionals responsible for the reproductive health program, cancer control program, or chronic disease program; presidents and program managers from cancer institutes, cancer leagues, cancer societies, and other nongovernmental organizations involved in cancer prevention; and members of medical associations, pathology associations, gynecologic associations, oncology groups, and other professional bodies. Appendix 4.2 contains sample questions.

Health services

The needs assessment should involve a thorough review of the local health services at the primary, secondary, and tertiary level of care within the chosen area of study (e.g., health region or municipality) to determine:

- Type and scope of services currently available.
- Access to health services in terms of physical access, facility conditions, and timeliness of receiving appointments and test results.
- Coverage of women at risk, including the age group currently being served by screening activities, and what barriers exist to achieving high coverage.

- Client-tracking and referral mechanisms for providing test results (if applicable), for treatment, and for follow-up care, including existing linkages between the levels of care for screening, diagnosis, and treatment.
- Acceptability of introducing new screening and treament approaches such as cryotherapy treatment delivered by mid-level providers.
- Human resources and capacity, including screening and treatment services, outreach and client recruitment, counseling, and health information system (HIS) maintenance.
- Infection control and instrument processing, including standards and practices currently in place.
- Availability and quality of supervision and monitoring, including who currently coordinates those systems.
- Linkages between services and health sectors.

The health services system can be assessed by interviewing health care providers and administrators. In addition, the services themselves should be assessed by visiting and making observations of the conditions and operations. Appendix 4.3 contains sample questions for interviews with health personnel on issues related to the health services for cervical cancer screening and treatment.

Information and education activities

The methods and materials used to inform, educate, and meet women's informational needs for cervical cancer prevention are important for ensuring that women take up screening services as well as return for follow-up care. The needs assessment must therefore consider the I&E strategies that are used or could be used to reach women in the community and in the health facilities.

Aspects that may be considered include strategies to communicate information, both in clinics and in the community; availability of information materials; type and purpose of information materials; accuracy, consistency, and relevance of messages; methods used to develop and test I&E materials; and methods to train health providers and community health workers (CHWs) to use the materials. Appendix 4.4 contains a list of sample questions.

Community perspectives

It is important to consider the perspectives of women and men in the community, their knowledge about cervical cancer, and their service needs in order to develop services that will meet their needs. Furthermore, these perspectives are important for developing promotional campaigns that address their knowledge gaps and concerns. Potential clients and their husbands (or partners) can be surveyed by CHWs or other health outreach staff who normally interact with community members. Aspects to be considered include understanding of the concept of preventing disease, knowledge of cervical cancer, awareness of cervical cancer prevention services, feelings about screening, possible barriers to utilizing screening services, and attitudes toward the health care system. Appendix 4.5 lists some sample questions.

Laboratories

Laboratories that manage (or could manage) cytology, HPV DNA testing, or histopathology should be assessed. The objective of assessing laboratories is to evaluate their capacity, performance, workload, and needs against a generally accepted standard. It is also important to assess the availability and effectiveness of audit protocols and systems for continuing professional development. A pathologist with experience in cytology should be involved in the assessment of the laboratories and should visit and interview cytopathology laboratory directors, pathologists, technicians, and other key personnel. The assessment should include observations and documentation of the following aspects of services:

- The laboratory procedures and processes including the flow of information.
- The physical environment, the infrastructure, equipment, supplies, and storage capacity in the laboratory.
- Availability of essential equipment and supplies needed to process the tests.
- The time required from receipt of tests to sending test results back to the testing site.
- Qualifications and number of technical staff available to process tests.
- Procedures for processing tests.
- Quality control methods used within the laboratory and external to the laboratory.
- The current and potential volume of tests processed, quality of the tests received, and the quality of the test results.
- The mechanisms and effectiveness of linkages for communicating results from the laboratory to the health facilities.

Appendix 4.6 contains sample questions for assessing a laboratory.

Infrastructure, equipment, and supplies

The needs assessment should document the availability, accessibility, and adequacy of functioning equipment and supplies needed for screening and treatment services. In addition, information should be gathered on the requisition, purchasing, and distribution as well as repair and maintenance procedures for infrastructure and equipment in order to identify how these procedures may be improved. Information for this part of the needs assessment can be obtained through observations in the health centers and clinics and through interviews with clinicians and health administrators. For a list of equipment and supplies recommended for a cervical cancer prevention and control program, refer to Appendix 6.1.

Information systems

A cervical cancer prevention and control program requires good records, whether paper-based or computerized, to monitor the management of women in the program as well as to evaluate the program against set indicators or benchmarks. Ideally, the system should identify the number of women in the target population, record personal and clinical information on women screened, and generate lists of women with positive test results who need follow-up care.

The information system could then be used to evaluate screening coverage, test quality, and the completeness of follow-up care. At a minimum, the system should collect information at the local health care site using client forms or registers. This information should then flow to referral health care sites or laboratories (if applicable) and to a centrally located program coordinator, who monitors women's test results and the program's coverage goals.

Therefore, the needs assessment should identify the current manner in which screening and treatment information is collected, recorded, analyzed, and monitored for clinical and program evaluation purposes. This activity should include determining whether this information is integrated into a national HIS or is managed separately. The assessment should note data sources, assess the forms used to record clinical and administrative information, describe the flow of forms/information, and, if applicable, evaluate any electronic HIS being used. The assessment should include reviewing current forms and interviewing program managers, health administrators, laboratory personnel, and clinicians. Appendix 4.7 contains sample questions.

How to Conduct the Local Needs Assessment

The needs assessment should be a participatory process with three phases: a pre-assessment phase where all the preparatory work is completed, an assessment phase where new information is gathered and analyzed, and a post-assessment phase where the report is written, findings are presented to health authorities, and plans are made to implement actions that will introduce or improve screening and treatment services.

Pre-assessment phase

Involve local stakeholders

Stakeholders should be informed about the needs assessment objectives and process. They should also be invited to participate as part of the assessment team or to attend meetings where the assessment results are presented and subsequent plans are made for service improvements.

Establish the assessment team

An assessment team—a task group of the management team—should be formed to conduct all the interviews, site visits, data collection, and analysis. The assessment team should include representatives and stakeholders from the region, both from the public and private health sector. It is important that the team has a good

mix of technical, administrative, and communication skills. Various disciplines should be represented in the group, such as nursing, general practice, epidemiology, gynecology, pathology, sociology, health promotion, public health, and a program manager from the Ministry of Health. It is important that the team members are interested in the project and will be able to devote time to do the needs assessment. A designated leader for the assessment should be selected based on his or her leadership skills and abilities.

