# SESSION 10 INTERPRETING AND USING INFORMATION

## Aim of the session:

Session 10 aims to create awareness of approaches to interpreting information and how this information can be used to improve HIV and AIDS related services.

### LEARNING OUTCOMES:

By the end of this session, participants should:

- ❖ Have gained awareness of potential uses for the information they collect

### SESSION TIME:

*2 hours*

### SESSION PLAN:

| | | |
|---|---|---|
| 15 min | 1. Approaches to interpreting information | facilitator presentation |
| 45 min | 2. Interpreting information | group work |
| 30 min | 3. Course evaluation | individual work |
| 10 min | 4. Follow-up support and evaluation | facilitator presentation |
| 20 min | 5. Course wrap-up | plenary discussion |

### PREPARATIONS FOR THE SESSION:

- ❖ Background reading:
  - Kasper T, Coetzee D, et al. (2003) Demystifying antiretroviral therapy in resource-poor settings. Essential Drugs Monitor. Issue no. 32: 2003
- ❖ Data printouts of local data if available
- ❖ Course evaluations and post tests

## Activity 1 - Approaches to interpreting information

*Time:* *15 minutes*

*Method:* *facilitator presentation*

*Aim:* *to present approaches to interpreting information and highlight the use of information at different levels*

### Facilitator notes

So far we have discussed:

- how to obtain data
- how to make sure the data is of good quality
- how to turn data into usable information in the form of indicators
- how to present information in ways that are easy to see and understand

Now we come to the next stage in the information cycle: using the information to make decisions and take action. Before information can be used, it must be interpreted. The purpose of interpretation is to monitor progress. Monitoring of progress should take place at various levels, e.g. self assessment at facility level and broader programme assessment at district or provincial level.

Different decisions are made at different levels of the health system and therefore different information may be needed at each level, but there is always interaction between the different levels. Many decisions, for instance budget allocations, are also in practice a result of protracted discussions and negotiations between many stakeholders at different levels, including stakeholders outside of the health sector (NGOs, media, faith-based groups, etc).

Interpretation involves looking at information and asking ourselves what it means. This involves looking at the information within its context, i.e. in relation to other pieces of data/information and/or information from other sources. Sometimes the term "**interrogating the data**" is used to describe this process.

It is not easy to teach "interpretation". Interpretation of information requires knowledge of the technical and management aspects of the service as well as of the particular context. All these aspects cannot be covered in this workshop. However, we can provide some guidance on the kinds of questions to ask in order to interpret data.

### Interpretation involves examining the following:

- ❖ How are our services performing in terms of ours goals, objectives and targets?
- ❖ How are our services performing compared with benchmarks?
- ❖ What is happening in our services over time? (trends)
- ❖ How are our services performing compared with other facilities?

- How is our district and province performing compared to others?

**The next step could then involve the following questions:**

- "…Why are we doing well (or badly)?
- What are others doing that we can learn from?
- How can we do better?
- Can we improve quality of care with existing resources?
- How can we be more effective or efficient?..."[12]

**An easy approach to interpretation of information may be to ask the following questions in relation to an indicator:**

**Who, what, when, where, why and how?**

These questions are usually asked when studying epidemiology (the study of the causes and distribution of illness in populations). However, they can also be applied to service issues.

For example, when assessing trends in numbers of clients accessing accredited service points, we could ask the following questions:

- Who is accessing our ART services? Who is not?
- By what referral route are they coming? What routes are they not using?
- When do they present?
- Where do they come from?
- Why do they use (or not use) our services?
- How can we increase access to our services? (e.g. *Should* we increase access deliberately by actively pursuing potential clients and/or "advertise" ourselves? Or should we instead focus on improving our service to existing clients?)

In asking and answering these questions, we can find out whether the implementation of the current plan is satisfactory and can make decisions about how to improve services. This is the reason we collect data - it is the basis of monitoring and evaluation - and the most important part is monitoring of ourselves and our own practices.

## Understanding dynamic relationships between indicators

It is crucial, in particular when interpreting trends and what they mean for our service delivery, that we maintain a *dynamic* perspective. A dynamic perspective means that we understand the relationships between different indicators – if one goes up, we expect others to also go up or to go down, depending on their relationship. A dynamic perspective is not only necessary in order to avoid pitfalls and misinterpretations, but also to recognise progress and/or success early.

