Module: Producing a National HIV Sentinel Surveillance and Estimates Report

Participant Manual

July 2010

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Introduction

How to Study this Module

What you should know before the course

This course is developed for national and regional-level surveillance professionals and program managers who wish to disseminate public health surveillance data through a national report and other related communication tools. The course is aimed for persons who will write a national surveillance report and other media for dissemination of surveillance data. Before taking the course, participants should have:

- basic understanding of public health surveillance systems, including components and methods
- skills to analyse and interpret public health data
- excellent English language skills (including speaking, reading, and writing).

It is recommended that participants have surveillance data available that is already cleaned and analysed in tables, graphs, or figures. In addition, participants will benefit from having available the standard protocols and descriptions of their country's sentinel surveillance methods.

In Appendix B is a list of many of the terms found in this unit. Please refer to this list if you come across any abbreviations, acronyms, and terms you may not know.

Module structure

The module is divided into units. Each unit is a convenient block of material. The module may be used in a classroom setting or for self-study.

The beginning of each unit presents an overview of what the unit is about and warm-up questions that introduce some of the unit's main concepts. We will study and discuss each unit. At the end you will review your answers to the warm-up questions, discuss the unit in small groups, and apply what you learned through hands-on exercises or case studies.

Module Summary

This module teaches basic skills necessary for writing a national sentinel surveillance and estimates report and takes participants through the writing process from beginning to end. In addition, the module supplies instruction for disseminating surveillance report data using other communication tools.

Appendices

You will find additional tools and reference materials to assist you in the various stages of preparing the surveillance report. These materials include answers to warm-up questions and case studies and examples of surveillance reports and communication media. You also will have electronic templates of surveillance reports and other communication media to help you in the writing process.

Appendix A: References and Further Reading Material

Appendix B: Glossary and Acronyms

Appendix C: Useful Links

Appendix D: Answers to Warm-Up Questions

Appendix E: Surveillance Report Template

Additions, Corrections, and Suggestions

Do you have changes to suggest for this module? Is there other information you'd like to see? Please email us. We'll collect your messages and consider your comments in the next update to this module.

Email address: modules@psg.ucsf.edu

Would you like more information? Please link to:
http://globalhealthsciences.ucsf.edu/PPHG/index.html

Unit 1
Overview of a National Sentinel
Surveillance and Estimates Report

<u>Overview</u>

**What this unit
is about**

This unit presents the objectives for publishing a national sentinel surveillance and estimates report. It explains the primary audiences of the report and the structure and components of a good surveillance report. It also discusses planning activities, including identifying data sources, developing an outline for the report, and developing a timeline for completion.

**Warm-up
questions**

1. List five potential target audiences of a national sentinel surveillance and estimates report.

2. What are three uses for a national sentinel surveillance and estimates report?

3. Which component of the report describes the standard protocols used to conduct a sero-prevalence survey?

4. What key persons in your health ministry should you involve in the planning and writing of the surveillance report?

<u>Introduction</u>

**What you
will learn**

By the end of this unit you will be able to:

- understand the uses of a national sentinel surveillance and estimates report
- identify the target audiences for a national sentinel surveillance and estimates report
- list the components of a good surveillance report
- develop an outline of the report with assignments and a timeline with due dates.

What you will learn, continued

Disease surveillance systems are designed to produce information that is useful for planning and evaluating disease prevention and patient care activities. A key method to disseminate this information to the public is through publication of a national sentinel surveillance and estimates report. This type of report should be published regularly (annually, at a minimum).

A national sentinel surveillance and estimates report presents a current picture of the disease epidemic and may have broad uses such as:

- targeting prevention and care programs
- resource allocation and program planning
- informing and educating the public
- guiding scientific research
- monitoring indicators
- mobilising political commitment
- advocacy
- evaluating the impact of prevention and care programs.

Who will Read the Report

The audience for the surveillance report is a blend of persons and organisations involved with the response to the disease epidemic in your country. Your potential target audience may include:

- health professionals
- general public
- policy and decision makers
- media
- other government sectors
- donors to disease prevention programs
- non-government organisations (NGOs)
- other national and international organisations
- surveillance staff members at the national and local levels.

<u>Components of a Good Report</u>

Over the course of your work in disease surveillance, you may have read a number of different reports that present surveillance data. It is likely that the structure and components within these reports vary. Table 1.1 shows what components a comprehensive surveillance report contains and the purpose of each section.

The content of each section and how to write each section will be discussed with more detail in Units 2 through 4.

Table 1.1. Components of a National Sentinel Surveillance and Estimates Report

Report Component	Purpose	Description
Cover and title page	Announces title of the report and extends invitation to the reader	The first part of the report readers will see. Visually attractive arrangement of words, logo(s), and graphics
Publication details	Gives readers pertinent information about publication of the report	Who published the report, who to contact for more information, website address, suggested citation
Acknowledgments	Credits others parties for their contributions to the report and the surveillance program	Public mention of departments in your organisation, external organisations, and individuals who contributed to the report
Table of contents	Helps readers navigate the report	Listing of the report contents with corresponding page number
List of figures and tables	Enables reader to locate a figure or table quickly	Listing of all figures and tables contained in the report with corresponding page number
Abbreviations and acronyms	Enables user to find the description quickly	Listing of all abbreviations and acronyms used throughout the report
Executive summary	Summarises entire report	Abstracts the entire report into one to two pages. Includes the main points, especially any recommendations
Introduction	Gives readers background information and states what the report intends to do or show	Background of your country as it relates to the disease epidemic. Objectives of your surveillance report
Methods	Shows how data presented in the report were gathered	Brief description of sentinel surveillance methodology for data included in the report

Report Component	Purpose	Description
Results	Gives most updated information on the disease epidemic	Presentation of the data you collected and analysed
Estimates and projections	To obtain best estimates of how the HIV epidemic is progressing in the country	Uses the available data to ascertain the current levels of HIV infection and project short-term trends in the national epidemic
Discussion	Helps readers interpret results	Key findings and limitations of the data. Comparison of current results with previous years' results
Conclusion and recommendations	Shows readers what you concluded from the report and future actions you suggest	Re-emphasises main findings from data presented and accompanying recommendations for future action
Appendix	Place to hold relevant information that would break up the flow of the core report	Supplementary material at the end of the report
References	Allows mention of other work without detailing it	List of publications and other materials

Discussing the table

Look at Table 1.1 and answer the following question:

    a. If you are not able to read an entire surveillance report, which component of it would you select to find a summary of the whole report?

Planning the Report

Forming a working group

Writing an annual surveillance report for a country is a process that involves various stakeholders and includes multiple steps. A working group of people should be assembled to guide report production and determine specific contents of the report. These persons should be highly familiar with data from disease surveillance or other disease control programs. They also should have knowledge about the most current data sources from various sectors and programs that may be included in the background of the report. You may want to include surveillance staff who are working on special research projects related to disease surveillance. The people selected to produce the report may include:

- surveillance manager or coordinator
- epidemiologist
- disease control program staff
- representatives or liaisons to affected communities.

Identify who will approve the report

As you identify persons to form your working group, you also must identify the persons that need to approve the report before it is published. The health ministry or disease control commission usually publishes the national report. Familiarise yourself with the approval process and who will need to grant approval. You will plan contacts with the persons authorised to approve it when creating the timeline of the report.

Suggested data sources

A key part of planning the surveillance report is identifying the strategic information available in the country to describe the disease epidemic and to inform others. Data sources you include in the report will be based on the components of your surveillance system. Surveillance systems may have more than one component; for example, case reporting and sero-surveillance. In countries where case reporting is not available, the sero-prevalence survey is the main component of the surveillance system and the main data source of your report. Other national, population-based sero-survey data may contribute to the background of your report. Examples are data from:

- Behavioural Surveillance Surveys (BSS) among most-at-risk populations using time-location sampling or respondent driven sampling methods
- Demographic Health Survey (DHS)

Suggested data sources, continued

- UNICEF Multiple Indicator Cluster Survey (MICS)
- AIDS Impact Survey (AIS)
- Reproductive Health Survey (RHS)
- Key Indicators Survey (KIS)

Finally, consult with the working group regarding the use of statistical modelling and projections with your surveillance data. Your country may follow UNAIDS/WHO recommendations for presenting disease incidence and prevalence estimates derived from models and projections. The types of model, methods, and assumptions depend on the type of epidemic (for HIV, whether it is generalised, low-level, or concentrated) and the surveillance data available. HIV/AIDS estimates and projections are discussed further in Unit 3. Detailed information on using modelling and projections with surveillance data may be found on the UNAIDS website at: http://www.unaids.org/en/KnowledgeCentre/HIVData/Methodology/

Establishing the message

To disseminate the surveillance results effectively, the working group needs to decide the overall message to communicate through the report. The report always covers essential information, and the overall message surfaces from analysis of the data. Essential information should include:

- prevalence of disease in the most recent round of sero-prevalence surveys, presented by:
  - age group and sex
  - transmission category and sex
  - transmission category for each race/ethnicity/sex group (may not be applicable for all areas, depending on morbidity)

- information on trends in HIV prevalence stratified by age and sex and transmission mode.

Determine the most important information that the audience should receive. Examples of this information include answers to whether the epidemic is increasing or decreasing, whether there are initial decreases in disease prevalence in any segment of the population, which groups have the highest proportion infected, and which geographical regions have the greatest numbers of infected individuals.

The working group will review carefully all the data collected for the report and craft an overall message understandable by the report audience. This message is best created first by writing all significant results in no particular order and then sorting them so that the results pertaining to a

Establishing the message, continued

common factor are grouped. Next, write the conclusions that you draw from each group of results and list them in descending order of importance. Last, use the prioritised list of conclusions to define the overall message of the report.

**Creating
an outline**

Once a working group is established to produce the report and it has identified the data sources and a message to communicate, the next step is to create an outline of the report. A good outline will achieve the following:

- state the message to communicate
- organise collected data in a clear, logical way
- avoid redundant presentations of the data
- assign the persons responsible for developing each component of the report.

Most of the report will focus on the current epidemiology of the disease on the national level. Much of the outline will concentrate on how to present the prevalence and incidence data within the results section. To provide a complete picture of the epidemic, surveillance results commonly are presented by the following factors:

- by person (e.g. different demographic groups or risk groups)
- by place (e.g. urban vs. rural, provinces/districts, geographic regions)
- by time (e.g. trends that increase or decrease).

Prevalence and incidence results may be organised as subsections of the results section by person, place, and time. If there are data available, separate subsections may be created for diseases that act as indicators (for example: sexually transmitted infections) and for mortality. This type of organisation increases the report's utility because each subsection is topic-specific. If the audience is interested in disease prevalence in children nationwide, they can turn quickly to one subsection to find comprehensive results. See 'Surveillance Report Template' in Appendix E and the surveillance report outline (Appendix 1.1) for an example of how to organise result subsections.

**Developing
a timeline**

Developing a timeline for the completion of the surveillance report will ensure that the information you distribute is timely and relevant to your audience. You may decide to publish after you have finished a round of sero-prevalence surveys. WHO recommends serosurveys be conducted annually (whenever possible). To draw attention to the report, you may strategically select a deadline for its release so that it coincides with a worldwide event (i.e. World AIDS Day for AIDS surveillance) or a biennial global or regional conference.

Once you have selected a deadline, plan the timeline working backwards from the deadline. Allow all members of your working group to be involved in planning due dates and, when the timeline is finalized, be sure each member has a copy. Table 1.2 presents an example of a timeline, using December 3 as the final deadline date.

Table 1.2. Example of a timeline for developing a national sentinel surveillance and estimates report on HIV/AIDS

Date Due	Report preparation	Person responsible
Jan. 19	Estimate budget for report	
Jan. 29	Approve the budget	
Feb. 26	Gather data for results and methods sections	
Mar. 5	Working group meeting to develop and present outline	
Mar. 19	Approve the outline	
Jun. 29	Submit first draft	
Jul. 23	List necessary revisions to first draft	
Aug. 13	Submit second draft	
Sep. 3	List final revisions	
Oct. 1	Submit final draft	
Oct. 8	Approve final draft	
Oct. 29	Copy editing and translation	
Nov. 5	Proofreading	
Nov. 12	Approve proofs	
Nov. 19	Send to printer	
Dec. 1 World AIDS Day	Report ready for distribution	

Source: Adapted from WHO/UNAIDS 2004 Report

**Discussing
the table**

Look at Table 1.2, on the previous page, and answer the following
questions:

    a. Give two reasons why a budget should be estimated and approved
early in the timeline.

    b. What is one advantage of releasing the surveillance report on the
same day as a major event?

**Propose a
budget**

Many parts of your surveillance report will depend upon your budget.
Decisions about the number of pages, number of copies to print, report
design, translation, and distribution method will be made according to how
much funds are available. Start by getting estimates from your printer for
printing a report of 50 pages (including cover design and binding) in
colour and an estimate for black and white printing. Once you have
estimates in hand, the working group may decide to tailor the length of the
report, the design, and the number of copies printed to fit your budget.

Unit 1 Exercises

Warm-up review

Take a few minutes to look back at your answers for the warm-up questions at the beginning of the unit. Make any changes you want to make.

Small group discussion

Get into small groups to discuss these questions.

1. Has your country published a national sentinel surveillance and estimates report before? What components did the report contain?

2. Which persons in your surveillance unit or ministry of health have been involved in producing your country's surveillance report?

3. What is your country's past practice or policies on calculating and reporting disease estimates?

4. How have your country's surveillance reports that have been produced in the past been used? Who were the target audiences?

Apply what you've learned/ case study

Work with your team members to complete the following activities.

1. Develop a list of people who will form the working group for your surveillance report.

2. Develop a list of people who will need to approve the report (may include report budget, report content).

3. Create a list of data sources you potentially will use in your report.

4. Examine the significant results from your data sources. List them in order of importance, starting with the most important. From this list, write the overall message your report will communicate.

5. Using the outline in Appendix 1.1 as an example, create an outline for your surveillance report.

   a. In the methods section, take out data sources that are not applicable to your country. Add any data sources that are not mentioned.

   b. In the results section, take out subsections that are not applicable to your country. Add subsections for special

Apply what you've learned/case study, continued

populations or for HIV services and programs that are not mentioned.

6. Using the template provided below, create a timeline for publishing your next surveillance report. Be sure to fill in concrete due dates and names of persons responsible for each task.

Timeline for developing a national sentinel surveillance and estimates report on HIV/AIDS

Date Due	Report preparation	Person responsible
	Estimate budget for report	
	Approve the budget	
	Gather data for results and methods sections	
	Working group meeting to develop and present outline	
	Approve the outline	
	Submit first draft	
	List necessary revisions to first draft	
	Submit second draft	
	List final revisions	
	Submit final draft	
	Approve final draft	
	Copyediting and translation	
	Proofreading	
	Approve proofs	
	Send to printer	
	Report ready for distribution	

NOTES

<u>Annex 1.1. Sample Outline of a Surveillance Report</u>

1. Executive Summary

2. Introduction

   2.1. Background

   Geography and demography
   Social and economic background
   HIV/AIDS overview

   - Include program data from:
     - Antiretroviral treatment (ART) programmes
     - Voluntary counselling and testing (VCT) centres
     - Prevention of mother-to-child transmission programmes
     - Blood donation centres.

   - Include other surveillance data, such as:
     - Behavioural surveillance surveys (BSS)
     - Demographic heath surveys (DHS)
     - Reproductive health surveys (RHS)
     - HIV case reporting
     - Vital statistical/death registries.

   HIV/AIDS surveillance programs
   Antenatal care

   2.2. Objectives

3. Methods

   3.1 HIV sentinel sero-prevalence survey

4. Results

   4.1 Overview of HIV/AIDS in Country X

   4.2 Antenatal clinic attendees

   4.3 Young pregnant women aged 15-24 years

   4.4 Adult general population (women and men)

   4.5 HIV/AIDS in women

   4.6 HIV/AIDS in children

4.7 Special populations (most-at-risk populations)

> Commercial sex workers
>
> Injection drug users
>
> Men who have sex with men
>
> Mobile populations
>
> Street children
>
> Prisoners
>
> Uniformed personnel
>
> Out-of-school youth

4.8 HIV/AIDS by region/district

4.9 Urban versus rural areas

4.10 STIs: current situation and trends

4.11 Monitoring HIV risk behaviour

4.12 Antiretroviral treatment and prevention of mother to child transmission (PMTCT)

4.13 Mortality from HIV/AIDS

5. Discussion

6. Conclusion and Recommendations

7. References

8. Appendix

   8.1 Data Tables

Unit 2
Writing the Results and
Methods Sections

Overview

What this unit is about

This unit demonstrates how to write the results and methods sections of a national sentinel surveillance and estimates report. It describes how to present data in the form of tables and data graphics. It also discusses how to write text to describe and highlight key results. This unit shows participants how to write the methods section using the standard protocols or operation manuals of surveys and research studies.

Warm-up questions

1. List three ways to present quantitative information in a surveillance report.

2. True or false? Titles are optional for tables and data graphics.

   True   False

3. True or false? A good, informative table should have more than two rows and columns.

   True   False

4. True or false? The reason to use written text to describe tables and data graphics is to repeat all the numbers and data points shown.

   True   False

5. True or false? A logical order to present multiple results in written text is from most important to least important.

   True   False

Introduction

**What you
will learn**

By the end of this unit you will be able to:

- use tables, graphs, charts and maps to describe data effectively
- use written text to summarise and highlight key results
- describe the procedures and analytical methods used to produce data for the report.

Preparing the Results Section

**Presenting
quantitative
information**

After you have developed the outline for the surveillance report and received approval, you are ready to draft the results section of the report. You want your data to support the key messages of the report, so begin by designing how you want to present the quantitative information in the report.

By this time, you have some data in your hands that you will consider including in your report. Some of it may already be in data graphics and tables and may be used after minor modifications. It is more likely that you have some raw data that cannot easily be interpreted. The following sections will help you make decisions about how to rearrange the data so that they show what is important and relevant.

Before constructing any display of data, you need to decide what point you want to communicate. Are you highlighting a change in the trends? Are there differences in subgroups you wish to point out? Knowing the point you want to convey to your audience will help you determine how to display the information.

Additionally, it is also important to communicate the precision of the data you are presenting. Often this takes the form of presenting 95% confidence intervals as well as the point estimate. Bear in mind that confidence intervals are not always available for all types of data sources. For example, simple counts of attendees at an antenatal care clinic can be displayed as counts and proportion of the total. However, because the client count is not intended to be representative of the overall population calculating confidence intervals is not appropriate. On the other hand, when the data purports to represent the overall population (i.e. is a sample

Presenting quantitative information, continued

of the overall population) then calculating and presenting confidence intervals is appropriate.

In general, there are three ways of displaying quantitative information in a surveillance report: tables, data graphics, and written text. Tables and data graphics are used heavily in a surveillance report for their ability to summarise large amounts of information. They are highly effective in situations where words cannot convey information efficiently or to describe relationships among the data that are not apparent otherwise. They are accompanied by written text which highlights important features or results. The selection and use of these methods are described in more detail below.

Introduction to tables

Tables arrange data in rows and columns and are used to demonstrate data patterns and relationships among characteristics or factors. Table cells can hold frequencies, means, rates, confidence intervals or other measures. The display in rows and columns enables you to group data into classifications. Tables work best when you want to:

- view individual values
- present many values compactly
- compare individual values between groups
- express values precisely.

Table components

Let us get familiar with the structural parts of an effective table. Refer to Table 2.1 as we discuss the main components of a table.

Table 2.1. A descriptive title, such as "Structure of a typical table"*

	Column spanner	
This heading describes the rows	**This heading labels the first column**	**This heading labels the second column**
What is the first row	Data (font size 12)	Data
What is in the second row	Data	Data

*Footnotes: Not all tables follow this format (font size 10)

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Table components, continued

Table number: Tables are numbered in the order they appear in the report (example: Table 1, Table 2). The table number has a period at the end and a space to separate it from the title. If you want the table number to reflect what section of the report the table is in, you may use an alternate numbering system (example: Table 3.1, Table 3.2 for the first and second tables in Section 3).

Title: The title gives a brief description of the table contents. It is concise and includes the what, when, and where of the data. The first word is capitalised and there are no periods at the end. The title is located above the table.

Headings and subheadings: Headings establish an order to the data by identifying columns. They are written in singular form unless they refer to groups (example: men, women). Headings are key words that best describe the column beneath. A heading that is above two or more columns to indicate a classification or grouping of columns is a column spanner. A heading should be centred in the column it is labelling.

Table body: The body contains data in the table occupying the columns, such as frequencies and percentages. Align the values in each column. To centre, use a centring tab function or centring the cells in the table layout. You also may use left or right justification. Every cell should have contents. The term "Not Available (abbreviation "NA") may be used to indicate cells where values were not calculated.

Table footnotes: Footnotes are located after the last row of the table. They are used to further explain contents of the table. They may be used to define technical terms or briefly explain other issues with the data such as exclusions or changes in methodology. If the data are not original, the source is mentioned in the table footnote. Abbreviations used in the table should be explained in the footnote as well.

Footnotes use a smaller font size than the table data. Footnotes begin with a symbol such as an asterisk (*). The symbol also is placed next to the table item that you are explaining with the footnote. Order or number your footnotes from top to bottom and within a line, from left to right. Use these symbols *, †, ‡, §, ‖,¶. Double these symbols if you need more (**, ††).

Tables as lists

Tables often are used to list characteristics of survey or study participants. Table 2.2 shows how a table may be used to list selected characteristics of a national sero-survey's participants selected from antenatal care clinics.

Table 2.2a. Respondents in antenatal clinics, by age group, Country X, 2002

Characteristic	Number	Percent[*]
Age (in years)		
15-19	861	31
20-24	975	35
25-29	442	16
30-34	331	12
35-39	142	5
40+	33	1
Education level		
None	310	11
Primary	822	30
Secondary	1270	46
University	323	12
Other	59	2
Total	2784	100

[*]Percents may not add to 100 due to rounding.