The assessment team's role is to:

- Define the strategic questions to be answered in the needs assessment.
- Assess the current state of cervical cancer prevention and control efforts within a geographically defined area.
- Identify the needs and the conditions that assist or act as barriers to achieving the three goals of a program: coverage of women, quality screening test, and appropriate treatment for all screen-positive women.
- Identify the specific actions and resources required for an organized screening and treatment program.

Orient the team

A workshop should be held with all team members to orient them to the assessment objectives, to ensure a common understanding of the technical issues related to cervical cancer prevention and conducting an assessment, to discuss and plan the methodology, to design the interview tools, and to plan all aspects of the process. The workshop is also useful to build teamwork and cooperation among members.

Define the methodology

The assessment team will review the methodological options for collecting quantitative and qualitative information and the actual methods to be used (see Table 4.1), based on the decisions regarding the scope and extent of the needs assessment. Methodological options include focus group discussions, individual interviews, mailed questionnaires, review and analysis of randomly selected clinical records within the preceding 6 to 12 months, and visiting facilities that provide services. The team will define whom to interview and select the sample of interviewees and health facilities from all levels of the health system in all the coverage areas. Sample questions are provided in Appendices 4.1 to 4.7.

TABLE 4.1. Methods to collect information for the needs assessment

Areas to assess	Collection method
Policies, guidelines, and norms	Review documents. Interview health administrators and health care personnel.
Program management issues	Interview health administrators and health care personnel.
Health services	Interview health care personnel. Observations in health centers. Review clinical records.
I&E activities	Interview health care personnel and community health workers.
Community perspectives	Focus groups with clients/community members. Interview clients. Survey community.
Laboratories	Interview laboratory personnel. Observations in laboratories.
Infrastructure, equipment, and supplies	Interview health administrators and health providers. Observations in health centers and clinics.
Information systems	Interview health administrators. Review documents.

Schedule site visits

Depending on the scope of the assessment, the team should make necessary transportation and accommodation arrangements, as well as schedule all site visits and interviews in advance. This will involve communicating and coordinating visits with health authorities and with staff at the facilities. If services are performed on specific days, efforts should be made to schedule visits accordingly. It is important to inform staff at the facilities about the need to observe procedures and the purpose of the visit, reinforcing that the visit is not to evaluate their work but to discuss their needs. It is also important to inform staff at the facility being visited that information they provide will be reported without a personal attribution. The facilities that should be visited include public-sector facilities (primary, secondary, and tertiary); private-sector facilities; facilities in urban, peri-urban and rural areas (as applicable); facilities providing or having the potential to provide services for screening and treatment of precancer; laboratories (cytopathology, HPV DNA labs); and cancer management centers such as units providing radical surgery, radiotherapy, oncology, and palliative care units.

Assessment phase

Collect information

The assessment team should collect information as per the methodology chosen. Depending on the size of the assessment team, it may be more efficient to break into several smaller teams to collect information over a larger geographic area and subsequently pool the information. The assessment team should identify the main interviewer(s), who are selected based on their skills and abilities to conduct interviews in a conversational and nonthreatening manner. Where possible the team should collect samples of printed material (e.g., information leaflets used) and data (e.g., clinic service data). A person should be designated to record all the findings from the site visits and interviews, using handwritten notes, tape-recorded interviews (if feasible), and photographs (where possible and if permitted by the concerned people).

Review data

At the end of each day of data collection and interviews, the assessment team must debrief and begin to identify the key points, recurring themes, and issues emerging on the challenges and needs of an organized cervical cancer prevention and control program. During this daily debriefing any outstanding questions or missing information can be identified in order to mark key information that needs to be gathered during the following day's interviews.

Analyze data and make recommendations

Once all the information has been collected, the assessment team should collate, synthesize, and analyze the information. This stage should be done in a group where all members can discuss the key points that emerged during the data collection phase and analyze any common themes or obvious gaps in the current cervical cancer prevention program. The team will analyze the information following the categories outlined in the previous section (What Needs to be Assessed), including new issues that arise during the course of conducting the needs assessment. Based on the findings and conclusions of the needs assessment, the team develops appropriate recommendations.

Post-assessment phase

Write the report

A member of the assessment team should be designated as a writer, who in consultation with all assessment team members prepares the report documenting the methodology and findings. The designated writer should be selected based on her or his skills and abilities to write clearly and concisely and must collaborate with other members to agree on the presentation of findings. The report should be brief, with data to support findings wherever possible. The report should be completed in a timely manner.

Present and disseminate the report to stakeholders

During meetings with key stakeholders, the assessment team presents their findings and conclusions, creates support for developing or strengthening a cervical cancer prevention program, and develops the plan for the program. The report should be disseminated to relevant stakeholders in a timely manner.

Develop a program plan

Once the stakeholders and authorities have reviewed the findings and accepted the recommendations, a program plan needs to be developed that delineates the activities, responsible organizations, and resources required to implement the recommendations. Ideally the plan should be developed by the management team, in collaboration with the assessment team. The plan may require formal approval and acceptance by the stakeholders and organizations responsible for delivering services (e.g., Ministry of Health or private-sector health service managers). Chapter 5 describes how to develop the program plan and a budget.

Conclusion

The second step in a program planning cycle (the first being to engage stakeholders) is for a multidisciplinary assessment team (task group) to collect and analyze information on local needs and availability of resources. Recommendations from this local assessment should be used to develop an action plan to implement a new program or to strengthen an existing program.

Further Reading

EngenderHealth. *COPE® for Cervical Cancer Prevention Services: A Toolbook to Accompany the COPE® Handbook*. New York: EngenderHealth; 2004.

JHPIEGO. *Cervical Cancer Assessment Checklist*. Baltimore: JHPIEGO; 1999.

Pan American Health Organization (PAHO). *A Needs Assessment Guide for a Cervical Cancer Prevention and Control Program*. Washington, D.C.: PAHO; 2002[a].

PATH. *Program Capacity Assessment Tool: Integrating Cervical Cancer Prevention Into Reproductive Health Services*. Seattle: PATH; 2001. Reproductive Health Reports, No. 4.

Appendix 4.1. Sample Questions to Assess the Use of Policies, Guidelines, and Norms

This is a list of sample questions for interviewing health administrators and health professionals to understand their awareness and use of policies, guidelines, and norms related to cervical cancer prevention and control. These questions could be adapted and modified to suit the specific situation concerning the policies, guidelines, and health situation in your country.

