

# Nigeria - National HIV Sero-Prevalence Sentinel Survey 2008, Eight round

**Federal Ministry of Health - Federal Government of Nigeria**

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# Overview

## Identification

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### ID NUMBER

NGA-FMOH-ANC-2008-v1.1

## Version

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### VERSION DESCRIPTION

Version 1.0 (November 2011)

Version 1.1 (March 2012) Adding the literal question text and some missing label

### PRODUCTION DATE

2009-11-01

## Overview

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### ABSTRACT

This report highlights the findings from the 2008 HIV sentinel sero-prevalence survey among women 15-49 years attending antenatal clinics in Nigeria. The objectives of the survey were to determine HIV prevalence among pregnant women attending antenatal clinics, assess the trend in HIV prevalence and provide data for estimating and projecting the HIV epidemic in the general population. The survey was also designed to compare data obtained from PMTCT records with data obtained through ANC sentinel survey in the same sites. A Survey Management Committee (SMC) constituted by the Federal Ministry of Health under the chairmanship of the Director of Public Health coordinated the survey. Membership of this committee included the National Agency for the Control of AIDS (NACA), UN Agencies, bilateral agencies, academia and other stakeholders.

The data from the survey are used for advocacy, monitoring of the epidemic, programme planning and programme implementation. In addition to other data sources, the ANC survey has continued to contribute towards the realization of the second generation surveillance in Nigeria.

### Goal

The goal of conducting this survey was to provide information about the current HIV prevalence and distribution in the country; it is aimed that the information would sensitize all stakeholders to take appropriate actions.

### Specific Objectives

- a. To determine the prevalence of HIV infection among women attending antenatal clinics in the 36 States and the Federal Capital Territory (FCT) in Nigeria.
- b. To determine HIV prevalence by selected demographic characteristics and geographical locations.
- c. To monitor trends of HIV prevalence among women attending antenatal clinics.
- d. To provide general population estimates and projections of the HIV/AIDS epidemic and its impact in the country.
- e. To determine the utility of PMTCT programme data for ANC HIV surveillance in Nigeria

### KIND OF DATA

Sample survey data [ssd]

### UNITS OF ANALYSIS

The units of analysis are individuals, laboratories and facilities

## Scope

### NOTES

Individuals-Age, Marital Status, PMTCT referral, Level of Education

Laboratories- HIV testing

Facility-Supervision, No. of women recruited, No. of women tested, ANC Doctor in charge present, ANC Nurse present,

### TOPICS

Topic	Vocabulary	URI
specific diseases and medical conditions [8.9]	CESSDA	<a href="http://www.nesstar.org/rdf/common">http://www.nesstar.org/rdf/common</a>
health policy [8.6]	CESSDA	<a href="http://www.nesstar.org/rdf/common">http://www.nesstar.org/rdf/common</a>

### KEYWORDS

PMTCT, HIV/AIDS

## Coverage

### GEOGRAPHIC COVERAGE

National

### GEOGRAPHIC UNIT

Local Government

### UNIVERSE

HIV/AIDS service providers at facility

## Producers and Sponsors

### PRIMARY INVESTIGATOR(S)

Name	Affiliation
Federal Ministry of Health	Federal Government of Nigeria

### OTHER PRODUCER(S)

Name	Affiliation	Role
World Health Organization		Technical Assistance in Finance

### FUNDING

Name	Abbreviation	Role
Center for Disease Control	CDC	Technical and Financial Support
World Health Organization	WHO	Technical and Financial Support
National Agency for the Control of AIDS (NACA)	NACA	Technical and Financial Support

### OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
UNAIDS	Federal Government of Nigeria	Technical Support

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Federal Ministry of Health	FMOH	Federal Government of Nigeria	Documentation of the Study

**DATE OF METADATA PRODUCTION**

2012-03-28

**DDI DOCUMENT VERSION**

Version 1.0 (November 2011). This is the first version of the ANC 2008 documentation. Documented during the Microdata Management Toolkit Training 28th November - 2nd December 2011. Facilitated by FMOH, MEASURE Evaluation, WorldBank and OECD/PARIS 21.

Version 1.1 (March 2012) Adding the literal question text and some missing label

**DDI DOCUMENT ID**

DDI-NGA-FMOH-ANC-2008-V1.1

## Sampling

### Sampling Procedure

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The two rural sites in each State generated a minimum combined sample size of 300 (150 in each of the rural sites) such that the rural samples form a rural cluster with a total sample size large enough to be analyzed by State. This was used to estimate the rural prevalence in each State.