Table 2.2b. Respondents in antenatal clinics, by age group, Country X (n=500)

Age (in years)	Number	Percent	95% Confidence Interval
15-19	55	11	(8.3 , 13.7)
20-24	87	17	(14.1 , 20.7)
25-29	119	24	(20.1 , 27.5)
30-34	104	21	(17.2 , 24.5)
35-39	102	24	(16.9 , 23.9)
40+	33	7	(4.4 , 8.8)

**Tables that
compare groups**

Tables also may be used to compare two or more groups. Measurements or characteristics of the groups are presented in adjacent columns. Table 2.3 is an example of comparing the age distributions of antenatal clinic respondents in different districts. Note that the percentage shown is a column percentage. By placing District 1 and District 2 side by side in a table, the audience will be able to see a pattern: the respondents in District 2 are older than those in District 1.

Table 2.3. Age of respondents in antenatal clinics, by districts, Country X, 2000

Age (in years)	District 1		District 2	
	Number	**Percent**	**Number**	**Percent**
15-19	861	31	320	17
20-24	975	35	433	23
25-29	442	16	580	30
30-34	331	12	392	21
35-39	142	5	120	6
40+	33	1	57	3
Total	2784	100	1902	100

**Basic rules
for tables**

Once you have created your tables, making sure to include all the components of a table, check to see if your table follows these rules:

- table stands alone without any explanation
- table title is descriptive without being too long
- rows and columns are labelled clearly and concisely
- table provides units of measure for the data (for example, years, rate per 100 000)
- numbers in the table body are rounded to eliminate unnecessary detail
- all cells contain information; table uses N/A for small cells or when the value cannot be estimated
- numbers are aligned in columns
- table provides row and column totals or subtotals or both
- table has more than two columns and rows
- table shows consistency by using the same formats for the titles, headings and table bodies.

**Discussing
the table**

Using what you learned about the required parts of a table and the basic rules for creating a table, look at the unfinished table (Table 2.4) that shows Country X's median[*] HIV prevalence in antenatal clinic respondents by age and residence for surveys conducted in 2001 and 2003. Median HIV prevalence is shown as a percentage.

Table 2.4

Age	Urban 2001	Urban 2003	Rural 2001	Rural 2003
15-19	24	34	28.4	28
20-24	42	45	31.3	45
25-29	43	54	42.6	42
30-34	34	32	37.3	26
35-39	22	29	25.0	17
40+	19	0	32.2	33

Critique the table above by answering the following questions:

    a.   What parts of the table are missing? Write them on the table.

    b.   What parts should be corrected so that the format is consistent?

    c.   What is one way to make the column headers (showing residence) stand out from the table body?

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[*] A serosurveillance estimate is representative only of the population that accesses that particular sentinel site. Aggregating data from all sentinel serosurvey sites and using the aggregated data as the national seroprevalence estimate is not adviseable because important differences by site or region are not taken into account. Data may be aggregated for a province or region if relatively small sites (100–200 women per site) are used to obtain the overall sample size and sociodemographic characteristics and clinic catchment areas are relatively homogenous. To report a summary HIV prevalence from site-specific prevalence, the median, not the mean, of the site-specific prevalence should be used to minimize effects of outlying prevalence. The range for site-specific prevalence should also be reported to demonstrate that differences between sites may exist and are not hidden by the reported median value. (UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. Guidelines for conducting sentinel serosurveys among pregnant women and other groups. Joint United Nations Programme on HIV/AIDS (UNAIDS) and World Health Organization (WHO) 2003.)

Data graphics

Data graphics organise and display large amounts of information clearly and effectively. They are easy to understand by a general audience because they present pictures of what is occurring in the disease epidemic. Data graphics work best when they highlight the message or main point:

- patterns and trends
- co-relationships
- exceptions to the norm.

When choosing between a table and data graphic, remember that data graphics are good at showing overall effects but poor at conveying specific measurements, which are better shown by tables. Several types of data graphics are available to assist in presentation of results:

- line graphs
- bar charts
- pie charts
- maps
- Venn diagrams.

Quantitative relationships in data

As you examine data collected through surveillance activities, there will be common quantitative relationships among variables that you want to show your audience:

- time-series
- distribution
- part to whole
- space or location.

The quantitative relationship in the data is the key factor in deciding what type of data graphic should be used. Let us discuss these quantitative relationships in more detail and look at examples of how data graphics display them.

The time-series relationship expresses the rise and fall of values through time. The data graphic commonly used to represent this is the line graph. It shows not only the change in values over time but also upward or downward trends. Graphs showing trends need three or more points along the x-axis; a trend cannot be inferred from too few data points. Data should be collected using the same method in each year, making the year-to-year comparisons valid.

Quantitative relationships in data, continued

Figure 2.1 is an example of a line graph used to express a relationship between median HIV prevalence and time in data collected through sentinel surveillance in antenatal clinics. Time is always on the horizontal axis, allowing the audience to view changing values from left to right. Using points connected by lines can emphasise individual values. Different patterned lines and points may be used to show values for different groups, as it does here for antenatal clinic respondents in different regions. It is important to use consistent sentinel surveillance sites over time to obtain accurate trend data.

Figure 2.1. Median HIV prevalence among pregnant women attending antenatal clinics, by age group, HIV Sero-prevalence Survey 1994-2002
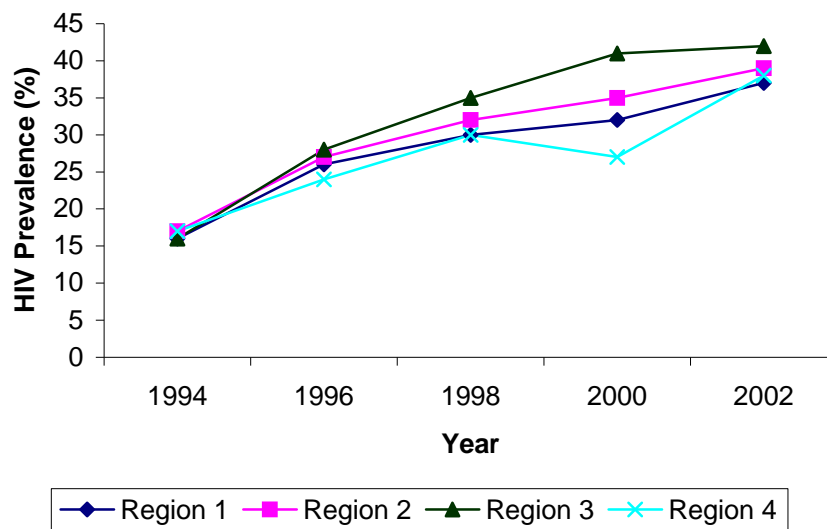
Quantitative relationships in data, continued

Distributions (another quantitative relationship) display values across a range of categories that do not overlap. Bar charts are commonly used to show distributions and provide more dramatic illustration of differences between groups (Figure 2.2). Vertical bars are used to emphasise individual values. The height of the bar is proportional to the magnitude of the value. Bars are the same width and are separated by spaces. Categories are lined along the horizontal axis. If the categories are ordinal, they are arranged in ascending order from left to right. In bar charts confidence intervals can be displayed as small "I" bars.

Figure 2.2.a. HIV prevalence among pregnant women attending antenatal clinics, by age, 2005 HIV Sero-prevalence Survey
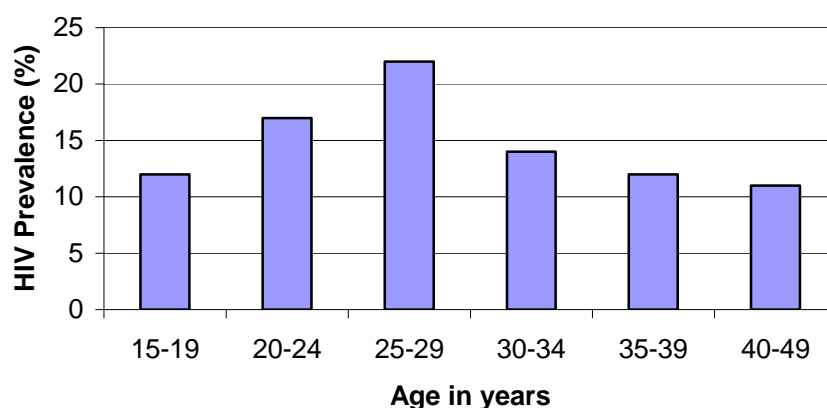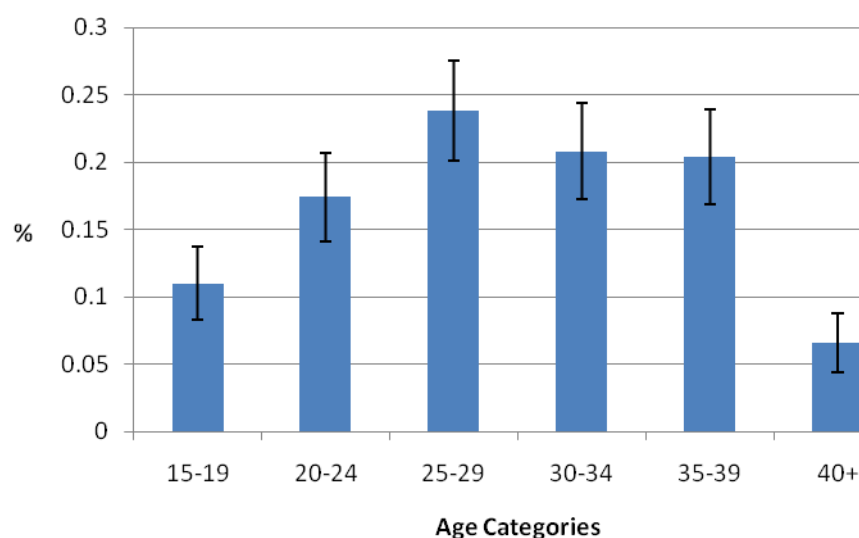

Figure 2.2.b. Age distribution among pregnant women attending antenatal clinics with 95% Confidence Intervals

Quantitative relationships in data, continued

Simple bar charts can be expanded easily into grouped bar charts when you want to compare subgroups. Bars within a group are adjoining. Grouped bar charts are particularly good for highlighting the magnitude of the difference between groups and subgroups. Different patterns or colours may be used to distinguish between subgroups. To keep the chart easy to read, no more than 6 bars should be in a group.

The part-to-whole relationship expresses the portion of each part relative to the whole and is commonly shown as a pie chart. This type of chart is a circle divided into different segments, each representing a particular category. The area of each segment is the same proportion of the circle as the category is of the whole dataset. Pie charts, such as Figure 2.3, use percentages to compare information between categories (the whole circle represents 100%). Multiple pie charts may be used side by side to display the differences in proportional distributions in more than one group.

Figure 2.3. AIDS cases among females diagnosed through December 2005, by race/ethnicity, San Francisco
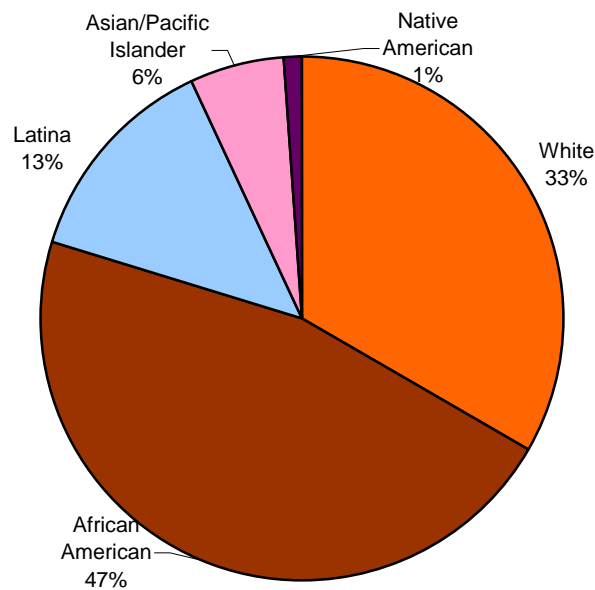
Pie charts work well when there are no more than six categories. When there are more categories, a table is more appropriate.

**Spatial
relationships
and overlap
in data**

Spatial relationships are expressed using maps. Two types of maps commonly used for surveillance data are spot maps and chloropleth maps. A spot map is useful for showing the geographic distribution. A chloropleth map (Figure 2.4) can be used to show rates of disease or other health conditions in different areas by using different shades or colours. The intensity of the colour or shade reflects increasing disease burden.

Figure 2.4. Persons living with HIV/AIDS, by neighbourhood, San Francisco, December 2006
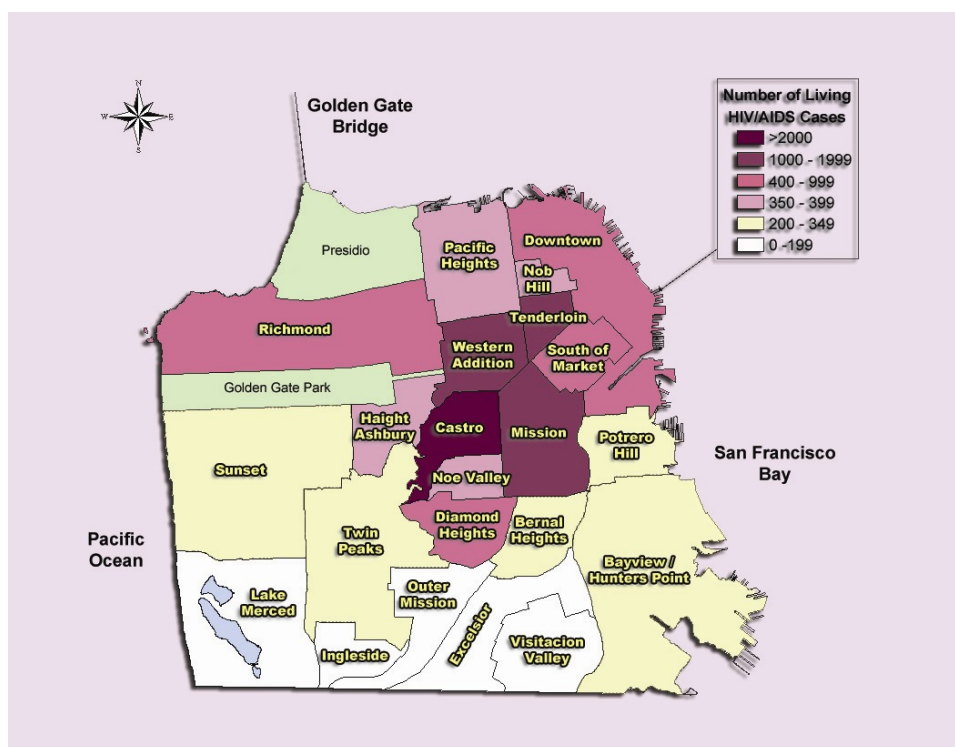
Spatial relationships and overlap in data, continued

Venn diagrams show degrees of overlap and exclusivity for two or more characteristics or factors within a sample or population. A Venn diagram typically uses overlapping circles; each circle represents a sample or population with a characteristic.

In an example of a Venn diagram, Figure 2.5 shows the overlap of patients diagnosed with HIV/AIDS and a sexually transmitted infection (STI) in a country that has both HIV/AIDS and STI case reporting in place. This type of data graphic can illustrate why monitoring STI is an important piece of HIV/AIDS surveillance.

Figure 2.5. Overlap in patients diagnosed with HIV/AIDS and patients diagnosed with an STI
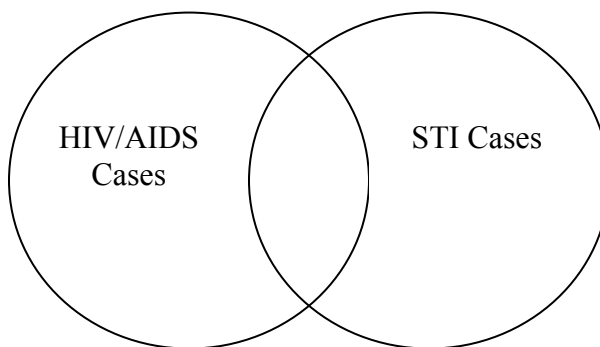
**Data graphic
components**

Just as tables have required components, there are several parts, in addition to the graphic itself, that make data graphics effective and easy to interpret. Refer to Figure 2.6 as we discuss the components of a data graphic.

Figure 2.6. A descriptive title, such as "Components of a typical data graphic"*

*Footnote:

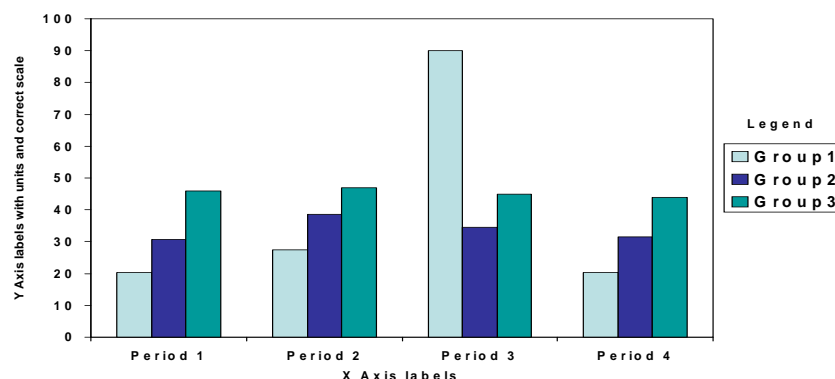**Figure number:** Data graphics are referred to as figures in the report. Figures and tables are numbered in the same manner (example: Figure 1, Figure 2, in the order that they appear in the report). Use the same formatting you apply to table numbers.

Title: The title gives a brief description of the figure contents. It is concise and includes the what, when, and where of the data. Titles are no more than two lines and appear in bold font. The first word is capitalised and there are no periods at the end. The title is located above the figure.

Legend: The legend can be considered a visual glossary for the data graphic. This is the component used to define the different bars, lines, segments, or shapes used to represent different groups. The legend allows you to define what the colours, patterns, and symbols in the graphic mean.

Labels: Labels define measurements and what is being compared in a data graphic. Labels on the y-axis define what you are measuring (example: prevalence or some other proportion) and provide the units of measurement. The x-axis labels define what groups or categories you are comparing (example: year of survey, age, or marital status). Labels also may be used next to bars or points on a line to emphasise those data values, but such labels should be used sparingly.

Data graphic components, continued

> **Footnote:** Footnotes below figures serve the same function as table footnotes; they are used to further explain specific contents of the figure. They may be used to define technical terms or briefly explain other issues with the data, such as exclusions or changes in methodology.

**Checklist for
data graphics**

> Use this checklist to ensure that you have created an effective data graphic:
>
> - data graphic is self-contained and can be interpreted without relying on the text
> - title reflects the content of the data graphic
> - groups on a data graphic are defined by a legend
> - axes are labelled
> - scales are correct and data are not distorted
> - graphic elements are avoided if they do not contribute to the understanding of the data or that add unnecessary complexity (examples: 3-dimensional graphics, background shading).

**Discussing
the figure**

> Using what you learned about the required parts of data graphic and the basic rules for creating a data graphic, look at the following unfinished figure that shows Country X's syphilis prevalence in antenatal clinic respondents for years 2001 and 2003, grouped by country region. Bars with a chequered pattern represent data from 2001. Bars with diagonal lines represent data from 2003. Syphilis prevalence is shown as a percentage.

Figure 2.7
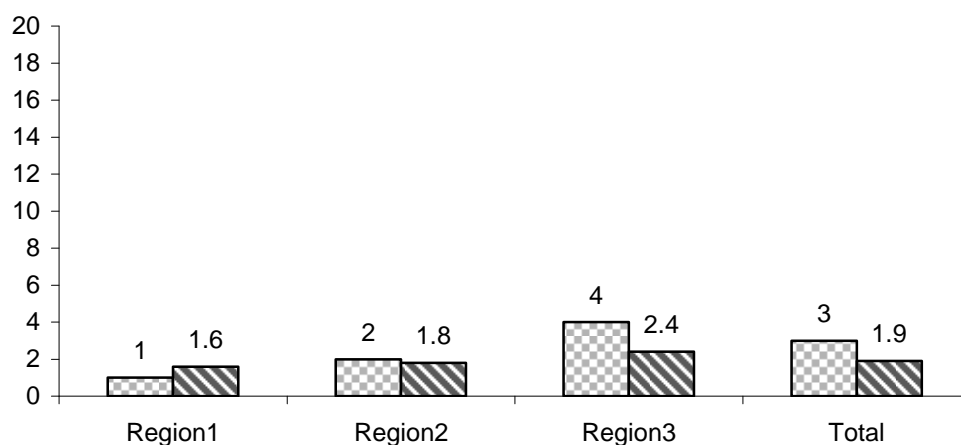
Discussing the figure, continued

Critique the unfinished data graphic above by answering the following questions:

a. What parts of the data graphic are missing? Write them on the figure.

b. What parts of the data graphic should be corrected so that the format appears consistent?

c. What would be a more appropriate scale for the y-axis?

Although data graphics can condense a lot of information into one figure, they should be designed with caution and common sense to avoid misinterpretation. This section illustrated the variety of data graphics available for displaying data. Appendix 2.1 provides an introductory guide to help you select the appropriate data graphic. You should try using different types of data graphic to display the same data to find which best communicates the information.

Using written text to present results

Written text is the narrative format to present results. It is used throughout the results section to complement the tables and data graphics. Its role in this section is to highlight the main findings. It also is used to point out key features of a table or data graphic that you want the audience to notice. Written text is not meant to repeat every number in the table or data point in the data graphic.

Written text is organised into concise paragraphs and usually precedes the table or data graphic it is summarising. Write the text after you have carefully chosen the tables and data graphics to be presented in the surveillance report.

In some instances, written text is used apart from any table or data graphic because there are not enough data to display in a table or data graphic. Be cautious to avoid multiple paragraphs with lists of numbers that do not complement any table or figure. Remember that tables and data graphics communicate numbers much more efficiently than written text.

To describe tables and data graphics using text, write the significant points about each on an attached sheet of paper. This information will be useful when you begin writing the report. Be sure to answer the following questions about each table or data graphic using short sentences:

- What is the table or data graphic supposed to show?
- How were the data obtained?
- What are the important results?
- If there is more than one group, what are the similarities or differences between them?
- Are there any qualifications or limitations to the figure or table?

