Module 14 Monitoring, Evaluation, and Quality Improvement

Session 14.1: **Monitoring, Evaluation, and Data Collection**
Session 14.2: **Quality Improvement and Supportive Supervision**

Learning Objectives

After completing this module, participants will be able to:

- Discuss the importance of routinely monitoring adolescent HIV care and treatment activities
- Discuss how information from monitoring and evaluation (M&E) can be used to support program improvement
- Describe the purpose of quality improvement (QI)
- Define and describe supportive supervision

Session 14.1 Monitoring, Evaluation, and Data Collection

Session Objectives

After completing this session, participants will be able to:

- Discuss the importance of routinely monitoring adolescent HIV care and treatment activities
- Discuss how information from monitoring and evaluation (M&E) can be used to support program improvement

Monitoring

Monitoring is the routine process of data collection and measurement of progress toward program objectives. Monitoring involves COUNTING what we are doing. It also involves routinely checking the quality of services. Monitoring is a process that helps to identify problems early so that they can be corrected quickly. This requires that data be collected, compiled, and analyzed on a routine basis.

Health workers play a vital role in the monitoring process by regularly collecting (i.e. recording), compiling, and reporting data to determine, for example, the number of adolescents enrolled in HIV care, the number receiving ART, the number retained in care over time, and the types of clinical and support services offered to adolescents.

Monitoring and evaluation of adolescent HIV care and treatment programs can help to:

- Assess whether a program is meeting its targets
- Identify and improve problem areas in the implementation of adolescent HIV care and treatment services

Routine monitoring and evaluation are necessary to gather information on care and treatment **program outcomes**, such as:

- *Is the program retaining adolescent clients in care?*
- *Are all eligible adolescents receiving ART?*
- *Are routine lab tests and clinical follow-up visits being conducted on schedule?*

Program outcomes are usually the cumulative tally of individual outcomes and can give insight into the strengths and the areas needing improvement within an individual facility or across an entire district.

Often, when reporting outcomes, programs separate data into only two age groups: under 15 years and over 15 years. However, **disaggregating data (or further separating the data)** into more age groups allows for more meaningful interpretation of program outcomes.

It is recommended that data be collected and analyzed using these age categories:

- Ages 10-15 years (early adolescence)
- Ages 16-19 years (late adolescence)
- Ages 20-25 years (early adulthood)

Indicators

Indicators are summary measures used to help indicate the status of a program's activities.

- Indicators measure things such as the number of adolescent clients tested and informed of their HIV-status, the number enrolled in HIV care, and, of those, the number initiating ART. See Table 14.1 for more examples of indicators.
- Pediatric and adult HIV care and treatment indicators are established at the national level according to the needs, resources, and standards of the specific program. Indicators are often defined in the national strategic plan for HIV.
- National level indicators generally cover service delivery to PLHIV, quality of care, and management-related information.
- Although indicators are identified at the national level, they can be calculated at the facility, district, or national level depending on need and how these data will be used.
- Some facilities have their own indicators in addition to the nationally-established indicators. Facility-level indicators can help to identify progress, problems, challenges, and solutions in the delivery of adolescent HIV care and treatment services at specific facilities. For example, facility level indicators could show how many adolescents are missing appointments and, of those, how many are followed up and returned to care.
- Indicators may need to be revised periodically (for example, in response to changes in national guidelines for the program or services being monitored).
- Indicators reflect a certain timeframe — for example, over the course of a month, a quarter, or a year.
- It is important to measure changes in indicators over time. For example, if the number of HIV-infected adolescent enrolled in care is 20 in 2000, 40 in 2002, and 30 in 2004, we would want to explore reasons why the number of enrolled adolescents decreased from 2002 to 2004. One possible explanation could be that the program did not have enough physical space or provider time to continue expanding services to more than 40 adolescents per year, the maximum obtained in 2002.