### Response Rate

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The response rate is very high

### Weighting

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Facility

# Questionnaires

## Overview

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Individuals-Age, Marital Status, PMTCT referral, Level of Education

Laboratories- HIV testing

Facility-Supervision, No. of women recruited, No. of women tested, ANC Doctor in charge present, ANC Nurse present,

# Data Collection

## Data Collection Dates

Start	End	Cycle
2008-06-16	2008-09-08	12 weeks

## Time Periods

Start	End	Cycle
2008		3yrs

## Data Collection Mode

Face-to-face [f2f]

### DATA COLLECTION NOTES

#### Blood and data collection

Government policy states that all public health facilities must screen all pregnant women for syphilis in order to control and prevent congenital syphilis. As such, all women are routinely offered the syphilis test during their first antenatal visit in Nigeria. If they accept, 5ml of blood is collected to conduct the test. Women are then informed of the result of their syphilis screening during the next visit and appropriately treated according to the country guidelines.

For this survey, an unlinked anonymous method was used. After the syphilis test, an anonymous and unlinked serum sample was collected from the leftover blood and sent to the state central laboratory for the HIV test.

#### 3.6.1 Demographic data collection

All sites collected minimum demographic data from each eligible pregnant woman including age, education, marital status, parity and gravidity using the Personal Data Form (Appendix I). The participant's name was written on the personal data form and her survey ID sticker was also placed on the same form.

#### 3.6.2 Blood collection, processing and unlinking process

Pregnant women were sent to the laboratory staff or to the nurse responsible for blood collection.

Five (5) milliliters of blood were collected in a vacutainer labeled with the woman's name only and sent to the local site laboratory for screening.

### SUPERVISION

#### Quality Assurance Measures

The following measures were adopted to ensure that the results were accurate, reliable and reproducible:

Engagement of highly qualified and experienced laboratory personnel at the State laboratories and QC laboratory.

Conducting central and zonal level trainings for all the personnel involved in the survey.

The central and zonal level trainings were conducted by a team of resource persons using a standardized three-day training package. This included two days of didactic lectures with group work and one day of laboratory practicals.

All the laboratory scientists who participated in the quality control aspect of the survey were adequately trained for the activity.

All the sites/States used the same test kits for syphilis and HIV.

All the test kits used were thoroughly evaluated and assessed for potency and shelf life before use. All kits were stored at 4-8C (refrigerator or vaccine cold room). Lot number, batch number and expiry date were noted and documented.

All the States were provided with positive and negative HIV Control panels (produced in Nigeria). Worksheets were provided to document the running of controls on a weekly basis. At the end of the survey, all the specimens and survey forms were retrieved.

All the consumables used for sample separation, storage and dispensing were sterile and disposable.

TWO supervisory visits were made to all the survey sites by the national survey team to ensure compliance with the survey protocol by all field workers using the Checklist for site supervisory visit (Appendix IV).

A medical officer in the ANC clinic recruited for the survey supervised the sample and data collection procedures at the respective ANC clinic; while the State laboratory

scientist supervised sample processing and storage during the weekly visit to sites. The SAPC also carried out regular supervisory visits to the sites and State laboratory using the Checklist for site supervisory visit (Appendix IV).

Every State produced a detailed report on the conduct of the survey in the State.

Laboratory scientists selected for participation in the survey were currently performing routine syphilis and/or HIV screening on the bench at their respective centres.

A system was put in place to perform HIV test kit lot monitoring.

### 3.10 Data collection from PMTCT sites

Data on PMTCT were collected from ANC sentinel sites offering PMTCT services. Data collected from PMTCT sites three months preceding the survey and during the survey period included the following:

Number of new clients

Number of clients counselled for HIV

Number of clients tested for HIV

Number of clients positive for HIV

Individual level information from the Personal Data Forms of the ANC survey.



## Data Processing

### Data Editing

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At the survey site, data collection forms were completed, stored and later transported to the State level. The State laboratory scientists collated all data forms at the State level and forwarded them to the Federal Ministry of Health for electronic entry by the data entry team. The team checked the data forms for completeness, obvious errors and inconsistencies in order to identify any possible data quality errors.

During the data entry process, the following specific measures were taken to ensure that the data were accurate:

CHECK codes were created to ensure that only legal entries and data in specified ranges were entered.

All entries on the computer were checked against the data on paper, item by item.