**Discussing
the table**

Data shown in Table 2.5 were collected from Country X's Demographic Health Survey done in 1999 and 2003.

Table 2.5. Proportion reporting condom use in previous sexual intercourse with non-regular partner, Country X, 1999 and 2003

	Percentage using condoms at last higher risk sex			
	Males		Females	
Age (in years)	1999	2003	1999	2003
15-24	37	49	31	36
25-29	44	56	20	27
30-34	40	40	18	20
40+	27	28	9	9
Area of residence				
Urban	48	56	43	43
Rural	35	44	22	25

Refer to Table 2.5 and answer the following questions using short sentences.

a. What is the table supposed to show?

b. How were the data obtained?

c. What are the important results?

d. If the table shows more than one group, what are the similarities or differences between groups?

e. Are there any qualifications or limitations to the table?

The next step is to organise the sentences you have written into a paragraph. Ordering multiple results in the written text from most important to least important has several advantages. Starting with the most important results captures your audience's attention. Also, the audience may not read the entire paragraph. Putting the most important results first will increase the likelihood the audience will receive that information.

Discussing the table, continued

A good structure for the paragraph is as follows:
Sentence #1 is a broad statement of what the table or data graphic shows. Sentence #2 briefly describes how the data were obtained. Sentence #3 states the most important results. Sentence #4 highlights any similarities or differences between groups. Sentence #5 discusses qualifications or limitations to the table or data graphic.

References to the table or data graphic need to be inserted in the written text. To do so, you can use "Table #" or "Figure #" directly in the text. Otherwise, put the table or figure number in parentheses at the end of the sentence, followed by a period:

"Sentence #1 is referring to the figure (Figure #)."

In general, one paragraph per table or data graphic is adequate. When tables and data graphics are grouped together and originate from the same data source, it is adequate to describe how the data were obtained in only the first paragraph.

As you prepare the written text of the results, remember that it is similar to the oral description you would use when explaining tables and data graphics during an oral presentation. The idea is to use words to guide the audience through how to view the table or data graphic. Do not present interpretations of what is not self-evident. You will use the discussion section for further interpretations.

Form a paragraph using the sentences you wrote to describe Table 2.5.

Organise into subsections

At this point your tables and data graphics are completed, and each has written text to accompany it. To finish the results section, tables, data graphics, and text will be organised into result subsections as follows (also refer to the surveillance report outline you created in the Unit 1 case study):

- identify the table, data graphics, and text and group them into the appropriate sub-section
- locate written text on the same page as the table or figure it describes
- check that the table and figure numbering is correct
- make sure references in the written text to tables and figures are correct
- begin each sub-section on a new page.

Preparing the Methods Section

The methods section describes the procedures used to gather surveillance data and any statistical methods used to analyse data. It presents enough detail for audiences to judge the strengths and weaknesses of the data collected. Because the surveillance report may present data from several sources, it is best to provide an overview of the methods, rather than lengthy, detailed descriptions of each survey or study. The overviews will show your audience:

- how representative the data are
- how comparable the data sources are
- a broad understanding of how the survey or study was conducted
- how the calculations were performed.

The methods section should discuss the following key points for each main data source: overall design, setting, subjects, ethical considerations, measurements, and analyses (Table 2.6, next page). If you are describing the main data source for the surveillance report, consider using up to one page to describe the methods.

 If the methods for a special study or survey have already been published elsewhere, it is adequate to summarise the methods and cite the publication. One-third of a page is enough to summarise methods that have been published elsewhere.

Preparing the Methods Section, continued

Table 2.6. Key points to include in the methods section for a data source

Key Point	Description
Overall design	• epidemiologic approach taken for the survey or study
Setting	• geography and/or type of facilities • typical demographics • type of clients (for facilities)
Subjects, participants	• criteria for inclusion or exclusion, including time frame, and how were they enrolled • definitions of special populations • sampling design and procedures • description of how survey was implemented
Ethical considerations	• safeguards in place to protect the rights and privacy of human subjects, including method to delink data from individuals or consent forms. • identity of review board that approved protocol dealing with human subjects • exemptions and reasons for exemption
Measurements	• how baseline factors and outcomes of interest were obtained • special situations, such as secondary data analyses, data abstraction procedures, and laboratory methods
Analyses	• statistical methods and significance calculations • note of software and tools used • data release policy on suppressing small cell sizes

Unit 2 Exercises

Warm-up review

Take a few minutes to look back at your answers for the warm-up questions at the beginning of the unit. Make any changes you want to make.

Small group discussion

Get into small groups, by country, to discuss this question.

1. Refer to the standard protocol of your country's surveillance system that you brought to the workshop. Write a three-sentence description for each key point outlined in Table 2.7.

Apply what you've learned/ case study

Work on the following case study independently.

You are a surveillance officer in Country X writing the country's annual surveillance report. The following data from sero-surveillance in antenatal clinics have been reported to you. Use the information below to answer the following questions.

Median HIV prevalence among antenatal clinic respondents, 1993-2001

Year	1993	1995	1997	1999	2001
HIV prevalence (%)	14.1	24.3	32.6	34.0	36.9

HIV prevalence among antenatal clinic respondents, by district, 1993-2001

District	1993	1995	1997	1999	2001
I	17	24	30	26	38
II	16	28	36	41	40
III	16	26	32	35	37
IV	16	26	30	32	35

1. Describe some of the ways you might display the data, whether in a table, a data graphic, or written text.

2. Develop one figure to represent the data in both tables.

3. Write one paragraph of explanatory text to accompany the figure that you made.

4. Into which result subsection would you put this figure and written text?

Annex 2.1. Guide to Selecting Data Graphics

Data relationship	Data graphic to use	Example
Trends in numbers or rates over time	Line graph	Median HIV prevalence rates by year among pregnant women, 1995-2004
Compare size or frequency for different categories of a single variable	Simple bar chart	Syphilis prevalence rates among pregnant women in 2003, by age group
Compare size or frequency of different categories and their subgroups of a single variable	Grouped bar chart	HIV prevalence rates by gender, grouped by geographical region
Show relative amounts of a whole. For small number of categories.	Pie chart	Proportion of population in each education-level group
Show location of sites or events	Spot map	Selected antenatal clinic sites in a sentinel survey
Display events or rates geographically	Chloropleth map	HIV prevalence rates among pregnant women, by district

(Adapted from Teutsch, 1994)

NOTES

Unit 3
Summarising, Interpreting, and Making Final Conclusions for National Surveillance Data

Overview

What this unit is about

This unit describes how to write the sections of the report that are essential to summarising, interpreting, and making conclusions using surveillance data. The unit also discusses how to select a title and make revisions..

Warm-up questions

1. Select one of the following. The function of the discussion section is mainly:

   a. to discuss the objectives of the surveillance report
   b. to discuss what you would do differently in the next round of surveillance data collection
   c. to acknowledge people for assisting with the report
   d. to discuss the primary and secondary findings and limitations of data sources.

2. True or False. It is fine to write about surveillance findings in the discussion that are not included in the results section.

   <center>True   False</center>

3. True or False. If your main findings are disappointing or not what you hoped for, it is acceptable to write the conclusion and recommendations with a pessimistic tone.

   <center>True   False</center>

4. True or False. The executive summary is often the most-read section of the surveillance report.

   <center>True   False</center>

5. List two reasons why you should have a reference section in the surveillance report.

   a.

   b.

Introduction

What you will learn

By the end of this unit you will be able to:

- write a discussion interpreting results of the surveillance report
- pose conclusions accompanied by recommendations
- understand how sentinel surveillance data can be used to generate estimates and projections
- write an introduction containing relevant background and objectives
- prepare references that are cited throughout the report
- write the executive summary
- acknowledge contributors to the report
- develop an appropriate title for the report
- revise drafts of the report.

Preparing the Discussion Section

Overview

The discussion section is where you will interpret the entire collection of surveillance-related data presented in the results section. This section provides context of how the report findings contribute and compare to the breadth of knowledge available in this field and related fields. It is also the place to point out the limitations of the data and methods used.

The discussion section is organised in the following order:

- primary important finding
- secondary important findings
- limitations of data
- explanations of why the data is still valid and valuable.

Primary and secondary findings

At this point you may be wondering, with the plethora of results assembled, what is the criteria for selecting important findings to include in the discussion? The following are types of findings or observations to keep as high priority for inclusion in the discussion:

- continuation in trend
- reversals in trend
- observations that are common to multiple contemporaneous data sources (example: the MICS, Sexual Behaviour of Young People Survey, and AIS all observe that level of knowledge of HIV/AIDS and rate of condom use was high)
- findings from a survey, study, or program executed or performed for the first time.

The first paragraph in the discussion should discuss the primary important finding of the report. By doing so, you will communicate the key finding to your audience early on. Remember that your audience may not always read the entire section from beginning to end.

How do you decide what is the most important finding of the report? First of all, the finding should support the overall message you are communicating through the report (see Unit 1, Overview of a National Surveillance Report). One way to determine the most important finding is through an exercise called the "Elevator Test." Imagine you are riding the elevator with an important government official who wishes to know what you discovered through the surveillance report. You only have 30 seconds before the elevator ride ends. What would you share with this person about your report?

There are several ways to clearly state the most important finding. Here are a few examples of how to begin sentences:

- "We found…"
- "Sero-surveillance data provide evidence that…"
- "National sero-prevalence-surveys showed that…."

Secondary important findings consist of the next lower tier of results. Secondary findings to include in the discussion may include sub-group findings (example: differences by gender or age). Unexpected findings that contradict other studies or conventional wisdom also qualify as secondary findings. It is appropriate to offer new hypotheses in the discussion to explain unexpected findings.

Primary and secondary findings, continued

Here are a couple examples of secondary finding sentences:

- "Young women 15-24 years old have greater HIV prevalence than young men in the same age group in both urban and rural areas."
- "The 80% partner notification rate in our study was higher than that reported in other studies in sub-Saharan Africa."

Limitations

Next, the discussion introduces the limitations of the data. It is widely recognised that surveillance systems, research studies, and population surveys are never perfectly executed, definitive, or without potential bias. This flaw is acceptable if you are honest with the audience about where limitations exist.

To generate a list of limitations you want to address in the discussion, begin by thinking of potential criticism your audience might have. Areas of potential criticism in disease surveillance activities are linked to common problems and biases:

- bias from sample selection
- differences in loss to follow-up
- detection bias resulting from change in lab testing methods
- changes in disease case definition
- incomplete responses affecting data quality
- ambiguity in measurements
- self-reported behaviour or recall bias
- insufficient money or other resources.

Some examples of sentences stating the limitations are:

- "Our findings are subject to several limitations. First, changes in HIV prevalence may reflect changes in risk behaviours occurring many years in the past."
- "The primary limitation of our data is that the women tested may not be representative of all pregnant women because 38% of the population does not access antenatal clinic services."

When discussing the different types of bias, if possible, quantify the size and direction of the bias. To give an example from case reporting, if you suspect that estimates are biased due to incomplete reporting, the estimates would be biased downward because the observed estimates are lower than expected.

After determining the limitations and biases that may be present, you must show the audience that they do not invalidate the findings. You may write

Limitations, continued

about how you did your best to address specific biases in the design and analysis. You also may provide evidence that the bias is not likely to change the primary conclusion. A third option is to highlight how your data is comparable with other data or point out how other research studies or surveys faced worse biases.

The following sentences demonstrate how to state a limitation and then explain how the limitation does not invalidate the findings.

- "Second, our data were drawn from only 4 major towns in Uganda and do not represent the whole country. However, the fact that our data were comparable with levels recorded in population-based studies showed data from antenatal clinics are remarkably robust and scientifically acceptable in the absence of any other alternative."
- "Despite the fact that this analysis was not able to control for all potential biases, ANC data in Uganda is useful for demonstrating trends over time."

Pitfalls to avoid

There are some common pitfalls to avoid when writing the discussion section. The first is over-interpreting the data. It is important to keep in mind the design of the survey and how the analyses were performed to avoid making erroneous interpretations.

Second, although you are pointing out the significant findings of the report, avoid simply repeating the results. Focus on using words, rather than using numbers and statistics the way you did in the results. Avoid including trivial details which will dilute and obscure the important points you are conveying.

Do not include new results in the discussion section; all the findings you discuss must be in the results section. If necessary, go back to the results section and add new results there.

Lastly, avoid using clichés, such as "the data presented here represent the tip of the iceberg."

Generating HIV/AIDS Estimates and Projections Using EPP and Spectrum

We have been discussing much about sentinel surveillance data. The next section describes how we can use this data to make estimates and projections. This is a recommended optional addition to the surveillance report. This section is not intended to make the reader an expert in using EPP and Spectrum, but rather to highlight certain aspects of the programs that are relevant to producing a surveillance report.

Overview

Estimation and projection of HIV/AIDS plays an increasingly important role in the planning and evaluation of national HIV/AIDS programs. To assist in directing prevention efforts and allocating resources, national and regional program managers need to know where the epidemic is concentrated. Program managers may need to estimate the future disease burden in order to anticipate future prevention care and treatment needs. Additionally, international bilateral and multilateral aid agencies are increasingly making continued funding contingent on countries' ability to demonstrate that their programmes are making a difference.

National estimates of HIV prevalence among adults rests on the assumption that prevalence among pregnant women attending antenatal clinics (ANCs) is similar to prevalence among all adults, including both men and women, in the general population. As a result, UNAIDS recommends that ANC prevalence can be used to represent prevalence among all adults in generalised epidemics.

When modelling your epidemic, it is best to do it in conjunction with a UNAIDS specialist in estimates and projections. Every two years UNAIDS and partners hold regional trainings to explain new features and review the computer programs with country epidemiologists. When including the Estimation and Projection Package (EPP) and Spectrum model in your ANC sentinel surveillance report, your ANC sentinel surveillance data as well as any other national surveys can be used to estimate national HIV prevalence in the general population and provide projections for future trends. When using the EPP software, it will ask you to insert your ANC sentinel surveillance data and data from other surveys. EPP will also ask the user to divide the population of the country into groups with different levels of risk. For generalized epidemics this may be urban and rural populations. For concentrated epidemics, this may be various most-at-risk populations. Based on the data, EPP will estimate four parameters which include the following: the start year of the epidemic, the force of the infection, the initial fraction of the adult population at risk of infection, and the behavior adjustment parameter

where proportion of new entrants to the adult population who are at risk changes over time.

New Features EPP 2009

In 2009, UNAIDS updated their EPP model to address emerging issues including the following:

- Influence of ART on prevalence and incidence in fitting the epidemic
- Improved algorithm to generate better fits and more accurate uncertainties
- User can calibrate projections after fitting
- User can change urban/rural populations
- The model calculates and displays contributions to incidence from urban and rural populations and various sub-populations in a national projection

New Features Spectrum 2009

In 2009, UNAIDS modified their Spectrum methods to address emerging issues including the following:

Adults

- Ability to receive incidence measures from EPP
- Adjust the progression of need for treatment and AIDS deaths for adults, utilizing patterns for eligibility based on CD4
- Adjustment for varying degrees of first year survival on ART
- Adjust for the effect of HIV infection on fertility

Children

- Account for two survival curves: one for children infected perinatally and the other through breastfeeding
- Addition of monthly MTCT transmission probabilities
- Incorporate HAART as PMTCT
- Default survival probabilities for ART and cotrimoxazole updated
- New equation for doubling the AIDS orphans which was informed by a new regression analysis of surveys

For additional information on using EPP and Spectrum refer to as the website:
http://www.unaids.org/en/KnowledgeCentre/HIVData/Epidemiology/EPI_ software2009.asp

Format and content of EPP and Spectrum Estimates

When including Estimates and Projections results in your report, include national level estimates in the body of your report. A description of the methods involved in creating your EPP and Spectrum model as well as curve fitting graphs and district level estimates may go in the appendix, but this choice is up to you.

Spectrum output entails national HIV prevalence estimates and includes indicators such as the estimated prevalence and number infected stratified by adults (15-49), children (0-14), and rural/urban as well as the UNAIDS recommended 20% certainty range to the point estimate as seen in the Table 3.1. It is good to describe the findings as text to go along with your table. For example:

- "In 2008, the adult national prevalence estimate was 12% giving a total of 700,000 infected adults. In total, there were an estimated 825,000 person living with HIV/AIDS in 2008. The prevalence estimate was 18% in urban areas and 10% in rural areas."

Table 3.1. National HIV Prevalence Estimates, 2008

Indicator	Value	Low	High
National adult prevalence (15-49)	12%	10%	15%
Number of infected adults	700,000	600,000	900,000
Number of infected adult women (15-49)	400,000	300,000	500,000
Urban adult prevalence	18%	16%	24%
Number of infected urban adults	200,000	160,000	250,000
Rural adult prevalence	10%	8%	13%
Number of infected rural adults	500,000	400,000	600,000
Number of infected children (0-14)	75,000	60,000	100,000
Number infected over age 50	50,000	40,000	60,000
Total HIV+ population	825,000	700,000	1,060,000

Format and content of EPP and Spectrum Estimates, continued

Spectrum output also entails AIDS incidence, mortality, and ART needs and includes indicators such as new AIDS cases, annual AIDS deaths, and adults and children needing ART as shown in Table 3.2. It is a good idea to project estimates out five years. On top of including a table of indicators in the body of your report, it is good to refer to the table in the text and include a few main details as follows:

- "Table 3.2 below shows the 2008 estimates for AIDS incidence, mortality and ART needs as well as the projections up to 2012. A total of 149,000 PLWHA were in need of ART in 2008 and it was projected that by the end of 2012, a total of 176,000 PLWHA would be in need of ART."

Table 3.2. AIDS Incidence, Mortality and ART Needs, Estimates and Projections

Indicator	2008	2009	2010	2011	2012
New AIDS Cases (15-49)	53,000	53,000	54,400	55,000	56,000
New AIDS Cases (0-14)	17,000	17,000	16,000	16,000	15,000
New AIDS Cases	77,000	77,000	77,000	77,000	77,000
Annual AIDS Deaths (15-49)	46,000	48,000	48,000	47,000	47,000
Annual AIDS Deaths (0-14)	16,000	15,000	14,000	12,000	10,000
Annual AIDS Deaths	69,000	70,000	68,000	67,000	64,000
Adults needing ART	109,000	116,000	121,000	126,000	133,000
Children (0-14) needing ART	40,000	40,000	40,000	41,000	43,000
Adults newly needing ART	53,000	53,000	54,000	55,000	56,000

It is also useful to state assumptions that were included in the model in terms of an increase in ART and PMTCT coverage. For example:

- "The estimates and projections for AIDS cases and deaths, and adult and children needing ART are based on the assumptions that ART coverage will increase to 60% and PMTCT coverage will increase to 300,000 pregnant women by 2012.

Writing the Conclusion and Recommendations Section

Overview

The conclusion and recommendations section guides the audience to recognise the public health implications of the report. It shapes how the audience understands the report upon leaving it and supports evidence-based decision making.

The conclusion may be thought of as the final note of the report, and it should not be a pessimistic one. Instead, leave readers with a sense of why your surveillance data is important in the context of public health and the larger picture concerning disease prevention and care.

Suggested topics to cover in the conclusion may include:

- speculation on the effects of trends
- speculation on the effects of programs
- implications for disease prevention
- implications for disease care
- implications for clinical practice
- remaining unanswered questions
- economic or social implications (discuss only briefly).

The recommendations section guides the audience to explore future goals and activities in light of the current findings of the report. Recommendations to put forth may involve:

- exploring solutions to problems or deficiencies identified in the report
- providing warnings, guidelines, or tips
- setting the agenda for further research to answer remaining questions.

**Checklist
for conclusion**

As you review and revise the conclusion, check to see that you accomplish the following:

- write at a general level and avoid specific details and minutiae
- do not replicate other sections in the report, such as results or discussion
- avoid perfunctory conclusions that have no reason to be in the report
- keep this section brief (less than one page).

**Phrasing
recommendations**

The recommendations is a brief part of the report that allows you to persuade your audience. The audience will refer to this section to answer strategic and operational questions, such as "Which programs and research studies should we fund?" "Which policies should we follow?" "What should our priorities be in the face of overwhelming need and scarce resources?"

Recommendations should be statements encouraging future or continued action. In general, these statements will contain verbs and phrases suggesting actions to be taken. Examples of verbs and phrases to include are:

- "strengthen"
- "provide"
- "work with," "coordinate"
- "plan"
- "monitor"
- "use aid"
- "cut back," "curtail," "minimise," "decrease"
- "support"
- "encourage"
- "formulate"
- "target."

Recommendations should be specific whenever possible, showing that it is the surveillance data informing advocacy for certain actions. Decision-makers, who have limited resources available to dispense, may experience difficulty implementing recommendations when they are too general. As an example, here is a recommendation on HIV antiretroviral drug programs that is too general:

- "A scale up of antiretroviral programs should be implemented to meet the needs of the increasing number of infected persons."

The audience reading this recommendation may want to know:

- At which locations should we scale up the programs?
- Should the scale-up target specific risk groups?

A more specific version of this recommendation may be:

"Expand enrolment in antiretroviral programs in the southern region of the country to meet the demand of increasing numbers of infected persons."

Suggested formats

There are a few formats possible for the conclusions and recommendations. One format is first to present the conclusions and then the recommendations. Another format is to pair each conclusion with one or more corresponding recommendations. We present an example here of the latter format.

- ▪ "Conclusion #1."
  - ° First recommendation to conclusion #1
  - ° Second recommendation to conclusion #1

In terms of suggesting future research agenda, proposed research must be specific. Also keep in mind that while you are recommending that more research be completed in certain areas, you are not promising future research publications or studies.

Preparing the Introduction Section

Overview

The role of the introduction is three-fold. First, it provides your audience with enough background to understand and critically analyse the report contents. Second, it identifies the problem or need for the report. Third, it introduces the objectives of the surveillance report.

During the process of writing, you will be organizing your ideas, refining your arguments, and developing conclusions which may evolve as you write. For this reason, it is helpful to write your introduction after you have written your other sections, to ensure that the introduction reflects the content of your report. If you feel the need to write some kind of introduction in the beginning to get the writing process started, be sure to return to the introduction at the end to review and rewrite as necessary.