Table 14.1: Examples of adolescent HIV care and treatment indicators

- Number HIV-infected adolescents (aged 10–19) enrolled in care
- Number of adolescents who initiated ART
- Number of adolescents currently receiving ART
- Number of adolescents who had a change of therapy
- Number of adolescents for whom ART was discontinued
- Number of adolescents lost to follow-up
- Number of adolescents transferred to other facilities
- Number of adolescents who have died
- Number of adolescents who have become pregnant

In addition to absolute numbers, it is good to calculate **proportions** (e.g. the proportion of adolescents who have discontinued care, the proportion who have transferred out, the proportion who have died, etc.) as this gives more useful and comparative information than raw numbers alone. However, since measuring proportions is often difficult to do, programs may wish to select a small number of priority proportions to measure. Some examples are given below and in *Appendix 14A: ICAP's Adolescent Standards of Care.*

Targets

Targets are specific goals established before a new program or service is implemented and on a regular basis thereafter. For example, a target may be "To ensure that 95% of eligible adolescent clients initiate ART." See Table 14.2 for examples of priority targets for adolescent HIV care and treatment programs.

Table 14.2: Priority targets for adolescent care and treatment programs

Priority Indicator 1:	**95% of adolescent patients in HIV care and treatment receive Cotrimoxazole (CTX) prophylaxis**
Measured by:	*Proportion of adolescent patients in HIV care and treatment receiving cotrimoxazole (CTX) during the quarter*
Numerator:	Number of adolescent patients in HIV care and treatment receiving cotrimoxazole (CTX) prophylaxis during the quarter
Denominator:	Number of adolescent patients receiving HIV care during the quarter
Priority Indicator 2:	**90% of adolescent patients enrolled remain in care for at least 6 months**
Measured by:	*Proportion of adolescent patients enrolled in care who remained in care for 6 months*
Numerator:	Number of adolescent patients still in care at 6 months after enrollment (e.g. April-June)
Denominator:	Number of adolescent patients enrolled in care in a given 3 month period (e.g. Oct-Dec)
Priority Indicator 3:	**95% of all adolescent patients in HIV care and treatment receive TB screening**
Measured by:	*Proportion of adolescent patients in HIV care and treatment receiving TB screening at enrollment by symptom check list during the quarter*
Numerator:	Number of adolescent HIV patients screened for TB at enrollment into HIV care during the quarter
Denominator:	Number of new adolescent HIV patients enrolled in HIV care during the quarter

Evaluation

While monitoring helps look at progress in indicators and helps us know if we are reaching our targets, evaluation examines the process in greater depth and helps us understand what the indicators are really telling us. Evaluations help take a closer look at the outcomes of interest and can help answer questions about what outcomes mean and what differences the program is making.

- Evaluations are typically conducted at specific time periods (for example, at the end of the year), whereas monitoring happens on a daily, monthly, and quarterly basis.
- At its simplest, an evaluation of routinely collected data from the adolescent HIV care and treatment program will demonstrate to what extent planned activities are actually realized by comparing targets with indicator measurements. So, for example, an evaluation might help to answer the following questions:
  - *What percent of the target for ART initiation was reached by the program last year?* (In other words, did we initiate as many people on ART as we had planned or expected to enroll?)

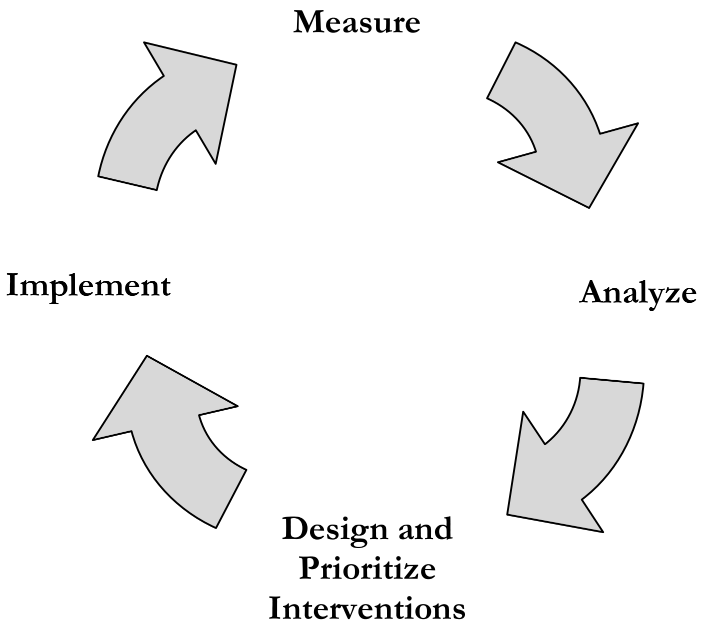
Evaluations can also involve research methods to systematically investigate a program's effectiveness. In this case, evaluation may involve special studies and specific research design, and may require a control or comparison group. One might use evaluation to answer the following program questions:

