

## SESSION 9: PRESENTING INFORMATION

### Aim of the session:

Session 9 aims to illustrate how data can be presented in a user-friendly manner and to emphasise the importance of feedback.

### LEARNING OUTCOMES:

By the end of this session participants should be able to:

- ❖ Discuss ways of presenting data and information
- ❖ Produce simple graphs
- ❖ Explain the role of feedback

### SESSION TIME:

*2 hours*

### SESSION PLAN:

10 min	1. Introduction to the day	plenary discussion
30 min	2. Review indicator calculations	plenary discussion
10 min	3. Presenting information	facilitator presentation
50 min	4. Drawing graphs	group work
20 min	5. Assessing feedback mechanisms	plenary discussion

Preparations for the session:

- ❖ List of indicators / data elements for drawing graphs (Activity 3)
- ❖ Paper and coloured pens for drawing graphs

### Activity 1 - Introduction to the day

*Time: 10 minutes*

*Method: plenary discussion*

- ❖ Address any logistical issues
- ❖ Allow time for questions about the previous day
- ❖ Provide an overview of the activities for the day

## Activity 2 - Review indicator calculations

*Time:* 30 minutes

*Method:* plenary discussion

- ❖ Review indicator calculations from the previous session

## Activity 3 - Presenting data and information

*Time:* 10 minutes

*Method:* facilitator presentation

*Aim:* to introduce basic concepts of tables and graphs

The role of indicators in measuring the progress of a plan has already been discussed as well as data collection methods and tools. So far stage 1 and stage 2 of the information cycle has been covered and stage 3, presentation of information will now be discussed.

Presentation involves compiling and displaying data or information in a format that is quickly and easily understood. This can be done with both raw data as well as data that has been analysed to produce indicators.

After analysis, the information is presented in reports. Reports should show indicators in tables and graphs. These tables and graphs could include the following:

- ❖ Information from a single facility, district or province for a number of months, allowing comparisons over time.
- ❖ Information from a number of facilities, districts or provinces, allowing comparisons among these.
- ❖ Information shown in comparison to targets and/or benchmarks.

The interpretation of information will be discussed later. At this point, it is important to emphasise that reports presenting data should be accompanied by a narrative section, giving where possible, explanations for what is seen. For example, if monthly data shows a sudden drop in the number of new patients assessed for starting ART, the explanation could be that there was a shortage of doctors during that month or problems with drug supply.

While computers provide quick and easy ways of producing tables and graphs, these can also be drawn manually. Encouraging staff to make their own tables and graphs and displaying them can help to increase motivation as they see the relevance of what they collect and use it to assess the performance of their program.

Some information is effectively displayed in a table, while other information is more easily understood when presented in a graph. It is important to think about which format best displays the information.

**Tables**

Tables are useful for assessing data quality, looking for changes over time (trends) and for comparing different facilities.

**Graphs**

Graphs present information visually. Graphs are often more easily understood than tables of figures.

Different types of graphs are used for different purposes. We will look at three types of graphs frequently used to display health information:

- ❖ Line graphs
- ❖ Bar graphs
- ❖ Pie charts

It is important to think about which kind of graph will work best to show the information.