Background

The background may be categorised into two elements: background on disease surveillance and country context.

Background on disease surveillance is perhaps the easiest portion to write, simply because this is the topic of greatest familiarity to you. The information you present here is intended to capture your audience's interest, motivate them to continue reading the report, and educate them a bit in fundamental concepts.

Background, continued

Be cautious, however. The background on disease surveillance may require less effort to write, but it also can quickly become too lengthy and over-laden with information. Keep it to half a page, single-spaced. If you have more than that, you can move information into other parts of the report, which we will discuss more later on.

Country context gives a brief history of the disease epidemic and describes the situation in the country during the time covered by the surveillance report. This brief history may include descriptions of the geography and demography, the social and economic situation, the national response to the disease epidemic, and nationally deployed programs related to disease surveillance (example: antenatal clinic care and HIV/AIDS). Country context should be limited to one page, single-spaced.

Objectives

The objectives state what you intend to do or show through the surveillance report.

Examples of primary objectives of surveillance activities:

- estimate the HIV prevalence among women attending antenatal clinics
- estimate national disease prevalence in year XXXX and present trends in disease progression
- describe disease trends in subpopulations
- estimate disease infection rates using mathematical modelling
- estimate prevalence of co-morbid illnesses in year XXXX and present trends.

Preparing the References

Overview

A references section appears at the end of a surveillance report and lists other sources you used. The reference section allows you to point to other work in the field without explaining that work in detail. It also allows you to give credit to other people for their ideas which you incorporated into your report. Proper referencing prevents you from plagiarising others' work. In the sequence of the report, the reference section appears after the conclusion and recommendations section and before the appendix.

**Sources
to consider**

You should include references cited directly in the report. Do not include secondary materials that are only slightly related to your topic. Here is a list of types of sources you may reference in the surveillance report:

- recent, peer-reviewed journal articles
- very recent conference abstracts
- guidelines (from respected institutions, WHO, UNAIDS, CDC)
- medical text books
- websites (from respected institutions, factual)
- official reports (governmental organisations or special working groups)
- dissertations
- newsletters, fact sheets, non–peer-reviewed publications

While collecting sources to cite in your report, keep the following in mind: In the age of the Internet, there are many more sources of information available besides traditional print material. Use sources that are from respected institutions. In addition, consider the ability of your audience to access sources in your reference list. Dissertations, for example, are one type of source that is difficult to access. Also, you should avoid citing sources that are difficult to verify, such as personal communications.

**Citations in
the text**

Citations in the text may be indicated by the author and year of publication. The reference is inserted before the period in the sentence and reported in the following convention:

- (author last name, year)

If the reference has more than two authors use this convention:

- (first author last name et al. year)

If the reference has exactly two authors use this convention:

- (first author last name & second author last name, year)

Reference style

The institution originating the surveillance report should provide guidance on what style to use for references. If there is no precedence or procedure for reference style, the "Vancouver style" is recommended (ICMJE, 2007). This style is commonly used in the biomedical field. References are alphabetically listed in the reference section.

The following are some references taken as examples of the Vancouver style:

- journal articles

    Hu DJ et al. HIV-1 incidence estimates by detection of recent infection from a cross-sectional sampling of injection drug uses in Bangkok: use of the IgG capture BED enzyme immunoassay. AIDS Research and Human Retroviruses. 2003; 19:727-730.

- books

    Murray PR et al. Medical Microbiology 4th ed. St. Louis: Mosby; 2002

- conference proceedings

    Harnden P, Joffe JK, Jones WG, editors. Germ cell tumours V. Proceedings of the 5th Germ Cell Tumour Conference; 2001 Sep 13-15; Leeds, UK. New York: Springer; 2002.

- scientific or technical reports

    National AIDS and STI Control Programme, Ministry of Health, Kenya. AIDS in Kenya, 7th ed. Nairobi: NaSCOP; 2005.

- electronic material (including CD-ROM, journal article and monograph on the Internet, database on the Internet, website, etc.). If the type of document is not obvious, it should be added in square brackets, e.g. [project website].

    Abood S. Quality improvement initiative in nursing homes: the ANA acts in an advisory role. Am J Nurs [serial on the Internet] 2002;102(6):[about 3 p.]. Available from: www.nursingworld.org; last visited 12/8/2002.

<u>Writing the Executive Summary</u>

Overview

The executive summary is a brief overview of a surveillance report designed to give the audience a preview of its contents. Often, the executive summary is the most-read section of the surveillance report. Its purpose is to bring together all the main points of the report into one place. After reading the executive summary, your audience will:

- understand why you wrote the report
- understand the key findings of the report and the information to substantiate those points
- know the conclusions and recommendations you are stressing.

Executive summaries are written to stand alone, without requiring reference to the rest of the report. They are ideal for individuals who need to get information efficiently and may not have time to read the entire report. These individuals may be decision-makers involved in funding and policy decisions.

The executive summary is written last, after you have finished the other report sections already described.

Format and content of executive summary

Executive summaries are usually 5% of the length of the main report, excluding table of contents, lists of tables and figures, acronyms, and appendices. Generally, most executive summaries end up one page in length.

Executive summaries may be written in different formats depending on the target audience you are trying to reach. One functional format is presented here. Each of these sections is intended to be very brief so that ultimately the entire executive summary is only one page long.

Table 3.3. Format of executive summary

Background	Brief information about the national sentinel surveillance program.
Purpose	Statement of why the surveillance report was written. Include objectives.
Methods	Short description of main surveillance methods (example: sentinel sero-surveillance). Highlight methods that are new and notable.
Key findings	Report the significant findings. All results do not have to be included in detail.
Conclusion and recommendations	Should be short answers to "What are the needs?" "What was done well?" "What needs to be improved?" "How do we apply key surveillance findings?"

Source: Adapted from UNICEF, 2002

The executive summary is organised according to the key findings and recommendations of the report. You may also highlight new elements of your surveillance program; for example, incorporating a new sentinel sites.

Create an outline to organise your executive summary. Start with writing one declarative statement for each key finding you present. Include numbers and statistics to support the key finding.

Acknowledgments

The acknowledgments section recognises people and organisations who contributed to the surveillance report. These are generally parties whose contributions do not justify authorship of the report. Keep the acknowledgments short and business-like. Examples of parties to acknowledge are:

- departments or sections within the surveillance program
- national program or agency formed to combat the disease
- health facilities and laboratories involved with disease surveillance activities
- government ministries or agencies (example: Ministry of Labour)
- central statistics office
- international organisations (example: WHO)
- anyone providing funding or technical support for report publication
- people who were surveyed.

Title Page and Publication Details

Overview

The title page of the surveillance report normally contains the report title, the institution or organisation originating the report, and the date the report was completed.

The publication details immediately follow the title page. It lists the following information:

- report title
- the institution or organisation which originated the report
- the names of the authors
- who to contact for more information
- website address
- suggested citation for the report.

The title page and publication details are located just inside the front cover of the report.

Developing the report title

It is important to properly title the surveillance report so that it accurately reflects the major emphasis of the report and is interesting to the audience. The title should be concise, using 10 words or less. It also should be easily recognisable and understandable to a general audience. To begin, imagine what you would want to see in the title if you were electronically searching for your report by keyword in a database. Include keywords in the title when possible and when they are relevant.

Some possible keywords may include:

- name of the disease(s) under surveillance
- country name
- "surveillance"
- "epidemiological"
- year report was prepared.

There are several common approaches to writing a title. One approach fitting for a surveillance report is to include the name of the subject being investigated. For example, "2008 National HIV Sero-prevalence Sentinel Survey.".

Another approach is to include the overarching method used. For example, an HIV/AIDS surveillance report may be using second generation HIV surveillance as the overarching surveillance method. In this case, the title could be "HIV/STI Integrated Biological and Behavioral Survey."

Revising the Draft Report

Overview

Revision is the process of making substantive changes to the content and organisation of the report to ensure it is complete, accurate, and understandable to the audience. It is essential to undergo the process of revision since surveillance reports are generally not peer-reviewed in the same manner as scientific journal articles.

Revision occurs before editing. According to the timeline you created in Unit 1, the draft of the surveillance report will be revised a minimum of two times before a final draft is approved.

Revision process

The following areas must be checked during the revision process:

- missing content (you forget to define key terms or explain concepts or processes)
- writing at the wrong level for the audience (the report is burdened with highly technical or esoteric terminology only experts in the field would understand)
- tables and figures that need redesign to improve audience comprehension
- paragraphs that are too long (you ramble on with several topical sentences in a paragraph)
- organisation mission (the surveillance report must not differ from the aims and objectives of the issuing organisation)
- if the report has several authors, portions written by different authors must be internally consistent
- executive summary written to improve emphasis of main points
- coherence of each component of the report (the executive summary, introduction, and conclusion and recommendations do not contain conflicting statements)
- sections are organised in the most logical way.

When you check the report, put yourself in the role and mindset of the audience member who is reading the report. This will help you locate the barriers impeding clear communication between the report and the audience.

Once you have an opportunity to check these areas, ask someone who is not directly involved in preparing the report to help you identify items that need to be revised. Someone who is not entrenched in the subject matter may have an easier time identifying incongruent items and structural problems.

Keep in mind that as you are revising content you need to stay aware of the report's length in page numbers. This is essential towards staying on budget for publishing the report. Refer to the budget you created in Unit 1 and consider the budget you created for report publishing. Up to this point, the sections written should account for 70-75% of the entire planned report length. If the report already exceeds that limit, it will be necessary to trim sections and become more parsimonious with content. If you are unwilling to trim content, consider other cost-saving measures, such as revising your publishing budget to include less print copies or printing in black and white.

Unit 3 Exercises

Warm-up review

Take a few minutes now to look back at your answers for the warm-up questions at the beginning of the unit. Make any changes you want to make.

Small group discussion

Get into groups of 4-5 people, by country, to discuss these exercises and questions.

1. Write sentences and paragraphs for the primary and secondary findings.

2. Refer to the results section you prepared in Unit 2. Discuss the primary limitations of the data included.

3. What background information about your country would be helpful to include in the introduction? What key background information about the disease epidemic and your surveillance program will you include in the introduction?

4. Read and critique the executive summary sample in Appendix 3.2. Discuss the following:

    ▪   What parts were appropriate for inclusion in the executive summary?

    ▪   Which pieces of information are more suitable for inclusion in other sections of the surveillance report instead of in the executive summary?

    ▪   What is missing from the executive summary?

    ▪   What needs to be corrected in this executive summary sample?

**Apply what
you've learned/
case studies**

Work on the following case study independently.

You are a HIV/AIDS surveillance officer in Country X writing the national surveillance report. You have finished writing the results and discussion sections, and you arrive at several conclusions. Below each conclusion is related background information. Write one recommendation for each conclusion.

Conclusion #1: The surveillance program has insufficient trend data on young pregnant women aged 15-24 years old whose infections are an indicator of new infections (incident infections).

Background: Your country conducts sentinel sero-surveillance through antenatal clinics. The sentinel surveillance form does ask for participant's age, however, reporting of age has been found to be highly incomplete.

Your recommendation:

Conclusion #2: Proportion of pregnant women accessing prevention of mother-to-child transmission (PMTCT) services is low, signalling missed opportunities for prevention and care.

Background: Using PMTCT and antenatal clinic data, your country measured 2% of HIV-positive pregnant women were receiving nevirapine to prevent transmission to infants. The target coverage set was 10%. Eight percent of all antenatal clinic sites in your country provide PMTCT services. Five of 30 districts still have no sites providing PMTCT.

Your recommendation:

<u>Annex 3.1 Sample of Executive Summary</u>

The following is an executive summary for a surveillance report written for a fictitious country, Country X.

Executive Summary

Country X is located on the XXX continent in the XXX region, currently a hotbed of new HIV infections. Although Country X still enjoys a low prevalence of HIV infection it has diverse geography in which some provinces are more affected than others. It also was found that younger age groups are increasingly more affected. There are early signs that Country X is following the same epidemic pattern observed in other countries with similar situations in the region.

In the past five years public health measures had been successful in keeping HIV prevalence at low levels. In 2003, national HIV prevalence was estimated at 2.8%; however, it rose to 3.2% in 2004, and one bordering province rose from 6% to 11% in that same time. We also noticed a potential decline in a few provinces where public health measures were directed on a grander scale.

Another finding for 2004 was a trend of increasing prevalence among people 15-19 years old, especially in provinces that border higher prevalence countries and the province with a port where most large scale commercial transactions take place. In this report, we present several analyses that characterise the trends of HIV infections by province and age group.

Public health surveillance is the ongoing systematic collection, analysis, and interpretation of data for the purpose of planning, implementation, and evaluation of public health practice. A key piece of the surveillance system is timely dissemination of data to people who need to know. Information on the HIV/AIDS epidemic in Country X has been regularly disseminated through various channels. Publication of the Third Annual ANC Sentinel Surveillance Report on HIV/AIDS is part of the data dissemination initiative of the Ministry of Health. The objectives of this report are:

- to educate the public on HIV

- to provide information for planning HIV/AIDS prevention strategies

- to make estimates and projections for new and total HIV infections, AIDS cases, AIDS deaths, and HIV-positive pregnancies and births.

We present data collected from the past 6 years of ANC sentinel surveillance.

An electronic copy of this report is accessible from our website: www.countryx.gov.

NOTES

Unit 4
Tying it All Together and
Finalising the Report

Overview

**What this unit
is about**

This unit discusses how to write the sections of the report which are the tools to help the audience read the report. These sections include the list of acronyms and abbreviations, the list of figures and tables, the table of contents, and the appendix. This unit also addresses final editing of the report and publication and distribution methods.

**Warm-up
questions**

1. Name two functions for a list of acronyms and abbreviations in a surveillance report.

   a.
   b.

2. Name three potential elements to include on a visually attractive report cover.

   a.
   b.
   c.

3. True or False. The list of figures and tables should be ordered in sequence of most important to least important.

   True   False

4. Which of the following are methods to construct a table of contents?

   a. theoretical and practical
   b. automatic and manual
   c. controversial and non-controversial
   d. artistic and engineering.

5. Name two advantages to publishing the report in print format.

   a.
   b.

6. Name two advantages to publishing the report in electronic format.

   a.
   b.

7. Name two ways to distribute a report published in electronic format.

   a.
   b.

Introduction

**What you
will learn**

By the end of this unit you will be able to:

- create a list of acronyms and abbreviations
- create a list of figures and tables
- create a table of contents
- prepare an appendix with data tables
- decide how to design a report cover
- edit the report
- be familiar with publishing formats available.

Background

The surveillance report components discussed in this unit may be prepared either by the principal author(s) or by someone without specific knowledge of the report content. Depending on the resources and time you have available, you may want to reserve these sections to be completed by a copyeditor. The sections include:

- Acronyms and Abbreviations
- List of Figures and Tables
- Table of Contents
- Appendix
- Report Cover.

If the principal author(s) plan to prepare all the components prior to submission for copyediting, the following sections provide overviews and instructions on how to create them.

Acronyms and Abbreviations

Overview

Acronyms and abbreviations are commonly used in public health and surveillance to avoid repeating long words or terms. Acronyms are formed using the initial components in a phrase or a name. These components may be individual letters or syllables or fractions of words. An abbreviation is a shortened form of a word or phrase, usually consisting of a group of letters taken from the word or phrase. For convenience and to manage the length of the surveillance report, you frequently will make use of acronyms and abbreviations in the body of the report.

Many acronyms and abbreviations are familiar only to specialists within the field of surveillance. For a more general audience, acronyms and abbreviations need to be explicitly defined. A list of acronyms and abbreviations will help the reader quickly identify the term. This list is commonly found early in the report, before the executive summary and any sections that might utilise acronyms and abbreviations.

The convention, for using an acronym or abbreviation in the text of the report, is to precede the acronym or abbreviation with the expanded version when you are using it for the first time. If you are introducing the term "voluntary counselling and testing," for example, and you wish to use the acronym "VCT" to represent it throughout the report, you would write it as "…voluntary counselling and testing (VCT)…."

Create a list

To create a list of acronyms and abbreviations, you will need to perform a thorough review of your entire report. You may use your word processing software to aid identification of acronyms by searching for parentheses that contain the acronym or abbreviation: an open parenthesis "(" or a close parenthesis ")".

When you have identified the acronym or abbreviation, add it to the list in alphabetical order, with the acronym or abbreviation in the first column, and the expanded term in the second column. Example:

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy

List of Figures and Tables

Overview

The list of figures and tables is the equivalent of a table of contents for just the figures and tables in a surveillance report. It contains a list of every figure and table presented in the report, in the order that they appear, with the corresponding page number. This list is very useful for readers who wish to locate a figure or table quickly. The list is commonly found early in the report, before the executive summary and any sections that present figures and tables.

**Format for
list of figures
and tables**

The format for this list is straightforward. Figures and tables are ordered in the sequence they appear under each subsection. Use the same title for the figure or table as used in the results section.

Subsection title

Table 1   Title for Table 1 ……………………report page number

Figure 1   Title for Figure 1 …………………...report page number

Table 2   Title for Table 2 ……………………report page number

Table of Contents

Overview

The table of contents is the roadmap showing the reader the location of each section of the report. In the sequence of the report, it is located after the acknowledgments and before the list of figures and tables.

The table of contents is the very last section of the report that is prepared. You want all other sections of the report to be close to final before creating the table of contents. This will avoid numerous changes to the table of contents following modifications in section length and order.

There are two ways of generating a table of contents: automatic and manual. The automatic method relies on using word processing software or other publishing software to generate the table of contents based on heading and subheading styles applied in the document. The manual method relies on the writer to compile the titles of sections and subsections in the report and manually insert the corresponding page number.

Overview, continued

In practice you will use a combination of the two methods. First, automatically develop the main framework of your table of contents using the functions programmed into the software you are using. Then manually refine the table of contents to fix any problems generated from automatic functions in the software and to show exactly the sections and subsections you want.

Example using MS Word

To demonstrate the automatic method, we will demonstrate using the software Microsoft Word (MS Word) in the example. For this example, we will only incorporate the first several sections of the surveillance report. The sections we will incorporate are list of figures and tables, acronyms and abbreviations, executive summary, introduction, and subsections of the introduction.

In MS Word, a number of styles are available to apply to the text. A style is the combination of formatting and placement (example: indentation, tabs) that may be applied to text in your document. The styles may be changed according to your preference. To view the styles go to the Format menu and click "Styles and formatting." For each section, we will apply the style of "Header 2." For each subsection, such as background and objectives, apply the style of "Header 3."

List of Figures and Tables

Acronyms and Abbreviations

Executive Summary

Introduction

Background

Objectives

Next, go to the Insert menu, go to "References." and click "Index and Tables." Click the "Table of Contents" tab. It will give you a preview of the table of contents according to the styles selected. Click "OK" and the software will insert the table of contents into your document.

Example using MS Word, continued

Example of automatically generated Table of Contents

If necessary, you may go back to the automatically generated Table of Contents and edit the entry and the page number.

Creating an Appendix

Overview

The appendix is a supplemental addition to the main report. You should place information in an appendix that is relevant to your subject but that must be kept separate from the main body of the report to avoid interrupting the flow of the report. Be frugal about the items you include in the appendix. Do not include an appendix just for the sake of having one.

In the sequence of sections, the appendix is the very last in the surveillance report. A surveillance report commonly includes the raw data tables used to generate figures in the report. Raw data tables are provided when the value of each data point is not obvious from viewing the figure in the results section.

Format of appendix

An appendix should include only one set of data, but additional appendices are acceptable if you need to include several sets of data that do not belong in the same appendix. Label each appendix with a letter, A, B, C, and so on. Do not place the appendices in order of their importance to you, but rather in the order in which you referred to them in your report. The appendix is paginated separately from the rest of the report. The pages of the appendix should be numbered in the following convention: "letter-page number," As an example, the first page of Appendix A would be numbered "A-1."

**Data tables
in the
appendix**

There are several elements needed to present the raw data tables in the appendix. These elements help the audience to identify which figure the data refers to in the results section of the report:

- figure number
- figure title
- report page number
- raw data.

The following is a recommended format for raw data tables included in the appendix.

Figure X.X. Title of Figure X.X ……………………… report page number

	X-axis label 1	X-axis label 2	X-axis label 3
Group 1	#	#	#
Group 2	#	#	#
Group 3	#	#	#
Group 4	#	#	#

Data in the columns are organised according to the groups represented on the x-axis of the figure. Groups 1 to 4 represent groups displayed in the figure legend. The headers in the raw data tables should be the same as used for the x-axis labels and the legend labels.

Data tables in the appendix, continued

Figure 4.1, a data graphic showing AIDS case reporting for different risk groups by year, is used to illustrate how to format the data table in the appendix.

Figure 4.1. Number of AIDS cases by risk group, Country X, 1996-2005
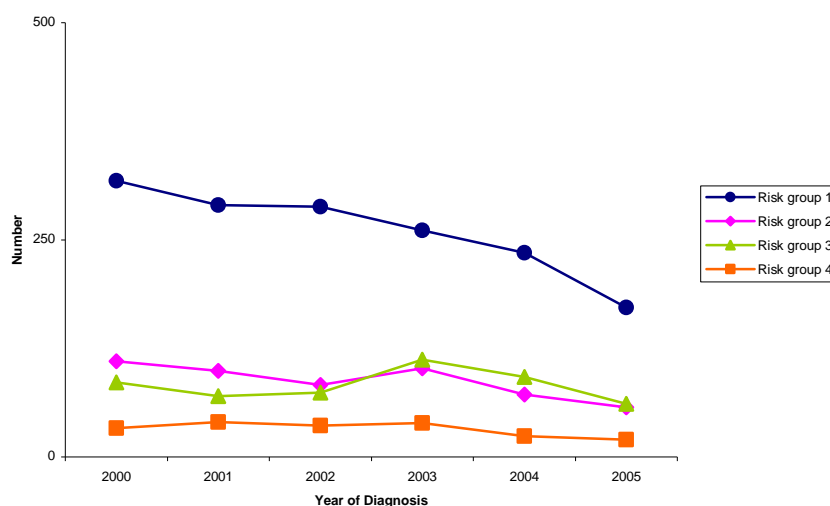
In the appendix, show:

Figure 4.1. Number of AIDS cases by risk group, Country X
……………………………………………………….. report page number

	2000	**2001**	**2002**	**2003**	**2004**	**2005**
Risk group 1	318	290	288	261	235	172
Risk Group 2	110	99	83	102	72	57
Risk Group 3	86	70	74	112	92	61
Risk Group 4	33	40	36	39	24	20

Report Cover

The report cover should be a visually attractive invitation to read the report. To create an attractive display, the cover should combine the elements of the title page with other graphics. Some suggestions for graphics you might include are:

- organisation logo
- colours
- photographs
- drawings or other art work
- symbols related to the disease epidemic (example: red ribbon for HIV/AIDS, pink ribbon for breast cancer).

