

CHAPTER 9

HUMAN RESOURCES

INTRODUCTION

This chapter discusses key requirements for planning and managing human resources at a primary health centre. Human resources are the essential ingredient for all care delivery. Whether you are delivering basic primary care or HIV prevention, care, and treatment services; your health centre needs an adequate supply of trained and motivated staff to provide quality services.



Managing human resources is a complex task that requires national level policy and planning for long-term sustainable impact. This chapter will outline steps that staff of a primary health centre can take to help:

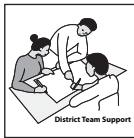
- ensure an adequate number of staff
- make task-shifting effective
- make sure staff have appropriate training
- ensure supportive supervision and mentorship
- improve staff motivation and retention
- establish a safe workplace

The chapter targets the “in-charge” provider. This person can be the head HIV clinical provider, the nurse in-charge, or another person on the health centre team who is responsible for overseeing and managing the centre. This person will be responsible for most of the human resource activities described in this chapter. In most primary health centres, this person is the senior nurse. However, the chapter is designed to be helpful to all levels of staff.

9.1. HOW TO HELP ENSURE AN ADEQUATE NUMBER OF STAFF

Generally, recruitment and hiring are carried out by the district health office, not the health centre. However, there are steps you as the in-charge provider can take to improve your chances of receiving the number of staff you need at your health centre. These include:

1. Contact your district health office to learn the positions (number and cadre) assigned to your health centre



- How does the number and cadre of positions actually assigned compare with recommended staffing (see next page)?
- Are any assigned positions unfilled at your health centre? If so, how many?
- Which positions are vacant, and for how long have they been vacant?

The chart below presents the “basic” staffing recommended by your ministry of health.

“Basic” staffing refers to staff required to provide primary care services not including chronic HIV care for PLHIV, and is based on the population served. Fill any vacant “basic staffing” positions first.

Recommended “basic” staffing for primary health centres (1)		
Small health centre (catchment population of 3,000-7,000 people)	Clinical staff <ul style="list-style-type: none"> • One clinical assistant • Two nurses; one nurse/midwife (N/M) and one emergency nurse • One nurse assistant 	Support staff <ul style="list-style-type: none"> • One cleaner • One watchman
Large health centre (catchment population of 7,000-20,000)	Clinical staff <ul style="list-style-type: none"> • One clinical officer • One clinical assistant • Five nurses - one registered N/M, two EN/M, two EN • Two nurse assistants • One pharmacy technician/assistant • One laboratory technician/assistant 	Support staff <ul style="list-style-type: none"> • Two cleaners • One watchman

Adapt these staffing recommendations to your local situation. If you have a larger catchment population, add more staff. If you have an additional number of patients during some periods of the year, such as during malaria or harvest seasons, add more staff during these seasons, or make sure your staff does not take leave during these peak periods.

The chart below presents the “additional” staffing recommended by your ministry of health to provide HIV prevention, care, and treatment services at your health centre.

If you provide HIV services, you should add the “additional” staff below to your “basic” staffing above.

Recommended “additional” staff needed for HIV care and treatment (2)			
Small or large health centre	Number of HIV-positive patients per year	Clinical staff to be added	Support staff to be added
	One to 100 patients	• Zero to one	• One to two lay providers
	101-250 patients	• One additional clinical provider	• One clerk/triage officer • Two lay providers
	251-500 patients	• One to two additional clinical providers	• One clerk/triage officer • Three lay providers
	500-750 patients	• Two additional clinical providers	• One clerk/triage officer • Four lay providers

2. Locate job descriptions for each position assigned to your health centre

Job descriptions will help you determine the qualifications and positions for staff you wish to recruit to your health centre. These job descriptions are usually standardized across health facilities, and should be on file at your health centre or at your district health office. Once staff are hired, job descriptions can be used to help assess employee performance.

3. Learn how the local hiring process works

Hiring is usually carried out by the district health office, but you can increase your odds of obtaining the staff you need by: being informed about the hiring procedures that apply to your health centre, advocating for your team, and pursuing alternative hiring procedures when needed. For example, you may need to send an official request to the head of your district health services, who will approach the district personnel office to create a position or fill the vacancy. In some cases, the recruitment has to go via district authorities to the ministry of health and ministry of public service. Once the position and its budget have been approved, the district service commission or an equivalent body can advertise it, form a selection committee, and recruit candidates.

4. Try to ensure that you are on the selection committee

Being on the selection committee gives you a chance to help choose who will be hired at your health centre. Contact your district health office to make this request.

5. Communicate regularly with the local recruiting authorities

Keep in contact with people in the personnel office at your district health office so that you know of upcoming changes that could affect staffing of positions at your health centre. Keep these people informed of your staffing needs, using the information you gathered, and citing the vacancies that exist and the recommended staffing tables above to justify your need for additional staff.

6. Be persistent!

If budget ceilings or other limitations prevent you from hiring staff:

- Ask to hire staff on temporary contracts.
- Try alternative procedures. Contact local NGOs and donors to ask if they can hire and pay the salaries for new staff at your health centre.
- Recruit volunteers. Make sure you develop good relations with local communities and community groups so you can recruit volunteers in times of high workload (see below).

7. Recruit lay providers for your health centre team, including PLHIV

Recruiting lay providers can help increase the number of staff at your health centre. Lay providers are non-professional workers who can serve as counsellors, triage officers, data clerks, community health workers, nursing, laboratory and pharmacy assistants, and more. Depending on their training and experience, lay providers can work in non-clinical and clinical roles as paid staff or volunteers. See examples of how to include lay providers in the health centre team at the end of this section.

You should encourage people living with HIV (PLHIV) to apply for lay provider positions because they bring unique skills to your team. PLHIV have personal experience with the disease, and can help other patients to understand and use the health system, address personal and family issues (such as stigma and HIV disclosure), and manage treatment and its side-effects. Indeed, PLHIV are valued members who can occupy all levels in the health centre team, from medical officer to lay provider.

In order to encourage the participation of lay providers, including PLHIV, at health centres you can:

Reach out to community groups in your catchment area

Talk with community leaders and associations – such as PLHIV support groups – to identify the roles and positions at your health centre that could be filled by lay providers, including PLHIV.

Identify the tasks that could be performed by lay providers



Lay providers can perform a range of tasks including helping with triage, taking patients' vital signs and pulling their charts, data keeping, treatment adherence counselling, treatment literacy and education. They can also do pill counting and stock management, track patients who are lost to follow-up, community outreach, home-based care and follow-up, manage PLHIV support groups, handle counselling (such as for people who are HIV-positive and their partners), basic laboratory testing, and more.

Decide how you will recruit and retain lay providers

You can recruit lay providers to your health centre team as full- or part-time staff. Whenever possible, they should be paid. If payment is not possible, provide other incentives such as meals, gifts, waived medical fees for them and their children, or invitations to training and events. Paying for costs associated with the lay providers' work is also important. This can include paying their bus fares or buying/lending them a bicycle.

Providing opportunities for promotion can also help retain lay providers. An easy approach is to create "junior" and "senior" positions (such as junior and senior community outreach worker) with some difference in compensation and assigned tasks. If you do not provide incentives to your volunteers, they will likely leave in search of better opportunities. NGOs and FBOs can be approached for help in hiring lay providers.

Consider the qualifications and/or training needed for lay providers

Once you identify the tasks you wish the lay providers to perform, identify the training or qualifications they need to perform their roles. Contact your district health office or donors in your area to see the training available for lay providers (also see 'recommended training' in this chapter).

Hiring and orientation

Once you hire the lay provider, introduce him/her to the health centre team and provide an orientation to centre rules, procedures, physical layout and services. If possible, have the lay provider accompany another health worker to learn their tasks by watching first. Particularly in the first few weeks, you

should also follow-up closely with the lay provider to help answer any questions and resolve any problems.

Remember to involve lay providers in all activities of your health centre team!

Lay providers, including PLHIV, should be considered “part of the team”; they should attend the same staff meetings, be invited to staff get-togethers and activities, and have the same medical or other benefits whenever possible. Also, when you are conducting quality management activities, such as evaluations, be sure to include the feedback of lay providers, especially PLHIV. They have a unique and valuable perspective on how to improve the delivery of health services to HIV-positive patients.

Examples of including lay providers in the health centre team

- In Kenya, PLHIV are asked to visit the clinics and facilities where patients are referred for follow-up care. During these visits, the PLHIV gather information on the services provided (how, by whom and during which hours), in order to assess whether the services at these sites match what is described in the referral. In this way, lay providers help ensure that HIV-positive patients are receiving the quality referral care they need. These visits also allow lay providers to become familiar with the services provided so they are able to better advise HIV-positive patients on what to expect and how to best manage their treatment experience at clinics and other facilities.
- In some parts of South Africa, lay providers are recruited by the district health office to work as data-captors and as lay counsellors at hospitals and health centres providing antiretroviral therapy. These lay providers are paid to work full-time. Data-captors conduct tasks such as pulling charts, entering data into computer records, and producing reports on patient results for the district and provincial health offices. The lay counsellors perform HIV testing and counselling as well as valuable adherence counselling. The lay providers extend the capacity of the clinical team and free up the time of nurses who can then focus on seeing more patients.
- In many countries (including Rwanda and Senegal), “community case managers (CCMs)” travel to remote villages to provide home-based care to respond to early cases of pneumonia malaria, diarrhoea, and malnutrition among children. CCMs are trained and supervised by the health centre team. They provide assessment and classification of the child’s condition, and use of oral rehydration solution, zinc, antibiotics, and antimalarials, as well as providing counselling. CCMs save lives by identifying and addressing potentially fatal conditions early, and by referring complicated cases to the health centre.

9.2. HOW TO HELP MAKE TASK SHIFTING EFFECTIVE

“Task shifting” is the reassignment of clinical and non-clinical tasks from one level or type of health worker to another so that health services can be provided more efficiently or effectively. For example, when medical officers are in short supply, many HIV-related services can be effectively shifted to non-physicians such as clinical officers and nurses, while maintaining quality. This increases accessibility of health services to the community. The diagram on pages 242-243 demonstrates the HIV-related clinic-based tasks that can be provided by clinical and non-clinical staff. Task shifting also can apply to laboratory functions, supply management, and pharmacy services.

HIV counselling and testing

In many countries, only nurses are permitted to carry out HIV counselling and testing. However, health centre nurses are generally very busy with clinical duties, and this limits the number of patients offered counselling and testing. This is very serious in high sero-prevalence settings when all patients should be offered HIV counselling and testing. If lay counsellors work under the supervision of a health centre nurse and with periodic mentoring from an experienced HIV district level counsellor, they can provide an inexpensive and effective solution to this human resource problem.

“Task shifting” is not new; historically many countries have created substitute cadres to take up the tasks of existing professionals when they have been in short supply. Task-shifting initiatives have increased in recent years, particularly in countries with high HIV prevalence rates. It is likely you will experience it at your health centre with expansion of the clinical team. Decisions on task-shifting policy are usually made nationally, but there are steps you can take to help ensure successful implementation at your health centre.

Make sure that lay providers taking on new tasks are closely supervised, mentored and supported by experienced health centre staff

For example, if lay providers are performing HIV counselling and testing, the health centre nurse needs to establish regular meeting times with them so she/he can observe, supervise, and act as a mentor to that person.

Identify the health centre provider's 'clinical back-up' at district level and make sure they have regular communications with this back-up staff

Health centre providers need district counterparts who will supervise and act as their mentors, and who will ensure that patients are being adequately referred to the district and are returning to the health centre for services. For example, nurses handling ART and follow-up need to have regular communications with the district medical officer or head clinician. This will ensure that referrals are made correctly for patients with complications and that consultations take place on challenging cases. "Back-up" at district level is also needed for laboratory, pharmacy, and supply management staff.

Establish a clinical "team-based approach" through regular clinical team meetings and good communications between staff

Conduct a weekly meeting of all staff at which you can openly discuss patient cases and issues that arise, and work together to solve problems. Encourage regular dialogue between staff about how to improve tasks to increase service efficiency and quality.

Establish regular performance measurements to assure adherence to clinical and other standards (see Quality Improvement chapter)

Implement strategies to motivate your staff and to prevent 'burnout'

When staff are required to take on new tasks in an already heavy workload, they can suffer increased anxiety, stress and burnout. Work together as a team to determine how you can keep each other motivated. Section 9.6 on 'employee motivation' provides some tips.

Task shifting can be a real asset to your health centre, but it takes teamwork, supervision and constant communication!