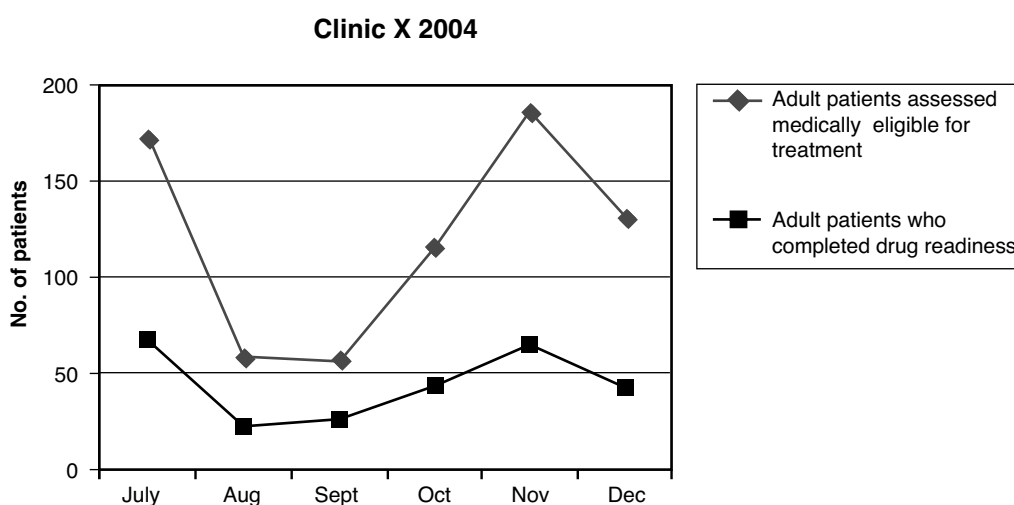
**Line graphs:**

Line graphs are used to show changes over time (trends). The X axis usually represents time while the Y axis plots the value of the variable.

**Table 9.1: Clinic x**

2004	July	Aug	Sept	Oct	Nov	Dec
adult patients who completed drug readiness	68	23	26	44	65	43
adult patients assessed medically eligible for treatment	172	59	56	116	186	131

**Figure 9.1: Example of a line graph**



**Bar graphs:**

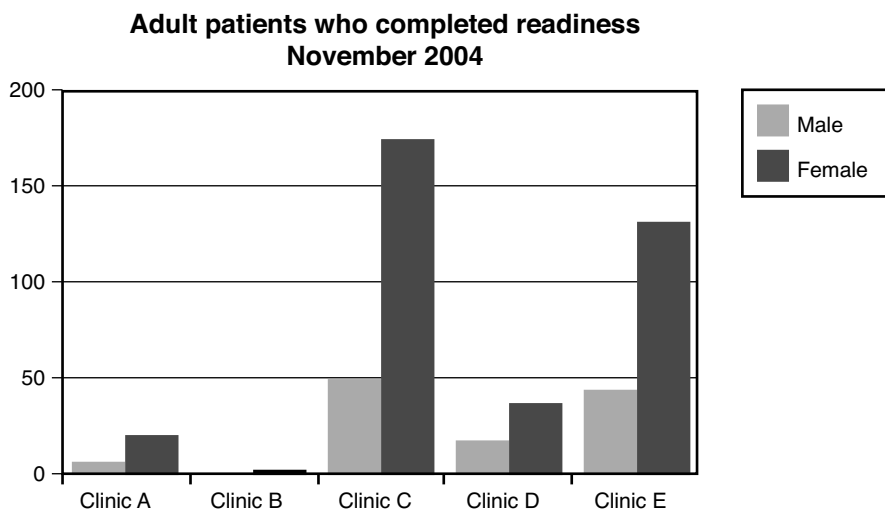
Bar graphs are often used to compare different activities or sites; they are also used to display raw data.

**Table 9.2: Adult patients who completed readiness programme**

**December 2004**

	Male	Female
clinic A	6	19
clinic B	0	2
clinic C	49	174
clinic D	17	36
clinic E	43	131

**Figure 9.2: Example of a bar graph**

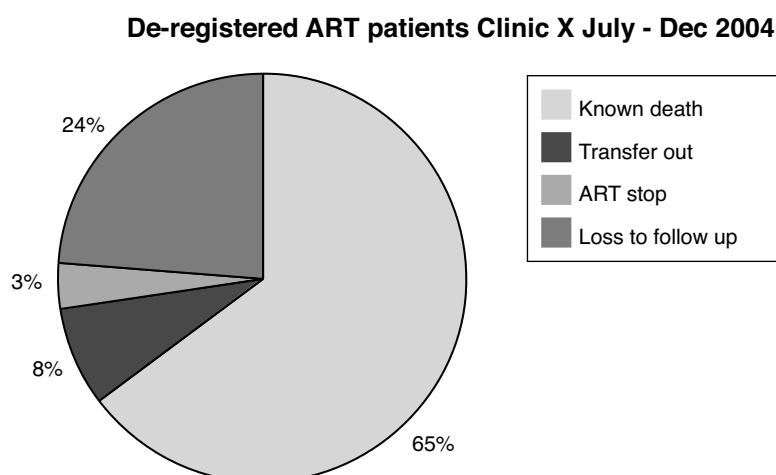


**Pie charts:**

Pie charts are used to show information as proportions (percentages) that are part of a whole (like the slices of a pie). The slices must add up to 100%.