A simple, uncluttered cover design will produce the most impact (Simmonds & Reynolds, 1994). If you use text alone, it should be simple and bold. If you choose to incorporate an image, use one reasonably sized image rather than many small images. One strong image is more effective.

Depending on your budget, you may wish to hire a graphic designer to create the report cover design. Another creative way to solicit designs for the cover is to hold a design competition. Such a competition may generate several high quality designs at very little cost to you. In turn, you offer free publicity to the design winner by distributing the report.

If you decide to incorporate a designer from outside your organisation, make sure that you clearly communicate deadlines for completing the cover design.

Report Editing

Overview

Careful editing of the surveillance report is essential for your ability to release a complete and error-free document to the public. Editing is the process of making surface changes to the report which may involve correcting spelling, grammar, punctuation, formatting, and other mistakes introduced during the writing process.

The editing process follows after approval for content of the final draft. Depending on the resources you have available, the editing process may be completed by someone with copyediting skills who is not principally involved with writing the report content.

At what point should the surveillance report be copyedited? Referring to the time line you created in Unit 1, there should be a first, second, and final draft completed before the document is forwarded for copyediting.

The things to identify and correct during copyediting are:

- typos and spelling errors
- incorrect punctuation
- inconsistent use of capitalisation
- grammatical problems (examples: inconsistent tense, subject-verb non-agreement)
- long sentences and garbled passages
- language is not concise and there is a lot of redundancy
- format inconsistency
- dropped lines and words
- tables checked for incorrect totals and percentages (example: percentages do not add up to 100)
- inconsistent use of acronyms and abbreviations
- incorrect use of symbols and units of measurement.

Tips for editing

When you are ready for editing, first, take a break from your report manuscript. By giving yourself some time between writing and editing, you will return to the manuscript with a fresh eye and mind to critically evaluate what you have written.

Read through the report at half the pace you normally read at. This gives your eyes ample time to spot errors. Another strategy for reading slowly and carefully is to hold a pencil under the words as you read them.

Tips for editing, continued

Reading the report aloud also encourages you to read every word. It is especially useful for detecting problems with sentence structure. It will also help to detect abrupt passages that may be improved with better transitions.

Do not rely solely on the spell checking function in your word processor. Mistakes that escape detection by the word processor are typically words that are spelled correctly but make no sense in the sentence where it is inserted. An example of this problem is the sentence "An increasing trend among anonymously tested tuberculosis patients was showed." See if you can identify the word that is misused, yet is not identified by a word processor spell-check program.

Report Publication and Distribution

**Your options
for publishing**

After thoroughly editing the surveillance report, you will forward it to the appropriate parties for final approval. After you have received final approval, Congratulations! You are ready to publish the report.

Several options are available for publishing the report. The first option is creating bound print copies through a publisher or printing service. This option already should be included in your budget. The second option is publishing the report in electronic format. Several popular electronic formats are MS Word Documents and Portable Document Format (PDF). Read-only options may be enabled for these electronic formats to prevent readers from making any changes to the document.

There are advantages and disadvantages to each publishing option presented. It is most practical to employ both formats and balance appropriate use of each in consideration of your audience.

Table 4.2. Comparison of formats for surveillance report publication

Format	Advantage	Disadvantage
Print	- Easy to reference; convenient to turn to the page of interest - Does not require computer or other equipment to read - More accessible for audience who is unfamiliar with electronic formats - Nicely packaged "product"	- Can be costly to produce and distribute - Content not searchable - Fewer avenues for distribution
Electronic	- Inexpensive to produce and distribute - May be distributed through variety of portable electronic media (examples: CD, flash drive, diskette) - May be distributed through email or internet websites - Appearance is as nice as print format - Content is searchable	- Requires computer or other equipment - Not accessible to audience unfamiliar with electronic formats - Copies attached in emails may get overlooked

Ways to distribute the report

There are many methods to distribute the surveillance report, whether it is in print or electronic format. For print format consider the following:

- mail or deliver to key persons in government sectors or agencies
- mail or deliver to partner organisations, community groups, and faith-based organisations
- distribute during town hall meeting or press conference
- mail or deliver to key media contacts.

For reports in electronic format, you can do the following:

- email it to key partners and contacts
- post it on organisation website (if you include the web address in the publication details, make sure it is correct)
- post links to the website on other websites
- burn it onto CDs and mail or hand deliver.

Unit 4 Exercises

Warm-up review

Take a few minutes to look back at your answers for the warm-up questions at the beginning of the unit. Make any changes you want to make.

Small group discussion

Get into small groups, by country, to discuss these exercises and questions.

1. Discuss the different formats for publishing the surveillance report. Which format is likely to be more widely used in your country?

2. Identify 4 to 5 strategic methods for distributing the print or electronic format of the surveillance report in your country.

3. Share two methods you have used in the past to edit and proofread important documents or manuscripts.

4. Share one idea for a report cover design. Alternatively, share one idea for how to solicit a report cover design.

Apply what you've learned/ case study

Work on the following case studies independently.

1. Compile the following sections for your surveillance report. The lists do not need to be completed; work as far as writing five items or entries for each section.

   a. Acronyms and abbreviations

   b. List of figures and tables

   c. Appendix (data tables).

2. Edit and proofread the report sections you have written using the surveillance report checklist (see Appendix 4.1).

NOTES

Annex 4.1 Surveillance Report Checklist

(Adapted from Grey Literature International Steering Committee)

Verify the following components before sending the report to the publisher.

Title Page

☐ Does the title page include the title of the report and institution publishing the report?

☐ Is the title short, concise, and precise?

☐ On the back of the title page, is there contact information to request the report or additional data?

Executive Summary

☐ Is the executive summary understandable and self-explanatory? Can it stand alone?

☐ Does it include the main findings of the report?

Table of Contents

☐ Does the table of contents include all headings and subheadings?

☐ Is the page numbering correct?

☐ Is the appendix included?

Acronyms and Abbreviations

☐ Are the explanations of each acronym and abbreviation provided the first time it appears in the text?

☐ Are the introduced abbreviations and acronyms used consistently throughout the report?

Tables and Figures

☐ Is each table and figure self-explanatory?

☐ Are the tables and figures numbered and cited correctly in the text?

☐ Do all tables and figures have titles?

References

☐ Do references include all bibliographical elements?

☐ Are references cited according to the reference style you have chosen?

☐ Is the list complete?

☐ Do the references in the text correspond to those listed at the end of the report?

NOTES

Unit 5
Disseminating Surveillance Data
in Other Formats

Overview

**What this unit
is about**

There are various strategies to disseminate the information and data amassed in your surveillance report. This unit introduces two communication formats (fact sheets and press releases) that may be used to disseminate surveillance data in addition to the national surveillance report.

**Warm-up
questions**

1. List three reasons why it is necessary to disseminate surveillance data in formats other than a surveillance report.

2. Select the answer that most closely describes a "fact sheet."

    a. Informational report that is half the length of the surveillance report
    b. Brief document that summarises information
    c. Slide presentation of facts
    d. An informative poster that you mount on the wall.

3. True or False. All fact sheets must follow one format, which is to organise information chronologically.

    True   False

4. True or False. Journalists and news professionals often will use text word-for-word from a press release in their articles or broadcasts.

    True   False

Introduction

**What you
will learn**

By the end of this unit, you should be able to:

- write and distribute a fact sheet highlighting disease surveillance data
- assemble a list of media contacts
- write and distribute a press release.

Background

Public health surveillance officials often take the approach that publishing a surveillance report is adequate for disseminating data. Although the report includes a comprehensive view of disease surveillance and epidemiology, it is not enough to meet the needs of your wide-ranging audience.

Data need to be packaged in different ways to communicate effectively with different segments of your audience. As an example, journalists may not have time to read an entire surveillance report in order to extract a few key facts for a news article. On the other hand, journalists are more likely to read and understand data packaged in a brief, to-the-point format.

The following sections describe how to package surveillance data in two formats: fact sheets and press releases. These formats are much more concise and portable compared to the surveillance report. The use of appropriate formats for the right audience will ensure that:

- data address the concerns of your audience
- important messages are getting through to your audience
- messages are reaching your audience at the right time.

Writing a Fact Sheet

Overview of fact sheets

Fact sheets are brief documents which summarise disease situations. Their format is easy to read, straightforward, and portable. Fact sheets often are used to break down complicated information, such as surveillance data, into digestible pieces.

Fact sheets serve many purposes and audiences. Decision-makers use them to stay informed and to guide decisions in policy and programming. Journalists use them for background information, and organisations for program details. Fact sheets also can answer questions from the public.

When presenting surveillance data, fact sheets frequently have statistical or numeric information, such as demographic data, disease incidence and/or prevalence, or community information. Tables, graphs, and other visuals to show such data are employed to help readers understand the information.

Formats for fact sheets

Fact sheets are created to appeal to many different audiences and so they come in a variety of styles and formats. Some fact sheets are organised chronologically, citing important events that have occurred over time. Others include sections identifying various partners in an endeavour. Another format poses several key questions and provides descriptive answers for the audience.

When several subjects need to be covered, it is best to write separate fact sheets for each subject. You could write a fact sheet on estimating HIV prevalence, for example, another on women and children and HIV, or one focusing on key facts by country region. Developing a series of short, specific fact sheets often is preferable because people are more inclined to read brief materials. In addition, it is easy to add new information to a standard collection of brief resource information because you need only to prepare or revise a short piece rather than a long, complex document.

Although you have flexibility over the format of the fact sheet, remember that formats of good fact sheets have several things in common:

- well-organised
- attractive layout
- cover a specific subject in enough depth to give readers basic understanding of the topic.
- are only one to two pages. One page is best.
- clear and easy to read.

Fact sheet components

Let us get familiar with the structural parts of an effective fact sheet. Refer to the fact sheet example in Appendix 5.1.

Organisation logo: A graphical element (examples: symbol, emblem, icon, or sign) combined with typeface or font that serves as a visual identifier for your organisation. The logo is typically located at the top of the fact sheet. The organisation logo is also used on the report cover and cover page of your surveillance report. In the example of the fact sheet, the UNAIDS logo is located in the upper right-hand corner of the fact sheet.

Motto or slogan: A short phrase that expresses the purpose of your organisation. In the fact sheet example, the motto "Uniting the world against AIDS" is located at the bottom of the first page.

Title: Identifies the document as a fact sheet and gives a brief description of its subject. The title needs to stand out from the rest of the text (examples: use different font, font size, font weight, or font colour). The words "Fact Sheet" should be included in the title, followed by the brief description. If the fact sheet is one in a series, you may use the convention "Fact Sheet No. #" . In the fact sheet example, the title is "Fact Sheet Revised HIV estimates"

Date of release: Identifies the date the fact sheet was released, giving the audience a sense of the information's timeliness.

Body: The largest component of the fact sheet. It is where all the facts and figures will appear as narrative text, tables, or data graphics.

Section headers: Headers within the body of the fact sheet guide the audience through the major issues presented. Section headers need to stand out from the rest of the text (example: use bold font weight). In the fact sheet example, facts about revised HIV estimates are organised into five sections: overview, revisions to methodology, improvements in surveillance, changes in key epidemiological assumptions, and systematic reviews.

Bullet points: An effective way to list facts of importance in each section. In the fact sheet example, bullet points are used in the third and fourth sections.

Fact sheet components, continued

Footnotes: Notes located at the bottom of each page which are used to define or provide additional description of terms you used in the fact sheet. They are shown in a smaller font than body text. Footnotes may be indicated in numerical order beginning with the number one. The footnote should appear on the same page as the term it is defining or describing.

Contact information: Provides the name, telephone number, and email address of the person principally responsible for writing the fact sheet. It enables the audience to gain additional information or clarification of what was presented in the fact sheet. If available, also include the organisation's web address.

Planning the fact sheet

Before writing a fact sheet, answer the following questions to help guide you:

- Who is the audience?
- What does the audience need to know?
- Why does the audience need to read the fact sheet?
- Do you want the audience to take some action?
- Is the information time-sensitive? How will this influence the way the fact sheet is distributed?

Second, identify the message of the fact sheet. What are the one or two main points you need to communicate? The points you identify become the focus of the fact sheet. These points might be:

- announcing a new finding or result
- a program milestone or significant accomplishment
- major change(s) in a program.

Third, develop an outline. Construct a summary of the information, from most important to least important. Do not be concerned about writing polished text at this point. To start on your summary, write a simple declarative sentence proclaiming the most important fact you want to convey. An example of a declaratory sentence might be: "National HIV rates decline, but situation varies by geography." Then begin adding important facts onto this sentence.

Lastly, allocate responsibilities so that the fact sheet is completed in a timely, professional manner. It is generally preferred to designate one person with overall responsibility for the fact sheet. You may need to determine who else on your staff needs to participate in the writing, review, or distribution process.

Writing and reviewing the fact sheet

Use the information and statements written in your outline and expand the important facts you wrote into full, complete sentences. Arrange them in a logical order according to the fact sheet format you have chosen.

Staff who contributed to the fact sheet should be encouraged to review the draft before it is finalised. These persons may include:

- staff who wrote portions of the fact sheet
- staff whose program responsibilities are described in the fact sheet
- staff from other agencies.

Prior to reproducing and distributing the fact sheet, obtain approval from your supervisor or other designated individual.

Distributing the fact sheet

Determine how the fact sheet will get into the hands of your audience. Methods of distribution may include:

- mailing to all or part of your organisation's contact list
- handing out at public meetings
- placing them in a physical or electronic document repository
- enlisting community-based organisations (CBOs) to distribute at physical locations they operate.

Writing a Press Release

**Overview of
press releases**

Press releases are short, concise statements that announce news. They are used to inform the public of significant public health events and developments in your country. They are written for distribution to news publishers (examples: newspapers, television, radio, websites, news magazines).

Press releases are an important part of the data dissemination strategies you have available. They are an effective method of engaging the news media, allowing you to spread information quickly to a wide public audience.

The following are a few reasons you may write a press release:

- announce publication of an official report, such as a national surveillance report
- announce reaching a public health goal
- announce the launch of a new public health goal or new program
- draw attention to an existing program or initiative
- announce your country's participation in an international program
- announce encouraging or discouraging new statistics and research findings
- increase public awareness of risks to health.

**Gathering
media contacts**

The audience for your press releases includes journalists and news media professionals. In their work, these people use press releases as a foundation for news articles. In some cases, the news media may use large portions of your press release in articles word for word. Other times, it will be used as a springboard for a longer feature article.

For these reasons, the press release should be written to cast favourable light on your subject. This is done whenever possible, while remaining true to the facts of the story. Caution should be taken to avoid exaggerating the good aspects and minimising the bad aspects of a subject.

Before writing a press release, begin by gathering a list of media contacts. This activity will show exactly who you are targeting. Depending on whether your media contacts are general news publishers or specialised publications, the language and terms used will have varying degrees of specificity (Wavelength Media, 2007).

Gathering media contacts, continued

Contact details for editorial matters and press releases are available in most publications. By browsing through publications you are interested in releasing news through, you should be able to write a good list (see Table 5.2 for examples). Media sources to look for include:

- local, regional and national newspapers
- other periodicals and magazines which specialise in public health or HIV/AIDS
- local and national television
- radio
- websites .

Table 5.1. A typical media source contact list

Partners Organisation Address	Maria Hernandez Daily Planet, 222 Keena Street, Nairobi, Kenya	Petra Samba The Courier 10 Court Avenue, Washington DC 20001, USA
Circulation	55,000	220,000
Edition	Daily	Weekly
Deadline	5 p.m.	2 p.m.
Telephone	###-###-####	###-###-####
Fax	###-###-####	###-###-####
Mobile phone	###-###-####	###-###-####
e-Mail	Hernandez@juno.com	petra@courier.com
Supervisor	Kora Smith	Marilee Coon

(Adapted from UNAIDS Media Handbook for HIV Vaccine Trials)

Narrow your list to media sources who will be interested in your story. Do not waste time contacting and submitting to sources indifferent to your topic.

**Formats of
press releases**

Press releases may be distributed to news media organisations in standard, paper-based or email format. In this unit we focus on the standard format.

The following is a standard format for creating press releases. Following the format will help your credibility and chances of being picked up for publication. The press release should be printed on your organisation's letterhead. Print only on one side of the paper.

Standard press release format

|	
FOR IMMEDIATE RELEASE: -or- **EMBARGOED FOR RELEASE:**	These words should appear at the top left of the page, in upper case. If embargoed for release, indicate specific date and time.
Headline	Just like a headline in a newspaper. The headline describes the content of the story. It is usually written last. Use title case, capitalising every word except for prepositions and articles of three characters or less. The headline can be in bold type.
City, State/Country – Month Day, Year	These details precede the story and orient the reader.
Body	The body is where the actual story goes. Begin with a strong opening sentence. There should be more than one paragraph. Each paragraph is no more than three sentences. If there is more than one page, write "-MORE-" at the bottom of the page. The body contains only text, no tables and data graphics.
Organisation info	Include background information about the organisation featured in this press release.
Contact information	Include contact person, company name, phone number, fax number, email, physical/postal address, and web address.
ENDS or ###	Indicates the end of the press release.

Press release content and style

There are guidelines to follow to create a press release with effective content and style. Style guidelines presented here are commonly applied in English-language press releases. They may vary in different settings and languages.

The first guideline is to follow the "Five Ws" of journalism (What, Who, Where, When, and Why). This will ensure that you craft a press release with all the basic relevant information. The press release should be able to answer the questions:

- What is happening?
- Who is doing it?
- Where and how is it happening?
- When is it happening?
- Why is it happening?

The second guideline deals with how to order content in a press release. Use a style (such as the "inverted pyramid" style of journalism) which places the most important facts at the beginning of the press release and progress to facts of lesser importance (Figure 5.1). You want to start strong in your press release, especially since you only have a few seconds to attract your audience's attention. Ideally, the first paragraph should contain enough information to give the reader a good overview of the entire story.

Figure 5.1. Order of information using inverted pyramid style

Most substantive, interesting, and important information

Least important information
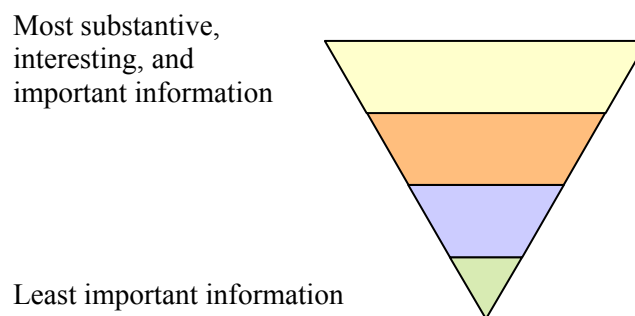
This arrangement of content works well because news stories may be cut off at any point due to print space limitations or time limitations in a broadcast. This style is valued because readers can leave the story at any point and understand the crucial parts of it, even if they do not have all the details.

Press release content and style, continued

In addition, follow these guidelines to keep the writing style lively and interesting:

- use active verbs rather than passive ones. For example, use "The researchers showed that…" rather than "It was shown that…."
- use short sentences that are clear and to the point
- use short paragraphs (2-3 sentences)
- use a positive tone, rather than a negative one
- avoid abbreviations, bureaucratic language, and jargon
- use quotations from people to bring the story to life.

Be careful of the language you use to present your story. Be familiar with "politically correct" language. Use inclusive and positive terms that demonstrate respect for all people, regardless of their status. Avoid terms that may be construed as sexist, racist, or ageist.

Increase your chance of making the news

There are several things you can do to increase the chances your press release will be selected by a news organisation. The first is to make your story newsworthy. Just because you are excited about the story does not necessarily mean your story is newsworthy. Think about your audience and whether others will find your story interesting. Answer the question "Why should people care?" Make sure your announcement has some news value such as timeliness and uniqueness.

Second, eliminate any mistakes. Make sure the information in your story is accurate. Use correct spelling, grammar, and case. You do not want to create extra work for the reporter to correct all of your mistakes. Ask a colleague to review the piece before you send it to other parties. Follow your organisation's procedures for corresponding with the news media. Before sending it to news organisations, your press release should be approved by your press officer, supervisor, and other person authorised to approve press releases.

The third thing to do is to honour media deadlines. The deadlines often are set by publication or broadcast needs. They are not in the control of the reporter. If you receive a call from the media and cannot meet their deadline, clearly say so. Do not leave the reporter waiting. Meeting your commitments will enhance the chances the reporter will work with you in the future.

**Distributing
the press
release**

Begin by referring to the list of media contacts you assembled prior to writing the press release. A press release should be sent to one editor per news organisation. If you are announcing an event through your press release, it must be sent to news outlets in advance of the event date.

Make follow-up telephone calls after you send the release. Allow the editor ample time to receive the release before you make the call. Be courteous on the telephone and avoid questions that editors find annoying, such as "Did you receive my press release?" and "When will my press release be published?" Instead, inquire if you may offer any additional information.

During follow-up calls to editors, have a copy of the press release readily available. If the press release has not been received, this enables you to fax or deliver another copy immediately.

**Checklist
for press
releases**

A poorly-written press release will be ignored by news editors. Take time to check your press release for the following:

- headline and first paragraph are newsworthy
- answers the Five W's
- 1-2 pages in length
- includes release date or "FOR IMMEDIATE RELEASE"
- has correct spelling and punctuation
- includes contact information
- indicates end of press release
- you have received official approval to send the press release to news organisations.