Sequence of care after positive HIV test



2 Education and support

- Give post-test, ongoing support.
- Discuss disclosure and partner testing.
- Explain treatment, follow-up care.
- Support chronic HIV care.
- Assess and support adherence to care, prophylaxis, ARV therapy

Education & Support Guidelines
(See Annex A)



1 Triage

- Patient returns for follow-up.
- Register.
- Interval history.

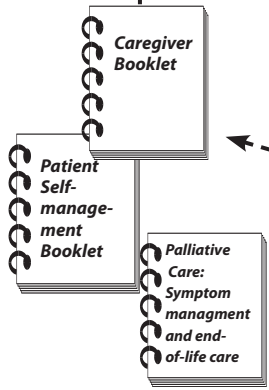


Patient continues with home-based care and treatment support.

Family and friends, peer support, community health workers, other community-based caregivers, traditional practitioners, CBOs/NGOs/FBOs, OVC projects.

11 Prevention for PLHIV's

- Prevention of HIV transmission:
 - Safer sex, condoms
 - Disclosure support
 - Partner testing
 - Risk reduction plan
 - Counsel discordant couples
 - Household and caregiver precautions
 - Reproductive choice, PMTCT, family planning
- Positive living.
- For IDU, harm reduction interventions.



10 Arrange

- Dispense and record medications.
- Schedule follow-up.
- Link with community services.
- Record data on card.

From IMAI Chronic Care

3 Assess

- Do clinical review of symptoms and signs, medication use, side effects.
- Determine HIV clinical stage and functional status.
- Assess adherence to medications. (Use counsellor's assessment and your own.)

If health worker visit needed:

4 Assess family status including pregnancy, family planning, and HIV status of children

If pregnant
post partum

Antenatal, postpartum and newborn care with integrated PMTCT interventions

5 Review TB Status in all patients on each visit

TB Care with TB-HIV Co-management

6 Provide acute care using:

- IMAI *Acute Care* guideline module.
- IMCI Chart *Booklet for High HIV Settings* if age below 5 years.

For all, manage symptoms

7 Give prophylaxis if indicated

8 ARV therapy:

- Decide if eligible and where to initiate.
- Consult/refer to district clinician per guidelines.
- Do clinical monitoring of ARV therapy.
- Support adherence.

9 Manage chronic problems

Acute Care

If severe illness

Consult or send to District Clinician if indicated

9.3. HOW TO HELP MAKE SURE STAFF HAVE APPROPRIATE TRAINING

As the in-charge at a health facility, you play an important role in planning and tracking the training your staff receive. You should ensure that health centre staff have the right training at the right time to provide the quality basic services outlined in this manual. You also should ensure that training opportunities are provided fairly and do not interfere with service delivery. By helping your staff gain access to training opportunities in an equitable way, you also help promote their career development and improve motivation and morale.

Keep a training log

The in-charge should make sure a training log is created and updated for every training session that an employee receives. A log can take any form, but should include the **name and position of the staff** who received the training (e.g. nurse, pharmacist, etc.), name of the training course, the **provider of the training** (organization or government office) and the **date the course occurred**. A data clerk can be responsible for filling out the log, but a supervisor will need to make sure this is done on a regular basis and that the log is up to date. Annex 9.2 of this manual includes training log samples you can use.

Steps needed to manage training at your health centre

Identify training needs

Review your training logs (provided in Annex 9.2) to identify the required and optional training courses that each staff member currently needs. See charts below for recommended training for your clinical and non-clinical staff.

Identify available training:

Contact the district health office, regional hospitals and donors in your area to identify available training that matches your needs. Does the training take place on-the-job or off-site? Is any follow-up support provided? Is training accredited? Determine how training will be paid for, including fees, travel and meals.

Determine how you will maintain service delivery while your staff is away at training

Ask the following questions:

- Will fewer patients be served?
- Do remaining staff have the skills and training to cover for the staff away at training?
- Will the remaining staff work longer hours?
- Is this training essential to providing quality services at the health centre? The in-charge needs to help balance a staff person's need for training with the workload of remaining staff.
- Will the district health office provide staff who can fill in at your health centre while your employees are at training?

When training is completed, keep a record of it in a training log

This log can be completed by a clerk, but as supervisor you should ensure that this record-keeping happens on a regular basis. See the annex for a training log you can use.

Training debriefing

Ask staff who received the training to share key lessons learned and training 'likes and dislikes' with other health centre team members. This can take place during a team lunch or meeting.

Do not be afraid to ask

If the district health office or area donors do not provide the training your staff needs, tell them what you need. They may be able to help. They may be able to lend you staff from the district level to fill in for your staff while they are on training.

RECOMMENDED TRAINING

To provide basic primary care services, the following training is recommended:

Recommended training for staff to provide basic primary care services – SMALL health centre (catchment population of 3000-7000)	
This staff....	Should be trained in.....
<ul style="list-style-type: none"> • One clinical assistant • Two nurses 	<ul style="list-style-type: none"> • IMCI, IMAI Acute Care, and IMPAC or equivalent • Laboratory • Supply management • Leadership and management • Quality management • Patient monitoring
<ul style="list-style-type: none"> • One nurse assistant 	<ul style="list-style-type: none"> • Patient monitoring • Laboratory functions • Supply management • Quality management

Recommended training for staff to provide basic primary care services – SMALL health centre (catchment population of 3000-7000)	
This staff....	Should be trained in.....
<ul style="list-style-type: none"> • One clinical officer • One clinical assistant 	<ul style="list-style-type: none"> • IMCI, IMAI Acute Care, and IMPAC or equivalent • Good management • Leadership and management
<ul style="list-style-type: none"> • Five nurses 	<ul style="list-style-type: none"> • Two trained in IMCI • Two trained in IMAI Acute Care • One trained in IMPAC • Good management
<ul style="list-style-type: none"> • One pharmacy technician/assistant 	<ul style="list-style-type: none"> • Supply management • Good management • Toxicity management and adherence counselling
<ul style="list-style-type: none"> • One laboratory technician/assistant 	<ul style="list-style-type: none"> • Laboratory • Lab quality management • Quality Laboratory Practise
<ul style="list-style-type: none"> • Two nurse assistants 	<ul style="list-style-type: none"> • Patient monitoring • Laboratory functions • Supply management • Good management

To provide **HIV prevention, care, and treatment**, the following *additional* training is recommended

Recommended training for staff to provide HIV prevention, care, and treatment services		
Estimated number of HIV-positive patients at your facility	This staff...	Should be trained in
• One to 100 patients	• At least two clinical providers, both in the outpatient clinic and ANC/PMTCT	• Clinical HIV • Good management
	• At least one lay provider (PLHIV)	• Counselling • Patient monitoring
	• Lab technician/assistant	• HIV-related laboratory services
• 101-250 patients	• At least three clinical providers; two in the outpatient clinic, and one in the ANC/PMTCT	• Clinical HIV • Good management
	• At least two lay providers	• Counselling • Patient monitoring
	• Lab technician/assistant	• HIV-related laboratory services
• 250-500 patients	• At least three to four clinical providers; two in the HIV clinic and one to two in the ANC/PMTCT	• Clinical HIV • Good management
	• At least three lay providers	• Counselling • Patient monitoring
	• Lab technician/assistant	• HIV-related laboratory services
• 500-750 patients	• At least four clinical providers; two in the HIV clinic and two in the ANC/PMTCT	• Clinical HIV • Good management
	• At least four lay providers	• Counselling training • Patient monitoring
	• Lab technician/assistant	• HIV-related laboratory services

Data clerk training

In addition to clinical and counselling staff, community members employed as “clerks” or data keepers in the health centre should also receive training. This is typically carried out “on-the-job”, but there are training courses for many of the following skills:

- triage
- HIV patient monitoring (cards, registers, reports)
- data recording

Components of HIV-related training:

The charts on the next page describe the components of the recommended HIV-related training listed above. “Basic” training lists the essential and required training components that your staff should receive to provide HIV services (based on the recommendations above) “Follow-on” training is more advanced and lists the specialized courses that should be added based on your staff’s current duties and interests within the health center. Considering your staff’s interests when selecting training improves morale and helps retain employees. Keep in mind whether the clinical team as a whole has the ability to provide the HIV services you have planned!

Clinical training for integrated HIV prevention, care and treatment:

Each clinical staff person on the team should receive all of the basic clinical training courses. Follow-on training can be combined with basic training in the second week, or taken later as a separate course. In all clinical training, at least one of the clinical providers trained should be the head HIV clinical provider. In addition, all staff of the health centre including this head HIV clinical provider should be trained in universal precautions and workplace safety issues see section - 9.5. of this chapter.

Basic clinical training	Follow-on clinical training
Chronic HIV care, ART, prevention with PLHIV (includes clinical staging, cotrimoxazole and INH prophylaxis, how to fill out the patient HIV care/ART card, intensified TB case finding ¹)	IMCI-HIV complementary course (HIV testing, diagnosis and management of OI in children, follow-up) ²
	Adolescents in HIV care
Acute care (when to suspect HIV and TB, OI diagnosis and management) ³	PMTCT integrated with improved antenatal and postpartum care ⁴
Provider-initiated testing and counselling for clinicians - basic course	PMTCT integrated with improved labour and delivery care ⁴
TB infection control ⁵	Reproductive choice and family planning for PLHIV ⁶
Universal precautions, PEP and other workplace safety issues	TB-HIV co-management ⁷
	Syndromic STI management
	Palliative care: symptom management and end-of-life care
	Mental health/neurology
	Brief interventions for hazardous and harmful alcohol use

Counselling training for integrated HIV prevention, care and treatment:

All staff who provide counselling services – including clinical providers, counsellors, lay counsellors or community health workers – should receive at least basic counselling training. Further follow-on courses prepare the counsellor to manage other content areas building on the basic training course.

¹ Based on IMAI-IMCI basic Chronic HIV Care with ART and Prevention Course or its equivalent

² In some regions, HIV training is integrated into the regular IMCI course on case management of common illnesses of children. Patients who have taken this training course would not need to take the IMCI-HIV complementary course.

³ IMAI Acute Care/OI Training Course or equivalent.

⁴ Based on IMAI/IMPAC Clinical Course for integrated PMTCT Services

⁵ Based on IMAI-STB TB Infection Control Training for Health Care Settings or its equivalent

⁶ Based on Reproductive Choice and Family Planning for PLHIV training course or its equivalent

⁷ Based on IMAI-STB TB-HIV Co-management Training Course or its equivalent

Basic clinical training	Follow-on clinical training
Lay counsellor training course (PITC, prevention with PLHIV, post-test support, patient education, adherence counselling, psychosocial support) ⁸	Advanced post-test counselling
	Infant feeding counselling and support
	Psychosocial support for children
	Post-rape care
	Working with vulnerable groups (e.g. orphans)
	Brief alcohol interventions

Patient monitoring training for integrated HIV prevention, care and treatment:

Clinical providers normally receive training on how to fill out the patient card during their basic IMAI chronic HIV care training. If they did not receive it they will need it. In addition, a data clerk needs to be trained to manage the records and registers (see chapter 6 Monitoring). The in-charge or another staff with interest or skills in analysis should receive further training so they can play a lead role in using the data.

Basic patient monitoring training includes the following skills:

How to fill out the patient card

Transferring data to registers and completing quarterly report and cohort analysis forms (can be done by data clerk)

Advanced patient monitoring (how to oversee registers and reports, calculate indicators, and use data for clinical decision-making)

Supply management training for integrated HIV prevention, care, and treatment:

Someone needs to manage the store. If there is no pharmacy assistant, a nurse

⁸Based on IMAI Lay Counsellor Training Course or its equivalent.

or another staff member needs to be trained in managing the drug supply at the health center. A WHO in training course “drug supply management at the first-level facility” that covers the necessary components as described below. Also see chapter 7 Supply Management, in this manual as a resource.

Basic supply management training includes the following skills	
How the drug store is prepared	How supplies are ordered
How supplies are organized	How supplies are received
How records are kept	

Laboratory training for integrated HIV prevention, care, and treatment:

All staff performing laboratory services– including, lab technicians, lab assistants, and clinical providers– should receive training in each essential lab service which they will provide.

Basic HIV-related laboratory services training to be performed and quality assurance tests	
Malaria smear	Haemoglobin estimate using WHO Colour Scale
Rapid Malaria test	Haemoglobin using haemoglobinometer (if used)
Sending TB sputums	Haematocrit
Prepare and read TB sputums	Urine dipstick for protein and glucose
Rapid HIV test	CD4: collect blood, hold, and prepare for transport
Rapid syphilis test	DBS: collect blood, hold, and prepare for transport
Rapid pregnancy test	

Leadership and management training:

In most resource-constrained health centres, a clinical provider is also responsible for overseeing the daily operations. So in addition to clinical training, the staff in charge of the health centre (large or small) should receive training in leadership and management skills.