**Table 9.3:**

De-registered ART patients - Clinic X July-Dec 2004		
known death	64.4%	56
transfer out	8.0%	7
ART stop	3.4%	3
loss to follow up	24.1%	21
Total	100%	87

**Figure 9.3: Example of a pie graph****Tips for making graphs:**

- ❖ Keep the graph simple – do not try to show too much information on one graph.
- ❖ Label the graph:
- ❖ Heading: explains the source of the information and the time period it represents
- ❖ Axis labels: states clearly what is being shown
- ❖ Legend: explains meaning of the lines or bars
- ❖ Use scales that best illustrate what is being shown, e.g. percentages may work better than raw numbers.
- ❖ Use scales that fill the graph. Might need to explain this more

- ❖ Include a target line or reference point to show a target and/or benchmark for comparison
- ❖ Also remember to consider colours and shading used, in particular if the graph will be printed or photocopied in black & white – in that case, use a clear and not shaded background.
- ❖ If you graph indicators, you are normally interested in including the AVERAGE (for the district, for the year, etc) as the last bar on the right side. For raw data, you are normally interested in the SUM; however, you do not want to include the sum in the graph because it will “dwarf” the other bars. Need some explanation of ‘average’ and ‘sum’.

### Activity 4 - Drawing graphs

*Time:* 50 minutes (40 in group work; 10 min wrap up presentation)

*Method:* group work

*Aim:* to practice drawing graphs of ART data and indicators

#### Facilitator instructions

- ❖ Divide participants into seven small groups
- ❖ Allocate one of the indicators below to each group (Table 9.4 in participants manual)
- ❖ Request groups to select the most appropriate graph that will illustrate the information to be presented. (Use the data table and/or the indicators calculated in previous exercise)
- ❖ Each group should also draw an additional graph, based on calculated indicators.
- ❖ Circulate among the groups to provide assistance.
- ❖ Wrap up with brief PowerPoint presentation of the graphs.
- ❖ All graphs should be displayed for use in the next session.

#### Participant instructions

- ❖ Draw graphs showing each of the provided indicators, data or groups of data/ indicators:

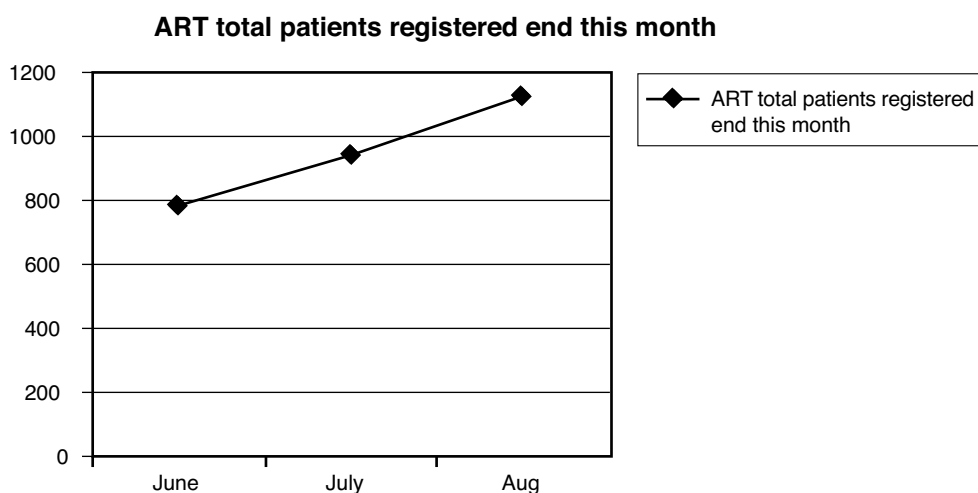
**Table 9.4: List of indicators for use in group exercise on presenting information**