- *Are adolescents enrolled in a peer support group more likely to return for scheduled appointments compared to adolescents who do not participate in peer support groups?*
- *Are adolescents enrolled in the program experiencing a better quality of life?* (Use patient surveys to collect these data)
- *Has the program reduced the number of adolescents hospitalized for HIV-related illnesses?* (Compare hospitalization rates before and after the adolescent program started, using chart review)

Evaluations should be conducted regularly to look at changes that occur as the adolescent HIV program is implemented and maintained. For example, *has the percentage of adolescents who receive TB screening improved since the start of the program? What about the percentage of adolescents who are retained in care for at least 6 months? If so, can these changes be attributed to our program?* This will enable program staff to identify areas of program strength and weakness, and to respond to weaknesses by investigating and correcting problems.

The monitoring and evaluation process is a continuous one, as shown in Figure 14.1, below.

Figure 14.1: Monitoring and evaluation as a continuous process



Adapted from: ICAP. (2007). *Clinical systems mentorship: The ICAP guide to site support*. Available at: http://www.columbia-icap.org/resources/supporttools/files/SSG.Draft%201.1.pdf

Reporting

There are numerous steps in the reporting process and each step is important:

1. Individual client data are recorded in facility-held patient charts, patient-held records, and/or nationally standardized **registers**.
2. Data in these registers are tallied and the totals are recorded on nationally standardized **monthly summary forms**. These totals summarize a facility's progress on key indicators (such as those listed in Table 14.1).
3. These monthly summary forms are submitted to the district level.
4. Districts collate the monthly summary forms (in other words, they put together the forms from all of the district clinics) and submit the collated data to the national level.

The data summarized on each monthly summary form should also be compiled into a **monthly report** so staff can review how the program is doing. The monthly report for the facility might include that which was reported to the district as well as additional data, such as data collected on retention or quality indicators (see Session 14.2).

All staff must be aware of the importance of completing registers in an accurate way. Monthly summary forms and reports will only be accurate if registers are completed correctly and consistently. This is discussed further in the next session.

Program Modification

At every level of the system — facility, district, and national — monthly summary forms should lead to discussion on how the program can be modified or improved to better meet targets. (This activity is referred to as "design and prioritize interventions" in Figure 14.1)

- For example, if the most recent monthly report indicated that 10 out of 50 (20%) newly enrolled HIV-infected adolescents with CD4 cell counts less than 350 were initiated on ART this month, but that the target was to initiate at least 80% of those who were eligible on ART, we would want to identify ways that the program could be modified or improved in order to reach the target.

Such program improvements will require discussion of the following:

- **What is the problem?**: *What are the barriers to rapid ART initiation for adolescents? Can ART adherence training be streamlined? If many of our adolescent clients are orphans, is there a problem identifying treatment buddies or caregivers who are responsible for supporting ART adherence? Are there delays in getting CD4 test results from the laboratory prior to initiating ART?*
- **How will we address the problem?**: *Once the key problems have been identified, how will these problems be addressed?*
- **What is our plan?**: *Once the key solutions and specific actions have been identified,* ***who*** *will address the issue, by* ***when****, and using what* ***funding*** *(if funding is needed)?*
- **How will we know if the plan is working?**: *How will we know if the new initiative is working? Will we look at this year's first few monthly reports (or quarterly summary report, if available)? If so, what improvement do we expect to see? Will we consider the program modifications successful if our ART initiation increases to 40%? 65%? 80%?*

This process is discussed in more detail in the "Quality Improvement" section in Session 14.2.