Leadership and management training can include the following skills:	
Programme planning	Monitoring and evaluation
Financial management	Supply management
Mentoring, supervision, staff appraisal	Facility management, including workplace safety

Quality management training:

Quality management training is ideal for all staff of the health centre, so that your whole team can work together to improve day-to-day operations. This training is best performed as part of employees' orientation to assure quality management from the start. The head HIV clinical provider or in-charge of the health centre could also benefit from more comprehensive follow-on quality management training that is provided by your district health office, regional hospital, or area donors.

Basic quality management training	Follow-on quality management training
Performance measurement	Comprehensive quality management training
Quality improvement	Facilitating quality improvement at your health centre
5 Ss at the health centre	Leading 5 Ss activities

Cross training of staff

Cross training means you train staff to develop overlapping skills, so that if one staff member is unable to perform a task, another staff member can perform it in his/her place. This limits any interruptions in service delivery and expands the skill set of the health centre team. An example of cross training is to train your ANC nurse to provide laboratory services. The ANC nurse is then available to fill in for the laboratory technician if s/he is not available due to staff turnover, illness or move to another position elsewhere.

Cross training can happen 'on-the-job' by having the staff to be trained 'shadow' or observe experienced staff, or through formal training. As in-charge of the health facility, you should be responsible for arranging cross-training.

Best practises in training

Experience has shown that the best forms of training integrate on-the-job training and ongoing training and/or provide support to trainees over time. "Once-off" training sessions that are only classroom-based do not provide the same lasting improvement in skills and expertise, and require health workers to spend time away from delivering services at the health centre.

Refresher training and continuing education

In many countries, health and education ministries are collaborating to integrate many of the above areas of study into pre-service education. Staff who have already received the above training during medical, nursing, pharmacy, or other degree programmes can focus on taking **refresher courses or more advanced training in the form of continuing education** after joining the workforce.

Refresher training and continuing education helps keep staff aware of new developments and policies, helps promote career development, and improves motivation and morale. You should monitor training logs to determine when a staff member could benefit from refresher training and continuing education. However, make sure you balance this need for training with the need for the staff member to provide services.

Other learning opportunities

Your staff can also learn through many opportunities that occur outside of formal training. These ‘ongoing learning opportunities’ can take place in or out of the health centre, and can be managed by you or other members of the centre team, and by non-governmental organizations, district or national health offices or other external groups.

Example of ongoing learning opportunities provided at the health centre	Example of ongoing learning opportunities provided away from the health centre
Review of patient cases	Educational presentations
Staff/local experience-sharing	Conferences
Review of latest information, and journal ‘clubs’	Regional experience-sharing
Clinical mentoring	Cross-site visits

9.4 HOW TO SUPPORT CLINICAL MENTORING AND SUPPORTIVE SUPERVISION

Clinical mentoring

A clinical mentor is a clinician with experience and expertise who provides ongoing training and advice to clinical providers with less experience or expertise. The goal is to help the less experienced provider develop skills and experience, grow professionally, and provide higher quality care. Mentors meet regularly with the providers they are helping to review clinical cases, answer questions, problem-solve, and provide feedback and assist with case management. Mentors can be formally assigned to a staff member or they can volunteer based on their personal interest.

A clinical mentor is different from a supervisor, who has formal authority over a staff member and is responsible for evaluating performance. Mentors are instead more like a 'coach', who focuses on improving staff expertise, motivation and confidence. Clinical mentors should be supportive of the staff person and their growth as a person and a professional.

In a network model of care, clinical mentoring at the health centre will be conducted through visits by clinical providers from the district hospital, and through ongoing phone and e-mail correspondence where available.

Clinical mentor job description: a clinical mentor helps a provider with¹:

1. building relationships;
2. identifying areas for improvement;
3. responsive coaching and modelling of best practises;
4. advocating for work environments that improve patient care and provider development;
and
5. data collection and reporting.

¹ University of Washington - ITECH.

What you should know about clinical mentoring visits

When a primary health centre begins providing chronic HIV care and treatment, it will require one mentoring visit from a district hospital clinical provider every month for the first six months. After six months, the health centre will require only one visit every two to three months. If you are not receiving this level of mentoring, contact your district health office.

Each mentoring visit takes at least one day, but frequently may take three to four days.

Clinical mentoring visits usually include:

- observation of case management and reinforcement of a staff member's skills;
- review of patient monitoring cards and Pre-ART and ART registers;
- clinical case review;
- clinical team meeting;
- documentation of each visit (including recommendations).
- your health centre clinical team should prepare for these visits by reserving the dates and selecting patient cases for review (such as cases of people recently initiated into antiretroviral therapy, as well as routine, challenging or difficult cases, or deaths). In some instances, inviting the patient back to the clinic when the clinical mentor is scheduled to be there can facilitate consultation and avoid referral.
- integrate the recommendations of your mentor into quality management/ improvement activities at your health centre.

Supervision

Supervision is a formal relationship of authority between a more senior ranking health worker and his or her subordinates. Supervisors can be located at the primary health centre or at a higher level facility such as the district hospital. A health centre supervisor is responsible for helping ensure that each staff member is providing adequate service delivery and is following health centre rules and policies. The following chart outlines recommended supervision at your primary health centre:

Recommended supervision at large and small primary health centres

Level	Supervisor
Lay counsellors	Nurse/ midwife/clinical officer/clinical assistant
Laboratory personnel/laboratory assistants	In-charge; district or sub-district laboratory personnel
Pharmacy assistants	In-charge; district or sub-district pharmacy personnel
Nurse/midwife	In-charge; district or sub-district nursing officer or clinical officer
Clinical officer	In-charge; district or sub-district medical officer

Effective supervision is especially important to provide quality HIV services. Chronic HIV care and treatment requires health workers to undertake continuous learning and to be able to solve problems. Those demand regular consultations with an engaged and supportive supervisor.

Supportive Supervision

Supervision does not mean finding ‘fault’ with your staff’s work. Instead, supportive supervisors focus on making sure their staff has the training, mentoring, guidelines and tools, equipment and supplies and working conditions they need to perform the job effectively. It means assisting your junior staff to achieve goals, identify problems and challenges and together find solutions to problems. The supervisory relationship should be compassionate, supportive and helpful. Good supervisors learn from their subordinates, adapt to their needs and should be open to suggestions.

A supervisory checklist – is an easy way to prepare for your supervisory meeting with staff, because it identifies the issues you need to address during the session, and reminds supervisors during the session of issues that might be overlooked.

9.5 HOW TO ENSURE A SAFE WORK ENVIRONMENT

You have a critical responsibility to ensure a safe working environment for your staff. The following section provides important guidelines to prevent the spread of tuberculosis and HIV in the health centre.

The small, but real risk of contracting a disease or illness in the workplace – particularly HIV and TB – can cause anxiety, fear, and low morale among your staff. By following standard workplace safety precautions, you can improve the health and well-being of your staff and patients.

Prevent and manage workplace exposure to HIV

During employee training, workplace procedures that deal with exposure to HIV should be included with other workplace safety guidelines, and be monitored regularly to assure they are implemented. Even after you take measures to prevent workplace exposure to HIV, you should be prepared for it to occur. Below are some steps you should take to minimize HIV exposure in the workplace:

1. Identify a contact person to deal with workplace HIV exposure.

Choose someone who is:	Responsibilities:
<ul style="list-style-type: none">• responsible• trained• trusted and agreed on by health centre staff• available during all working hours (or assign more than one contact person).	<ul style="list-style-type: none">• explaining procedures and PEP• coordinating blood results• arranging confidential HIV testing and post-test counselling for the health worker• remind the health worker when follow-up blood tests are due• completing the necessary forms and reports• ensuring confidential storage of all documentation• completing the incident report (for occupational health and safety review and for possible compensation) and include in health centre log book

2. Set up a system to urgently respond to workplace HIV exposure and make HIV-PEP available 24 hours a day/seven days a week.

3. On the wall of your clinic, post the PEP procedures – available as a wall poster in Annex 9.3 of this manual – and make PEP clinical guidelines easy to obtain at all times.
4. Keep starter packs – or initial doses of PEP – in the health centre emergency cupboard and ensure that they are accessible 24 hours a day, including during holidays and weekends. Workers should have the option to obtain services away from the worksite in order to increase privacy and confidentiality.
5. Encourage staff to report incidents of exposure to HIV in the workplace. Use the HIV-PEP procedures for ALL staff exposed to HIV in the workplace (this means all categories of health personnel, including public and private employees).
6. Routinely inform health personnel about HIV-PEP. This includes how and where to obtain advice, and reporting procedures during working hours.
7. Support health worker access to confidential HIV counselling and testing services.

Facilitate health worker HIV testing, counselling, HIV care and ART:

- Encourage every member of your staff – including auxiliary staff and volunteers – to be tested.
- Place information in staff rooms about local locations of confidential HIV counselling and testing and care and treatment services.
- Make sure health workers understand that unprotected sex remains the most common route of HIV transmission; emphasize that safer sex practises are very important.
- Health workers should understand the importance of starting ART early.
- Support the formation of HIV-positive health-worker support groups.
- Ensure health workers have access to confidential and low-or no-cost HIV care and treatment.

Combat workplace stigma about HIV and TB

- Staff are often afraid to be tested or receive treatment for fear of being rejected by others at work.
- Develop an HIV and TB workplace policy/plan (your district health office can help you).
- Hang posters with messages that combat stigma.
- Communicate with your staff regularly about having positive attitudes towards people living with HIV.
- Invite a PLHIV community group to visit your health centre during a regular staff meeting to discuss their experiences with HIV-related stigma and how being HIV-positive affects a person's life.

Protect health workers from TB

- Ensure TB infection control throughout the health centre. This protects both health workers and patients. See chapter 5, infection control guidelines in Infrastructure.

In addition, all health workers should

- know the signs and symptoms of TB disease;
- be supported to know their HIV status. Those with HIV infection should be given the opportunity to minimize their exposure to people who have TB disease;
- be offered INH prophylaxis if they have a positive tuberculin test or are HIV-infected after excluding TB disease (see clinical guidelines).

Protecting health workers against stress and burnout

- Recognize burnout! Symptoms include irritability, anger, poor sleep patterns, inadequate concentration, avoidance of patients and problems, withdrawal

from others, fatigue, emotional numbing including lack of pleasure; resorting to alcohol or drugs; and (in survivors of multiple loss) fear of grieving.

- Be confident that you have the skills and resources to care for the patient and their family.
- Define for yourself what is meaningful and valued in caregiving.
- Encourage staff to discuss problems with someone. Share problems with your colleagues; consider forming a staff support group.
- Include in your week a time to discuss patients with other staff (at staff meetings, case reviews).
- Be aware of what causes stress and avoid it.
- Use strategies that focus on problems rather than emotions.
- Change your approach to caregiving: divide tasks into manageable parts (small acts of care); learn how to adjust the pace of caregiving; ask others to help; encourage self-care by the patient.
- Use relaxation techniques.
- Take care of your life outside of your caregiving (ensure you have other interests, family, friends).
- Develop your own psychosocial support network (such as care-giver support groups).
- Take care of your own health.
- Take time off on a regular basis.
- Be aware that you cannot do everything and that you need assistance.
- Organize or participate in social events (staff birthdays, marriages or graduations, etc.).

Promote safe injections (protect against HIV and hepatitis transmission):

- Do not give injections unless they are necessary. Use oral medications in cases where they are recommended.
- Give injections with single-use or adequately sterilized equipment.
- Do not recap needles.
- Discard used needles and syringes immediately in sharps container.
- Close, seal and send sharps containers for incineration before they are completely full (follow your facility protocol carefully) – see chapter 5, Infrastructure.

Supplies and procedures to support other standard precautions¹

Summary of standard precautions	Required available supplies to support standard precautions
Use for all patients	Gloves
When drawing blood: <ul style="list-style-type: none">• Use gloves• No recapping of needles• Dispose in sharps container (puncture resistant)	Personal protective equipment (such as safety syringes and needles) Sharps container
Safe disposal of waste contaminated with blood or body fluids	Procedures to support standard precautions: <ul style="list-style-type: none">• Waste management system (see chapter 5, Infrastructure)
Proper handling of soiled linen	
Proper disinfection of instruments and other contaminated equipment	
Use protective barriers (gloves, aprons, masks, plastic bags) to avoid direct contact with blood or body fluids	

¹ IMAI Chronic HIV Care with ART and Prevention, p.118

9.6 HOW TO IMPROVE EMPLOYEE MOTIVATION AND RETENTION¹

Employee satisfaction is directly linked to employee motivation, performance and quality of care. If you do not pay attention to employee satisfaction, your staff will be disgruntled and perform poorly. Unhappy employees can lead to unhappy and dissatisfied patients. The following aspects need to be considered.