1	<ul style="list-style-type: none"> <li>ART total patients registered permonth</li> </ul>
2	<ul style="list-style-type: none"> <li>number of adult (&gt;14 yrs) patients assessed eligible for treatment</li> <li>number of adult patients (&gt;14 yrs) who completed drug readiness</li> <li>registered adult patient: ART start</li> </ul>
3	<ul style="list-style-type: none"> <li>% of adult (&gt;14yrs) assessed patients medically eligible for treatment that completed readiness training</li> </ul>
4	<ul style="list-style-type: none"> <li>Ratio of adult males to adult females started on ART (total Jun-Aug)</li> </ul>
5	<ul style="list-style-type: none"> <li>% of adult (&gt;14yrs) ART patients with weight gain &gt; 10% compared to baseline at 1st 6 month visit</li> <li>% of child (0-5yrs) ART patients with weight gain &gt; 10% compared to baseline at 1st 6 month visit</li> </ul>
6	<ul style="list-style-type: none"> <li>% of adult (&gt;14yrs) ART patients with CD4 &gt; 200/mm3 at 1st 6 months</li> <li>% of adult (&gt;14yrs) patients with viral load &lt;400 copies / ml at 1st 6 months</li> </ul>
7	<ul style="list-style-type: none"> <li>De-registered ART patient: total</li> <li>total registered ART patient - known death</li> </ul>

**Facilitator notes**

**Graph 1**

	June	July	Aug
ART total patients registered end this month	784	943	1129

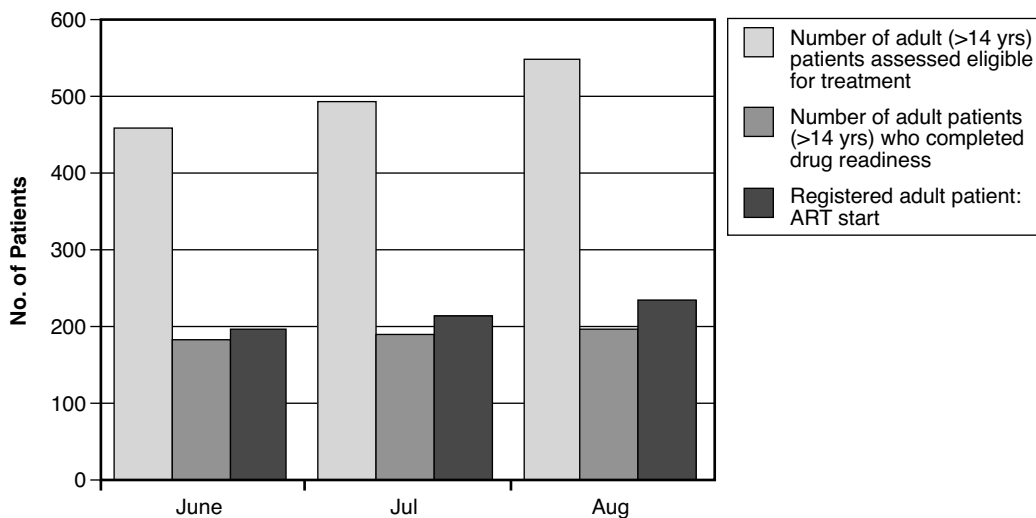


Graph 2

	June	Jul	Aug
Number of adult (>14 yrs) patients assessed eligible for treatment	459	493	549
Number of adult patients (>14 yrs) who completed drug readiness	182	190	198
Registered adult patient: ART start	196	213	235