12 Heywood A and Rhode J. (undated) Using information for action. A manual for health workers at facility level

Let us use VCT as an example. Two years ago, when VCT was in its infancy in South Africa, you would expect (a) a high testing acceptance rate, and (b) a high HIV positive rate among those tested. Why? *Because when VCT clients were few, the big majority of them were medically referred (symptomatic and/or co-infected with STIs or TB).* With the massive expansion of VCT the last two years, we would expect more and more self-referred clients that feel healthy and thus less pressure to accept testing – so the acceptance rate might decline somewhat. If you expect a certain decline, you would also avoid the pitfall of e.g. blaming the decline on lazy or poor counsellors. Similarly, as you test more and more people, you would expect a gradual decline in the HIV positive rate – until they day (theoretically speaking) you test everybody in the community and get an HIV positive rate identical to the true HIV prevalence.

Furthermore, it is important not only to understand and interpret these dynamic relationships as best as you can, but also to use that understanding when discussing objectives and targets. Again, take VCT as an example: For 2004, most provinces provided VCT to around 5% of the population 15 year and older, and 30-50% of those finally tested were HIV positive. The HIV positive rate among VCT clients tested is higher than the provincial prevalence rate as measured by the annual antenatal survey. This indicates that VCT should increase further – the question is, how much is enough? *In other words, what do current trends tell us about our target (if we have any!!) for VCT? Should we set a target of 10%? 15%? 20%?*

One "trick" you can use in trying to make sense of various indicators, is to look at indicators and their targets and then calculate backwards from targets to "raw" data. For instance, if we set a target of 20% for VCT and if we assume that nobody shows up twice, it would take 5 years to provide VCT to every adult 15 years and older (20% each year). There are about 33 million adults in SA, so total VCT visits per year would be 20% of that or 6.5 million. Every adult will not come for VCT, of course, and some will come several times – but such relatively simple calculations done for your own facility helps you in discussing what it would take. How many lay counsellors? Consultation rooms? Is there capacity to follow-up, to do CD4 counts and/or clinical eligibility assessments for all those found to be HIV positive, to assist them in living healthily?

In some cases, research and international/national targets or benchmarks might help us both to think about these issues and to finally decide. For instance, in the case of TB there are clear WHO guidelines / benchmarks for sputum testing in passive case detection: WHO recommends a testing frequency of 1:10, i.e. that one in ten sputum samples are positive. If an area/facility has more than one in ten samples positive, it means they are not testing enough suspect cases. Some pulmonary TB patients will not be identified/treated and continue to infect others. On the other hand, if an area/facility has *less* than one in ten positive sputum samples, it means they are testing too many cases (i.e. wasting time and money).

By reflecting on and discussing the dynamic relationship between indicators – each representing different aspects of HIV/AIDS/ART services – as well as established or potential targets, you will gradually be able to assess your own performance in various areas of the programme.

In order to gain a comprehensive understanding of the HIV and AIDS epidemic, it is important to look at various kinds of information related to the epidemic and how this information links together to provide an overall picture.

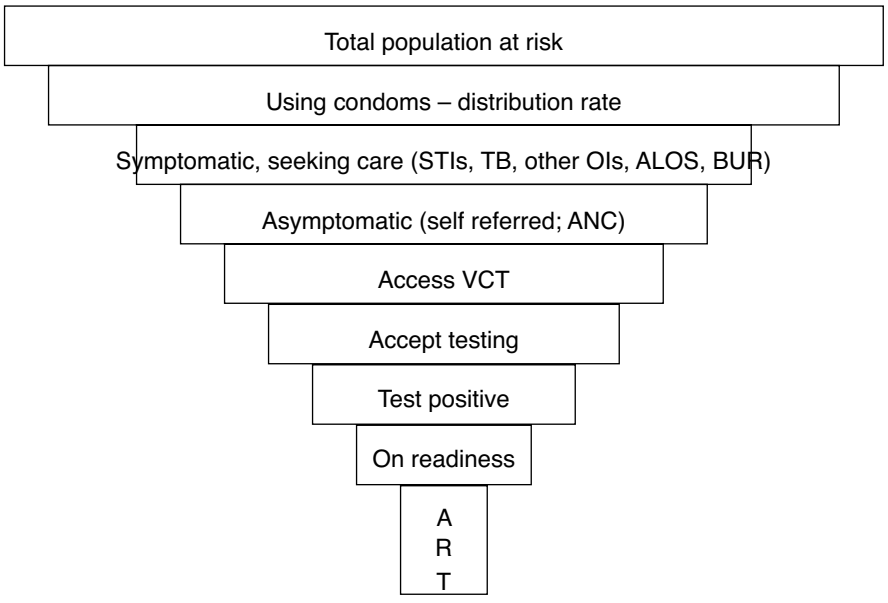
*Ask participants for examples of various kinds of data / information that they know is available and its relevance in addressing HIV and AIDS.*