How can I grow while on my job?

Each staff member needs opportunities to grow and develop, such as participating in training, mentorship, new tasks, and chances to be promoted to a more senior level.

- Achievement is important. Help your staff achieve success in their position through giving them positive feedback, ideas, and advice on how to improve their performance.
- Do not micro-manage! Your staff is more motivated to work when they are involved in decision-making and have responsibility. Allow your staff to make more decisions and handle additional responsibilities over time. If they make a mistake, help them learn from it and improve.
- Advancement is a form of recognition. Encourage people to learn and increase their knowledge and skills for self-advancement and promotion. Ensure that your staff knows about and pursues existing continuing education, on-the-job training and in-service education opportunities.
- Support new ideas and creative initiatives in the workplace. These opportunities help your staff to develop personally and professionally.

Am I being treated fairly?

Every employee needs to feel a sense of fairness in how praise or criticism is delivered, and how training, salaries, promotions, and other opportunities are provided.

- Make sure the policies for providing training, promotions, salaries and other rewards are fair and are clear to all staff.
- Avoid rewards that make some staff ‘winners’ and others ‘losers’– look for ways to reward and appreciate all of your staff.

¹ Selection drawn from MSH Human Resource Management Seminar

What am I supposed to be doing in my job?

Each staff member needs a clear description of tasks and responsibilities, and appropriate tools to complete the tasks.

- Make sure each of your staff has access to their job description.
- Make sure you spend time explaining what you want your staff to do. Identify their high- and low-priority tasks. Before ending the conversation, ask “Is that clear?” “Do you have any questions?” Make yourself available if your staff have questions or concerns.
- Help your staff think through what tools, equipment or guidance s/he will need to accomplish the task. Do your best to meet these needs.

How well am I doing?

Every employee needs regular feedback on his/her performance, including both praise and constructive recommendations on how to improve.

- Give praise when it is due! Praise your staff often and sincerely. Positive reinforcement is a far more effective motivation than fear or criticism.
- Recognize staff efforts and show gratitude. Lack of recognition for hard work or a job well done can be discouraging and cause resentment among staff.
- Do not give criticism; give advice. When you need to give negative feedback, be respectful and do not dwell on the past. Remember that staff may take criticism personally and become upset or confused. Discuss with the staff member why what s/he did was not the best method, and explain clearly what you want them to do differently in the future.

Who cares?

Each staff member needs to know that his/her work is appreciated and why it matters. Share with your staff at all levels (including auxiliary staff) how their work contributes to the team and to the health of patients. One example is to inform staff of how many patients their work helps the health centre to serve, or how many children are enrolled in treatment. Remind your staff of how their work helps reach these individuals when workloads and stress are high.

Chapter 10

LEADERSHIP AND MANAGEMENT

10.1 INTRODUCTION TO GOOD MANAGEMENT

The aim of good management is to provide services to the community in an appropriate, efficient, equitable, and sustainable manner. This can only be achieved if key resources for service provision, including human resources, finances, hardware and process aspects of care delivery are brought together at the point of service delivery and are carefully synchronized. Critical management considerations for assessment and planning, managing the care process, human resources, interacting with the community, and managing information are covered in the Planning, Human Resources, Integration and Monitoring chapters. This chapter first discusses good management and leadership in general, then outlines relevant considerations for managing relations with patients and the district team, as well as finances and hardware and management schedules.

10.2 MANAGERS AND LEADERS

Management and leadership are important for the delivery of good health services. Although the two are similar in some respects, they may involve different types of outlook, skills, and behaviours. Good managers should strive to be good leaders and good leaders, need management skills to be effective.

Leaders will have a vision of what can be achieved and then communicate this to others and evolve strategies for realizing the vision. They motivate people and are able to negotiate for resources and other support to achieve their goals.

Managers ensure that the available resources are well organized and applied to produce the best results. In the resource constrained and difficult environments of many low – to middle-income countries, a manager must also be a leader to achieve optimum results.

What are the attributes of a good leader? Leaders often (but not necessarily always):

- have a sense of mission;
- are charismatic;
- are able to influence people to work together for a common cause;
- are decisive;
- use creative problem solving to promote better care and a positive working environment.

Leadership is creating a vision

Managers who have these leadership qualities are a credit to the services they manage. However managers must ensure that day-to-day processes run well to produce the desired results. Certain attributes are required for a manager to be effective, including:

- clarity of purpose and tasks;
- good organizational skills;
- ability to communicate tasks and expected results effectively;
- ability to negotiate various administrative and regulatory processes;
- good delegation skills.

Management is getting things done

10.3 CONDITIONS FOR GOOD MANAGEMENT

Certain conditions are important for creating good management, including:

- managers and team members need to be selected on merit;
- managers need to earn the respect of their staff, patients, and supervisors;
- managers need to have the knowledge, skills and understanding of the role, tasks and purpose of the services they deliver;
- basic support systems function well; clear staff administration rules and regulations; well planned and timely delivered supplies, equipment and drugs; clear and transparent financial processes; and well planned and monitored activities.

Management is getting things done through balanced involvement of people

As a health facility manager there are important questions to discuss with the district management team and to ask yourself:

- What exactly am I supposed to do as a manager?
- Will the resources needed be here and be on time?
- How free am I to take decisions, e.g. to move staff around?
- How can I balance my managerial and clinical duties?
- How can I reduce the time spent on the many routine reports I need to write?
- What and where are the tools and techniques to help me do the job well?

Conditions for being an effective manager are best when these questions have clear and positive answers so that tasks are clear, the delegation of authority is known and managers know where and when to seek support for their decisions. Management also flourishes when the manager and the staff agree about the objectives of the work that they are doing, and can make decisions easily and with minimal risks.

10.4 HOW TO LEARN AS A MANAGER

Health care delivery and patient circumstances are constantly changing, and managers have to continue to learn new abilities and skills to keep up. A significant portion of management involves skills and competencies such as motivating staff, communicating and negotiating with stakeholders, and maintaining certain attitudes and behaviours that maximize staff discipline and performance. Managers also need to understand the basic technical aspects of the services delivered. For most of these competencies, training courses, while effective, are often not sufficient to provide all the necessary skills.

How can managers create and foster an environment in which they, and the people they manage, are constantly learning? One way is to clearly and regularly identify challenges that the service faces, and the skills and knowledge that the team needs to overcome these challenges. The ways to acquire the necessary skills and competencies may include:

- continuous education and learning (including self-learning programmes)
- structured “academic” courses; the most common form of management training;
- Secondments, attachments, shadowing/observation and study tours provide practical learning and examples of how others handle situations you will likely face;
- Mentoring and coaching relationships – experienced mentors provide insights into managing partnerships and relationships, opportunities to seek advice and explore options when managers are faced with difficult situations;
- Peer to peer learning – an opportunity to meet other managers at regular intervals, share experiences, challenges and solutions, build a common understanding of processes, and to support each other.

Other peer learning techniques include:

- Learning cycles/groups - groups of team members who meet regularly to discuss issues and help develop or improve management systems;

- Networks – managers from within and outside your health centre with a common interest in understanding and improving their situation;
- Reflection sessions – managers and their teams set aside a regular time to review their work, identify areas that need improvement, and ways to improve the service;

These methods can be used by the managers as part of their planned self-development, and should be linked to challenges they face in delivering services. Every manager needs clear learning objectives and plans and available time for these activities (e.g. put aside a half day every two weeks for team or personal learning).

10.5 OVERVIEW: A MANAGER'S ROLE AND TASKS

Certain roles and responsibilities all general managers need to manage, include:

- type and coverage of services to be delivered;
- resources (staff, budgets, drugs and supplies, equipment, buildings and other infrastructure and information) available for use;
- people, including patients, partners, suppliers and staff that are important for delivering functional quality services.

The specific functions carried out by health facility managers are discussed here and in other chapters, However, no matter what type of service is offered, managers need to devise and implement strategies, make plans and budgets, seek resources, implement, monitor and evaluate the plans, learn lessons, and then design new plans.

A manager delegates some tasks to other staff members and supports and coaches them to achieve desired results. Managers use team and staff meetings and other forms of communication to communicate the appropriate messages to staff about what is to be achieved and how.

A major management task is reviewing the important information and data concerning service delivery and using this data to make decisions about how services can be modified and improved. Managers are responsible for the finances available to the service, ensuring that these are used to produce the maximum possible benefits for patients and staff. Keeping a firm focus on the overall goal of the service and reminding staff, partners and clients of this goal is a major task for managers. Management involves developing staff/ skills mentoring persons with high potential, and resolving conflicts while maintaining ethics and discipline

Managers must also develop “management improvement/action plans” that target:

- difficulties in management systems
- bottlenecks/barriers to service delivery
- tasks that need to be delegated, and
- expected results of the management functions.

Management is about making decisions

10.6 HOW TO MANAGE RELATIONS WITH THE DISTRICT TEAM/ SUPERVISOR

In most health systems, health facilities are linked to the national health system through the district and therefore are accountable to district management teams. All operational health system activities are implemented via the district including drugs and commodities procurement, human resources, infrastructure, and technical support. Local facility managers and district managers must have clear lines of communication, and ensure optimal off-site support and supervision, and that reporting to districts is accurate.



Facility managers must communicate all challenges to the district level to make sure there is continued service delivery at facility level. District managers should communicate new policies and management tools to local managers to ensure compliance. A strong relationship between the two levels is key to sustained service delivery at the facility level.

10.7 HOW TO MANAGE PATIENT RELATIONS AND ACHIEVE PATIENT SATISFACTION

Health facilities exist for the sole purpose of providing health services to patients in communities. Therefore managers need to ensure that client satisfaction is of utmost importance. This is why all staff must be trained to understand patients' rights.



Staff should not be judgmental and must provide information to patients so they can make informed decisions regarding treatment options, as well as lifestyle and behaviour modifications that may be required to improve their health status. Staff must also be able to assist patients to understand their responsibilities, including:

- to live a healthy lifestyle;
- not to participate in risky behaviour;
- to participate in their care by attending appointments, asking questions, and playing a part in their own health improvement;
- to be open and honest about the problems they face;
- to have the best health outcome by adhering to treatment regimes.

The attitude of staff towards patients influences patients' willingness to obtain access to and continue care, to treatments, and to accept and follow health promotion messages. Negative staff attitudes reduce patients' self esteem and motivation, reducing their will to seek services.

Assessing patient satisfaction

Appropriate tools should be used by the health centre and district supervisors to assess patient satisfaction, or to assess how patients perceive the health establishment in general. These include:

- client satisfaction surveys
- suggestion boxes
- community consultation committees.

These concrete measures ensure patients' voices are heard. Anonymous mechanisms for eliciting suggestions should be encouraged, such as a "suggestion box" placed in the waiting area (with paper and pen), in which patients can put anonymous messages. The box should be emptied regularly and comments discussed with the staff.

10.8 PATIENTS' RIGHTS

Patients' rights, include the right to:

1. health information
2. full range of accessible and affordable health services
3. privacy when they are receiving health care
4. be treated with dignity and respect when they are receiving health care
5. be assured that personal information will remain confidential
6. be given an explanation of the processes that they go through when they are receiving health care
7. be treated by people who are trained and knowledgeable about what they do
8. continuity of services
9. be treated by a named provider
10. express the views on the services provided and to complain about unsatisfactory health services
11. gender equality
12. a healthy and safe environment
13. make free informed choices

10.9 HOW TO MANAGE FINANCES

The degree to which health centres are involved in managing funds and financial resources varies with the nature of the health centre, its size, and the structure of the national health services. Yet, all health services have to manage two types of funds:

- “Invisible funds”, or budgetary allocation. These are not physically handled, but represent a “credit” that is provided by the district management team or other entity that will handle how they are spent;
- “Visible money” or cash: This money is seen and handled in the centre. Money can be kept for spending (usually small in amounts, called “petty cash”¹), or be received for services or sales of goods.

Managing money and finances in a health centre is complex and responsible work. Ultimately, the facility manager bears responsibility for the correct handling of all financial aspects. Good financial management is the core of good service delivery. The facility manager needs to ensure that financial resources are committed to those activities that contribute to organizational goals. Regular use of the good financial management checklist below can help ensure that the financial procedures in place conform to good financial practises.