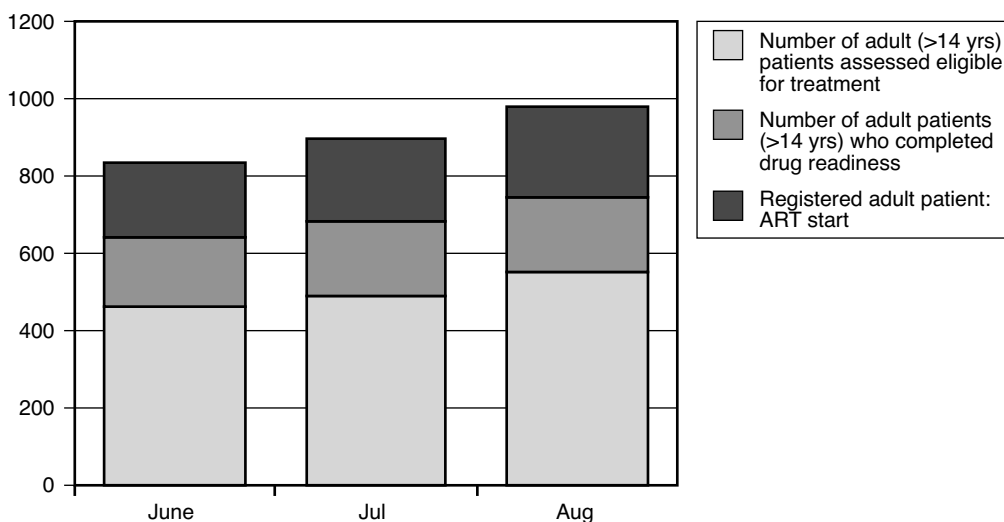
Option 1:

Fantasia Clinic 2004



Option 2:

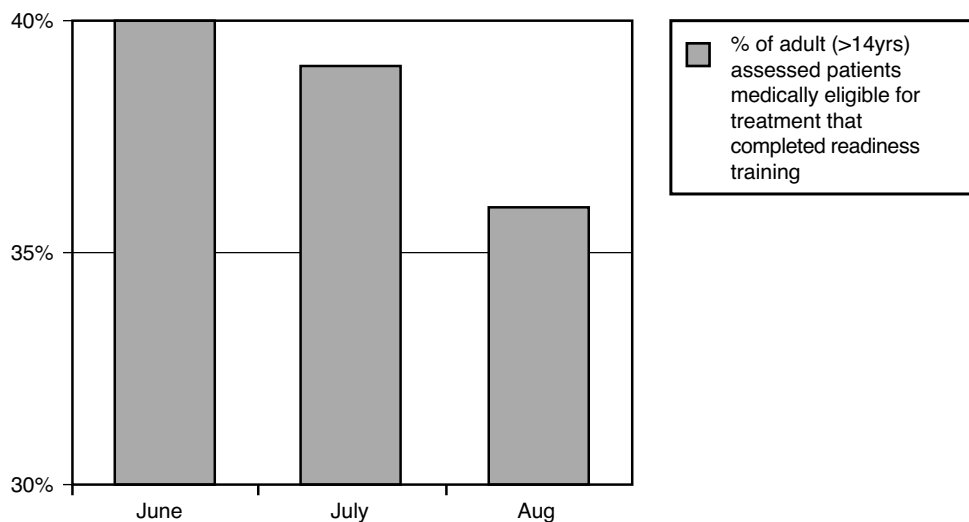
Fantasia Clinic 2004



Graph 3

	June	July	Aug
% of adult (>14yrs) assessed patients medically eligible for treatment that completed readiness training	40%	39%	36%

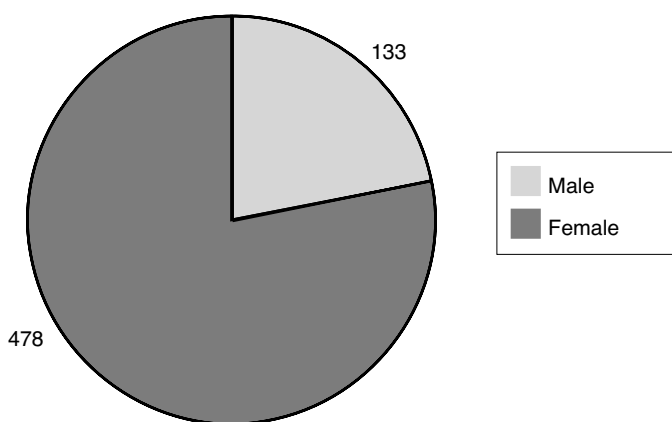
Fantasia Clinic 2004



Graph 4

Ratio of adult males to adult females started on ART (total Jun-Aug)	Jun	July	Aug	Total
Male	49	41	43	133
Female	142	160	176	478