Adolescent HIV Care and Treatment Data Collection and Forms

Standard data collection and accurate recording of activities and outcomes are essential. Data collection for adolescent HIV care and treatment is usually done through the existing national M&E system, using existing national HIV care and treatment forms and registers. **There is not usually a separate system with adolescent-specific forms.**

- In most cases, adolescent data will be captured in the national forms for pediatric HIV, meaning that the same system and tools can be used to describe, monitor, and evaluate both the pediatric HIV program and the adolescent program.
- This is why it is particularly important that data are appropriately disaggregated by age, as described previously.
- However, if an adolescent client is provided with care in an adult HIV clinic (either because he or she has been transitioned to the adult HIV clinic or because pediatric services are unavailable), then facilities should use the national forms for adult HIV care and treatment to report activities related to the ALHIV.

Characteristics of effective M&E systems

Effective monitoring and evaluation systems require record keeping that is:

- **Accurate** — in other words, correct and true. So, if a client's CD4 count is 401, make sure that "401" is entered correctly in the appropriate cell, along with his or her identifying code or name.
- **Reliable** — completed the same way every time (for example, recording the adolescent's age in years and months at every visit)
- **Standardized** — recorded using the same tools (for example, using the same registers, abbreviations, formulas, and definitions) in every clinic across the district or country
- **Recorded** following established guidelines

Be mindful of adolescents who have transitioned to adult care:

- In facilities with established adolescent programs, adolescents may need to be "transferred out" of pediatric registers and monthly summary forms as they age and "transferred in" to adult HIV program reporting forms and registers.
- There should be national guidelines for this procedure, but if they cannot be identified, facilities should have their own consistent procedure for counting enrollment and retention of adolescents who have begun to meet the definition of "adult" HIV patients.
- Care taken with these data issues will be rewarded with more accurate data on retention of adolescents in the program.

Remember these important points:

- Systems for documenting care and treatment activities must **maintain client confidentiality.** All records, including registers, must be kept in a secure location and no identifying data should leave the site.
- It is the responsibility of all staff members who complete registers or summary forms to **ensure that data are accurate and complete and that data collection protocols are followed.** Attention to accuracy will help to ensure that monthly, quarterly, and annual reports accurately reflect services and activities conducted at the clinic.

The following is a list of some of the key registers and forms facilities use to monitor activities in their adolescent programs (note that this list assumes adolescents are being captured on pediatric registers and forms; adapt as needed if adolescents will only be seen in adult clinics):

- Ward or clinic register
- General HIV counseling and testing register
- Patient care card
- HIV care summary sheet
- Pediatric clinical follow-up form
- Pediatric ART eligibility form
- Pediatric adherence form
- Pharmacy logbook/register
- Patient status form
- TB diagnostic worksheet and TB screening tool
- Pediatric patient locator form

Tracking Missed Appointments

Health facilities should use an **appointment book** to keep track of upcoming and missed appointments. A follow-up system should also be developed to contact those who have missed appointments (and their caregivers) to try to bring them back into care.

A follow-up system requires:

- A working appointment system whereby health workers can readily track missed appointments and contact clients (and caregivers) who have missed an appointment in order to bring them back to the clinic.
- In urban areas, contact may involve the use of cell phones (making phone calls or sending SMS messages). In rural areas, contact may involve the efforts of community workers, NGOs, Peer Educators, family members, or friend networks.
- Contacting clients and families when appointments have been missed, either by phone or home visit, requires the consent of the adolescent client and/or the caregiver. Therefore, a system should be in place to obtain contact information at enrollment, to update this information at each subsequent visit, and to routinely request consent to follow up missed appointments.