1. Are you familiar with the reproductive health program that includes cervical cancer prevention? Are you aware of a national cancer control program which includes cervical cancer prevention?
2. In your opinion, how does cervical cancer prevention rank as a program priority within the health services?
3. In your opinion, what are the competing health priorities in this region/area for cervical cancer prevention?
4. Are there assigned resources dedicated to cervical cancer prevention within the health authority's budget? If so, are these resources adequate for the current level of programming?
5. Are you aware of the policies that govern the type of screening, diagnosis, and treatment that is offered in the country?
6. What are the policies that govern the following aspects of cervical cancer prevention and control?
   a) Screening tests.
   b) Diagnostic tests.
   c) Treatment options for precancerous lesions.
   d) Treatment for cervical cancer.
7. Are there clinical practice guidelines (written or unwritten practice norms) for cervical cancer screening and treatment services?
8. What do the clinical practice guidelines state for the following areas:
   a) Age to initiate screening.
   b) Target age group for screening efforts.
   c) Coverage goals.
   d) Screening interval.
   e) Screening tests to use.
   f) Standard terminology for reporting screening results.
   g) Health professionals permitted to conduct the screening test and/or treatment for precancerous lesions.
   h) Methods to manage women with positive screening test results.
9. Do you accept the guidelines and use them in your practice?
10. Are there guidelines or laws that regulate opioid availability for palliative care services?
11. Overall what are the strengths and weaknesses of the policies and guidelines for cervical cancer prevention?
12. In your opinion how can the weaknesses be improved?

Appendix 4.2. Sample Questions to Assess Program Management Issues

This is a sample list of questions for interviewing local key authorities in the Ministry of Health; those responsible for the reproductive health program, cancer control program, or chronic disease program; presidents and program managers from cancer institutes, cancer leagues, cancer societies, and other NGOs involved in cancer prevention; and members of medical associations, pathology associations, gynecologic associations, and oncology groups. These questions could be adapted and modified to suit the specific situation concerning the health care infrastructure, health priorities, and programs in your country.

1. Is there a program for cervical cancer prevention and control with defined goals, targets, and objectives? If no, could an organized program be developed?
2. Is there a national policy for cervical cancer screening and treatment? What is contained in the national policy about screening target age group and coverage targets?
3. How is or could the program be structured in terms of its management and delivery of services at the primary, secondary, and tertiary level of care?
4. Who is or could be responsible for leading and coordinating a cervical cancer prevention program?
5. Who is or could be responsible for serving as facility or area supervisor to monitor the implementation of the program in the health facility.
6. Approximately, what is the current screening coverage (percentage of women in the target population screened within the recommended interval)? Of the women screened, approximately what percentage of women received follow-up diagnosis/treatment?
7. Is there a functioning system to track women who require follow-up care and to reduce the number of women lost to follow-up?
8. Are women required to pay (totally or partially) for their screening test? For diagnosis (colposcopy and biopsy)? For treatment of precancerous lesions? For treatment of cervical cancer? If yes, what is the average cost to the woman for each service?
9. What are the indicators that are used, or could be used, to measure the program's success? How can the program's success be evaluated?
10. Overall, what are the strengths and weaknesses of the management of the cervical cancer prevention program? How can the weaknesses be improved?

Appendix 4.3. Sample Questions to Assess Health Services

These sample questions are for interviews with health care providers on issues related to the health services for cervical cancer screening, diagnosis, and treatment. These questions could be adapted and modified to suit the specific situation concerning the health care infrastructure, health priorities, and programs in your country.

Screening

1. How are the screening services delivered: as part of the routine preventive health services for women; as part of maternal and child health services; as a special campaign for cervical cancer prevention? Other?
2. What strategies are used to identify eligible women and to recruit these women for screening services? How can these strategies be improved?
3. Where are the screening tests performed: community health post, health center, doctor's office, screening clinics, family planning clinics? Include the number of facilities and the number of tests performed per year.
4. Who performs the screening tests in the health clinic: general practitioner, nurse, other? What is the total number and type of health professionals providing the screening services?
5. Is special training offered to the health professional for performing the screening test? Are refresher training courses offered? If so, how often?
6. How is quality of care ensured for the women during the gynecological exam? How can this be improved?
7. With cytology, where are the screening tests analyzed and interpreted? Include the location and number of tests interpreted per year.
8. With cytology, what is the average length of time from when the screening test is done to when results are provided to the woman?
9. How are women notified of their screening test results? Who communicates the results to the woman? How well does this function? Is there counseling at the time results are provided? Is the woman given a copy of her results, or is it recorded in a client record card kept by the woman?
10. Is there sufficient equipment and supplies available in the health facility for screening services: gynecologic table, examination light, speculums, spatulas, slides, fixatives, clinic client forms, etc.?
11. Overall, what are the strengths and the weaknesses of the screening services? How can the weaknesses be improved?

Diagnosis (if applicable)

12. What diagnostic tests are available to women with positive screening test results? How are women referred for diagnostic follow-up?
13. Are diagnostic tests used prior to treatment to verify screening test results? Where are the diagnostic services delivered? Who performs the diagnostic test?
14. What standard procedures are undertaken by the health facility to ensure that women are followed up with diagnosis and it is done as recommended? What percentage of women actually complete diagnosis?
15. How are women informed of their need for diagnostic follow-up? Is counseling provided to women at the time of their diagnosis?
16. On average, what is the length of time from when a woman is provided results from her screening test to the time of her diagnostic visit?
17. Overall, what are the strengths and the weaknesses of the diagnostic services? How can the weaknesses be improved?

Treatment for Precancer and Cancer

18. What treatment options are offered to women detected with precancerous lesions? With cervical cancer?
19. Where is the treatment delivered and who provides the service?
20. How is the woman informed of the need for treatment and the type of treatment she will receive? Is the woman provided with counseling at the time of treatment?
21. On average, what is the amount of time that elapses between when a woman is diagnosed with precancerous lesions and when she receives her treatment?
22. Is data available on treatment success/failure rates, complications, and women lost to treatment follow-up?
23. Overall, what are the strengths and the weaknesses of the treatment services? How can the weaknesses be improved?

Appendix 4.4. Sample Questions to Assess Information and Education Activities

These are sample questions to be used for interviews with CHWs and health providers involved in delivering community I&E activities. These questions could be adapted and modified to suit the specific situation concerning the health care infrastructure, health priorities, and programs in your country.

1. Have there been studies to collect information on the knowledge, attitudes, and practices of women regarding cervical cancer screening and treatment? If so, what are the main findings?
2. Have there been studies to document the knowledge, attitudes, and practices of health care professionals regarding cervical cancer screening and treatment? If so, what are the main findings?
3. What public educational materials are available to inform women of cervical cancer prevention? How are materials/messages delivered to women? What are the main messages? What are the strengths and weaknesses of the materials? How can the weaknesses be improved?
4. What health education strategies are conducted in the community to encourage women to be screened and to be informed of their screening test results? How effective are these strategies? How can they be improved?
5. What health education strategies are undertaken in the health center to encourage at-risk women to be screened?
6. Are women themselves involved in communicating messages to their peers and educating women about cervical cancer screening? What evidence is there for the level and degree of peer communication in the community?
7. What institutions are or could be involved in community strategies to involve women and improve their participation in screening programs?
8. How are the information and education activities financed? What is the budget for these activities?