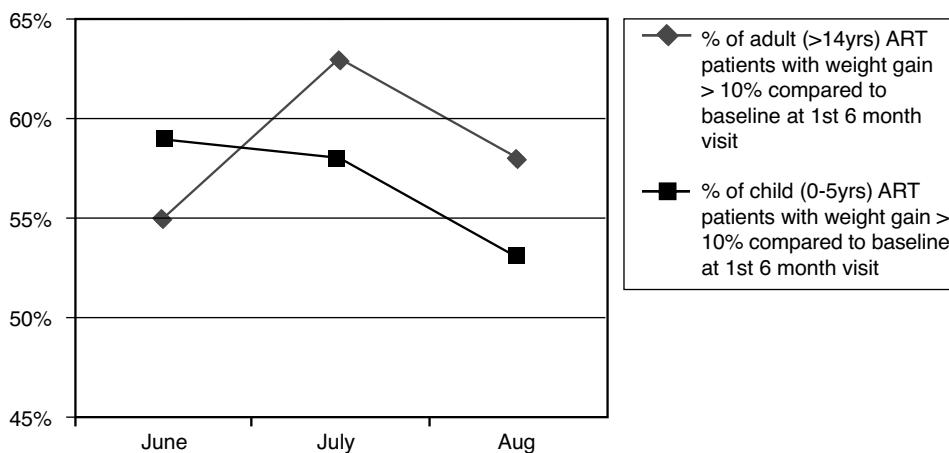
Fantasia Clinic - ratio adult male : female ART Start June-Aug 2004



Graph 5

	June	July	Aug
% of adult (>14yrs) ART patients with weight gain > 10% compared to baseline at 1st 6 month visit	55%	63%	58%
% of child (0-5yrs) ART patients with weight gain > 10% compared to baseline at 1st 6 month visit	59%	58%	53%

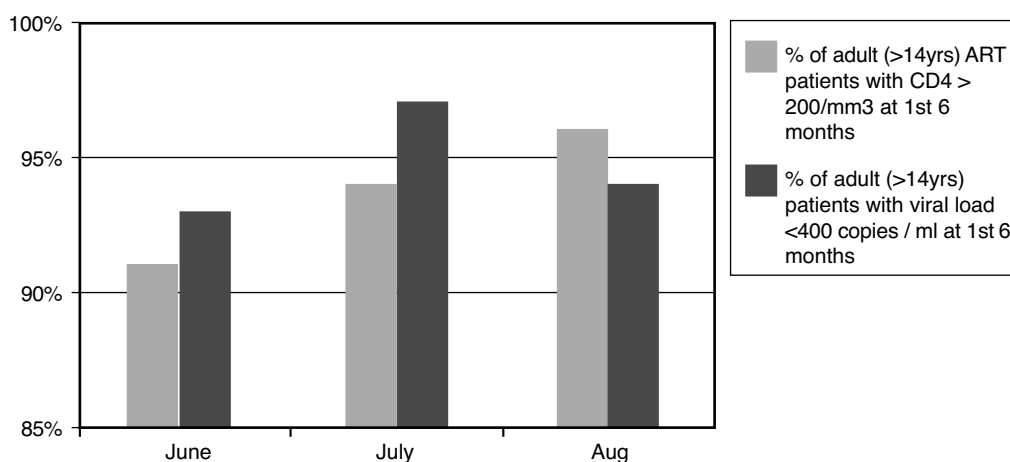
Fantasia Clinic 2004



Graph 6

	June	July	Aug
% of adult (>14yrs) ART patients with CD4 > 200/mm3 at 1st 6 months	91%	94%	96%
% of adult (>14yrs) patients with viral load <400 copies / ml at 1st 6 months	93%	97%	94%