Exercise 1: Using Data for Decision-Making: Small group work and large group discussion

Purpose	To review adolescent HIV care and treatment data and to analyze the data for use in program decision-making

This exercise consists of 3 parts:

- Part 1: Small Group Work
- Part 2: Small Group Work
- Part 3: Small Group Presentations and Large Group Discussion

Part 1: Small Group Work

Review Table 14.3 and, based on the data provided, calculate the "% of Target" in the last column. Then discuss the following questions:

A. *For which indicators is Clinic Make Believe doing well and meeting its targets? How do you know?*
B. *For which indicators is Clinic Make Believe NOT meeting its targets? How do you know?*
C. *If the number of adolescents enrolled in care in Q4 (the 4th quarter) of 2009 was 450 and the number of adolescents receiving ART was 290, would you say the clinic is doing better or worse enrolling clients in ART in 2010?*
D. *Which areas should the staff of Clinic Make Believe focus on improving?*

Part 2: Small Group Work

Identify one of the areas that needs improvement at Clinic Make Believe and discuss:

A. *What is the problem?*
B. *How should we (assuming we are the managers at Clinic Make Believe) address the problem?*

Table 14.3: Sample data for Exercise 1

Quarterly adolescent HIV care and treatment summary report for Clinic Make Believe			
Number of adolescents enrolled in care	**2010, Q4**	**Target***	**% of Target**
• Females, aged 10–14	100		
• Males, aged 10–14	95		
• Females, aged 15–19	150		
• Males, aged 15–19	165		
• Total	510	550	
Number of adolescents receiving ART	**2010, Q4**	**Target***	**% of Target**
• Females, aged 10–14	75		
• Males, aged 10–14	70		
• Females, aged 15–19	102		
• Males, aged 15–19	120		
• Total	367	350	
Number of new adolescent clients	**2010, Q4**	**Target***	**% of Target**
• Females, aged 10–14	1		
• Males, aged 10–14	2		
• Females, aged 15–19	22		
• Males, aged 15–19	12		
• Total	37	40	
Number of adolescent clients who missed appointments	**2010, Q4**	**Target***	**% of Target**
• Females, aged 10–14 (75 had appointments this quarter)	20 (27%)		
• Males, aged 10–14 (70 had appointments this quarter)	23 (33%)		
• Females, aged 15–19 (95 had appointments this quarter)	37 (39%)		
• Males, aged 15–19 (105 had appointments this quarter)	42 (40%)		
• Total (345 had appointments this quarter)	122 (35%)	10% of those in care, max.	
Number of adolescent clients attending support group meetings	**2010, Q4**	**Target***	**% of Target**
• Females, aged 10–14	55		
• Males, aged 10–14	45		
• Females, aged 15–19	120		
• Males, aged 15–19	130		
• Total	350	50% of those in care	
Number of support group meetings held at the clinic	**2010, Q4**	**Target***	**% of Target**
• For 10–14 year olds	6		
• For 15–19 year olds	10		
• For caregivers	3		
• Total	19	9	
Number of active Adolescent Peer Educators at the clinic	**2010, Q4**	**Target***	**% of Target**
Number of active Adolescent Peer Educators at the clinic	15	6	
* If a cell is blank, it means that sub-targets have not been stated.			

Session 14.2 Quality Improvement and Supportive Supervision

Session Objectives

After completing this session, participants will be able to:

- Describe the purpose of quality improvement (QI)
- Define and describe supportive supervision

Quality Improvement (QI)

Quality Improvement is the means by which activities are routinely evaluated to check whether services offered by the multidisciplinary team are following established guidelines and standard operating procedures (SOPs). QI may also be referred to as quality assurance (QA). The purpose of QI is to identify problems so they can be corrected, thereby improving services for adolescent clients and their caregivers.

QI is different from monitoring and evaluation. Monitoring can tell us how many clients attended the clinic or how many received ART last month. QI, on the other hand, can tell us whether those clients were happy/satisfied with the services they received and whether they were provided with sufficient education and appropriate adherence counseling.

QI should be a routine, ongoing part of the normal functioning of health facilities. It should incorporate procedures in which all staff at all levels — not just supervisors — are involved.

Methods to Assess Quality

It is often necessary to use a variety of methods to assess program quality. Standard monitoring tools, such as patient forms and registers, capture only a fraction of the services provided to adolescents and they provide no information on the quality of those services.

For example: If only forms, client records, and registers were used to assess quality, there would be no information on the youth-friendliness of clinical services; on the quality of psychosocial support, adherence, and other counseling sessions; or on the quality of referrals made to community-based support services.