**Examples:**

| Information | Relevance |
|---|---|
| HIV prevalence | Reflects extent of the epidemic |
| STIs | STIs reflect risky sexual behaviour and therefore risk of acquiring HIV; presence of an STI increases risk of transmission; STIs are opportunistic infections; also reflects access and quality of health services. |
| Male condom distribution rate | Provides an indication of awareness of the need for safer sex; indication of quality of services (male condom availability) |
| TB | TB is a very common opportunistic infection in people with HIV: HIV and TB have been termed "parallel" epidemics: i.e. high TB prevalence parallels HIV/ AIDS epidemic; TB is a common cause of death of people living with HIV and AIDS . |
| VCT | Reflects awareness of HIV in the population (self referral); availability and quality of VCT services and referral mechanisms within health services. |
| PMTCT | Availability and quality of VCT services and antenatal care; |
| Bed Utilization Rate (BUR); Average Length of Stay (ALOS) | May reflect HIV/AIDS burden on health system (patients admitted frequently and for extended periods) |
| ART | Reflects awareness HIV/AIDS in population; availability and quality of services |

We can think of some of the HIV/AIDS related information available to us as reflecting different levels of a "funnel". Looking at the funnel gives a sense of potential numbers of clients at various levels, and may give an idea of the numbers of patients we need to plan for to provide effective ART coverage. This funnel also reflects the importance of having information from various sources brought together and of staff working in different "vertical" programmes to meet and share information.

**Figure 10.1:HIV and AIDS Client and Information "funnel"**




*Note: The diagram merely represents a concept and is a not a true reflection of proportions.*

## Activity 2 - Interpreting information

*Time:* *45 min (30 min small group discussion; 15 min feedback)*

*Method:* *group work*

*Aim:* *to illustrate potential uses of ART indicators*

Facilitator instructions

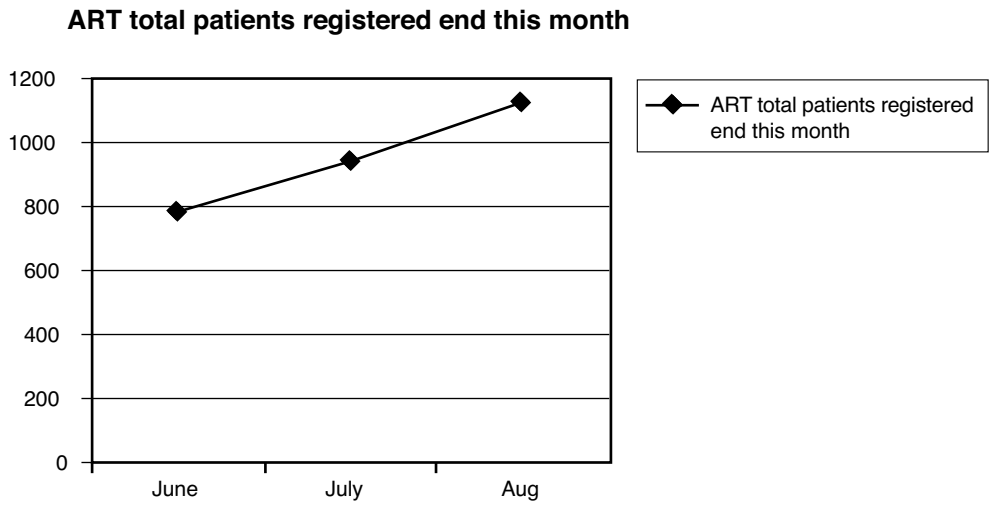
- Participants work in groups (remain in seven groups as allocated in previous exercise).
- Each group works with the graphs prepared in previous exercise.
- For each graph drawn;
  - Suggest the meaning of the information in relation to the programme and/or the service?
  - Also compare the information in the graphs in relation to other information available in the data/indicator tables.
- Develop an action plan based on the information in the graph to improve, change or maintain the current situation. The action plan should include;
  - A goal,
  - One objective,
  - A target,
  - An indicator (to enforce the principle of measuring plans – the indicator might be the same as calculated by the group), and
  - A minimum of three activities to demonstrate how the objective will be achieved.
- Take feedback in plenary