Unit 5 Exercises

**Warm-up
review**

Take a few minutes now to look back at your answers for the warm-up questions at the beginning of the unit. Make any changes you want to make.

**Small group
discussion**

Get into small groups, by country, to discuss these exercises and questions.

1. Discuss whether your organisation has received requests for fact sheets in the past and what type of information was requested. Share with your group one to two fact sheet topics that would benefit the general public in your country.

2. Refer to the press release in Appendix 5.7 for this exercise. Critique the press release with respect to the following:

   a. How newsworthy and interesting was the story?

   b. How could the press release content be improved?

   c. How could the press release style be improved?

   d. Discuss any other problems or mistakes contained in the press release.

3. How would you proceed to assemble a media contact list? Which news organisations have you had contact with in the past? Who is the press officer of your organisation? Fill in the contact list in Appendix 5.8 as you collect names and contact information.

**Apply what
you've learned/
case study**

Choose one of the following case studies and work on it independently.

Case Study #1: Recently, you received a large number of data requests from government officials, CBOs, and journalists regarding a suspected increase in HIV prevalence rates in one geographical region of the country. You decide to create a one-page fact sheet to inform the public on the current HIV prevalence in your country, by geographical region as well as by trends in HIV prevalence in each region.

Using data you have in hand from your national surveillance report, write a fact sheet, paying close attention to the following:

a. Who is your audience?

b. What will be the primary message of the fact sheet?

c. What fact sheet format would enhance your message?

d. How can the information be presented in a sensitive, respectful manner?

e. Besides text, would tables or data graphics enhance your fact sheet?

Case Study #2: Your country has completed that last round of sentinel sero-surveillance. The data has been analysed and there are new, interesting findings on HIV prevalence trends. You and other health officials decide to publish these findings in the national surveillance report. You also decide to write a press release to announce these findings and highlight the release of the report.

Using the press release templates in Appendices 5.4 and 5.5 as guides, write a press release to announce newsworthy information about HIV prevalence trends in your country released through your latest national surveillance report.

Annex 5.1 Fact Sheet Example from UNAIDS

Fact Sheet 11 07

Revised HIV estimates

Overview

As published in the *2007 AIDS epidemic update*, WHO and UNAIDS have revised the estimated number of people living with HIV downwards from 39.5 million [34.1-47.1 million] in 2006 to 33.2 million [30.6–36.1 million], in 2007. The revisions are **due mainly to improved methodology, better surveillance by countries** and **changes in the key epidemiological assumptions** used to calculate the estimates.

Approximately 70% of the difference is explained by reductions in prevalence in **India** (which alone accounts for approximately half of the revisions) and several sub-Saharan African countries, including **Nigeria, Mozambique, Zimbabwe, Kenya and Angola**.

Most of the estimates in the *2007 AIDS epidemic update* are lower than those published in previous reports, not just for 2007 but also for past years.

Revisions to methodology

In 2007 UNAIDS and WHO undertook the most comprehensive review of HIV and AIDS estimation methodology since 2001. This step was taken as part of the continuing process of refining HIV estimates based on the latest scientific developments. As recommended by the UNAIDS Reference Group on Estimates, Modelling and Projections.[1]

In addition, from 14-15 November 2007, UNAIDS and WHO convened **an international consultation on HIV estimates**, bringing together more than 30 global experts to review the processes methodologies and tools used by UNAIDS and WHO to produce HIV estimates.

The consultation recognised that UNAIDS and WHO's 2007 estimates are based on the best available data and methodologies and made a number of recommendations. The recommendations are available on the UNAIDS Web site (see International consultation on AIDS estimates: Recommendations).

Improvements in surveillance

Over the past few years a number of countries, mostly in **sub-Saharan Africa** and **Asia**, have expanded and improved their **HIV surveillance systems**, conducting new, more accurate studies. These new data have been used to help produce a better understanding of the global AIDS epidemic.

- In some countries, improvements have been through an **increase of sentinel surveillance** sites both in number and in geographical coverage.

- In addition, 30 countries, mostly in Africa, have conducted national representative **population-based household surveys**.

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[1] The UNAIDS Reference Group on HIV/AIDS Estimates, Modelling and Projections is made up of leading researchers in HIV, epidemiology, demography and related areas. The Reference Group assesses the most recent published and unpublished work drawn from research studies in different countries. It also reviews advances in the understanding of HIV epidemics, and suggests methods to improve the quality and accuracy of the estimates.

Uniting the world against AIDS

- The new information has also led **to adjustments for other countries** with similar epidemics that have not yet conducted this research.

Changes in key epidemiological assumptions

In addition, **several new assumptions** have been incorporated into the 2007 version of the estimation software tools[2] used by UNAIDS and WHO.

- The way in which **data from antenatal clinics** is used to help calculate HIV prevalence in the general population has been adapted.

  - In countries which have not conducted a national population-based survey, HIV data from antenatal clinic attendees has been **adjusted downward on average by a factor of 0.8**. Previously only the HIV prevalence data from antenatal clinics in rural areas were adjusted.

- The **average number of years** that people living with HIV are estimated to survive without treatment has been increased from 9 to 11 years.

  - This **longer average survival period has resulted in lower estimates** of new HIV infections and deaths due to AIDS.

Systematic reviews

All of the above **changes have resulted in improved estimates** of the number of people living with HIV, mortality due to AIDS, the number of new HIV infections and the number of people in need of antiretroviral treatment.

UNAIDS and WHO will continue to work with experts and country counterparts to **systematically review the methods used to derive HV estimates** and ensure they reflect up-to-date scientific evidence and research.

Contact

Sophie Barton-Knott | UNAIDS Geneva | +41 22 791 1697 | bartonknotts@unaids.org

UNAIDS is an innovative joint venture of the United Nations, bringing together the efforts and resources of the UNAIDS Secretariat and ten UN system organizations in the AIDS response. The Secretariat headquarters is in Geneva, Switzerland—with staff on the ground in more than 80 countries. Coherent action on AIDS by the UN system is coordinated in countries through UN theme groups, and joint programmes on AIDS. UNAIDS' Cosponsors include UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, ILO, UNESCO, WHO and the World Bank. Visit the UNAIDS Web site at www.unaids.org

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[2] Estimation and Projection Package (EPP) 2007 and Spectrum 3

<u>Annex 5.2 Fact Sheet Template One: Topical Format</u>

[Insert your logo here]   [Insert release date]

Fact Sheet
2007 HIV/AIDS Epidemic Update – Key Facts by Geography

[Insert country map
with regional
boundaries]

Overview
- Trend in national HIV prevalence (the proportion of people living with the virus): increasing, decreasing, or level. What was the estimated HIV prevalence in the previous year (2006)? National HIV prevalence was estimated to be XX% in 2007.

Region X (start with most affected region)
- Region's HIV prevalence in 2007
- Which group(s) most heavily impacted (examples: women, men, youth)?
- Urban versus rural differences in disease prevalence?
- Trends? Do trends correlate with programs or interventions (examples: number enrolled in ARV programs, numbers reporting safer behaviours)?

Region Y (next most affected region)
- Region's HIV prevalence in 2007
- Which group(s) most heavily impacted (examples: women, men, youth)?
- Urban versus rural differences in disease prevalence?
- Trends? Any declines in prevalence? Do trends correlate with programs or interventions?
- Areas to monitor carefully?

Region Z (least affected region)
- Region's HIV prevalence in 2007
- Which group(s) most heavily impacted (examples: women, men, youth)?
- Urban versus rural differences in disease prevalence?
- Trends? Do trends correlate with programs or interventions?
- Areas about which to be vigilant?

Footnote Section

1 Definition first term
2 Define second term

<u>Annex 5.3 Fact Sheet Template Two: FAQ Format</u>

[Insert your logo here]   [Insert release date]

Fact Sheet
2007 HIV/AIDS Epidemic Update – Frequently Asked Questions

[Insert country map
with regional
boundaries]

What is the current national HIV/AIDS situation?

- ▪ Trend in national HIV prevalence (the proportion of people living with the virus): increasing, decreasing or level. What was the estimated HIV prevalence in the previous year (2006)? National HIV prevalence was estimated to be XX% in 2007.

Which areas in the country are most affected by HIV/AIDS?

Which areas are least affected?

What is the situation comparing urban and rural areas?

What needs to be done? What needs to be monitored?

Footnote Section

1 Definition first term
2 Define second term

Annex 5.4 Press Release Template One

FOR IMMEDIATE RELEASE

Headline Announces News in Title Case, Ideally Less than 80 Characters

City, State/Country--Month 1, 2008-- The lead sentence contains the most important information in 25 words or less. Grab your reader's attention here by simply stating the news you have to announce. Do not assume that your reader has read your headline; the lead should stand on its own.

A news release, like a news story, keeps sentences and paragraphs short, about three or four lines per paragraph. The first couple of paragraphs should answer the who, what, when, where, why, and how questions. The news media may take information from a news release to craft a news article or may use text in the release word-for-word.

The ideal headline is less than 80 characters long. It is recommended that you write your headline last. Use title case in the headline only, capitalising every word except for prepositions and articles of three characters or less.

The rest of the news release expounds the information provided in the lead paragraph. It includes quotes from key staff or subject matter experts. It contains more details about the news you have to tell, which can be about something unique or controversial or about a prominent person, place, or thing.

Typical topics for a news release include announcements of new programs or of a strategic partnership, the receipt of an award, the release of a new report or of a new web site. The tone is neutral and objective. Avoid directly addressing your target audience. The use of "I," "we" and "you" outside of a direct quotation is a flag that your copy is an advertisement rather than a news release.

The final paragraph of a traditional news release contains the least newsworthy material.

About XYZ Organisation:

Include a short background paragraph about the organisation that is newsworthy before you list the contact person's name and phone number.

Contact:

Mary Smith, Director of Public Relations
XYZ Organisation
555-555-5555
http://www.XXXXX.com

###

<u>Annex 5.5 Press Release Template Two</u>

FOR IMMEDIATE RELEASE

Report to the Nation Finds HIV Rate Decline

City, State/Country-- Month 1, 2008-- A new HIV/AIDS surveillance report from the [INSERT YOUR ORGANISATION] finds indications of declining national trends in HIV prevalence rate (the percentage of the population living with HIV) in [INSERT YOUR COUNTRY] over the last X years.

According to the report, which presented a wide variety of data, the prevalence rate among pregnant women decreased from XX% to XX% between years XXXX and XXXX.

The data suggest that [STRATEGY ONE] or [STRATEGY TWO] may have played a part in the apparent decline. Population surveys conducted in recent years indicate a rise in behaviors such as reducing the number of sexual partners and increasing condom use with non-regular partners.

The [INSERT YOUR ORGANISATION] finds the decline in HIV rates encouraging but stresses that the challenge now is to sustain the downward trend.

The [INSERT YOUR ORGANISATION] will continue to work with stakeholders nationwide to investigate and sustain the specific interventions that have contributed to the decline.

To view the full report go to: www.XXXXXX.com.

About [INSERT YOUR ORGANISATION]:

Include a short background paragraph about the organisation that is newsworthy before you list the contact person's name and phone number.

Contact:

Maria Smawa, Director of Public Relations
[INSERT YOUR ORGANISATION]
555-555-5555
http://www.XXXXX.com

###

<u>Annex 5.6 Press Release Template Three</u>

(Adapted from Eileen Shield's "How to Write a Press Release")

City and County of San Francisco *Department of Public Health*

Gavin Newsom *Mitchell H. Katz, MD*
Mayor *Director of Health*

Always submit a press release on your organization's letterhead.

Date You Are Releasing the Press Release **Name of person or persons who you want reporters to contact for more information Phone number of above person(s)**

Headline in Bold Type Goes Here and Announces to the Reader Your Piece of News

Name of Your City and State in Bold—Begin the text of the press release with the most important points first. Keeping the first sentence short and to the point will help orient your reader and will more likely encourage them to read on. The first paragraph or two should answer the questions: Who? What? When? Where? Why? Reporters need to be able to read press releases fast and by reading the first paragraph, they should know the key issues and basic information.

After the above information, you can provide more details that you think are important, such as background, context, meaning, or perspective.

A press release is written as an "inverted pyramid." The most important things you have to say go at the top. The remainder of the press release can be used for supporting information.

"I like to use quotes from the lead researchers to help advance the story," noted Eileen Shields, Public Information Officer, San Francisco Department of Public Health and co-author of the How to Write a Press Release module. "Press releases help clarify an organisation's position on what is important to it and how it might affect others."

Reporters prefer to have press releases no longer than one page. Occasionally, if the subject is complex or if there are a number of other agencies involved, a press release may extent to a second page.

Suggest available websites or phone numbers for the public to use.

--End—or ###
centered on the last line so reporters know they have come to the end

<u>Annex 5.7 Example of a Poorly Written Press Release</u>

FOR IMMEDIATE RELEASE

Ministry of Health Publishes HIV/AIDS Report

City, State/Country-- Month 1, 2008—R. Salamin, Director of the Health Statistics Bureau and Professor of Biostatistics at the University of XXXX, has recently lead-authored the 2006 National HIV/AIDS Surveillance Report.

A focus of the report is the estimation of the national HIV prevalence rate using complex mathematical models and software such as Spectrum and EPP. The report elucidates improvements to the estimation procedures and details changes in the methodology compared to previous years.

Another focus of the report is on strategies that may have contributed to a decline in the HIV prevalence rate. The report highlights interventions targeting unsafe sexual practices.

The report also found that the HIV prevalence rate of the adult population declined from XX% to XX% from 2002 to 2006.

For more information regarding the report, please contact Maria Smawa at 555-555-5555.

Contact:

Maria Smawa, director of public relations
[INSERT YOUR ORGANISATION]
555-555-5555
http://www.XXXXX.com

###

Annex 5.8 Contact List Template

(Adapted from UNAIDS Media Handbook for HIV Vaccine Trials)

Contact Name Organisation Address			
Circulation			
Edition			
Deadline			
Telephone			
Fax			
Mobile phone			
e-Mail			
Supervisor			

Definitions of Headings

- Contact Name/Organisation Address: the name of the journalist, reporter, or news professional and the physical address of their news organisation

- Circulation: the estimated number of readers or audience reached by this news organisation

- Edition: the day of the week when a new edition appears on the newsstand and whether it is a daily, weekly, monthly, or quarterly publication

- Deadline: time of day by which stories must be submitted to the publication to ensure possible use

- Supervisor: name of person supervising your contact. This is useful to have when you are not getting cooperation from the reporter and you need to cultivate support from someone else in the news organisation.

NOTES

Module Summary

- A key method of disseminating surveillance information to the public is through publication of a national surveillance report. This type of report should be published on a regular basis.

- Surveillance reports vary in structure, but good, comprehensive reports contain specific components, including executive summary, abbreviations and acronyms, references, and so on.

- Formation of a surveillance report working group brings together the necessary expertise to produce a national surveillance report. Surveillance report working groups plan the necessary steps and timeline for completing the report.

- An outline is a key tool for organising the surveillance report. It states the message to communicate, organises collected data, and assigns the persons responsible for each component of the report.

- The results section forms the bulk of the surveillance report and requires the most amount of time to prepare.

- There are generally three ways of displaying quantitative information in a surveillance report: tables, data graphics, and written text.

- Using tables to display data is most effective when you want to view individual values and compare between groups, present many values compactly, or express values precisely.

- The quantitative relationship in the data is the key factor in deciding what type of data graphic is most effective for displaying the data.

- Written text is the narrative format to present results, and it is used throughout the results section to complement tables and data graphics. Its role is to highlight main findings and point out key features in tables and data graphics.

- The methods section describes the procedures used to gather surveillance data and explains the statistical methods used to analyse data.

- The discussion section allows interpretation of the entire collection of surveillance-related data presented in the results section. The discussion section addresses the main findings as well as the limitations of the data

<u>**Module Summary,**</u> continued

- The conclusion and recommendations section guides the audience to recognise the public health implications of the surveillance report. This section shapes how the audience understands the report upon leaving it and supports evidence-based decision making.

- The introduction provides the audience with enough background information to understand and critically analyse the report contents. It identifies the need for the report and introduces the report objectives.

- References appear at the end of a surveillance report and list other sources you used. It allows you to point to other work in the field without having to explain it in detail.

- The executive summary is a brief overview of a surveillance report designed to give the audience a preview of its contents. It brings together all the main points of the report, and often it is the most-read section.

- The acknowledgments section recognises people and organisations who contributed to the surveillance report.

- Revision is the process of making substantive changes to the content and organisation of the report to ensure it is complete, accurate, and understandable to the audience. Revision occurs before editing.

- A list of acronyms and abbreviations helps the reader quickly identify terms that you reference.

- The list of figures and tables contains every figure and table presented in the report, in the order that they appear, with the corresponding page number. This list enables the audience to find the figure or table of interest within the report quickly.

- The table of contents is the roadmap of the report, showing the audience the location of each section.

- The appendix is a supplemental addition to the main report, reserved for placing information that is relevant to your subject. This information needs to be kept separate from the main body of the report to avoid interrupting the flow and development of the report.

- Careful editing of the surveillance report is essential to ensure the release of a complete and error-free document to the public.

<u>Module Summary,</u> continued

- Different options are available for publishing the report, and each has its own advantages and disadvantages. The surveillance report working group should carefully consider the options available with the goal of reaching the broadest audience possible.

- Data needs to be packaged in different ways to communicate effectively with different segments of your audience. Other tools, such as fact sheets and press releases, are useful for disseminating surveillance report data in other formats.

- Fact sheets are brief documents which summarise disease situations. They present information in a format that is easy to read, straightforward, and portable. Fact sheets are used to break down complicated information, such as surveillance data, into digestible pieces.

- Press releases are short, concise statements that announce news. They are used to inform the public of significant public health events and developments in your country. They are an effective method of engaging the news media, allowing you to quickly spread information to a wide public audience.

NOTES

Appendix A, References and Further Reading Material

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Appendix B, Glossary and Acronyms

Acquired immunodeficiency syndrome (AIDS): The late stage of HIV infection that includes development of one or more opportunistic illnesses (illnesses that occur because of low levels of CD4 lymphocytes, or immunodeficiency).

AIDS: See 'Acquired Immunodeficiency Syndrome.'

AIDS Impact Survey (AIS): Survey developed to provide countries with a standardised tool to obtain indicators for effective monitoring of national HIV/AIDS programs.

Anonymous: Having no known name or identity; for example, removing all personally identifying information from a sample that will be tested for HIV, in order to protect the patient's identity.

Antiretroviral drugs: Drugs used to fight infections caused by retroviruses, such as HIV.

Antiretroviral therapy (ART): Treatment with drugs that inhibit the ability of HIV to multiply in the body.

Bar chart: A visual display of the size of the different categories of a variable. Each category or value of the variable is represented by a bar (or column). The Y-axis represents frequency. The X-axis represents different classes.

BED assay: A simple enzyme immunoassay (EIA) that can be used for detecting recent HIV-1 infection (within the last 160 days). It uses a branched peptide that includes sequences from HIV subtypes B, E and D, and allows detection of HIV-specific antibodies among various subtypes.

Behavioural surveillance: Surveys of HIV-related behaviour that involve asking a sample of people about their risk behaviours, such as their sexual and drug-injecting behaviour.

BSS: Acronym for 'Behavioural surveillance survey.'

Bias: A systematic error in the collection or interpretation of data.

Case: An individual in the population or sample with a particular disease of interest.

Case reporting: A surveillance system in which persons who are identified as meeting the case definition are reported to public health authorities.

Categorical variable: Refers to items that can be grouped into categories, such as marital status or occupation.

CBO: An acronym for 'community-based organisation.'

Completeness of data elements: The extent to which the information requested in the case report form is provided.

Concentrated HIV epidemic: The epidemic state in which HIV has spread to a high level in a defined sub-population but is not well established in the general population. This epidemic state is characterised by an HIV prevalence that is consistently >5% in at least one defined sub-population, but <1% in pregnant women in urban areas.

Contemporaneous: Existing, occurring, or originating during the same time.

Continuous variable: Items that occur in a numerical order, such as height or age.

Cross-sectional survey: A survey that is conducted at a given point in time, such as during one year, rather than over time.

Data graphic: A visual display of data that would otherwise be displayed in a table.

Demographic Health Survey (DHS): Nationally-representative household surveys that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition.

Demographic information: The 'person' characteristics of epidemiology (usually collected with "place" and "time")—age, sex, race and occupation—used to characterise the populations at risk.

Denominator: The population (or population experience, as in person-years) at risk in the calculation of a proportion or rate. The denominator is the lower portion of a fraction used to calculate a rate or ratio.

Distribution: The frequency and pattern of health-related characteristics and events in a population. In statistics, the observed or theoretical frequency of values of a variable.

Epidemic: The occurrence of a disease (or other health-related event) at a level of increase to a baseline. As an example, the high prevalence of HIV found in many parts of the world today, including sub-Saharan Africa, Latin America, and South and Southeast Asia.

Epidemiology: The study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems.

Evidence-based decision making: Several logical steps that help shape your thinking, information gathering, analysis, and course of action.

Exclusion criteria: Characteristics of patients who should be excluded from the sample, but who would otherwise be eligible.

Factor: An intrinsic factor (examples: age, race, sex, behaviours) which influences an individual's exposure, susceptibility, or response to a causative agent.

FAQ: Acronym for 'frequently asked questions.'

Frequencies: Counts of individuals or events

Generalised HIV epidemic: The epidemic state in which HIV is firmly established in the general population. This epidemic state is characterised by an HIV prevalence that is consistently >1% in pregnant women.

Graph: A diagram that shows a series of one or more points, lines, line segments, curves or areas, representing variations of a variable in comparison with variations of one or more other variables.

Health indicator: A measure that reflects, or indicates, the state of health of persons in a defined population; for example, the infant mortality rate.

High-risk behaviours: Behaviours that increase the risk that a person will contract a disease.

High-risk group: A group in the community with an elevated risk of disease, often because group members engage in some form of risky behaviour.

HIV: Acronym for 'human immunodeficiency virus.'