QI activities might examine and evaluate:

- The quality and youth-friendliness of services (see Module 2)
- Compliance with national guidelines, standard operating procedures, and protocols for HIV care and treatment
- The adequacy of space and the attention to privacy and confidentiality
- Linkages to ongoing support and community-based services

QI activities may vary to some extent from one facility to another, based on the type of facility and the facility's experience with adolescent HIV care and treatment services.

QI activities might include:

Adolescent Standards of Care (SOCs)

ICAP has developed **Standards of Care** for different HIV program areas. These SOCs are tools to help programs measure key standards over time, in order to improve quality. See *Appendix 14A*.

- Periodic reviews of records followed by staff feedback — reviewers should check for the accuracy, completeness, and consistency of the entries in various forms, registers, and patient files used in the clinic.
- Defining and regularly measuring adolescent SOCs (see box to the right)
- Direct observation of clinical procedures and counseling sessions
- Periodic assessments of the youth-friendliness of services, including the level of youth participation (the checklist presented in *Appendix 2B* may be used)
- Interviews with staff either directly or indirectly involved in the adolescent care and treatment program, in order to obtain feedback on specific indicators. Case conferences may be used as a forum to highlight current challenges, systems that are working, and systems that need improvement, and to propose solutions.
- Individual interviews or focus groups with adolescent clients who receive care and treatment services at the clinic. For example, *do adolescent clients feel that adequate information and support were provided during counseling sessions? Did they feel welcomed at the clinic? Were they treated non-judgmentally by health workers? Was it clear what would be expected of them, for example, how and when they should follow up? Were their other health and psychosocial needs assessed and addressed (for example, sexual and reproductive health services)? Was their privacy and confidentiality respected?*
- Individual interviews or focus groups with caregivers of adolescent clients who attend the clinic. For example, *do caregivers feel that they were provided with adequate information on supporting the adolescent at home?*
- Exit interviews or surveys completed anonymously by clients. A sample client satisfaction survey for youth is included as *Appendix 2C*. Client satisfaction surveys, which are typically given to clients as they complete their clinical visit, are a mechanism for clients to give their opinions about the services they received without fear that their honest feedback might affect their care. Client satisfaction surveys are typically administered either to all clients or to a random selection of clients for 1 to 2 weeks, 3 or 4 times a year.
- Evaluation of physical space, client flow, and time concerns through observation and staff and client interviews.
- Meeting with representatives of services where adolescent clients and caregivers are referred. Ask them about client needs, gaps in services, and feedback they may have received from adolescents regarding the facility's services.

How often should QI be conducted?

During initial implementation, daily or weekly QI activities allow for immediate follow-up aimed at correcting problems that have been identified. As services become established, reviews should become a formal part of overall adolescent HIV care and treatment program monitoring activities at designated intervals (monthly progressing to quarterly reviews). For example, ICAP recommends measuring SOCs on a quarterly basis (see *Appendix 14A*). Although supervisors have the ultimate responsibility for QI, QI-related activities should be shared among all members of the team.

It is important to establish a time for multidisciplinary team members and managers to discuss QI findings and issues, and to jointly come up with ideas and solutions for quality improvement. This may be accomplished as part of routine, monthly multidisciplinary team meetings or through quarterly meetings dedicated to QI review.

Supportive Supervision

QI activities are not complete without assessing the results of each QI review and planning a response. Often, weaknesses discovered through QI activities require supervisors to work directly with staff (including Adolescent Peer Educators) to address underlying problems. It is important that supervisors explain to their staff that QI activities are not simply the responsibility of supervisors, but rather that all service-improvement activities conducted by any staff member are a part of the continuous QI process.

The Focus of QI

QI is most effective when the focus is on providing guidance and mentorship, as well as using group problem solving techniques, to help health workers correct problems and overcome barriers to quality service provision.

An important component of responding effectively to QI findings is providing **supportive supervision**.