## Facilitator notes

### Examples:

**Graph 1**

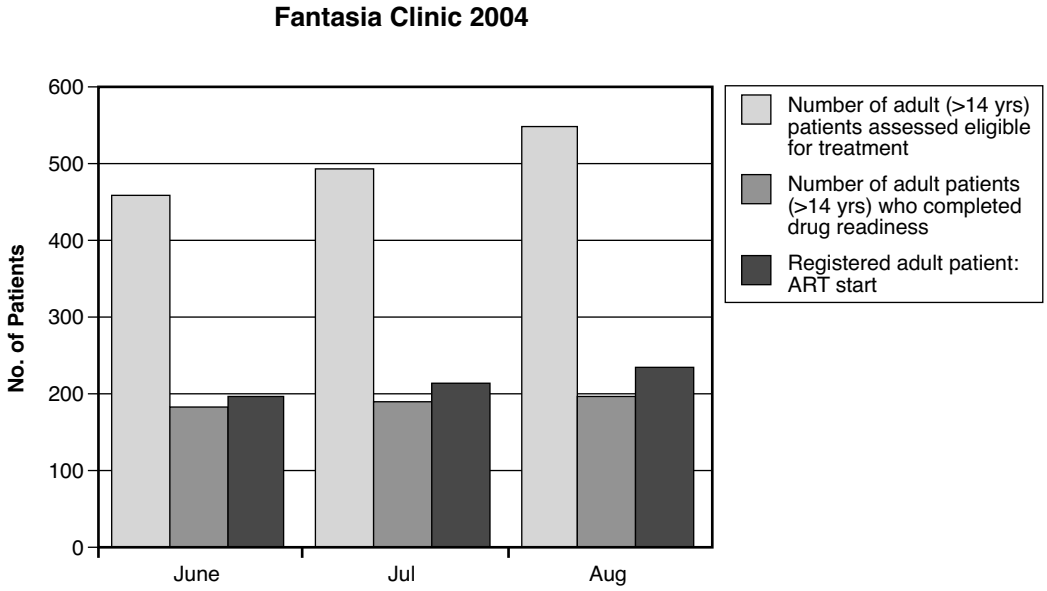
| ART total patients registered end this month |
|---|




This graph shows service utilization. As the numbers are increasing, the facility managers will need to motivate for additional staff in the future, as well as mobilise patients, family members, and community activists and health workers. District and provincial managers will need to assess the patient load at Fantasia clinic compared with other clinics when making decisions about where to allocate resources, e.g. staff, drug budgets, .

**Graph 2**

| |
|---|
| Number of adult (>14 yrs) patients assessed eligible for treatment |
| Number of adult patients (>14 yrs) who completed drug readiness |
| Registered adult patient: ART start |