¹ Petty cash – the financial term for this is imprested fund

A good financial management checklist ensures that:

- All accounting registers, journals and ledgers are up to date.
- All financial reports are prepared and submitted in a timely manner.
- Procedures for the use of petty cash are properly developed.
- All expenses other than petty cash are paid by cheque.
- Financial activities are separated in such a way that one person alone never registers, reviews and authorizes any complete transaction.
- Procedures for authorizing purchases are being followed.
- Security measures are in place to protect the assets, books and registers from tampering or theft.
- A physical inventory of fixed assets and supplies is conducted at least once a year.
- The bank statement is reconciled monthly.
- There is a financial plan and/or a financial strategy leading to improved cost recovery.
- Financial administration staff is involved in both programme and financial planning processes.
- A realistic annual budget is developed from the work plan.
- The organization has a unified budget, as well as sub-budgets for different programmes and/or donors. The accounting system adequately allocates expenses to different programmes and/or donors.
- The line items in the chart of accounts, the budget and management financial reports correspond with each other.
- Cash flow is adequately monitored and is projected for the year so there are no periods of cash shortage.
- Actual expenditures are compared quarterly with the budget and corrective action is taken as a result of these comparisons.

Often, health centres have no dedicated financial officers to handle budgets and financial control is exerted by the overall facility manager. A minimum set of financial management tasks includes:

- budget preparation and cash flow projection
- budget allotments and expenditures
- management of cash income and expenses
- financial monitoring and reporting
- the use of financial information to make decisions.

How to prepare a budget and cash flow projection

A health centre budget outlines how financial resources will be used over a defined period of time, usually one year. Two main steps in budget preparation include projecting all expenses that will be incurred at the health centre, and matching them with expected revenues and budget allocations. Additional cash flow projections help to ensure that income and expenditure match throughout the year, and the health centre is able to meet costs as they incur. Budget development is an essential part of the planning process.

Determining resource needs and associated costs

The starting point for budgeting is a list of the resources needed to carry out all activities throughout the year required to maintain the health centre and to provide its services. It is useful to also list resources that are directly provided to the centre and that are financed from other budgets (e.g. staff or medication paid directly by the district authorities). Leaving out these in-kind contributions hides the real cost of services delivery, and makes it hard to determine how to make the service sustainable in the future. The budget includes two types of resource needs and costs:

- **Fixed costs:** remain constant and are independent from the exact level of activity within the capacity of the centre. Such costs include most salaries, equipment leases or payments, rent and utilities. Some fixed costs also change with the level of activity – such as the number of staff needed.
- **Variable costs:** depend on the level of activity such as the number of patients treated. Such costs include care consumables, drug costs and transportation costs for home visits etc. Variable costs are usually specified “per unit” of delivery (e.g. drug needs and costs for one patient on first-line ART) and multiplied by an estimated “number of units” (e.g. the number of patients expected to be on first-line ART in the facility).

It is recommended to use a budgeting sheet (see Annex 10.1: Budget Sheet) and to sub-divide the list of resources into various categories. For each resource (e.g. staff), you need to specify the type of costs associated (e.g. salary) and time period, (usually 12 months), and at what cost per unit (e.g. US 300 Dollars (USD) per month). Standard categories are recommended

by district authorities and ideally the same categories are used for budgeting, accounting and reporting. Those categories may include:

- staff;
- physical infrastructure and building operating costs;
- medical supplies, equipment and consumables;
- communication;
- transportation including vehicle operating costs and travel;
- replacement costs (depreciation) – This is a provision for long-term assets (such as vehicles/machinery/computers/lab equipment) that deteriorate over time and have to be replaced at the end of their usefulness. Some money needs to be set aside every year for future purchases to replace these assets (see section - 10.10 - Managing Hardware).

Determining funding sources

For many public programmes there will be only one source of funding, i.e. the district health service, or the provincial or national health department. However, some public facilities – and usually all private facilities – might also receive private funding or charge fees to generate income.

The “unified budget” prepared in the previous step will be of great help in managing incoming funds. This is because the same listing of activities and resource needs can be used to demonstrate which funds are used towards what purpose. This is a process of “earmarking” that will ensure that the use of funds remains within the originally intended purpose. It will also facilitate donor reporting. Assigning incoming funds to expenditures is best achieved by appending specific “donor columns” to the budgeting sheet. (Annex 10.1 -Budget Sheet)

Projecting cash flow

Cash flow projections are needed to ensure that each month enough money is available (in cash or in the allotment) to cover all anticipated financial

obligations. Cash flow projections are done on the basis of the health centre's budget, detailing the amount of expenditures, and when they occur. (See Annex 10.2 Cash Flow Projection Sheet).

Cash flow projections are best made for each month of the budget year, and should outline:

- how much money is available at the beginning of the month;
- what funds will be received during the month; and
- How much money is expected to be spent during the month.

The remaining balance should be zero or a positive amount and should be carried forward to the next month. Prudent financial management requires that as part of cash flow processes, management fixed management costs be prioritized over other expenses; otherwise operations could be brought to a halt.

How to manage allotments

“Invisible money” is allocated to a health centre based on a budget (see previous sub-section) that defines certain expenditure categories. To keep track of expenditures against such allotments, a logbook of all expenditures should be kept that will allow the manager to track how much money has been spent, and how much money is still available. This logbook is usually called “allotment ledger” (see Annex 10.3 – Allotment Ledger).

In the ledger, the manager registers all fund allocations (credits) and all expenditures (debits). For each transaction, the date is registered, as well as a reference to further documentation on the transaction (see below). At any point in time, the amount debited can be totalled and deducted from the amount credited. The ledger can combine all expenditure categories, or break them down according to main categories. Usually, the district office will provide a specific format for such a ledger.

Expenditures against allotments are made in the form of “purchase orders” or “vouchers”, that will allow the allotment holder (e.g. the district health administration) to make the payment. Each purchase order needs to be duly signed at the health centre and by the health district administration. Purchase

orders and payment vouchers are usually pre-printed and serially numbered (see Annex 10.4 – Purchase order / Voucher).

Managers who have the responsibility of authorizing expenditures and purchases need to ensure that; 1) the purchase is justified and within the scope of planned activities; 2) the cost is competitive; 3) the transaction is properly documented, and; 4) sufficient funds are available to make the purchase.

How to manage cash

Most health centres need to have some reserves to cover small cash expenses (“petty cash”). This cash is advanced to the manager based on the budget, and subtracted from the allotment. The provision of a cash advance for specific purposes is called a “petty cash fund”. The types of expenses that can be covered by the petty cash fund vary from place to place but may include:

- transportation such as bus fares, petrol;
- communication such as stamps and phone calls;
- cleaning needs such as soap, detergent;
- stationary such as paper, envelopes.
- sundries such as matches, candles, tea, emergency supplies.

A petty cash fund is a fixed amount of cash (e.g. \$US 50) from disbursements that are made for the purchase of goods or services. The cash is kept in a safe place to which only the manager has access. It is important that each time cash is taken out, the transaction is documented in a logbook (“petty cash book”), and supported by evidence for its use (“voucher” and “receipt”). When the petty cash fund is nearing its exhaustion (e.g. after having spent \$US 40) the manager will total all expenditures. The remaining balance will be “brought forward (B/F)” and the petty cash fund will be replenished to the original level (e.g. by adding \$US 40 to reach the original level of \$US 50).

Petty cash books are usually standardized to list - (in table form) each transaction, the date, the purpose, the number of a referring voucher/purchase order, and the amount paid or received. It is possible to add additional columns to break down expenses by certain categories (see Annex 10.5 - Petty Cash

Book). The voucher documenting each transaction is filled out when funds are given out and signed by both the authorizing officer and the receiving staff (e.g. the driver). It is important to attach the original receipt for expenditures to all purchase orders and vouchers if possible (e.g. a receipt from a petrol station - see Annex 10.6 - Cash Voucher). Certain health centres may also receive cash, usually in form of service fees or from sales of drugs or other commodities. For each transaction, a receipt is issued in three duplicates: one for the client, one to accompany the cash, and one that stays in the receipt book. Such receipts are usually provided in the form of books of numbered receipts see Annex 10.7 - Cash Receipt).

Just as with expenditures, all cash revenues are kept in a safe place and are recorded in a “revenue book” (see Annex 10.8 - Revenue Book), indicating clearly for each transaction the date, amount, and purpose. Periodically, the manager will turn over funds to the district financial officer, together with copies of used and unused receipts.

How to report on the use of funds

The manager is expected to show the appropriate use of finances and to demonstrate how their use relates to expenses set out in the work plan and budget. One’s ability to do so depends on the availability of a well developed budget and well kept up to date allotment records. In some cases, the facility manager will be able to complement records held at the health centre with official records and financial statements from the allotment holder (usually the district administration). Implementation progress reports and financial reports are normally required to comply with specific formats and to cover defined time periods see Annex 10.9 - Financial Reporting Form).

Financial controls

Financial control procedures are essential for effective resource management. Even for a facility that employs accountants and other financial personnel, the facility manager bears the ultimate responsibility for ensuring all resources entrusted to him or her are fully accounted for. It is important that the facility puts in place guidelines, policies and rules and an effective financial control system that ensures financial accountability see the good financial management checklist). Finally, it is advisable that at least once a year, the financial transactions of the facility are audited.

10.10 HOW TO MANAGE HARDWARE

A number of tangible goods and structures are needed to successfully provide services at the health centre, including:

- physical infrastructure and buildings
- equipment and machinery, including vehicles
- drugs, commodities and supplies.

Various chapters in this manual describe how to design appropriate space distribution and use, how to choose and maintain laboratory equipment, and how to plan for effective procurement of drugs and commodities. However, as a manager, you are expected to ensure that all of this hardware remains functional all the time. To this end, you will need to make plans and reserve budget for:

- regular maintenance of all hardware, including machinery, vehicles, and buildings;
- supplies to use hardware, such as test kits for lab equipment and petrol for vehicles;
- repair of failing hardware;
- replacement of hardware once it has reached a predefined period of use or fails beyond repair.

From a practical point of view it is recommended that all maintenance and replacement actions be marked in the yearly facility planner to avoid a lack of critical hardware in the centre (see below; How to design Management Schedules). In addition, if replacement hardware needs to be purchased by the health centre, a budget allocation for “depreciation” of the hardware needs to be made.

10.11 HOW TO DESIGN MANAGEMENT SCHEDULES

The facility manager is challenged to juggle a range of important management responsibilities and tasks, and at the same time to ensure the smooth running of the health centre. The key challenge for any manager is the limited availability of time. A first step to managing your time as efficiently as possible is to examine how your working time is actually spent. Normally, managers will spend significant portions of their time on:

- management and administrative tasks, including development of work plans, budgets and reports;
- meeting with health workers help them work better together as a team;
- meeting with patients, the community and other external partners;
- interacting with the district level authorities;
- travelling and attending of workshops;
- learning and continued education;
- clinical work.

The challenge is to reduce time spent on lower priorities and to free time for priority tasks that would otherwise be neglected. Some proven “time savers” and “time managers” are:

- learn to say “no”
- rationally delegate and distribute work within the team
- use meetings wisely; run meetings effectively
- have a strategy for dealing with interruptions
- be aware of time wasters.

An important tool to use time effectively is to structure the work routine so that important tasks receive specific, regular time slots. Recommended fixed time slots include:

- health care team meetings
- supervisor briefings
- community meetings
- time for budget review
- time for report preparations.

Successful managers use calendars and to-do lists to structure time demands and to ensure that no important tasks are forgotten. Important tasks and events are best kept on a yearly wall calendar, on which each line represents one month, with each day having one field. As a manager, you should include the following information on this planner:

- important dates on which action on contractual issues is needed; absences of team members (participation in training, vacation); a time slot for a yearly patient satisfaction survey, time for supervisory visits, and community health committee meetings;
- managing information: time slots for preparation of routine patient monitoring reports, due dates for progress reports, dates of important meetings with partners;
- managing finances: budget preparation and reporting deadlines, financial monitoring visits;
- managing hardware: hardware inspection dates, maintenance dates, ordering deadlines for supplies and hardware;
- managing care: review and revision of current care and prevention routine, time slots for checks on adherence to patient and staff safety policies.

Planning is a critical tool for time management, but there should always be enough time set aside to anticipate unplanned events and to listen to staff, patients and community members.