Human immunodeficiency virus (HIV): A retrovirus that causes AIDS by infecting T-cells of the immune system.

IDU: Acronym for 'injection drug user.'

Incidence: A measure of the frequency with which an event, such as a new case of illness, occurs in a population over a period of time. The denominator is the population at risk; the numerator is the number of new cases occurring during a given time period.

Inclusion criteria: Characteristics required in study participants in order to be considered for the sample.

Indicators: Specific data that are gathered to measure how well a prevention or treatment programme is performing.

Key Indicator Survey (KIS): Population-based household survey designed to help meet the monitoring and evaluation needs of programs involved in population and health activities in developing countries, especially to produce data for small areas—regions, districts, catchment areas—that may be targeted by an individual project, although they can be used in nationally representative surveys as well.

Linked anonymous HIV testing: In linked anonymous testing, a person agrees to have an HIV test, but the specimen is labelled with a code without a name or identifiers that could reveal the person's identity. This method is voluntary and requires obtaining informed consent and making the test results available (with appropriate counselling) to the person tested.

Logo: Graphical element (examples: symbol, emblem, icon, or sign) combined with typeface or font that serves as a visual identifier.

Low-level HIV epidemic: The epidemic state in which HIV has not reached significant levels in any sub-population, although HIV infection may have existed for many years. This epidemic state is characterised by an HIV prevalence that has not consistently exceeded 5% in any defined sub-population. This state suggests that networks of risk are rather diffuse or that the virus has been only recently introduced.

Mean: The measure of central location commonly called the average. It is calculated by adding together all the individual values in a group of measurements and dividing by the number of values in the group.

Monitoring: Evaluating a programme's performance over time.

MSM: Acronym for 'men who have sex with men.'

Microsoft Word (MS Word): Word processing software that is part of the standard Microsoft Office suite of software applications.

Multiple Indicator Cluster Survey: UNICEF-sponsored household survey measuring global indicators assessing progress for children in countries.

Nevirapine: a type of medicine called a non-nucleoside reverse transcriptase inhibitor (NNRTI). NNRTIs block reverse transcriptase, a protein that HIV needs to make more copies of itself.

NGO: Acronym for 'non-governmental organisation.'

Nominal variable: Variables that represent discrete categories without a natural order, such as marital status.

Numerator: The upper portion of a fraction. In a rate, the numerator is usually the number of people infected.

Ordinal variable: Variables that have a natural order, such as level of education.

Participation bias: Error in results from a study that is due to differences in characteristics between those who participate in a survey and those who do not. As an example, persons who already know they are HIV-infected may find testing unnecessary; those who suspect they are HIV-infected may decline testing in order to avoid stigma.

Pie chart: A circular chart in which the size of each 'slice' is proportional to the frequency of each category of a variable. A pie chart compares subclasses or categories to the whole class or category using different coloured slices.

PMTCT: Acronym for 'prevention of mother-to-child transmission.'

Population: The total number of inhabitants of a given area or country. In sampling, the population may refer to the unit from which the sample is drawn, not necessarily the total population of people.

Population-based sero-survey: A type of sero-survey that uses a probability sample of a population defined by geographic boundaries, such as villages or provinces, in order to obtain a direct measure of HIV prevalence in a general population.

Population sub-group: A group within a population the members of which share certain characteristics or behaviours.

Portable document format (PDF): A fixed-layout document format used for representing two-dimensional documents in a manner independent of the application software, hardware, and operating system.

Prevalence: The proportion of persons in a given population with a disease or condition at a given point in time.

Proportion: The relationship of a part to the whole, in which the numerator is included in the denominator; often depicted as a percentage by multiplying by 100.

Range: The difference between the largest and smallest values in a distribution.

Rate: An expression of the frequency with which an event occurs in a defined population.

Ratio: The quantitative relationship between two or more things; the value obtained by dividing one quantity by another.

Relative risk: A comparison of the risk of some health-related event such as disease or death in two groups. As an example, an HIV-uninfected individual who has sexual intercourse with an HIV-infected person once a year may have a 5% chance of infection.

But if the uninfected individual uses a condom every time, the relative risk when compared to condom non-use is 15%.

Representative sample: A sample whose characteristics correspond to those of the original population or reference population.

Representativeness: The extent to which the sample resembles the true population.

Reproductive Health Survey (RHS): MEASURE CDC-funded population-based survey measuring reproductive health indicators.

Risk: The probability that an event will occur; for example, that an individual will become ill within a stated period of time.

Risk factor: An aspect of personal behaviour or lifestyle; an environmental exposure; an inborn, inherited, or demographic characteristic. Associated with an increased occurrence of disease or other health-related event or condition; for example, injection drug use is a risk factor for acquiring HIV.

Sample: A selected subset of a population. There are specific types of samples used in surveillance and epidemiology, such as convenience, systematic, population-based, and random samples.

Sample size: The number of subjects to be used in a given study.

Scale line graph: A graph that represents frequency distributions over time where the Y-axis represents frequency and the X-axis represents time.

Second-generation surveillance: Built upon a country's existing data collection system, second-generation HIV surveillance systems are designed to be adapted and modified to meet the specific needs of differing epidemics. This form of surveillance aims to improve the quality and diversity of information sources by developing and implementing standard and rigorous study protocols, using appropriate methods and tools. Second generation surveillance refers to activities outside of those activities generally considered to be a part of routine case surveillance, such as case reporting and sentinel sero-surveys and uses additional sources of data to gain additional understanding of the epidemic. It includes biological surveillance of HIV and other STIs, as well as systematic surveillance of the behaviours that spreads them.

Selection bias: A systematic error in the process respondent selection for a study or survey.

Sentinel case reporting: Reporting cases of a disease from sentinel sites.

Sentinel populations: Populations that are subject to sentinel surveillance activities. They may not necessarily be representative of the general population, but rather they

might be the first affected by HIV. Examples include sexually transmitted infection patients or truck drivers.

Sentinel sites: Sites at which sentinel surveillance activities take place, including clinics attended by individuals who may or may not be representative of the general population but who are likely to represent groups initially infected or at higher risk for infection than the general population.

Sentinel surveillance: A surveillance system in which a pre-arranged sample of reporting sources at 'watch post' or 'sentinel' sites agrees to report all cases of one or more notifiable conditions. Often designed to provide an early indication of changes in the level of disease. Depending on the nature of the population surveyed, these data may be representative of the general population, or they may simply give more detailed information about the populations tested.

Serologic test: A blood test that determines the presence of antibodies to particles such as viruses; for example, a blood test that detects the presence of antibodies to HIV.

Sero-prevalence: The proportion of a population that is infected, as determined by testing blood for the appropriate antibody. An example is the proportion of a population that is infected with HIV, as determined by testing for HIV antibodies in blood samples.

Sero-prevalence surveys: Surveys that estimate HIV prevalence by testing blood for HIV antibody.

Sero-surveillance: Collecting blood samples for the purpose of surveillance. Latent, sub-clinical infections and carrier states can thus be detected, in addition to clinically overt cases. This is especially important in the case of HIV and other STIs, which often have a long latent period before symptoms are apparent.

Sexual transmission: Transmission of an infectious agent, such as HIV, that occurs predominately through unprotected vaginal or anal intercourse, and less frequently through oral intercourse.

Sexually transmitted infection (STI): Diseases that are spread by the transfer of organisms from person to person during sexual contact.

Skewed: A distribution that is asymmetrical and does not follow a normal (bell-shaped) distribution.

Stakeholder group: Those with an interest in the results of surveillance activities. Includes public health practitioners, healthcare providers, data providers and users, representatives of affected communities; governments at the district, province and national levels; members of professional and private non-profit and donor organisations.

STI: See 'sexually transmitted infection.'

Sub-population: See 'population sub-group.'

Sub-Saharan Africa: Term used to describe the area of the African continent which lies south of the Sahara.

Surveillance: The systematic collection, analysis, interpretation, and dissemination of health data on an ongoing basis, to gain knowledge of the pattern of disease occurrence and potential in a community, in order to control and prevent disease in the community.

Surveillance sites: The places from which case reports are obtained. This includes sites in which universal reporting and sentinel reporting are done. These may be healthcare facilities or other locations in which sero-surveys are conducted.

Survey protocol: A manual that describes all the steps and tasks involved in a sero-survey.

Syphilis: A sexually transmitted disease resulting from infection with the bacterium *Treponema pallidum*. Syphilis can also be acquired by newborns from their mothers during pregnancy.

Table: A set of data arranged in rows and columns.

Transmission: Any mode or mechanism by which an infectious agent is spread through the environment or to another person.

Trend: A long-term movement or change in frequency, usually upwards or downwards.

Unlinked anonymous testing: In unlinked anonymous testing, a sample of blood originally collected for other purposes is tested for HIV after all information that could identify the source of the blood is eliminated from the sample.

UNAIDS: Abbreviation for 'United Nations Joint Programme on HIV/AIDS.'

UNICEF: Abbreviation for 'United Nations Children's Fund.'

Validity: The degree to which a measurement actually measures or detects what it is supposed to measure.

Vancouver style: Reference style used by many biomedical journals.

Variable: Any characteristic or attribute that can be measured.

VCT: See 'voluntary counselling and testing.'

Voluntary counselling and testing (VCT): A programme that provides both counselling and testing services to communities, allowing persons who are tested to obtain emotional and medical support before and after their HIV tests.

WHO: Acronym for the 'World Health Organization.'

NOTES

Appendix C, Useful Links

Organisational Sites

The Global Fund to Fight AIDS, Tuberculosis and Malaria

The Global Fund was created to finance a dramatic turn around in the fight against AIDS, tuberculosis, and malaria. These three diseases kill more than six million people a year. This massive scaling-up of resources is already supporting aggressive interventions against all three.
www.theglobalfund.org

World Bank, The Global HIV/AIDS Program

The Global HIV/AIDS Program was created in 2002 to support the World Bank's efforts to address the HIV/AIDS pandemic from a cross-sectoral perspective. The program offers global learning and knowledge sharing on approaches and best practices to addressing HIV/AIDS.
www1.worldbank.org/hiv_aids/globalprogram.asp

World Health Organization (WHO)

The World Health Organization is the United Nations specialised agency for health. WHO's objective, as set out in its Constitution, is the attainment by all peoples of the highest possible level of health. WHO is governed by 192 Member States through the World Health Assembly. The Health Assembly is composed of representatives from WHO's Member States.
www.who.int

WHO: Department of HIV/AIDS

The HIV/AIDS Department coordinates a strategic, organisation-wide response to the HIV/AIDS epidemic and enables WHO to provide enhanced technical support in HIV/AIDS to countries and regional offices.
www.who.int/hiv/en

WHO: Regional Office for South-East Asia (SEAR)

Coordinates public health activities for the South-East Asia region.
www.whosea.org

UNAIDS (Joint United Nations Programme on HIV/AIDS)

As the main advocate for global action on HIV/AIDS, UNAIDS leads, strengthens and supports an expanded response aimed at preventing the transmission of HIV, providing care and support, reducing the vulnerability of individuals and communities to HIV/AIDS and alleviating the impact of the epidemic.
www.unaids.org

Epidemiological information on HIV/AIDS from UNAIDS

www.unaids.org/en/resources/epidemiology.asp

Surveillance information on HIV/AIDS from UNAIDS

www.unaids.org/en/in+focus/topic+areas/surveillance+and+reporting.asp

UNAIDS Press Center

www.unaids.org/en/KnowledgeCentre/Resources/PressCentre/default.asp

United Nations Children's Fund (UNICEF)

UNICEF is one of the United Nations' key agencies in the fight against HIV/AIDS, mobilising financial resources and helping persuade governments to put HIV/AIDS at the top of their agendas and to treat the epidemic as a national emergency. UNICEF is working in 160 countries around the world to combat the epidemic.
www.unicef.org/aids

Family Health International (FHI)

Family Health International has pioneered ways to curtail the spread of HIV/AIDS. Many of the HIV prevention "best practices" in use today have emerged from FHI's work in more than 60 countries.
www.fhi.org/en/HIVAIDS

The Body

An AIDS and HIV Information Resource based in New York City, NY, USA. Provides Information on various questions related to HIV/AIDS
www.thebody.com

HIV InSite

HIV InSite is developed by the Center for HIV Information (CHI) at the University of California, San Francisco (UCSF). HIV InSite's mission is to be a source for comprehensive, in-depth HIV/AIDS information and knowledge.
hivinsite.ucsf.edu

Cochrane HIV/AIDS Group
An affiliate of the International AIDS Society and the UCSF AIDS Research Institute, the Cochrane Collaborative Review Group on HIV Infection and AIDS is an international network of health-care professionals, researchers and consumers working to prepare, maintain and disseminate systematic reviews on the prevention and treatment of HIV infection and AIDS.
www.igh.org/Cochrane

US Centers for Disease Control and Prevention (CDC) and National Institutes of Health (NIH) Sites

Centers for Disease Control and Prevention (CDC)
CDC serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States.
www.cdc.gov

Global AIDS Program (CDC)
The Global AIDS Program (GAP) exists to help prevent HIV infection, improve care and support and build capacity to address the global HIV/AIDS pandemic.
www.cdc.gov/nchstp/od/gap

Division of HIV/AIDS Prevention (CDC)
The mission of the Division of HIV/AIDS Prevention is to prevent HIV infection and reduce the incidence of HIV-related illness and death, in collaboration with community, state, national and international partners.
www.cdc.gov/hiv/dhap.htm

Division of AIDS, STD, and TB Laboratory Research (CDC)
The Division of AIDS, STD, and TB Laboratory Research (DASTLR) was established to centralise CDC's laboratory studies on human immunodeficiency virus (HIV), other retroviruses, other sexually transmitted diseases (STDs), hematologic disorders, and mycobacteria, including Mycobacterium tuberculosis.
www.cdc.gov/ncidod/dastlr

National Center for HIV, STD, and TB Prevention (CDC)
Umbrella organisation at the CDC for the divisions listed above.
www.cdc.gov/nchstp/od/nchstp.html

National Institutes of Health (NIH)

National Institutes of Health is the Federal focal point for medical research in the United States. The NIH, comprising 27 separate institutes and centres, is one of eight health agencies of the Public Health Service, which, in turn, is part of the U.S. Department of Health and Human Services. Simply described, the goal of NIH research is to acquire new knowledge to help prevent, detect, diagnose and treat disease and disability.
www.nih.gov

National Library of Medicine (NLM)

NLM provides a wide variety of resources related to the biomedical and health sciences. The Web site has information on how to access the various NLM databases, including how to establish an account for free access to its HIV/AIDS databases.
www.nlm.nih.gov

National Institute of Allergy and Infectious Diseases (NIAID)

News releases from the NIH's primary AIDS research institute, plus AIDS reagent programme catalogue and other information.
www.niaid.nih.gov

National Institute on Drug Abuse (NIDA)

NIDA's mission is to lead the nation in bringing the power of science to bear on drug abuse and addiction. This charge has two critical components: The first is the strategic support and conduct of research across a broad range of disciplines. The second is ensuring the rapid and effective dissemination and use of the results of that research to significantly improve drug abuse and addiction prevention, treatment, and policy.
www.nida.nih.gov

Division of AIDS and Health and Behavior Research of the National Institute of Mental Health

The Division of AIDS and Health and Behavior Research (DAHBR) supports research and research training to: develop and disseminate behavioral interventions that prevent HIV/AIDS transmission, clarify the pathophysiology and alleviate the neuropsychiatric consequences of HIV/AIDS infection and use a public health model to reduce the burden of mental illness
www.nimh.nih.gov/dahbr/dahbr.cfm

National Institute for Child Health & Human Development (NICHD)

NICHD is part of the National Institutes of Health, the biomedical research arm of the US Department of Health and Human Services. The mission of the NICHD is to ensure that every person is born healthy and wanted, that women suffer no harmful effects from the reproductive process, and that all children have the chance to fulfil their potential for a healthy and productive life, free of disease or disability.
www.nichd.nih.gov

Fogarty International Center

The Fogarty International Center promotes and supports scientific research and training internationally to reduce disparities in global health.
www.fic.nih.gov

NIH Office of AIDS Research (OAR)

NIH's OAR is located within the Office of the Director of NIH and is responsible for the scientific, budgetary, legislative and policy elements of the NIH AIDS research program.
www.nih.gov/od/oar

Other U.S. Government Sites

United States Agency for International Development

USAID is an independent federal government agency that receives overall foreign policy guidance from the Secretary of State. The agency works to support long-term and equitable economic growth and to advance U.S. foreign policy objectives by supporting: economic growth, agricultural and trade, global health, democracy, conflict prevention and humanitarian assistance.
www.usaid.gov

MEASURE Program

The USAID-funded MEASURE program is designed to provide and promote the use of accurate and timely information on population, health, and nutrition in developing countries. The projects offer technical assistance in areas such as data collection, analysis, dissemination, and use.
www.measureprogram.org

Development Experience Clearinghouse

The Development Experience Clearinghouse (DEC) is the largest online resource for USAID-funded, international development documentation, including fact sheets on HIV/AIDS in Asia.
www.dec.org

United States Department of Commerce, U.S. Census Bureau's International Programs Center

The International Programs Center, part of the Population Division of the U.S. Bureau of the Census, conducts demographic and socio-economic studies and strengthens statistical development around the world through technical assistance, training, and software products. The IPS maintains an HIV/AIDS Surveillance database, the Monitoring the AIDS Pandemic (MAP) Network, and a series of HIV/AIDS country profiles.
http://www.census.gov/ipc/www

Veterans Health Administration: Public Health Strategic Health Care Group, AIDS Information Center

Provides a variety of educational links related to HIV/AIDS care, treatment, policy and research. Detailed information is also provided on blood exposure and needle stick safety in healthcare settings as well as treatment guidelines and recommendations.
vhaaidsinfo.cio.med.va.gov/aidsinfo/TOC.htm

Appendix D, Answers to Warm-Up Questions

Answers are provided in italics for each unit's warm-up questions.
Answers to the small group discussion questions are not included. Small
group discussion questions are designed to stimulate small group
discussion among participants in the workshop or class.

Unit 1 Answers

**Warm-up
questions**

1. List five potential target audiences of a national sentinel surveillance
   and estimates report.

   *The following may be target audiences of a national surveillance
   report:*
   - *Health professionals*
   - *General public*
   - *Policy and decision-makers*
   - *Media*
   - *Other government sectors*
   - *Donors to disease prevention programs*
   - *Non-government organisations (NGOs)*
   - *Other national and international organisations*
   - *Surveillance staff members at the national and local levels.*

2. What are three uses for a national sentinel surveillance and estimates
   report?

   *The following may be included as uses for a national surveillance
   report:*
   - *Targeting prevention and care programs*
   - *Monitoring and evaluation*
   - *Resource allocation and program planning*
   - *Informing and educating the public*
   - *Guiding scientific research*
   - *Monitoring indicators*
   - *Mobilising political commitment*
   - *Advocacy*
   - *Assessing the impact of prevention and care programs.*

3. Which component of the report describes the standard protocols used to conduct a sero-prevalence survey?

   The methods section. The methods describes methodology of surveys, special studies, and program data included in the report.

4. What key persons in your health ministry should you involve in the planning and writing of the surveillance report?

   Key persons may include (Job titles of these persons may vary among health ministries):
   - *Surveillance manager or coordinator*
   - *Epidemiologist*
   - *Disease control program staff*
   - *Persons who represent affected communities; special representative or liaison to communities.*

Unit 2 Answers

Warm-up questions

1. List three ways to present quantitative information in a surveillance report.

   Three ways to present quantitative information are:
   - *tables*
   - *data graphics*
   - *text.*

2. True or false? Titles are optional for tables and data graphics.

   True   False

   False. Tables and data graphics should always have a descriptive title that includes the "what," "when," and "where" of the data.

3. True or false? A good, informative table should have more than two rows and columns.

   True   False

   True. A table with only two rows and two columns does not contain enough information for the table to be useful and informative. The top row and left-most column should be reserved for row and column headers.

4. True or false? The reason to use written text to describe tables and data graphics is to repeat all the numbers and data points shown.

    True   False

    False. Written text should accompany tables and data graphics to highlight the main findings and point out key features. It is not used to repeat every number in the table or data graphic.

5. True or false? A logical order to present multiple results in written text is from most important to least important.

    True   False

    True. Presenting multiple results, beginning with the most important, has several advantages. Starting with the most important results captures your audience's attention. Also, the audience may not read the entire paragraph. Putting the most important results first will increase the likelihood the audience will receive that information, in the event they do not read everything.

Unit 3 Answers

Warm-up questions

1. Select one of the following. The function of the discussion section is mainly:

    a. to discuss the objectives of the surveillance report
    b. to discuss what you would do differently in the next round of surveillance
    c. to acknowledge people for assisting with the report
    d. *to discuss the primary and secondary findings and limitations of data sources*

2. True or False. It is fine to write about surveillance findings in the discussion that are not included in the results section.

True   False

False. Any findings written in the discussion section must be included in the results. If you find you must write about findings not in the results, go back to that section and amend it.

3. True or False. If your main findings are disappointing or not what you hoped for, it is acceptable to write the conclusion and recommendations with a pessimistic tone.

True   False

False. The conclusion and recommendations should highlight that your findings were important and encourage your audience to future action. A pessimistic tone will dampen those elements. Even if the findings were not expected, or were outright disappointing, this report section can steer your audience to retain important information and plan for future action.

4. True or False. The executive summary is often the most-read section of the surveillance report.

True   False

True. The executive summary is the most-read section because it summarises the entire report, quickly giving the audience a sense of the important findings. Often, the audience does not have time to read the entire report and will refer first to the executive summary.

5. List two reasons why you should have a reference section in the surveillance report.

a. Point to other work in the field without explaining that work in detail

b. Give credit for other people's ideas which are incorporated into the report

Another answer is proper referencing prevents you from plagiarising others' work.

Unit 4 Answers

Warm-up questions

1. Name two functions for a list of acronyms and abbreviations in a surveillance report.

a. *Helps the reader quickly identify the term referred to, especially if the reader is not a specialist in the field.*

b. *Avoids repetition of long words and terms, helping to manage the overall length of the report.*

2. Name three potential elements to include on a visually attractive report cover.
a. *organisation logo*
b. *report title*
c. *symbols related to the diseas.e*

Other answers may include: pictures, drawings, colours.