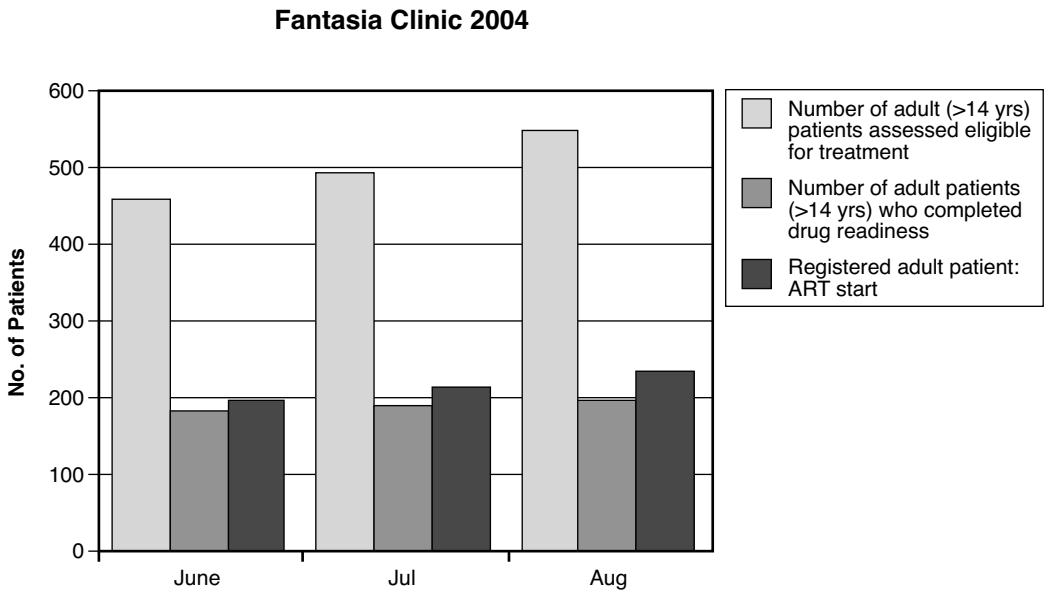



The graph also shows a large gap between those patients assessed and found medically eligible for treatment and those who complete readiness and start ART. Looking at this information in relation to the number of patients on the waiting list to start ART, it can be seen that although the waiting list is growing, it does not reflect the much larger numbers of patients who have not yet completed readiness. Graph 2 also illustrates this. Facility managers need to assess the reasons for this gap:

*Is this because patients are not compliant in attending readiness training, or because there are not enough staff to provide the training to such large numbers?*

**Graph 3**

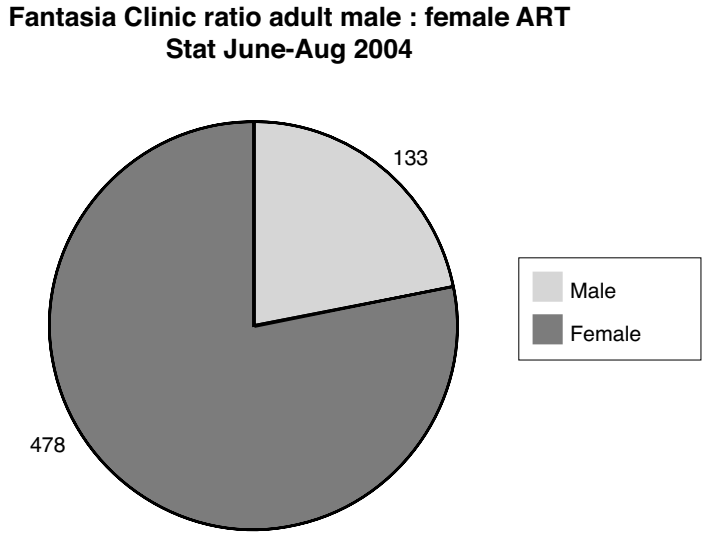
| % of adult (>14yrs) assessed patients medically eligible for treatment that completed readiness training. |
|---|




Discussed above.

**Graph 4**

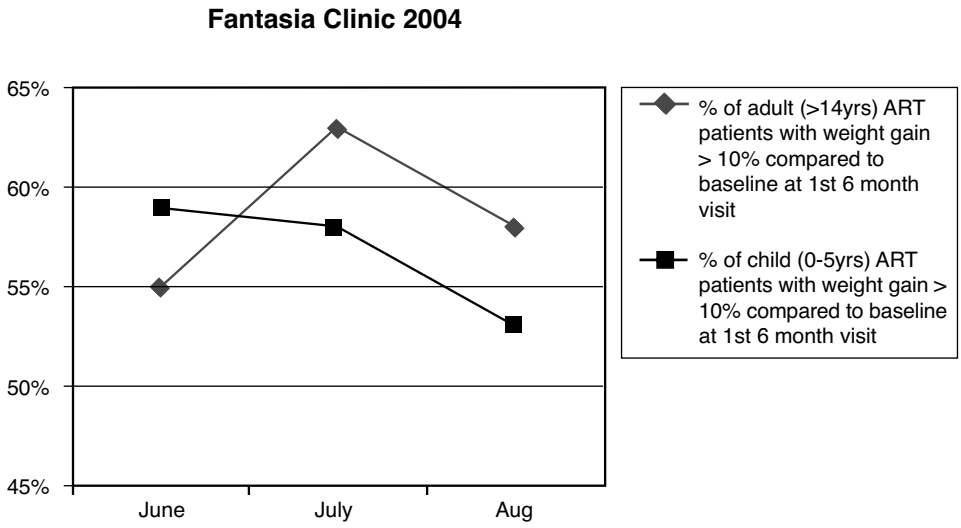
| Ratio of adult males to adult females started on ART (total Jun-Aug) |
|---|