Chapter 11

QUALITY IMPROVEMENT (QI)

11.1 INTRODUCTION TO QUALITY IMPROVEMENT



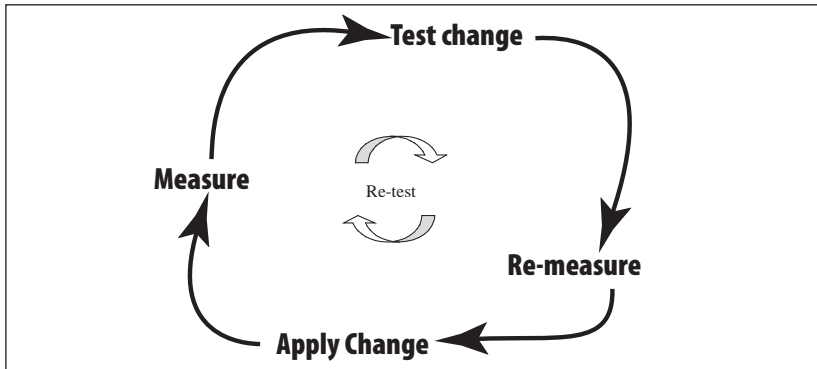
The quality of care delivered in your health centre is determined by many factors, including how its services are organized, leadership, monitoring systems, adequate infrastructure and available resources, both human and material. Quality management includes: staff who are adequately trained and mentored (see chapter 9, Human Resources); using the 5 Ss to improve the physical work environment (see chapter 5, Infrastructure); special quality procedures for lab tests (see chapter 8, Laboratory); and well functioning patient monitoring systems (see chapter 6, Monitoring). This chapter addresses how health centre staff can use the tools and methods of quality improvement to focus on the system of care in which they practise.

QI is an approach to improvement of service systems and processes through the routine use of health and programme data to meet patient and programme needs.

Methods of improving the quality of care described in this chapter focus on common key processes and functions in the clinic, and how they link together to achieve desired outcomes. HIV care systems that are planned in a methodical manner will result in care that better meets patient needs and follows national guidelines. Therefore, it is sometimes necessary to update or change current

systems in order to improve care and obtain the desired results. The key principles for improving HIV care summarized in this chapter include:

- focusing on the needs of the patient;
- implementing an improvement model that includes measuring- testing change- re-measuring, and applying change;



- providing leadership support to improve the system of care;
- identifying and including knowledgeable staff who will participate in improvement activities

Regardless of size, any health centre can improve the care it provides. HIV care may be provided in a separate area of your facility or it may be integrated into the main clinic. Either way, activities to improve the work you undertake at your health centre can be integrated into your routine flow of existing work. When this is not the case, improvement work may be seen as separate and additional to everyday work.

Also, you may be concerned that you cannot take extra time to work on quality, whether to track data or discuss the care system in your team. However, simple and practical methods can be adapted to help you get started. Once improvements begin, systems may function more efficiently and effectively, actually simplifying work. Most often, the staff care deeply about whether patients receive good care. When they see that quality improvement can help the clinic produce better and more effective outcomes, they will likely want to become involved to identify and implement methods to help it improve the services delivered.

11.2 WHEN CAN YOU START WORK TO IMPROVE QUALITY?

There is no reason to wait to start to improve quality. Work to measure and improve quality should be planned to start as soon as service delivery begins. If HIV care has already started, you can include quality improvement in your existing clinical systems. You can learn how to use basic tools that will help you examine clinic processes, use existing data already being collected to measure quality, and add discussions about quality to regular meetings.

Key steps:

- Make sure that the HIV clinic has the minimum functioning systems and infrastructure.



- Provide staff the training and tools they need to measure and improve care. If no one at the centre is knowledgeable, many resources are available to help (see chapter 9, Human Resources).
- Use a team-based approach to prioritize improvements and implement them. Each staff person can participate in some way. At a small health centre, the team may likely be the entire staff.
- Develop and agree on a plan on how the improvement activities will be implemented at the centre, who will lead them, and how they will be started.
- Involve patients since they bring valuable ideas based on their experiences in receiving services at your health centre.

Quality improvement methods apply to any aspect of care being provided in your health centre. For example, if an approach is found to decrease the number of visits missed by HIV patients, it can be applied to other patients as well.

11.3 ORGANIZATIONAL CULTURE FOR IMPROVING QUALITY

Making quality improvement part of the job can raise morale because staff and patients see that the barriers to care they face each day are being addressed, and they realize they can participate in the work to remove them. When activities such as routine clinical management meetings are already in place, discussions about quality can simply be added to the meeting agenda. The results from quality improvement activities can help increase teamwork at your clinic, and identify gaps in human and material capacity. Documenting these gaps can help prove that you need more resources for your facility.

Leadership is essential for quality improvement activities to succeed. Health centre leaders play a key role by creating a culture of quality improvement. This culture will foster a common understanding that performance data will be used to improve care for patients, and will not 'blame' or 'punish'.

Leaders can support quality improvement activities in the following ways:

- **Create a vision for quality** by setting shared goals for performance.
- **Build staff capacity for quality improvement** by making sure that staff understand what QI is about and how to do it. Training opportunities about QI should be available for all staff and it should be included as part of their routine job expectations.
- **Build motivation for quality improvement** by communicating to staff that improvements are possible and welcomed, and encouraging them to set time aside to talk about quality and make it part of their jobs.
- **Establish a quality improvement team** to manage this process at the centre. Involve all staff who work in HIV care including physicians, nurses, clinic officers, data clerks, pharmacists, logistics staff, and outreach workers.
- **Dedicate time to measure clinic performance** and stress the importance of complete documentation to help determine whether or not patients are getting the care they deserve.
- **Provide time to openly discuss** both successes and failures.

- **Make sure that the ‘voice’ of the patient is heard and acted on** through surveys, exit interviews, suggestion boxes or other means.
- **Involve staff and patients** in understanding data and making decisions based on it.
- **Use available existing resources** to strengthen quality improvement activities.
- **Include a budget** for QI that provides for training in this discipline.

Tips for promoting a culture of quality improvement

- Educate staff about QI and provide them with the skills to participate in QI processes.
- Set a routine schedule for monitoring and reviewing data.
- Communicate results from improvement projects throughout the clinic and the community.
- Display data where patients can see them.
- Celebrate successes.
- Articulate the values of QI in meetings.
- Provide opportunities for all staff to participate in QI teams.
- Reward staff members by mentioning their QI contributions in their performance evaluations.

11.4 IMPLEMENTING QUALITY IMPROVEMENT AT YOUR HEALTH CENTRE

The steps of the improvement cycle are:

1. Set priorities to identify specific areas for improvement.
2. Define a performance measurement method for your improvement project and use existing data, or collect data that you will use to monitor your successes.
3. Establish an improvement team.
4. Understand the processes of the underlying system of care so that improvements can be implemented to effectively address problems.
5. Make changes to improve care, and continually measure whether those changes actually produce the improvements in service delivery that you wish to achieve.

Step 1: Set improvement priorities (Annex 11.1)

An example of a *decision matrix* is provided as a simple tool which can be adapted for use when working to set priorities. Other factors can be added to this table that are important for the clinic to use when considering priorities. The purpose of this tool is to help sort the choices using specific criteria that can help decide which areas are most important to select for improvement.

Identify an opportunity for improvement

Implementation steps:

- Use available data to help identify current gaps that need to be addressed.
- Ask staff and patients for ideas about what needs to be improved.
- Prioritize key opportunities for improvement.
- Select one specific improvement at a time on which to focus your work.

The first step to improving HIV care is to identify the health centre process that needs improvement. Given that your health centre likely has limited time and resources, you should focus on areas that are most important to HIV patient care in your community. Your choices should be influenced by your staff, and especially by your patients. Your ministry of health has already adopted a set of national HIV indicators (see chapter 6, monitoring); many of these can also be used as quality indicators (see examples below) so you should start with that list as you set priorities for the quality indicators to measure. If necessary, you may recommend additional specific quality indicators.

You are already collecting a great deal of information about your patients for regular patient monitoring, whether on a chart, a card or a health passport.

Information is being put into registers and logs, and is being reported to health officials at district and national levels. You may be reporting information to different donors as well. Often, this information is not seen by clinic staff and not used in the clinic. Using this information to examine the quality of care you are providing to patients is a powerful opportunity to assess where there are gaps that need to be addressed in your care system, and to begin to talk about how to improve them.

Examples of using existing data to set priorities

- Use the pre-ART register to determine if the patients in your health centre who are eligible for ART are being started on it. You may confirm a start on ART by checking the ART register.
- Examine the appointment log and determine the number of patients who were supposed to return to clinic in a specified time frame, and see whether they did or not.
- Examine pharmacy registers to see whether patients who were prescribed ART picked it up.
- Check patient charts, cards and laboratory registers to see if they are obtaining necessary laboratory tests.

Examples of obtaining ideas from staff

- Ask staff, “What is the most important area of your work that requires improving?”
- Ask staff to join the process of selecting priorities for clinic improvement projects. These will ultimately be selected by health centre leaders who will balance available resources with achievable improvement goals. Staff will be more empowered in their work if their voices are heard during this process, and will likely demonstrate increasing motivation to perform in their jobs.

Examples of obtaining ideas from patients and the community

- Ask patients, “Based on your experience, what area of the clinic’s work needs improvement the most?”
- Encourage the development of routine group discussions to pinpoint issues that need improvement.
- Consider formal exit interviews with patients or satisfaction surveys to identify problems and priorities for improvement.

Example from the field: one health centre experience

The leader, a clinical officer, worked with staff to see what information was available to examine the health centre’s quality of care. Since the health centre did not have a data clerk, the pharmacy workers and nurses reviewed their existing documents and registers. During a regular patient education group that week, the nurses asked the patients, ‘what can we do to improve your care at our health centre?’ The staff then met to discuss the data findings and the patient feedback. The team then contributed their ideas. When the various options were reviewed, the group decided to focus on making sure that patients were prescribed and receiving cotrimoxazole. The team also decided it was important that both adults and children received the drug.

Comment: Cotrimoxazole prophylaxis is an important choice for all patients in the clinic because it can save lives by preventing infections that are often fatal. Not only will it prevent *Pneumocystis pneumonia* (PCP), but it also prevents serious bacterial infections and malaria, common among adults and children with HIV infection. Focusing on ensuring patients received cotrimoxazole is important because problems with supply and stock depletions can be identified and responded to quickly (see chapter 7, Supply Management) to assure a continuous supply of this essential medication. However, the staff realized that patients must first be prescribed cotrimoxazole before they could receive it. Staff welcomed the opportunity to focus on this indicator since it required their coordinated efforts to make sure patients received the necessary medications.

- Use support groups that already exist and meet at your centre.
- Create or use a suggestion box, open it regularly and make sure that the ideas found there are included in the decision-making process of your improvement work. If you do not have a suggestion box, creating one is an easy first step to encouraging your patients to offer ideas.

Keep in mind that the priorities ultimately chosen should: be important and relate to national guidelines; represent key community and clinic staff concerns; be measurable; and include areas that the team will realistically be able to improve. For example, you can determine that equipment is broken, but you cannot use improvement projects to fix it. However, if patients are not receiving necessary laboratory tests, you can improve the process by redesigning systems such as clinic flow patterns, and then test these changes to see if they work.

When you are starting quality improvement processes, select one priority as you learn how to do the work. The selection of one priority in no way suggests that other identified areas are not important, merely it indicates that they can be addressed later.

Examples of indicators that have been used for quality improvement elsewhere

Many are often already collected routinely using the national patient monitoring system.

See the list of indicators in the chapter 6, Monitoring. These include:

- Were patients assessed for active TB at the last clinical encounter?
- Did HIV-exposed infants receive cotrimoxazole prophylaxis within two months of birth?
- Did HIV-exposed infants receive a virologic test for HIV within two months of birth, or an antibody test prior to their first birthday?
- Did patients who are eligible for cotrimoxazole prophylaxis receive it?
- Are all eligible patients on ART identified based on national guidelines criteria?
- If available, did HIV-positive pregnant women have a CD4 test sent on the same visit day of their positive HIV test result?
- Did HIV-positive pregnant women receive ARVs (ART or ARV prophylaxis) to prevent mother-to-child transmission (MTCT) of HIV based on national guidelines?
- Did all active patients see their clinical provider in the last three months?
- Was every patient's ART adherence assessed during the last clinical visit?

Others may require data collection separate from the national patient monitoring system:

- Were children under five years of age provided with an insecticide-treated bednet?
- Did the patients receive any kind of education or counselling in the past three months?
- Did female patients between 15-49 years of age receive family planning counselling during their most recent clinical visit?

Using an existing national indicator to improve TB case finding among PLHIV

Five to 15% of HIV-positive patients will develop TB. Therefore, 100% of patients should be assessed for TB at every visit, even if to record the patient has no signs or symptoms. Anything less than 100% may point to a lack of quality of care. Therefore, the national indicator, *proportion of adults and children enrolled in HIV care who had TB status recorded and assessed at last visit* is also a quality indicator. In addition to reporting this indicator to the national level, the facility should also be using it to measure its own quality of care, and may follow Steps 3 to 5 outlined below. This may include discussing possible problems in and solutions to filling out TB status in the patient's medical record, and reasons why these problems exist.