Appendix 4.5. Sample Questions to Assess Community Perspectives

These are sample questions for interviews with women and men from the community regarding their knowledge, needs, and concerns related to cervical cancer. These questions could be adapted and modified to suit the specific situation and circumstances in your community.

Knowledge of cervical cancer

1. What do you know about cancer?
2. What have you heard about cancer that affects the cervix/vagina/uterus/womb?
3. If nothing, what kind of sicknesses do you know of that can affect the woman in her reproductive organs?

The concept of preventing disease

4. How do you avoid getting sick?
5. How do you protect your children from getting sick?
6. If you get sick, how do you avoid getting worse?
7. How do you think this concept of preventing disease could apply to cancer? To cervical cancer, in particular?

Awareness of cervical cancer prevention services

8. What have you heard about cervical cancer prevention/screening/testing services in your area?
9. Do you know where to access these services?
10. Do you know from whom you can get information on these services?

Feelings about screening

11. [*For women*] Have you ever had a pelvic exam or a speculum exam? (Explain, as necessary, this is when the health worker feels [pelvic exam] or looks [speculum exam] inside your vagina to check that everything is fine.) If yes, how did you feel about that experience? If no, how do you think you would feel about such an exam?
12. How would you feel about having a pelvic exam if it could help to prevent you from getting cervical cancer?
13. How do you think your women friends or relatives would feel about having pelvic examinations?
14. How do you think your husband or partner would feel about you having a pelvic examination?
15. [*For men*] How would you feel about having your wife or partner get a pelvic exam and a screening test if it could prevent her from getting cancer?

Possible barriers to utilizing screening services

16. What has made it difficult or might make it difficult for you [*men*: "for your partner"] to go for cervical cancer screening services? (Explore by asking, "How about. . . ": your feelings about cancer and/or about the pelvic exam, your husband's or partner's approval, family approval, where the services are offered, who is providing the services, transportation problems, cost concerns, having to travel far, missing work, or having to get others to look after children.)
17. What would make it easier for you [for your partner] to go for cervical cancer screening services? (Explore, depending on the previous answers.)

Attitudes toward the health care system

18. Where do you normally go for health care? For reproductive health care?
19. What do you think about the quality of services provided there?
20. Do they meet your needs?
21. How do you feel about the way you are treated when you go there?
22. Would you be comfortable going there for cervical cancer prevention services? If no, why not?
23. What could help you change your opinion?

Location and timing of services

24. Where would be the best place for you to go for cervical cancer screening?
25. What would be the best time (time of day, day of the week, season of the year)?

Appendix 4.6. Sample Questions to Assess a Laboratory

These are sample questions for interviews with laboratory directors, pathologists, technicians, and other key laboratory personnel to assess the histopathology laboratories. These questions could be adapted and modified to suit the specific situation concerning the health care infrastructure and laboratories in your country.

National issues

1. How many pathology laboratories exist in the country by health district/region?
2. Is the laboratory system centralized or decentralized?
3. Is there a national reference laboratory? Does it conduct external quality reviews of the cytology and histopathology conducted by the regional laboratories?
4. How many cervical cytology tests and cervical biopsy tests does each laboratory process on average each year?
5. What terminology is used by the laboratories to report results of screening tests and of biopsy tests? Is this standardized nationally?
6. How many cytopathologists and cytotechnicians exist in each laboratory? What type of training are they provided?
7. How many cervical cytology tests does each cytotechnician read on average on a daily basis and on an annual basis?
8. Is the quality of the cytotechnician's work evaluated and monitored to ensure quality of the cervical cytology test results? How is this achieved?
9. How is the quality of the pathologist's work evaluated and monitored to ensure quality of the biopsy test results?

Local issues

10. How does the laboratory register the reception of the tests? Is a unique identifier code assigned for each woman?
11. What terminology is used for notification of results? Who is responsible for the final report? To whom does the report go? Who is responsible for follow-up of abnormal test results?
12. How does the laboratory report the test result back to the corresponding health center/screening site? What linkages exist? How easy is it to access and retrieve these test results?
13. On average, what is the time delay from when a sample is received to when results are recorded and sent back to the health care site? On average what is the amount of samples that are backlogged for interpretation? What is the primary cause of this backlog?
14. What percentage of samples is lost to breakage during transportation?

15. What are the procedures for reception and daily recording of slides received (e.g., numerical order of receipt, date of receipt, full name, place that smear is taken)? Are these procedures done by hand or computerized?
16. What internal measures does the laboratory use for quality control?
17. Does the laboratory routinely correlate the abnormal screening test results with the histopathology results? If no, why not?
18. Is retraining offered for technicians who consistently have errors in interpretation?

Appendix 4.7. Sample Questions to Assess Information Systems

These sample questions are for interviews with program managers, health administrators, HIS staff, data entry personnel, health providers, and others involved in recording and managing client information related to cervical cancer. These questions could be adapted and modified to suit the specific situation concerning the health care infrastructure and HISs in your country.

1. Is there a unique personal identifier in general use for health data? If so, is this a health system number or a more broadly used personal identifier?
2. How is information about cervical cancer screening and follow-up currently collected and organized? If this is not being done, what are the main challenges and obstacles to information collection and monitoring?
3. For what purpose does or could the program use the information system?

   ___ Day-to-day screening operations (i.e., generating specimen reports).
   ___ Routine recall.
   ___ Follow-up of positive results.
   ___ Quality control.
   ___ Statistical reports to labs, health centers, and/or test takers.
   ___ Statistical reports for program managers.
4. What process (log book, filing system, or computer system) is used or could be used to register information and test results for the cervical cancer program?
5. Are there standard reporting forms for screening, for diagnosis, and for treatment services?
6. Does the program have access to population counts for its target population (i.e., women in your target age range)?
7. Are there any other types of data that the cervical cancer program has access to which might be useful for improving a data system to manage and monitor the program (e.g., individual death records, hysterectomy records, etc.)?
8. Is there a cancer registry available in the country to monitor incidence and mortality rates from cervical cancer?

CHAPTER

5

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Key Messages

- Systematic planning is critical to the success of the program. Sufficient time should be allocated to plan a new program or to strengthen an existing program.
- A plan should be developed to define the targets, strategies, and actions for achieving high screening coverage, offering a high-quality and effective screening test, and ensuring treatment of women with positive screening test results.
- Decisions about the strategies to be included in the program plan must be informed by cost-effectiveness considerations. This means weighing the costs of various strategies against the impact they will have on the program.
- Sufficient financial resources need to be invested in the program in order for it to succeed. The allocation of resources must be strategic to maximize the impact of the program.
- Prior to launching the program, the systems and capacity for quality service delivery must be established so that providers can meet clients' right to quality care.
- Launch the program with an inaugural event to generate enthusiasm for its implementation among providers and community members.