In response to the large difference in the numbers of males versus female accessing the service, facility and district/provincial managers may want to look at ways of making services more acceptable to men as well as at specifically targeting men in HIV awareness activities.

**Graph 5**

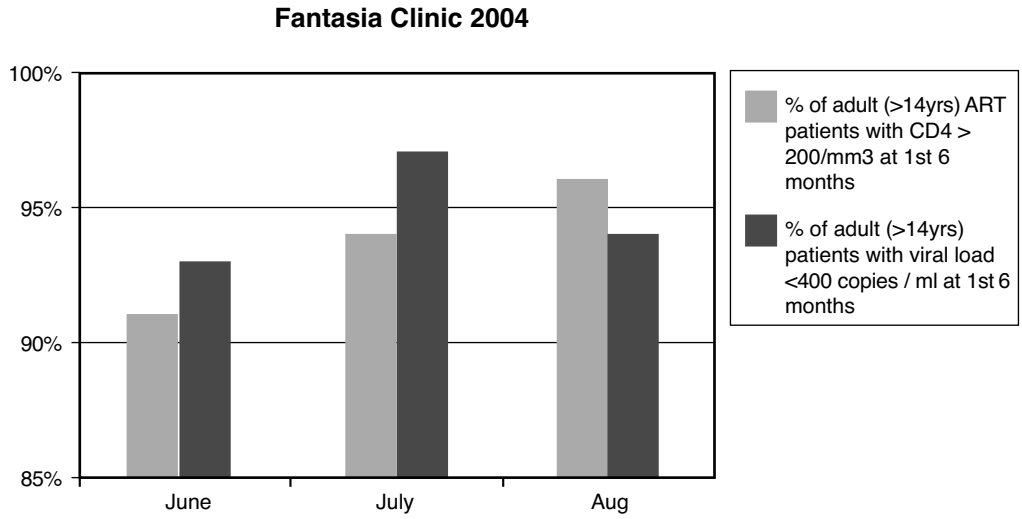
| % of adult (>14yrs) ART patients with weight gain > 10% compared to baseline at 1st 6 month visit |
|---|
| % of child (0-5yrs) ART patients with weight gain > 10% compared to baseline at 1st 6 month visit |




Weight gain is one of the positive outcomes of taking ART. The pace at which patients gain weight will depend on factors such as the stage of progression to AIDS and the availability of nutrition and other support. Patients who start ART at a CD4 count of lower than 50 (more severe disease) may take longer to gain weight. If the percentage of patients with weight gain > 10% drops, it could reflect larger numbers of patients with CD4 below 50 starting on ART. This may mean that action needs to be taken by facility managers to reach these patients earlier (e.g. reduce waiting list).