Step 2: Define a measure and collect data

Performance measurement tells you what is really happening, as opposed to what you think is happening. It tells you what is being documented in the clinic records and is available to help with the decision-making of providers who see the patient. It tells you whether tasks that are supposed to be done are being done, and done well. Even in small centres where the team knows their patients well, measuring performance will often result in surprising findings when the data are compiled.

Some indicators are required for district or national reporting. However, your facility may choose to measure additional indicators based on what you learned during Step 1 (setting priorities). In order to start measurement, you need to make sure that the indicator is clear, and you need to develop a uniform process for data collection.

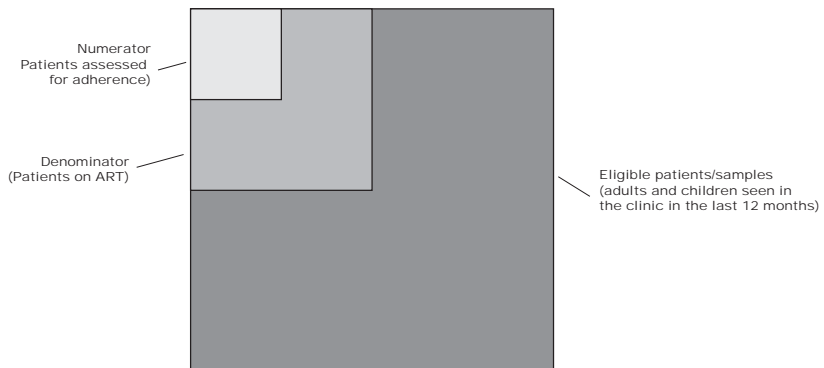
Specific steps include:

- Define the time period to include in your measure.
- Define the eligible population to be measured.
- Decide how many patients to include in the review: should you measure only a sample of all patients?
- Define a clear and specific measure.

- **Define the time period:** Performance is measured over a specific time frame. The patients who were actively seen during this time are the only subjects included in the measured group, and are chosen from the case list or register. In the cotrimoxazole prophylaxis example, only patients who had been seen in the health centre during the past 12 months were included. This information could be obtained from the patient cards (or an electronic database if the centre has one).
- Define which of the active patients are eligible for the care service. Depending on what you wish to examine, only certain groups of patients may be eligible to be included in your review. For example, the indicator may apply to both men and women, and to children, or to the latter only in certain clinical conditions. Another criteria for inclusion could be whether the patient is new or has already been in treatment. The list of eligible patients may also need to be sorted by age or gender, depending on whether the indicator applies only to children, men or women.

Some indicators may apply only to pregnant women, such as those receiving ART to prevent mother-to-child HIV transmission. Some indicators may apply only to patients receiving ART, such as whether adherence assessments are performed (see figure 11.1). For some indicators, such as monitoring cotrimoxazole, you may need to use both the pre-ART and ART registers for sampling or use a sample of patient cards or an electronic list. To measure whether ART adherence assessments are performed and whether rates of adherence change over time, would require sampling only patients on ART.

Figure 11.1: assessment of adherence



The cotrimoxazole example – determining who to sample

For the cotrimoxazole sample, the staff reviewed the registers and identified patients who were seen in the last 12 months. At this point, the next step depends on the guidelines for the country. If cotrimoxazole is recommended for all patients with HIV, then a sample of this list is taken. However, if the guidelines only recommend cotrimoxazole for a subset of patients such as those below a certain CD4 count, or those above a certain WHO stage, then the eligible group would only include these patients. The sample would be taken from this group. The denominator would be the number of patients eligible by CD4 count or WHO stage, and the numerator would be those given cotrimoxazole. The eligibility criteria for cotrimoxazole prophylaxis may also vary by age. If this is the case, you will need to create separate samples for adults and for children.

- **Define how many patients to include in the review.** It would be ideal to include all of your patients when you measure the indicator (100% sample). But the burden of doing this could be overwhelming if you have a large patient population unless you already have an electronic tracking system that can produce data. If you do have such a system, you should use it. Most health centres will not have one, and therefore you need to either look at all patient charts (if the number involved is small) or use a sampling methodology. The table below is an example of a ‘look-up’ sample size chart that tells you how many charts to include in your sample depending on how many patients you have in your eligible population defined above. It is based on a desired level of statistical precision*. In many settings, it may be simpler to look at all charts if your patient population is up to 200 patients.

Population Size up to 20	Sample size/All
30	26
40	32
50	38
60	43
70	48
80	53
90	57
100	61
101-119	67
120-139	73
140-159	78
160-179	82
180-199	86
200-249	94
250-299	101
300-349	106
350-399	110
400-449	113
450-499	116
500-749	127
750-999	131
1000-4999	146
5000 or more	150
*Sample size calculated for a 95% confidence interval with width of 0.16, based on a predicted score of 50%.	

If you are unable to easily generate a random list of charts to review by patient or enrolment number, there is a simple way to identify the patients to be included in your sample. You do so by dividing the total number of eligible patients you have identified in your register(s) or active case list, by the number of patients you need to review, based on the table above. You will use this number to create the sequence of your sample. For example, if you have 750 eligible patients for the cotrimoxazole indicator, the look-up table tells you that your sample should be 146. If you divide 750 by 146, the result is five. You will now need to take your ordered list (or patient cards arranged in order of enrolment) and select every fifth patient. Remember that the list you use has to be one that records each patient no more than one time!

What to do when if there are two different case lists or registers: one for patients on ART and one for HIV patients not on ART?

You have two choices. You can combine your two lists into one unduplicated list. If you do not have the time to do this, you can treat each list as separate and then apply the same procedures. For example, if you have 300 patients on ART and 450 not on ART from your patient list of 750, you would need a sample of 106 from your ART register or list, and 131 from your pre-ART register or list. If you divide 750 by 131 the result is 5.7. Rounding the numbers, you would select every third patient from your ART list and every fifth from your pre-ART list.

- **Define a clear and specific measure.** It is important that your indicator be well-defined. To define a sound indicator you will need to:
 - Set the denominator: which patients should receive the service on which you are focusing? In this case, it will be the sample of patients you have identified from your active case list, register(s) or sample of patient cards.
 - Set the numerator: which patients received the service? For example, the number of patients from your denominator group who were prescribed cotrimoxazole.

You are now ready to collect your data!

Collecting data

Start by developing a data collection plan.

If the data are not already collected as part of the standard national patient monitoring system (or are not contained in an electronic database which can produce the information), you will need to do the following:

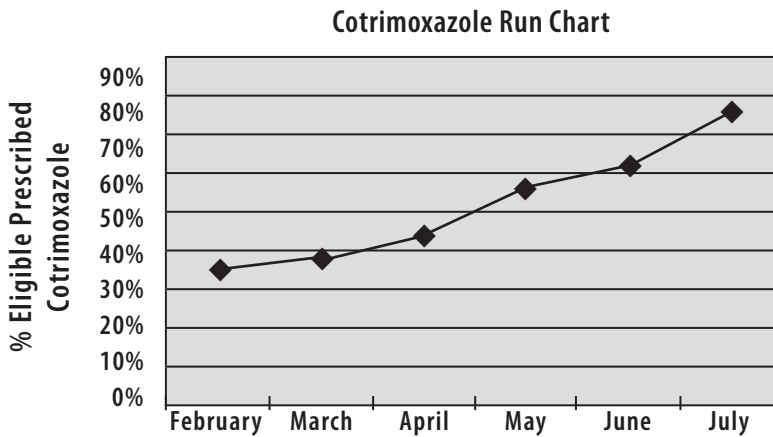
- Define how the data will be recorded
- Decide who will record the data
- Determine when the data will be collected
- Decide how the sample will be selected.

The sources of information should be identified in the plan. Some indicators will require more detail than others. For example, agreement about how to define whether a patient has received family planning counselling may involve discussion about how that information should be documented to show that it was actually provided. If a field is not present in your existing record, database or register, other sources may be considered such as log books. Whenever possible, to make data collection easier you should plan to include columns or spaces for tick marks in your record or register for the services captured in your quality measures.

Once your plan is complete, you are ready to collect data. Be sure to allow enough time for collection, and recognize that it may require staff to have time set aside to review the records or other data sources. Ensure that staff is adequately trained to collect data. You may wish to seek outside help from the district or a coaching team for this type of training.

If your database does not produce reports automatically, you should be prepared by having a form for capturing the data that you collect. This form will then be used to calculate your clinic performance score when the results are added. Depending on your sample size, the time required for data collection varies. Most often, if several hours each day are set aside to review the charts, the process takes several days to one week. When more than one person gathers the information, less time will be required.

When data collection is complete, calculate your rate (score). Divide the numerator by the denominator and multiply by 100 to obtain the rate which is expressed as a percentage. For example, if 65 of 100 eligible patients were prescribed cotrimoxazole in the past 12 months, you would multiply the result (0.65) x 100 to obtain 65% as your rate or score. You now have a baseline rate of performance for your indicator. This is the first point on your tracking chart. The example below shows rates of performance each month, specifically how many eligible patients were prescribed cotrimoxazole.



In the best case scenario, these data should be displayed on walls in the clinic where everyone can quickly see how the system is working, whether improvements are occurring, or whether they are needed.

Step 3: Establish an improvement team

Implementation steps:

- Identify staff who have the most knowledge of the selected area for improvement.
- Form an improvement team to work on the improvement area.
- Assign a team leader who will take responsibility for the team.

Improving your system of care is best done by a team that involves all staff whose work is part of the process being improved. Each team member provides a unique perspective on the common improvement goal. Clinical providers, data managers and records clerks are routinely included on the team. When CD4 count monitoring for pregnant women is selected as your improvement measure, your laboratory technician should be included. When clinic visit rates are the focus, outreach workers and peer counsellors should be consulted. Improvement teams bring together the skills, experiences and insights of different viewpoints. In a small centre with fewer than 10 staff, nearly all will participate. To obtain the best results, the team should consider involving patients, staff and community leaders as participating members.

In small centres, quality improvement team discussions can occur during meetings that focus on patient management on clinic business. Separate QI meetings are not needed. In larger clinics, a separate committee might be formed that does meet away from regularly scheduled meetings. In smaller health centres this is not often practical. A leader should be designated to take responsibility for moving the work forward.

Team responsibilities involve:

- reviewing results;
- understanding the process you are trying to improve: use simple tools such as flow charts;
- work with facility leaders to set aims for improvement.

- developing ideas for testing changes that you believe will result in improvement.
- routinely measuring and reviewing project-specific indicator data;
- testing changes that you believe will result in an improvement;
- implementing changes that work throughout the clinic.

Your entire team should review the results to determine if your QI aim is realistic. If this is not your first set of measurements, these results will determine how much more you wish to improve. Your aim should include a specific measurable goal that is clear to all staff, and will result in establishing a common purpose among them. Your team will more likely succeed if it is supported by leadership, has a set time to meet, is fully trained and communicates its work to all staff.

Improvement project template:

A template for recording the details of the improvement project is included in Annex 10.2. This simple form can be used to include all of the information needed to capture the important elements of the project, define its purpose and to keep a record of the improvement activities in the clinic.

Example from the field: the cotrimoxazole example

In this exercise, team members were selected after the baseline data were collected. The team included:

- one clinical provider (who sees children and adults for clinical staging)
- one data clerk (who collects data from the patient records and fills in registers)
- one community health worker (who provides community education and supports treatment adherence)
- one pharmacy technician (who manages cotrimoxazole stock).

The score results showed that in June, only 65% of eligible patients had been prescribed cotrimoxazole. This surprised the staff and resulted in many discussions about the problem. The group developed an aim statement to set a common goal for its work “We will conduct an improvement project to increase the number of eligible patients who are prescribed cotrimoxazole prophylaxis to 90%.”