3. True or False. The list of figures and tables should be ordered in sequence of most important to least important.

True   False

False. It should be sequenced in the order that figures and tables appear in the report.

4. Which one of the following are methods to construct a table of contents.

a. theoretical and practical
b. *automatic and manual*
c. controversial and non-controversial
d. artistic and engineering.

5. Name two advantages to publishing the report in print format.

a. *Does not require a computer or other equipment to read.*
b. *Easy to refer to; convenient to turn to page of interest.*

Other answers include:
  ▪ *More accessible for audience who is unfamiliar with handling electronic formats*
  ▪ *Nicely packaged "product."*

6. Name two advantages to publishing the report in electronic format.

a. *Inexpensive to produce and distribute*
b. *Content is searchable*

Other answers include:
  ▪ *May be distributed through variety of portable electronic media (CD, flash drive, diskette)*
  ▪ *May be distributed through email or internet websites*
  ▪ *Appearance is as nice as print format*

7. Name two ways to distribute a report published in electronic format.

a. *Post on organisation's website*
b. *Burn onto CD for distribution*

Other answers include:
  ▪ *Post it on organisation website*
  ▪ *Post links to the website on other websites*

Unit 5 Answers

**Warm-up
questions**

1. List three reasons why it is necessary to disseminate surveillance data in formats other than a surveillance report.

a. *Data needs to be packaged in different ways to communicate effectively with different segments of your audience.*
b. *Surveillance reports are lengthy, and some readers may not have time to read the entire report.*
c. *Certain members of the audience may be more accustomed to read one format of information (example: journalists reading press releases).*

2. Select the answer that most closely describes a "fact sheet."

a. Informational report that is half the length of the surveillance report
b. *Brief document that summarises information*
c. Slide presentation of facts
d. An informative poster that you mount on the wall

3. True or false. All fact sheets must follow one format, which is to organise information chronologically.

True   False

False. Fact sheets are created to appeal to many different audiences. As a result they come in a variety of styles and formats.

4. True or False. Journalists and news professionals often will use text word-for-word from a press release in their articles or broadcasts.

True   False

True. When writing for articles or news broadcasts, journalists and news professionals often quote word-for-word from a press release.

Surveillance Report Template
Front Cover

Report on Disease Surveillance

Country X, Year(s) ____

Title Page

Publication details

Group(s) that published the report.
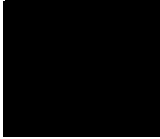
Contact Information

Postal Mail Address

Phone Number

Fax Number

Website Address

Suggested citation for the report

Acknowledgments

Use this section to mention and thank the various departments of your organisation, external organisations, and individuals who have contributed to the content or preparation of the report.
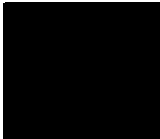
Table of Contents

Executive Summary

1. Introduction

    1.1 Background

        Geography and Demography
        Social and Economic Background
        HIV/AIDS Overview (includes program scale up and data overview, DHS+, BSS, RDS, case reporting data update if available)
        HIV/AIDS Surveillance Programs
        Antenatal Care

    1.2 Objectives

2. Methods

    2.1 HIV Sentinel Sero-prevalence Survey

3. Results

3.1 HIV Sentinel Sero-prevalence Survey

4. Discussion

5. HIV/AIDS estimates and projections using EPP and Spectrum

6. Conclusion and Recommendations

7. References

8. Appendix

8.1 Data Collection Instruments
8.2 Data Tables
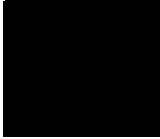
List of Figures and Tables

Create a list of all figures and tables that appear in the body of your report and the page number of the report that it appears on. Use the same title assigned to the table or figure. Present in the order that it appears in the report.
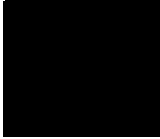
Example:

Abbreviations and Acronyms

Create a list of all abbreviations and acronyms that appear in the body of your report. Present in alphabetical order. Present the abbreviation or acronym exactly as it appears in the report.

Example:

AIDS   Acquired Immune Deficiency Syndrome

Executive Summary

The Executive Summary is written last. It should be approximately one page long. Organise this section according to the key findings and recommendations of the report. You may also highlight new elements of your surveillance program

1   Introduction

1.1 Background

Geography and Demography

Social and Economic Background

HIV/AIDS Overview

- Includes program scale up and data overview such as ART, VCT, PMTCT, blood donor, other prevention) AND DHS+, BSS, RDS, case reporting data update if available

HIV/AIDS Surveillance Programs

Antenatal Care

1.2 Objectives

2   Methods

2.1 HIV Sentinel Sero-prevalence Survey

Sentinel Population

Site Selection

Sampling Methods

Blood and Data Collection

Laboratory Methods

HIV Testing

Syphilis Testing

Other lab tests (example: Hepatitis B)

Quality Assurance

Data Management and Analysis

Survey Implementation, Monitoring, and Support

3 Results

3.1 HIV Sentinel Sero-prevalence Survey

Distribution and Characteristics of Study Participants

(Show Previous Years' data if available for comparison)

Table X. HIV Prevalence among pregnant women attending ANC clinics by sentinel site, and overall median HIV prevalence, 2005

District/Site	2005	
	No.	%
Site 1		
Site 2		
Site 3		
Site 4		
Site 5		
Site 6		
Site 7		
Total		
Overall Median Prevalence		

Describe Table X.

Figure X. HIV Prevalence among 15-24 year old pregnant women attending ANC clinics, by urban/rural residence, 2005
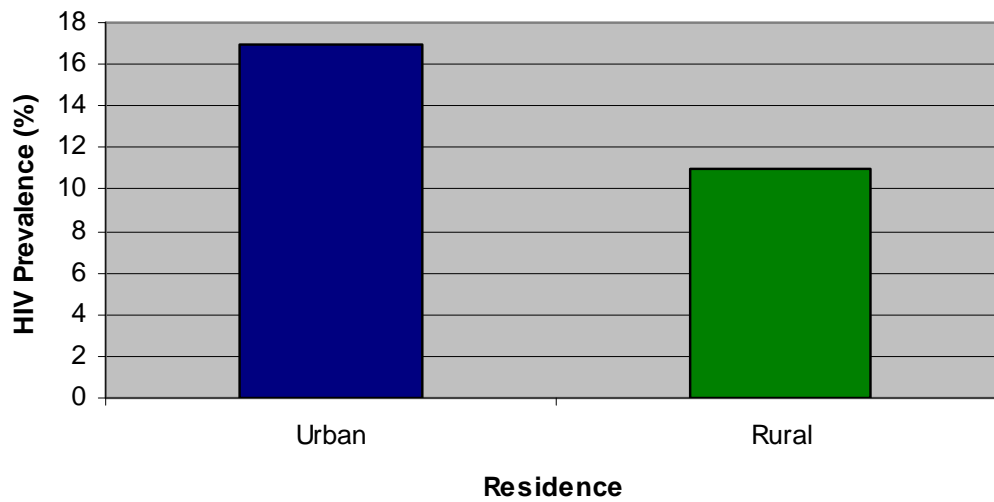
Describe Figure X.

Figure X. HIV Prevalence among pregnant women attending ANC clinics by age , 2005 HIV Sero-prevalence Survey
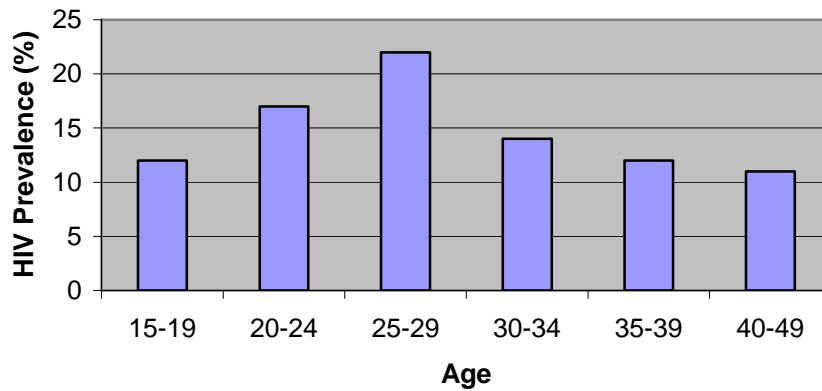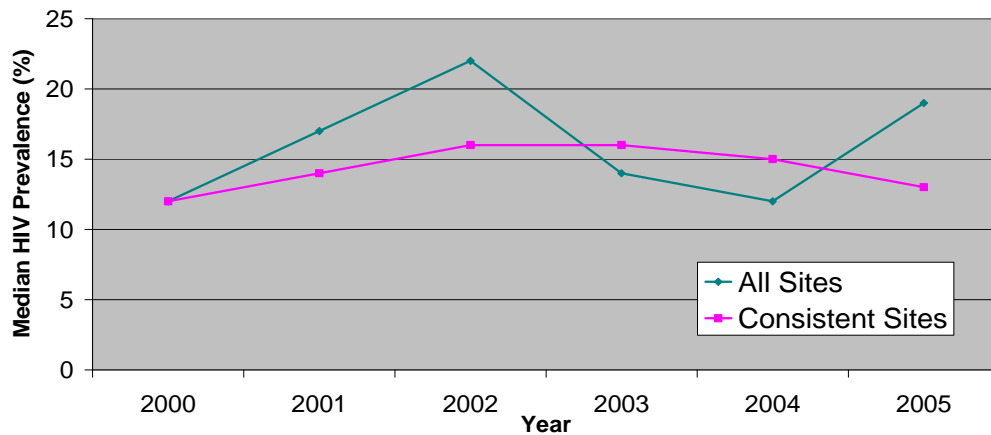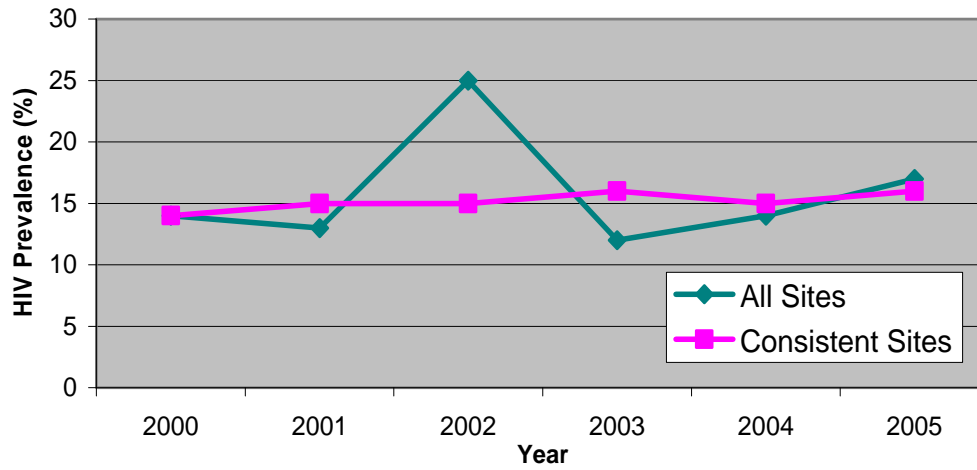

Describe Figure X.

Table X. ANC attendees for Years _____ /by Site

District/Site	2003		2004		2005	
	No.	%	No.	%	No.	%
Total						

Describe Table X.

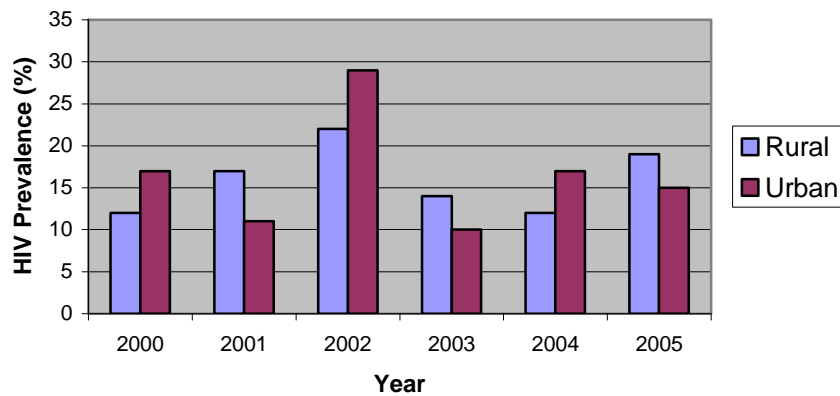**Figure X. Median HIV Prevalence among pregnant women attending ANC clinics, HIV Sero-prevalence Survey 2000-2005.**

Describe Figure X.

Figure X. HIV Prevalence among 15-24 year old pregnant women attending ANC clinics, HIV Sero-prevalence Survey 2000-2005
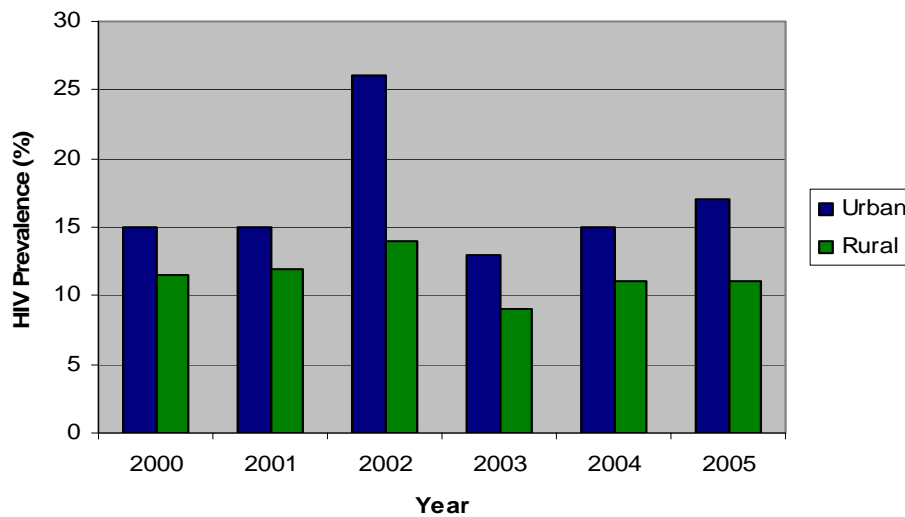

Describe Figure X.

Figure X. HIV Prevalence among pregnant women attending ANC clinics by rural or urban site, HIV Sero-prevalence Survey 2000-2005
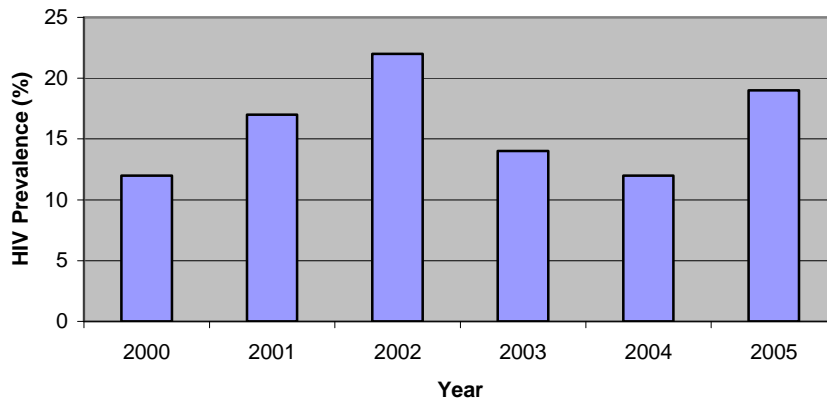

Describe Figure X

Figure X. HIV Prevalence among 15-24 year old pregnant women attending ANC clinics by rural or urban site, HIV Sero-prevalence Survey 2000-2005
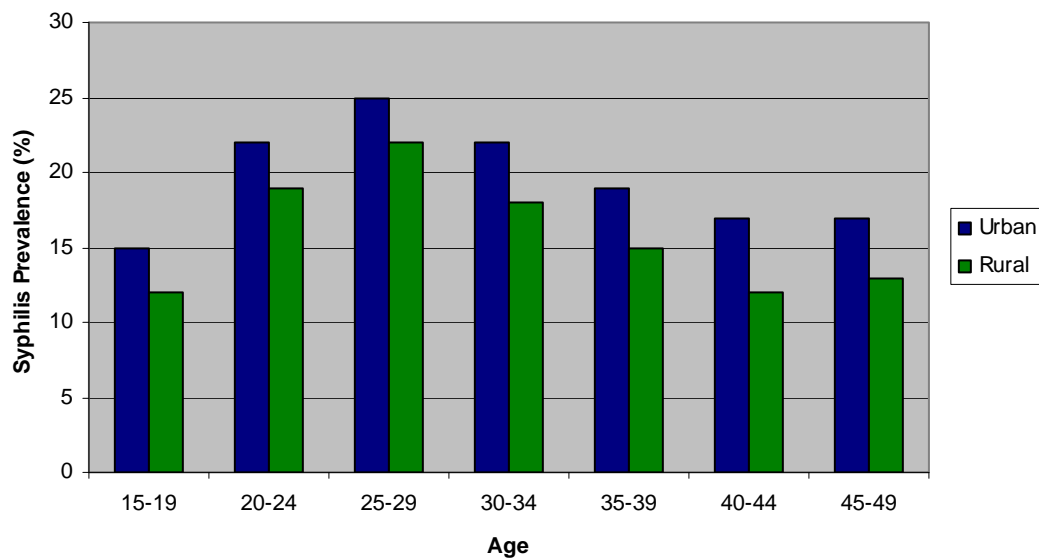

Describe Figure X

Figure X. Syphilis Prevalence among pregnant women attending ANC clinics, HIV Sero-prevalence Survey 2000-2005
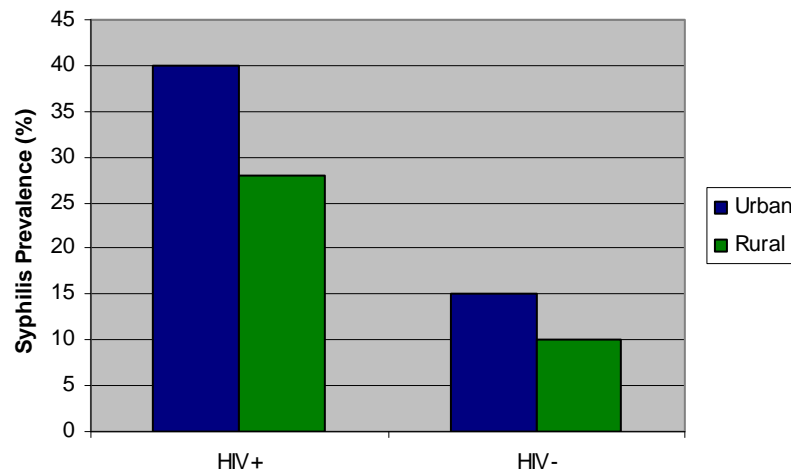

Describe Figure X

Figure X. Syphilis Prevalence among pregnant women attending ANC clinics, by age group and urban or rural site, 2005

Describe Figure X

Figure X. Syphilis Prevalence among pregnant women attending ANC clinics, by HIV status and urban or rural site, 2005

Describe Figure X

4   Discussion

5 HIV Prevalence Estimates using EPP and Spectrum

When including EPP and Spectrum estimates in your report, national estimates may go in the body of your report, while methods, curve fitting graphs, and district level estimates may go in the appendix.

**Table X. National HIV Prevalence Estimates, 2008**

Indicator	Value	Low	High
National adult prevalence (15-49)			
Number of infected adults Number of infected adult women (15-49)			
Urban adult prevalence Number of infected urban adults			
Rural adult prevalence Number of infected rural adults			
Number of infected children (0-14)			
Number infected over age 50			
Total HIV+ population			

Table X. AIDS Incidence, Mortality and ART Needs, Estimates and Projections

Indicator	2008	2009	2010	2011	2012
New AIDS Cases (15-49)					
New AIDS Cases (0-14)					
New AIDS Cases					
Annual AIDS Deaths (15-49)					
Annual AIDS Deaths (0-14)					
Annual AIDS Deaths					
Adults needing ART					
Children (0-14) needing ART					
Adults newly needing ART					

Table X. Curve Fit Parameters by Sentinel Site

Site	Region	Type	r	f_o	Phi	t_o	Fit
Site 1	*West*	*Urban*	*2.85*	*0.25*	*40*	*1984*	*Custom*
Site 2							
Site 3							
Site 4							
Site 5							

Figure X. Prevalence curves fit to each sentinel site by region
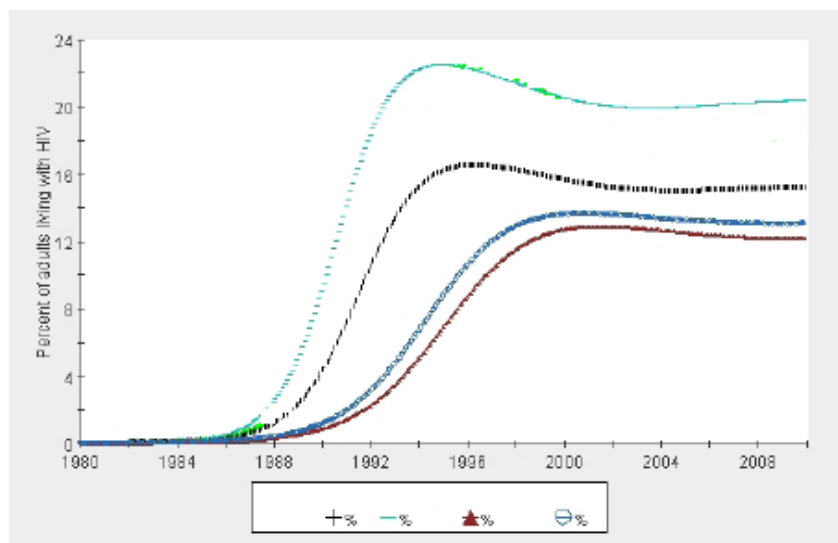
6   Conclusions and Recommendations

Conclusions

Recommendations

7 References

8   Appendix

8.1 Data Collection Instruments

8.2 Data Tables