Introduction

Following the needs assessment, a program plan should be developed to describe the targets, strategies, and actions that will be implemented to achieve the program's overall goals. These goals should be to achieve a high screening coverage of the women in the target age group, make certain that the screening test is effective and acceptable, and ensure that all test-positive women are treated appropriately. It is important to allocate sufficient time up front (e.g., 6 to 12 months) to plan and prepare all programmatic components before launching a new program or a strengthened program. It is particularly important to ensure that all service elements are in place *before* launching the program in the community.

Role of the Management Team

The management team's role is to map out local strategies that cover all programmatic areas, based on the needs assessment findings and considering cost-effectiveness. Specific tasks include:

- Defining the local programmatic targets, such as screening coverage and treatment for women detected with precancerous lesions.
- Developing the service delivery strategies for each component of the program: community information and education (I&E), screening services, and diagnostic and treatment services.

- Identifying the specific locations where services will be offered and determining the equipment, training, and resources (human and financial) needed at each site.
- Developing a program budget.
- Establishing systems for service delivery and quality management.
- Launching the program.

Cost Considerations

When deciding which strategies to include in the program action plan, the management team must know the amount of financial resources that are available and how they will be allocated to each strategy. This is because the effectiveness of the program will be affected by the funds devoted to the strategies for achieving high screening coverage, offering high-quality tests, and ensuring treatment of test-positive women. However, there is a threshold beyond which adding more funds to the program will not necessarily yield proportional additional benefits to screening coverage, test quality, or treatment of test-positive women. This threshold will vary with countries, settings, and strategies used.

Achieving high screening coverage

The strategies to achieve high screening coverage include making screening services widely available and accessible to women in the appropriate age group, as well as ensuring that people are informed about and aware of the importance of the services. Examples of activities include conducting large-scale promotional events or campaigns, contacting women and their partners in their homes, and sending health providers out to rural areas (mobile services). The relative cost-effectiveness of these strategies must be compared:

- Mobile services increase coverage by increasing accessibility to the services, particularly in rural areas, but they are costly and difficult to organize.
- In some settings, home visits and enumeration can be cost-effective, especially for estimating the size of the eligible population, advocating screening at the household level, and facilitating follow-up of women to be treated.

Offering a high-quality, effective, and acceptable test

- Quality assurance procedures are necessary to achieve a high-quality screening test and accurate test results. The costs of initiating and maintaining a quality assurance component to a screening program must be formally considered.
- The relative costs and benefits associated with cytology screening programs are influenced by the maintenance of a constant and adequate workload for laboratory staff in order for them to maintain proficiency. With low workloads, the costs of the laboratory staff and equipment become high in relation to the effectiveness of the program.

On the other hand, an excessive workload will reduce the quality of the screening test and compromise the effectiveness of the program.

- Visual inspection screening methods are associated with lower direct medical costs than cytology and HPV DNA testing because non-physicians can perform them, there is no need for laboratory support, and they involve less equipment and supplies. There are, however, costs associated with the thorough and ongoing quality assurance activities needed to achieve high-quality and accurate test results over time and these must be formally considered.

Ensuring treatment of test-positive women

The ultimate effectiveness of the program depends on treating test-positive women, so that cervical cancer does not develop from precancerous lesions. Dedicating resources to reducing "loss to follow-up" (i.e., ensuring that women who are identified with precancerous lesions actually receive treatment) will have a great impact on program effectiveness. Thus, resources should be strategically allocated to strategies that may reduce loss to follow-up, such as generating up-to-date lists of women who need to be treated, having sufficient staff available to offer treatment services, and offering services at times that are convenient for women.

Additional considerations

In addition to these considerations, unexpected events like frequent staff absences or breakdown of equipment may increase costs and reduce program effectiveness. Program strategies that involve reducing the number of visits for women and reducing requirements such as sophisticated equipment or frequent training sessions may reduce the probability or impact of unexpected events and increase cost-effectiveness.

The Program Action Plan

In the planning phase, the policy decisions made at the national level (e.g., target age group, coverage goals, and screening frequency) will be applied to the local program action plan in order to set *local* program targets. The local targets include the number of women to be screened in each service delivery area, the estimated number of women to be treated, and the most effective strategies for providing such services.

Local screening coverage goals

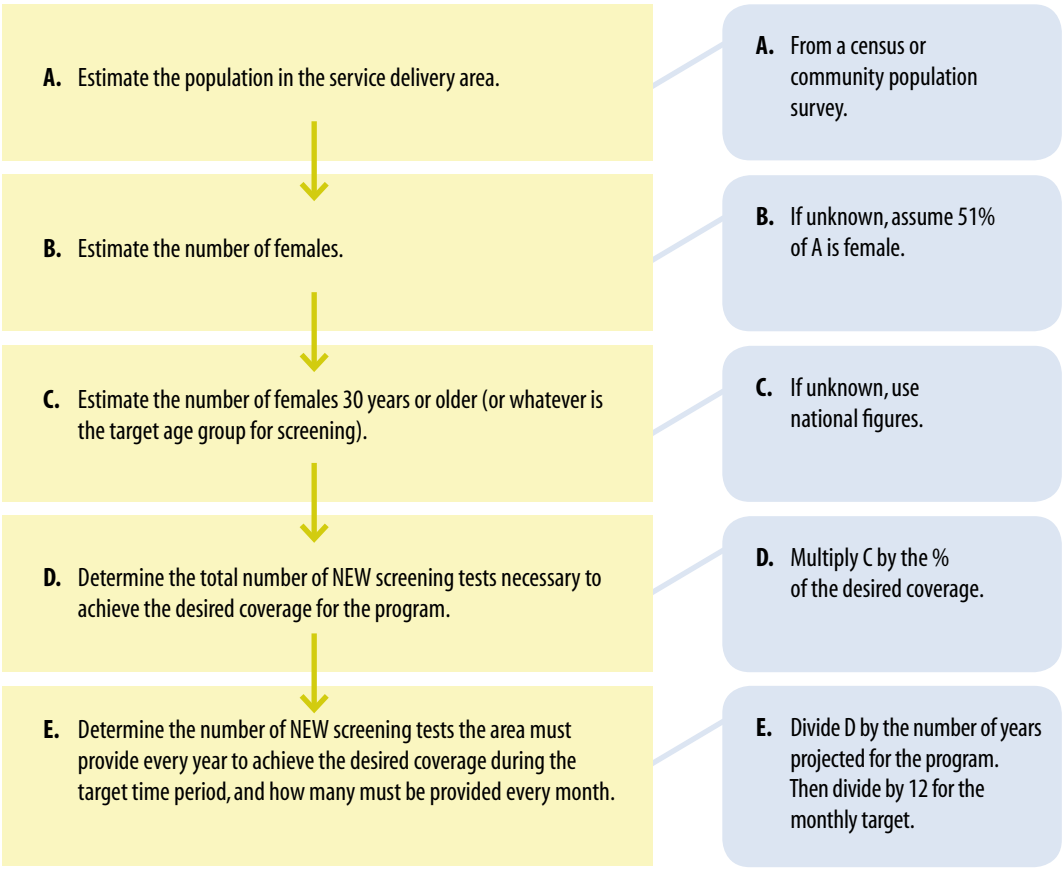
Coverage refers to the percentage of women in the target population who actually receive screening services during a given time period. Greater reductions in the incidence of cervical cancer will be achieved by ensuring that a large proportion of women are screened and treated for precancer. Screening of women outside the target age group or routine rescreening of the same women can reduce the effectiveness of the program. Therefore, objectives of the screening strategy should include screening women who have never been screened before and focusing on women in the target age group.