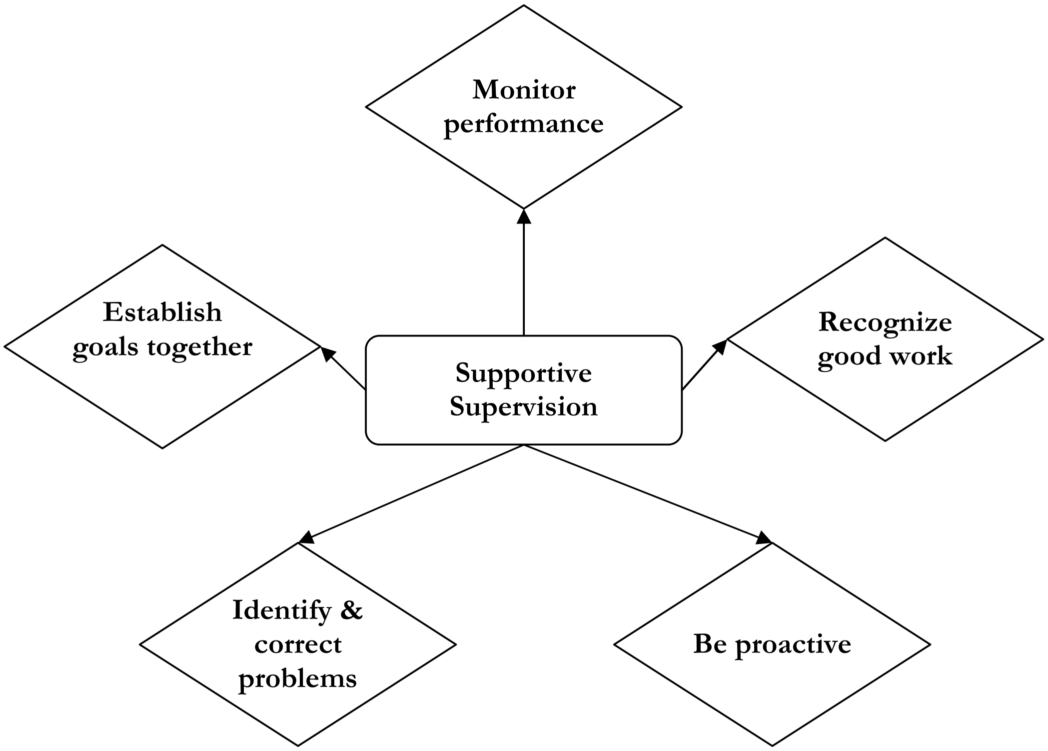
- Supportive supervision is an approach in which supervisors work with staff to establish goals, monitor performance, identify and correct problems, and proactively improve the quality of adolescent HIV care and treatment services through training, one-to-one support, mentoring, and coaching.
- Supportive supervision methodologies can also be extended to other contexts beyond QI, for example as a component of training.

Supportive supervision aims to:

- Obtain valuable information on program functioning and quality
- Improve health worker performance by providing one-to-one support to address an identified deficiency and to build health workers' skills
- Acknowledge good practices by providing positive feedback and noting health workers' (and Peer Educators') contributions to the success of the program
- Involve supervisors, health workers, and volunteers (such as Adolescent Peer Educators) to improve service provision — this is not the sole responsibility of the supervisor. It is also important to encourage health workers and Peer Educators to support each other through peer mentoring.
- Facilitate on-site, participatory problem-solving. Health workers should be encouraged to become comfortable participating actively in addressing weaknesses along with their supervisor.
- Involve youth in giving feedback and improving service provision
- Assure that the program is successful in meeting the needs of ALHIV and their caregivers and families
- Motivate staff and volunteers

Once a deficiency in service provision is identified, supportive supervision must be established as quickly as possible to prevent poor practices from becoming routine. Figure 14.2 illustrates the concept of supportive supervision.