**Graph 6**

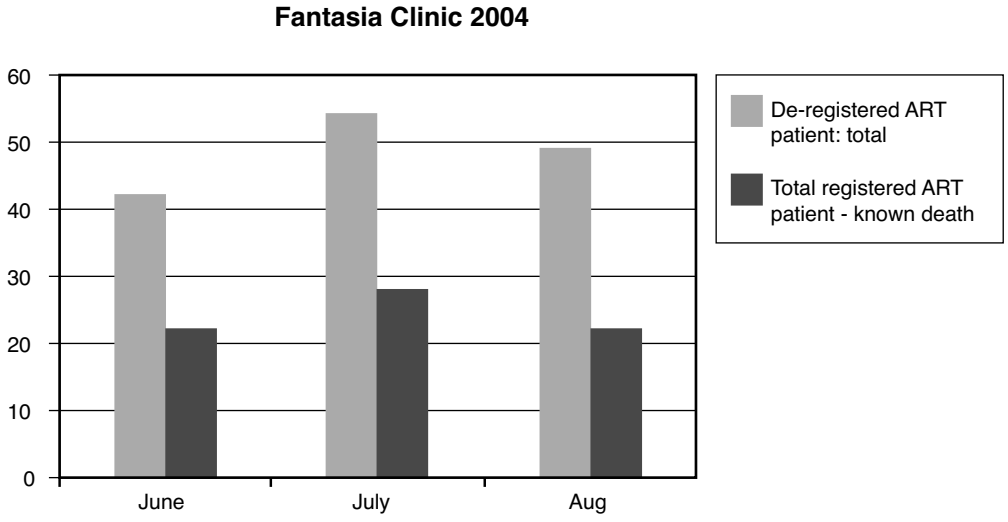
| |
|---|
| % of adult (>14yrs) ART patients with CD4 > 200/mm3 at 1st 6 months |
| % of adult (>14yrs) patients with viral load <400 copies / ml at 1st 6 months |




A rise in CD4 count to above 200 and a drop in viral load to below 400 indicates a good response to ART. The high percentages here reflect good compliance with treatment.

**Graph 7**

| |
|---|
| De-registered ART patient: total |
| Total registered ART patient - known death |



It is very important to find out why patients are de-registered. High number of deaths could reflect relatively higher numbers of patients starting ART with a very low CD4 count (below 50) which has a poorer prognosis. It could also reflect a problem in quality of care, e.g. management of opportunistic infections, and support such as nutritional supplementation and social support.

High loss-to-follow up rates could reflect problems with access to services (e.g. rural areas, lack of transport), inadequate preparation of the patient during readiness training or inadequate psycho-social support to the patient. It is important to address losses to follow up problems because of the potential of drug resistance. ART stop usually means that the patient was unable to continue taking ART for medical or other reasons. This should happen relatively rarely. High transfer out rates should also be investigated. A possible reason could be patient dissatisfaction with the quality of service delivery.

Another crucial indicator to monitor is the defaulter rate (i.e. >3 days since taking the last ART dose). This may reflect similar issues as the high loss to follow up rate.

## Activity 3 - Course evaluation

*Time:* *30 minutes*

*Method:* *Individual work*

### Facilitator instructions

- ❖ Hand out the post test and end of course evaluation form and instruct participants to complete within the specified time.
- ❖ Ensure that all post-test and end of course evaluation forms are collected.
- ❖ Ensure that unique identifier is written on all post-test questionnaires.

Pre-test and post-test questionnaires are completed by all participants on the first and last days of the course respectively. The tests are handed in anonymously but participants are requested to write a unique identifier on pre- and post test questionnaires in order to assess individual improvements in knowledge. The perceptions and feelings of participants about the course will be assessed using an anonymous daily evaluation sheet or a mood meter. At the end of the course, a detailed course evaluation questionnaire will be completed by all participants.

## Activity 4 - Follow-up support and evaluation

*Time:* 30 minutes

*Method:* facilitator presentation

*Aim:* To present an overview of the course highlights, to invite comments from participants and to discuss the way forward for optimising monitoring and evaluation of the Comprehensive Plan.

### Facilitator notes

**Tasks of project:**

- On-going support will be provided to sites / provinces for a limited number of days during the two months following the training workshop.
- A post-course assessment will be conducted about 12 weeks after the training. This will be done through on-site visits to randomly selected sites.

### Tasks of facilitator

- Provide all contact details (e-mail, cell, office tel, fax) of both facilitators to the participants. This can be written on a flipchart sheet and prominently displayed on a wall.
- Workshop report
- Add participants to key discussion lists

## Activity 5 - Course wrap-up

*Time:* 20 minutes

*Method:* plenary and facilitator presentation

*Aim:* To present an overview of the course in order to optimise monitoring and evaluation of the Comprehensive Plan and to invite comments from participants.

## Conclusion

The aim of this workshop was to develop capacity in the use of information to improve HIV and AIDS service delivery. Good quality data is essential for planning, decision making and monitoring and evaluation. **Information empowers people for action**.

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