To achieve the desired coverage in a specified time period, the management team should estimate the size of the target age group in their area, and then calculate how many of these women need to be screened within a specified time.

Figure 5.1 shows a method to calculate the expected number of women to be screened on a monthly basis for a district or region over a given time period. The information needed for this calculation includes:

- Population of women in the target age group residing in the area.
- Coverage goal set by national policy.
- Number of years for the program to achieve its coverage goal.

FIGURE 5.1. Method to calculate the monthly screening coverage targets*



* This method assumes that no women in the target population have been screened; this is a reasonable assumption in most low-resource settings.

Source: Adapted from CHIP 2004a.

Population statistics of women in the target age group can be collected from census data (if available), by enumerating women in the target age group using a community survey, or from an estimate of the population in the area. An example of how to use this method to calculate the number of women to be screened is shown in the box opposite. This example does not account for annual population increases in the number of women in the target age group—an important consideration in program planning.

Example: How to Estimate the Monthly Screening Target

In this example, the program's goal is to screen 80% of women aged 30 years or older, over a five year period, within a defined geographic area.

A. Identify the size of the population in the area (e.g., from census data).

Example: The census reports that there are 250,000 people in the area.

B. Calculate the number of women in the area.

Example: Approximately 51% of the population is female. Therefore, there are an estimated 127,500 women in this area (51% of 250,000).

C. Estimate the number of women in the target age group to be screened.

Example: The census reports that 40% of the population is aged 30 years or older. Therefore, the estimated number of women aged 30 years and older in this area is 51,000 (40% of 127,500).

D. Calculate the TOTAL number of women to be screened.

Example: The program goal is to screen 80% of women aged 30 years or older, which is 40,800 women (80% of 51,000).

E. Calculate the MONTHLY number of women to be screened.

Example: 40,800 to be screened over 5 years = 8,160 women each year. Therefore, for each month the screening target is 680 women (8,160 divided by 12).

Estimates for treatment services

Follow-up diagnosis (where applicable) and treatment services will be required for all women with positive screening results. Therefore, the goal will be to provide these services to 100% of women who screen positive. In order to plan the strategies to achieve this goal and to budget for adequate staff and resources, the management team needs to calculate the number of women expected to have a positive screening test result that will require follow-up diagnosis and treatment for precancerous lesions. Table 5.1 provides an example of how to do this.

TABLE 5.1. Examples of estimating caseload of women requiring post-screening care

Category of client	How to estimate targets
Women screened positive who will require follow-up care.	Number of women screened times the screening test-positivity rate (5%–25% depending on the screening test used).
Women who will require treatment of precancerous lesions with cryotherapy.	80%–85% of women diagnosed with precancerous lesions will be eligible for cryotherapy treatment.
Women who will require referral for cancer management.	0.5%–1% of all women screened.

These estimates will be useful when planning and procuring supplies for the clinical services. For example, when planning and procuring cryotherapy supplies, it is useful to have an estimate of the expected number of cryotherapy treatments to decide on the number and size of cryotherapy gas tanks (nitrous oxide or carbon dioxide). See Appendix 6.2 for information on different tank sizes.

Service delivery strategies

Once the screening coverage goals and estimated caseload for follow-up care have been established, the program plan should define how the services would be delivered in order to meet these goals and targets. This plan will include:

- Deciding whether to have a phased (vertical to integrated services) or combined (integrated plus vertical services) approach to implement the services.
- Deciding on the geographic locations and sites for screening and treatment services that will facilitate achieving coverage goals.
- Deciding on the supplies, equipment, and infrastructure needed for each service site.

Deciding on a phased or combination approach

New programs may benefit from the phased approach, which is to implement vertical services at the start of the program and later move toward integrated services (discussions of vertical and integrated services are found in Chapters 2 and 6). At the start of a new program, only a limited number of trained staff will be available. Having staff dedicated to only one health service is likely to promote higher commitment and focus on the objectives of the program. In addition, staff are likely to gain more experience performing the screening and treatment procedures. As the program matures, an increased number of staff will be trained and experienced and there will be greater community awareness to enable the program to move toward integrated services.

Countries with existing cervical screening programs may use a combination of integrated services and vertical services, for instance, integrating cervical cancer prevention services with general reproductive health services. They can be supplemented with vertical services, such as occasional mass campaigns.

Deciding the geographic location for services

When deciding their target area, new programs will increase their chances of success by initially limiting the geographic scope of their activities, that is, by starting in a well-defined area and then gradually expanding to other regions as technical capacity and financial resources allow. Having a well-defined area facilitates achieving coverage goals for screening and increases chances of tracking women for follow-up. This "pilot phase" allows real-life testing of the service delivery approach chosen and provides important information on corrective actions that may be needed before expanding services to a larger area.

Information from the local needs assessment (see Chapter 4) can help management teams to identify areas with the greatest need and readiness, and to map appropriate locations for providing cervical cancer prevention services. Areas with the greatest need, however, are often the ones with the fewest resources. Both urban and rural settings have features that can limit or facilitate establishing and maintaining services. If the management team has the authority to select service delivery sites, they should consider the following factors:

- Geographic accessibility for clients.
- Ease of client tracking.
- Proximity to laboratories and treatment facilities.
- Range of human and equipment resources.
- Locations with large populations needing screening.