Figure 14.2: Supportive supervision process



Module 14: Key Points

- Monitoring and evaluation (M&E) is the standardized process by which data related to the delivery of services are collected and evaluated.
- M&E is a continuous process that informs the planning and implementation of adolescent HIV care and treatment services.
- Indicators are calculated using routinely collected data. They can be calculated at the facility, district, or national level.
- Targets are specific goals established before a new program or service is implemented or at other specific times.
- Standard national forms and registers are used to collect key data on adolescent HIV care and treatment services.
- If possible, program data should be collected, disaggregated (or separated), and analyzed by the following groups: ages 10-15; ages 16-19; and ages 20-25.
- Key staff should review their facility's monthly forms/reports to ensure that activities will meet targets and goals. Program successes and weaknesses, along with a monthly data summary, should be reviewed at multidisciplinary team meetings in order to initiate discussion on how weaknesses will be addressed.
- Patient confidentiality must be always be maintained.
- Quality Improvement (QI) is the means by which activities are routinely evaluated to check whether services offered are following established guidelines and SOPs.
- QI should be a routine, ongoing part of the normal functioning of health facilities. A variety of methods may be used to conduct QI.
- An important component of responding effectively to QI findings is to provide supportive supervision.
- Supportive supervision requires collaboration between the supervisor and staff to establish goals, monitor performance, and identify and correct problems.

Appendix 14A: Adolescent Standards of Care

ICAP Standards of Care (SOCs) for Pediatrics (Adolescents)[1]		Quarterly Measure of SOC	Numerator	Possible Source of information	Evaluation of Program Quality		
			Denominator		Result of Quarterly measure of SOC		
					Possible Actions		
1.	All HIV-infected adolescents should receive CD4 testing at enrollment in HIV care.	% of HIV-infected adolescents with CD4 test result within 1 month of enrollment	# of adolescents enrolled in the past 6 months with CD4 recorded within 1 month of enrollment	Adolescent charts	<75%	75-94%	≥95%
			# of adolescents enrolled in the past 6 months		Evaluate this month	Prioritize and evaluate next quarter	On target
2.	All HIV-infected adolescents should be screened for TB at enrollment.	% of adolescents screened for TB at enrollment	# of adolescents enrolled in the past 6 months and screened for TB at the enrollment visit	Adolescent charts	<75%	75-94%	≥95%
			# of adolescents enrolled in the past 6 months		Evaluate this month	Prioritize and evaluate next quarter	On target
3.	All eligible adolescents should initiate ART within 1 month of determination of eligibility.	% of eligible adolescents on ART within 1 month of ART eligibility	# of adolescents on ART within 1 month of determination of eligibility	ART register; Adolescent charts	<70%	70-90%	≥90%
			# of HIV-infected adolescents eligible for ART		Evaluate this month	Prioritize and evaluate next quarter	On target

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[1] An adolescent refers to a child aged between 10 and 19 years.

ICAP Standards of Care (SOCs) for Pediatrics (Adolescents)[2]		Quarterly Measure of SOC	Numerator	Possible Source of information	Evaluation of Program Quality		
			Denominator		Result of Quarterly measure of SOC		
					Possible Actions		
4.	All HIV-infected adolescents should be educated on secondary prevention every 6 months.	% of HIV-infected adolescents with documented education on secondary prevention	# of HIV-infected adolescents seen in the past 6 months who have documented education on secondary prevention	Adolescent charts	**<75%**	**75-94%**	**≥95%**
			# of HIV-infected adolescents seen during the past 6 months		**Evaluate this month**	**Prioritize and evaluate next quarter**	**On target**
5.	All HIV-infected adolescents should be screened for substance abuse[3] every 6 months.	% of HIV-infected adolescents with documented screening for substance abuse	# of HIV-infected adolescents seen in the past 6 months who were screened for substance abuse	Adolescent charts	**<75%**	**75-94%**	**≥95%**
			# of HIV-infected adolescents seen during the past 6 months		**Evaluate this month**	**Prioritize and evaluate next quarter**	**On target**
6.	All HIV-infected adolescents should be screened for depression every 6 months.	% of HIV-infected adolescents with documented screening for depression	# of HIV-infected adolescents seen in the past 6 months who were screened for depression	Adolescent charts	**<75%**	**75-94%**	**≥95%**
			# of HIV-infected adolescents seen during the past 6 months		**Evaluate this month**	**Prioritize and evaluate next quarter**	**On target**

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[2] An adolescent refers to a child aged between 10 and 19 years.

[3] Alcohol, tobacco, and illicit drugs