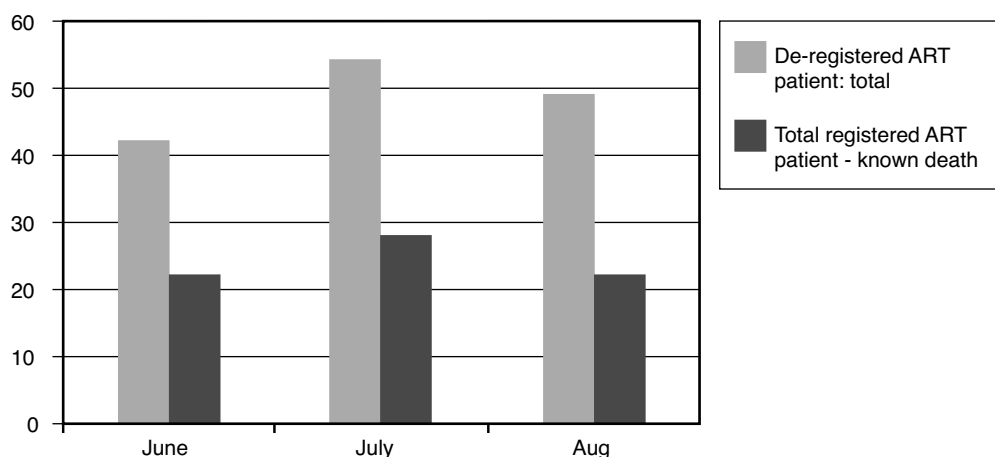
Fantasia Clinic 2004



Graph 7

	June	July	Aug
De-registered ART patient: total	42	54	49
Total registered ART patient - known death	22	28	22

Fantasia Clinic 2004



### Activity 5 - Assessing feedback mechanisms

*Time:* 20 minutes

*Method:* facilitator presentation, plenary discussion

*Aim:* to provide insight into the relevance of feedback

#### Facilitator instructions

##### Introduce the activity: (Use PowerPoint)

After information has been presented in a user-friendly way, it needs to be interpreted, i.e. we need to use the information to tell us how we are doing. Based on this, decisions can be made on what to do next.

We have seen that data and information must flow through the stages of the information cycle from the point of collection to the point of use. Feedback must also flow through the information cycle, but in the opposite direction: from the point of use to the point of collection.

Feedback has two main purposes: to review of data quality and to provide insights into the uses of information.

### Data quality review:

One of the ways of checking data quality is to examine a printout of what was submitted. A useful way of doing this is to print out the raw data in a table or all the derived indicators showing consecutive data/values for a number of months. This makes it easy to identify inconsistencies and obvious errors. Discussion of this printout with the staff who submitted the data helps them to understand the importance of good quality data. It is also a means of promoting accountability.

### Uses of information:

Staff who are involved in the collection and processing of data need to see:

- ❖ how they can use information to improve their services
- ❖ how they are doing in comparison with other sites\*
- ❖ how they are doing in relation to targets and benchmarks.
- ❖ their progress over time
- ❖ the kinds of decisions that are made based on the information they provide.

\* This means that the district or sub-district office must not only provide feedback on your own data, but also share data and indicators for other facilities.

### *Participant instructions*

- ✧ Discuss in plenary:
  - What feedback mechanisms exist in your facility/district/province?
  - Who is responsible for providing feedback on data quality?
  - Who is responsible for providing feedback on how information submitted is used?
  - Who all should receive feedback reports?
  - What decisions are you aware of that have been made based on data collected at your facility?
  - What can be done to improve feedback?

### Facilitator notes

In the same way as it is important to establish clear policies and procedures for ensuring data collection and data flow, it is also important to establish mechanisms to ensure feedback to all levels. Feedback mechanisms should be included in the data flow procedures. For every report that is submitted, a feedback report should be provided, either verbally or in writing. Another way of looking at feedback is to consider it in relation to the information pyramid: data and information flow up the levels of the pyramid, while feedback and information flows back down.

An important factor in optimising data flow and feedback, is to avoid the channelling of information along different routes for different “vertical” programmes, e.g. PMTCT, VCT and ART information is sometimes submitted from different locations in a facility to different offices at district or provincial level and feedback is given separately to each programme. This means that staff at facility level do not gain a complete picture of the issues surrounding HIV and AIDS at their facility or district/province.