Decide on the supplies, equipment, and infrastructure

The supplies, equipment, and infrastructure for each service site need to be defined so that these will be sufficient to meet the screening coverage and follow-up targets. The information gathered during the needs assessment will guide the management team to decide on the specific equipment and supplies needed, as well as quantify the required equipment and supplies to achieve the coverage goals. The list of equipment and supplies required for a cervical cancer prevention and control program is contained in Appendix 6.1. Strategies for distributing and storing equipment and supplies must be established to ensure a constant flow to the health facilities. Mechanisms must also be established for repairing and maintaining equipment.

Planning activities related to other components of the cervical cancer prevention program—I&E, training, and monitoring and evaluation—are described in detail in Part 3. Planning activities related to cervical cancer treatment can be found in Chapter 10.

The Program Budget

After establishing the program's goals, targets, and strategies, the management team needs to estimate the cost of carrying out the program plan at the local level. The required funds should be allocated based on the need for each service site to have adequate resources, including skilled personnel, equipment, and supplies to serve the anticipated number of women. The case study on the next page illustrates the costs of an organized screening project in a rural part of India.

Once the required funds have been determined, the management team should identify whether resources are currently available, whether additional resources are required, and where the new resources will come from. Existing human and material resources may be sufficient, but additional resources and funds will often be required. If resources are limited, it is advisable to begin a program in a smaller area and later expand services as additional resources become available.

Case Study: Costs of an Organized Screening Project in a Region of Rural India

A large screening research project with a target population of 100,000 previously unscreened women has been established in rural Barshi, India, without preexisting infrastructure. Mobile clinics were used to screen women with VIA, cytology, or HPV DNA testing in the villages. Women who screened positive were provided transportation to the rural hospital for diagnosis and treatment. On average, the project screened 25,000 women per year.

About US$1,000,000 was allocated to cover the full cost of all aspects of this project. The total cost per eligible women ranged from $4.30 to $12.40, depending on the screening test. Between 8% and 21% of these costs were attributable to program-level costs, including infrastructure changes, implementation and management, and establishing an HIS. Overall, recruitment and invitation accounted for between 6% and 17% of the total cost of screening women.

The preliminary results of the project showed that high levels of participation (79%) and treatment (83% of the women with lesions were treated) can be achieved and that a screening program can be established with satisfactory performance in a very limited-resource setting.

Source: Legood et al. 2003.

The next box provides a list of items to be considered when developing a program budget, whether it is for a new program or strengthening an existing program. This list assumes that the basic women's health service infrastructure is already established, and therefore resources are not required for basic start-up of services.

Items to Consider in Developing the Annual Program Budget

Community involvement

- Salaries and incentives for health promoters or CHWs.
- Printing of educational and promotional materials.
- Media (TV, radio, or other media announcements).
- Community education sessions:
  - Travel costs for personnel to visit communities.
  - Physical requirements (e.g., room, chairs, flip charts, materials).
  - Paper, photocopies, and other office supplies.

Training

- Payment for the trainer(s).
- Travel costs for the trainer(s) and trainees.
- Honorarium or per diem for health personnel to attend training sessions (if applicable).
- Physical requirements for training:
  - Room rental.
  - Gynecologic model (where used).
  - Presentation materials (projector, screen, paper, etc.).
  - Supplies for screening and treatment.
  - Invitations to women to participate in a gynecologic examination by health providers during their practical training session.
- Administrative support.

Screening services

- Salaries for health personnel involved in screening (including cytology laboratory personnel if applicable). Consideration should be given to the number and type of health personnel required in each health center to provide screening and the time required to perform the services.
- Equipment and supplies for primary health care centers for screening.
- Equipment and supplies for cytology laboratories to process screening tests.
- Clinical forms to collect information and record test results.

Diagnostic and/or treatment services

- Salaries for health personnel involved in diagnosis and treatment (including pathology laboratory personnel, if applicable).
- Equipment and supplies for diagnosis and/or treatment and palliative care (please refer to the detailed list of equipment and supplies contained in Chapter 6).
- Equipment and supplies for pathology laboratories to process biopsies (if used).
- Clinical forms to collect information and record results.
- Hospital-based care for women with cancer (this will probably be included in hospital budgets).

Monitoring and evaluation

- Salary for program staff for record keeping, data entry, generating progress reports, and computer support (where used).
- Paper, photocopies, and other office supplies for monitoring and reporting purposes.
- Computer and information system software for monitoring and reporting purposes (if applicable).
- Meeting costs (room, hospitality, travel) to meet regularly with area supervisors to discuss results.

Program support costs

- Salary for program manager, administrative assistant, and other personnel required to oversee and manage the program.
- Transportation for the manager and the area supervisors to make supervisory visits to health centers.
- Transportation for sending screening test samples to the cytology laboratory.
- Transportation for sending histopathology samples to pathology laboratories.
- Recruitment of new health personnel and program staff.
- Storage and distribution of equipment and supplies to health centers.
- Repair and maintenance of equipment for diagnosis and treatment.
- Health center infrastructure, where it is needed (e.g., gynecology table).

Establishing Systems for Service Delivery

Once the program action plan and budget have been defined, preparations need to be made to ensure that all the necessary systems to deliver quality services are in place before program launch. Establishing systems for service delivery means ensuring that the relevant program materials are developed and made available, linkages are established between community and facilities, providers are trained and available, equipment and supplies are procured and distributed, and stakeholders and staff are fully oriented on the program's goal and strategies.

Most of these preparatory activities will need to take place concurrently. In this regard, the management team will need to set realistic timelines, organize appropriate task groups, and coordinate these activities to ensure that all preparations are completed in a timely manner prior to launching the program. It is important to set up the systems and build capacity *before* launching services, so that clients will find facilities and staff ready when they seek services.

Develop program materials

All necessary program materials required to support the program plan, such as I&E materials, training materials, and clinical forms, should be developed. If program materials currently exist, it may be useful to review them to determine whether they need to be modified. If no program materials exist, new ones will need to be created, based on the contents of the national policies.

Training manuals, curricula, and course agendas are developed by the trainers who will conduct the training. Developing I&E materials can require much time, effort, and resources. Wherever possible, therefore, it is best to adapt existing materials. The ACCP has ample such material, both for I&E and for training, which can be adapted and translated to ensure it is locally applicable and appropriate. These materials are listed in Appendices to Chapters 7 and 8.

Establish linkages with community and facilities

An effective cervical cancer prevention program requires a well-functioning referral network to ensure continuity of care for the client. Program planners should set up a referral task team, develop referral protocols and tools, and identify and upgrade referral facilities, as well as establish and maintain feasible communication systems. In addition, linkages should also be established with laboratories, other health sectors, data processing centers, and above all with the community. Refer to Chapter 6 for details on establishing and maintaining linkages.