Step 4: Understand the underlying process or system

Implementation steps:

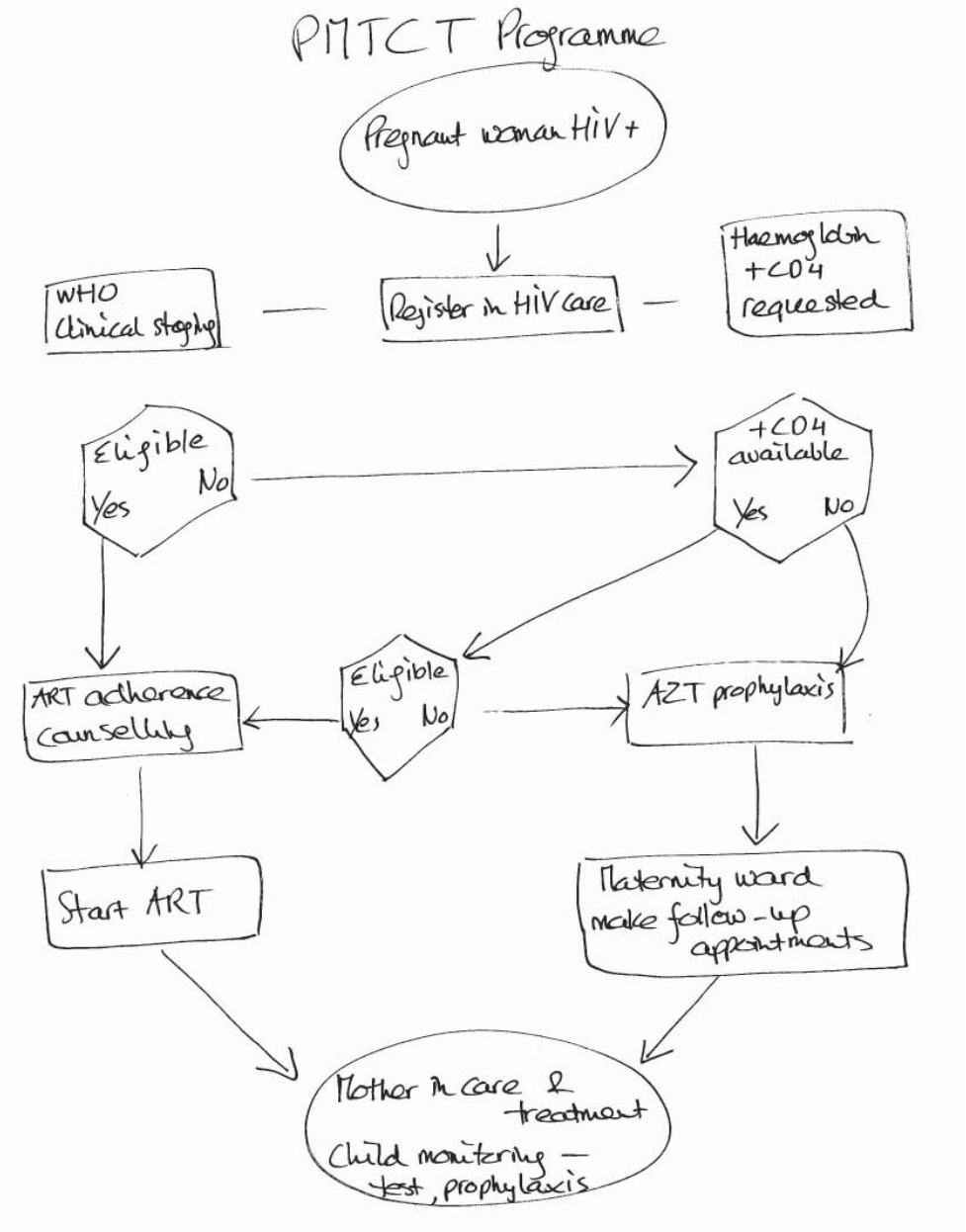
- Develop a flowchart of the existing processes;
- Exchange ideas about potential barriers to QI.

Your data show where gaps in performance exist, but do not explain why they exist. To develop an understanding of where improvements might be most successful, you need to understand the process of how the service being measured is actually delivered in the clinic. To do so, your team can draw a simple flowchart of the current processes. To clarify a process, they may need to obtain additional information from other staff or from patients.

Flowcharts are an easy way to visualize the process so that it is easier to both understand and improve. A flowchart shows the steps of any process in sequential order and can be used to illustrate a sequence of events, activities or tasks for processes ranging from simple to complex. An example can be found in Figure 11.2.

A fishbone diagram is another tool to help investigate the process (see Annex 11.3). It is often used with the flowchart to help sort out the categories of factors that are involved in a given process. It will also help differentiate factors that can be improved by the team, such as delays in registration or inadequate documentation, from those which require help from outside, such as with stockouts, inadequate staffing and broken equipment.

Figure 11.2: PMTCT Programme



Example from the field: cotrimoxazole example

The improvement team met weekly. Its members intensely discussed all the potential reasons why cotrimoxazole was not prescribed to eligible patients. Possible oversights included failure to note which patients were eligible, failure to document that medications were ordered or picked up (at every visit), forgetting to check if patients were receiving and taking cotrimoxazole, lack of patient understanding about the benefits of taking it, confusion by providers about who should be checking to see if patients were receiving their medication, and not filling in the appropriate place on the patient record to document at each visit whether patients were receiving cotrimoxazole. The outreach worker met with several patients to learn if they understood why they needed to take cotrimoxazole. Most patients did not understand why the drug was important. They said they did not know that it could prevent diseases that can strike if a person already has HIV; diseases that can also result in death or very serious illness. At the next meeting, the team developed a flowchart of the current process from the time a patient arrives for an appointment, to the point when cotrimoxazole should be given. The flowchart was then discussed at the next staff meeting.

The flowchart in figure 11.2 demonstrates the use of flowcharting to visualize the process of pregnant HIV-positive women receiving ART at this particular health centre. In order for pregnant women to receive ART, they must first be identified as HIV-positive, then register at the clinic, be assigned a clinical stage, have CD4 counts assessed, and then determined to be eligible according to national guidelines. Once determined to be eligible, they then receive ART.

If they are not eligible for ART, they receive ARV prophylaxis to prevent mother-to-child HIV transmission (PMTCT). These steps allow staff to see where bottlenecks can occur.

Step 5: Make changes to improve HIV care

Implementation steps;

- Test changes;
- Routinely re-measure to analyze the impact on HIV care;
- Conduct tests of changes and measure them to see if they result in improvement;

- Plot results over time;

- Scale up changes shown to result in improvements.

You will not know whether your change works until you test it and then measure again to see if it worked. Your team may identify a variety of ideas for changes, and can test each idea to see if it results in improvement. This approach is repeated in a cycle of “measure- test change- re-measure” that forms a fundamental part of improvement work.

The key lessons learned from successful health centres include:

- Test a variety of changes;
- Start a change on a small scale: for example, implement it on one day or with one provider, and then expand;
- Learn from successful best practises in your own clinic or elsewhere.

Several models for improvement have been adopted by health centres. These focus on cycles of measuring, testing changing and then re-measuring. The models may have different names, such as the Plan, Do, Study, Act (PDSA) cycle, but their similarities are greater than their differences.

Some categories of successful changes developed from QI studies at health centres, (remember that the specific change is unique to each clinic); including:

- Reminders: put ‘prompts’ or reminders at the point of care to remind a provider (either verbally or in writing) to implement a specific process. These processes could include the provider asking about whether the patient needs cotrimoxazole, or if they have TB symptoms including cough or fever. They could also remind the provider to offer counselling about behaviour, or order a CD4 blood test. Reminders could include wall charts, job aids, or a field in a register or medical chart.
- Make laboratory data available to providers: provide up-to-date laboratory data at the point of care so a provider can make a well-informed decision about whether to start treatment or prophylaxis.
- Share performance data with providers (“audit and feedback”): show providers that their performance rates can be improved. Providers are encouraged when they see data which show their results have improved. Visible improvement is

a powerful motivating factor for staff to improve care, since the results show that improved care benefits a patient's health.

- **Provider education:** train the entire staff on how to improve care, including both specific aspects and improvement methods. This can involve formal training, mentoring sessions or distribution of materials (see chapter 9, Human Resources on mentoring and supportive supervision).
- **Patient education:** provide individual training sessions or group education to patients so that they better understand their role in optimal care. Expert patients or peer-educators can play a particularly effective role in improving patient visit rates and treatment adherence.
- **Patient reminders:** use telephone calls or home visits to remind patients to return to clinic, or follow recommendations for renewing medications, or having blood tests. Peer workers may be particularly effective in these cases.
- **Organizational changes:** reorganize the steps in a process of care delivery such as eliminating unnecessary steps, bottlenecks, loops, rework, etc. and streamlining the flow of processes. Convene regular team meetings to discuss patient management, reassigning staff roles and responsibilities or adding new staff. During the early part of a patient's visit, identify those who need a specific test. If possible, send patients to the laboratory before their visit in order to reduce waiting time.
- **Information system strengthening:** establish and/or implement standard monitoring systems (see chapter 6, Monitoring), and improve documentation forms by adding clinical summary sheets. In addition, if feasible, use a computer programme for these activities.

Example from the field: cotrimoxazole example

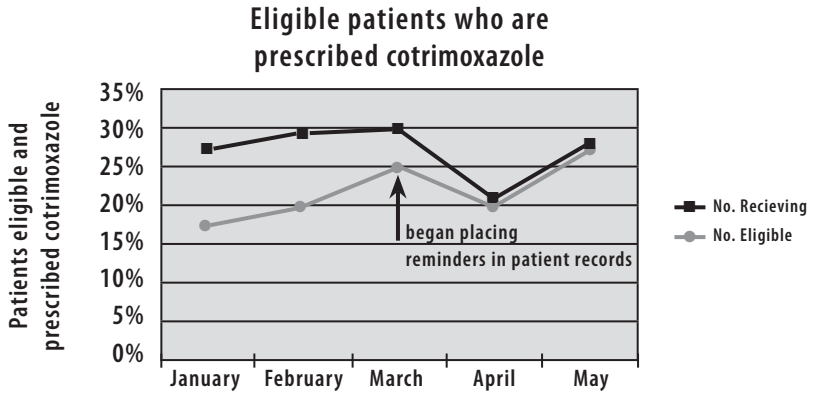
The improvement team meets weekly and starts to see improvements in the number of eligible patients who are prescribed cotrimoxazole. Based on flowcharting findings, the team decides to initially focus on patients who have come to a recent appointment, but either did not get checked to see if they needed cotrimoxazole, or did not get refills if they were already on it. Over two days, a new reminder system is tested in which notations are entered on clinic patient records used to record the patient's visit. The two-day test is successful and the number of patients given cotrimoxazole increases. As a result, this reminder is being expanded to include all patients; the record clerks are then trained to routinely put reminders on records. It is important to remember that sometimes the rate may not increase because the drug is not available. This finding is important because it shows health officers and donors that supply problems need urgent attention.

The patient representative provides two educational sessions a day to patients in the waiting area to increase awareness about the importance of taking cotrimoxazole, and that they have a right to treatment. Patients need to know that other serious infections can occur if a person is HIV-infected. The initial sessions are well-accepted by patients. But the two trainers quickly realize the limitations of their interventions, since more training sessions are needed on a daily basis than they can deliver. In response, the patient representative trains 20 patients to conduct these training sessions in the health centre and the community. It turns out that this training is extremely successful, spreads the understanding that use of cotrimoxazole is an important health measure, and provides patients with an opportunity to advocate for the best possible health care. These training sessions are expanded to include all patients.

Re-measuring to assess the impact on care:

Suppose that your baseline data results have initially identified an area for improvement. At that point, your improvement team needs to establish routine measurement cycles to assess progress over time. A simple run chart plotting the measurement data over time is created. This chart helps the team to track the project results, ideally showing when certain test cycles were conducted. See below for a simple run chart. The cycle is repeated and put into a graph format to display the results. Run charts will help your team to work on more than one improvement project at a time.

Figure 11.3: Example of a run chart



11.5 KEEPING QUALITY ON THE AGENDA

Notes from the Field:

The data clerk establishes a routine measurement system for monthly reporting of the agreed indicator. The results are graphically displayed and shared at the upcoming team meeting. They are put on the wall where everyone can see them.

Once you know that the change has worked, it is time to integrate this change throughout the entire centre. Leadership support and communication of the results are two important methods to ensure that the change happens. If the changes apply to other areas of the clinic beyond HIV care, they can be expanded there as well.

Resources

Your improvement work also needs to be integrated with efforts at district and national levels. Resources that may be available to you include tools to measure quality, training in QI, and ongoing support through clinical mentoring, coaching and supportive supervision. This communication with health officials and mentors is important because it also provides a way for you to let them know about problems at the centre beyond your control that affect the quality of services you provide. These problems often include broken equipment, medication and supply stock depletions, and infrastructure difficulties.

Your work to start and implement quality improvement will be strengthened by sharing your experiences with others. Opportunities for exchanging information and learning from others may speed up the improvement process.

Once the cycles of measurement and improvement begin, you may find it difficult to keep them going. Often external events occur that disrupt routine activities. If your clinic has made a commitment to improving care continuously as part of your regular discussions and meetings, and has engaged both staff and patients in improvement work, you will find that an expectation to continue has been created. Simple steps, such as setting aside even small periods of time to discuss performance, review data and to plan changes will keep quality improvement work going, and will result in better care for your patients.