Provide orientation for community, stakeholders, and staff

To promote the cervical cancer prevention program, both in the community and within the health care facilities, orientation to the program should be provided to all cadres of staff, stakeholders, and community groups. Their roles and responsibilities within the plan need to be clearly communicated so that they are prepared to participate in the program's implementation. They also need to be made aware of and familiarized with the program materials such as I&E material and clinical forms.

Ensure provider training and availability

Before launching the program, the management team should ensure there will be sufficient numbers of qualified staff to attract women to services, provide screening, and treat those who test positive. Training should be conducted according to the plan developed. It is important not to conduct the clinical training too early in the program planning phase to avoid providers losing their newly acquired skills and enthusiasm. Refer to Chapter 8 for further information on training providers.

Procure and distribute equipment and supplies

The health facility sites will need to meet basic requirements for service delivery such as running water, adequate ventilation and lighting, functioning equipment, and available supplies. Facilities should be available to store equipment, stock supplies, and file client records. Procurement and distribution of the necessary equipment and supplies should begin at least three months before launching the program. The following factors should be considered:

- Types of equipment and supplies needed.
- Sources (vendors) for procurement and resupply.
- Systems for requesting and delivering equipment and supplies.
- Storage capacity.
- Repair and maintenance of equipment.

It is important to ensure that an efficient supply distribution and logistics chain is in place. Often, the management team is familiar with systems for procurement, requisition, and distribution. For cervical cancer prevention programs, new sources and new types of equipment or supplies will probably have to be factored into the usual systems. The management team should identify sources for supplies and equipment, storage options, and requisition processes for each clinic.

Please refer to Appendices 6.1 and 6.4 for a list and illustrations of recommended equipment and supplies.

Establishing Systems for Supervision, Monitoring, and Evaluation

Before initiating the program it is essential to establish systems for supervision, monitoring, and evaluation. This step involves building capacity—designating staff, providing appropriate training, defining program indicators, and developing tools for monitoring and evaluation.

Set up the systems for supervision

A key aspect of ensuring quality in service delivery includes supervision at the facility and district levels. The management team should set up the supervisory systems before launching the program by designating and training the facility and area supervisors in their roles and responsibilities and by setting up a network for ongoing communication and monitoring.

The roles of the supervisor at the district and facility levels are to monitor and evaluate service quality, mentor staff, and facilitate communication with the management team. In addition, the nationally designated district-level supervisor will provide external supervision of all the facilities within his or her district and share experiences and lessons learned among the network of facility supervisors.

Supervisors need to be made aware of their roles and responsibilities, which include:

- *Monitoring and evaluating service quality*. Supervisors have a key role to play in ensuring that service staff keeps good quality records. They need to scrutinize site-level data with facility staff, looking at recruitment, coverage, screen-positive rates, turnaround times (where laboratories are used), specimen adequacy rates (cytology and HPV DNA testing), and treatment rates. Supervisors should help staff utilize such data appropriately for client management. Furthermore, supervisors play a key role in ensuring that data are collated and forwarded to the management team in a timely manner.
- *Training and mentoring*. Supervisors should provide oversight for organizing training, as well as for trainee follow-up. If clinically competent themselves, they may have a role to play in monitoring clinical competency and client-provider interactions, including counseling. To do so, they need to have been well trained themselves or be able to liaise with other specialists who can provide needed support.
- *Establishing and maintaining communication among the network of providers.* Where cervical cancer prevention services involve multiple client visits or referrals between facilities, the need for linkages among all service levels is paramount. The supervisor can provide this linkage by communicating and interacting often with providers and by fostering communication among the network of providers. They can establish and monitor the referral and feedback systems and facilitate regular meetings to evaluate how the system is functioning.
- *Facilitating quality services.* A key supervisory function is that of facilitator. The supervisor is often perceived as someone who comes to see whether staff are performing to standards. Supervisors must be trained not only to oversee quality assurance in a way that improves staff understanding of standards and guidelines, but also to develop the trust and respect from and among staff that will enable them to provide quality services. An additional role of the supervisor is to ensure that the training, equipment, and other needs of providers are met.

Build capacity to ensure quality

Staff should be oriented and provided with practical, easy-to-use tools for continuous quality management. This measure includes giving staff the tools to help them identify problems and develop solutions using local resources. For example, the *COPE*®* (client-oriented, provider-efficient) self-assessment approach (EngenderHealth 2004) helps staff to continuously improve the quality and efficiency of services provided, and make services more responsive to client needs by identifying concrete and immediate opportunities for action. Chapter 9 provides further detail on tools for improving quality.

Define the program indicators

The management team needs to identify the critical indicators that will be used to monitor program performance. For each of the program goals—achieving a high screening coverage, offering a quality test, and ensuring treatment of test-positive women—progress can be measured using appropriate quantitative indicators. Refer to Chapter 9 for further detail on the indicators, using them for monitoring the program and identifying areas needing corrective action. These indicators should be defined before launching the program.

Set up the information system

Monitoring the program performance, based on the defined measurable indicators, requires an HIS that generates good-quality data in a timely manner. The management team will need to ensure that there is an HIS set up to collect, summarize, and report on the defined indicators. A fully functioning information system with efficient communication links should be set up before launching the program to avoid backlogs of information collection, as well as long delays in managing patient information. Refer to Chapter 9 for further detail on using the information system to monitor and evaluate the program.

* *COPE* is a registered trademark of the U.S. patent office.

Launching the Program

Having a ceremony involving stakeholders, healthcare staff, and community members can effectively launch a new program.

The program should be formally launched through an event with stakeholders, community, and health staff to announce and inaugurate the program. It should take place once all the preparations have been completed, including those for program materials, equipment and supplies, trained health providers, and the systems for quality management. The event could involve a large meeting with the policymakers, key stakeholders, community representatives, and media to introduce the program, its strategies and materials, and to present formally the members of the management team and area supervisors. A community-based launch event will serve to profile the program and generate enthusiasm for its implementation among the providers and the community members. It is important to ensure that once the program has been launched, the services are offered immediately afterward with continuous implementation.

Part Three of the manual provides detailed information on implementing key aspects of the program.

Conclusion

A program action plan and a budget allocating resources to the plan should be developed. The action plan should comprise local screening coverage goals, estimates for treatment caseload, and local strategies for service delivery, training, and I&E activities. These strategies need to be developed to achieve the program goals of high screening coverage, offering a high-quality test, and ensuring treatment of test-positive women. It is important that all systems and capacity to deliver cervical cancer prevention services are in place prior to inaugurating the program. Most of these preparatory activities will need to be performed concurrently. A vital role of the management team is to set up realistic timelines and coordinate the various activities. Once the program has been launched, services should be offered according to established plans to maintain support among providers and the community.