Frequency tables were generated for all variables in order to further examine whether there were double or unusual entries.

Double entry of data (100%) was done to validate entered data using the VALIDATE option in EPIINFO menu.

Discrepant records were reviewed and corrected before data analysis commenced.

### Other Processing

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The analysis focused on determining the prevalence of HIV infection by the relevant independent variables such as age, site, State, zone, education and location. The median and the overall prevalence rates for States, zones and the entire country were determined. Exact 95% confidence intervals were determined for all the rates. The differences between the States and zones were evaluated and the trend analysis was carried out for some consistent sites and States. PMTCT and ANC sentinel surveillance data were analyzed and compared for all the sites which provided PMTCT services and participated in the ANC survey.

# Data Appraisal

## Estimates of Sampling Error

The methods, tools and assumptions used to estimate the burden of HIV/AIDS in Nigeria are based on the recommendations made by the UNAIDS Reference Group in estimates, modelling and projections.

The UNAIDS Reference Group is a technical working group made up of experts in epidemiology, modelling and statistics, which advises UNAIDS on the best methods and tools to be used to estimate national figures for HIV and AIDS. These methods and tools are revised regularly and improvements have been made since 2003.

The Epidemic Projection Package (EPP 2007) was used to estimate and project adult HIV prevalence and the burden of infection in the country from the surveillance data obtained from ANC clients. The software uses inputs such as base population, sex ratio and urban - rural infection ratio. The resulting national estimated adult HIV prevalence was then transferred to a demographic package, Spectrum 3, modelling software for demographic projections to calculate the number of people infected and other parameters, such as AIDS cases, AIDS deaths and AIDS orphans.

The basic data used to estimate HIV prevalence at the national level was the data collected on pregnant women attending ANC clinics through regular surveys which have been conducted in Nigeria since 1991. In the recent past (since 1999), these surveys have been conducted every 2 years. One of the main factors affecting the results of this system is the level of attendance of pregnant women in the ANC clinics. In Nigeria, it has been estimated that ANC clinics cover about 60% of the pregnant women, and there are extreme variations in the different States and among social classes.

## Other forms of Data Appraisal

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## File Description

## Variable List

## ANC Data

Content	Data set on national HIV Sero-prevalence Sentinel Survey 2008 for Antenatal Clinic (ANC)
Cases	36919
Variable(s)	28
Structure	Type: Keys: ()
Version	Version 1.0 Final clean and anonymized dataset Version 1.1 Adding the literal question text and some missing label
Producer	Federal Ministry of Health (FMOH)
Missing Data	All missing data were * asterisk

## Variables

ID	Name	Label	Type	Format	Question
V371	V1	Serial	contin	numeric	Serial
V372	V2	State	discrete	character	State
V373	V3	Sitecode	discrete	character	Sitecode
V374	V4	Hospitalna	discrete	character	Hospitalna
V375	V5	Sitetype	discrete	character	Sitetype
V376	V6	Pmtct_prog	contin	numeric	Pmtct_prog
V377	V7	Pmtct_date	discrete	character	Pmtct_date
V378	V8	Ownership	discrete	character	Ownership
V379	V9	Hivtesting	discrete	character	Was the woman offered HIV testing for PMTCT
V380	V10	Pre_test	discrete	character	Pre_test
V381	V11	Ref	contin	numeric	Ref
V382	V12	Siteid	discrete	character	ID (use preprinted label)
V383	V13	Facilityco	discrete	character	Facilityco
V384	V14	Age	contin	numeric	Age in years
V385	V15	Maritalsta	discrete	numeric	Marital status: single
V386	V16	Edu	discrete	numeric	Level of education
V387	V17	Gravidity	contin	numeric	Gravidity (total no of pregnancies including this one)
V388	V18	Parity	contin	numeric	Parity (total no births 28 wks and above)
V389	V19	Referred	discrete	numeric	Was the woman referred
V390	V20	Reason	contin	numeric	Reason for referred?
V391	V21	Testing	discrete	numeric	Was the woman offered HIV testing for PMTCT
V392	V22	Accpttesti	discrete	numeric	Did the woman accept HIV testing for PMTCT
V393	V23	Determine	discrete	character	HIV test result (Determine)
V394	V24	Stat_pak	discrete	character	HIV test result (Stat - Pak )
V400	V25	Qc	discrete	character	Qc
V396	V26	Final_test	discrete	character	Final_test
V397	V27	Recstatus	contin	numeric	Recstatus
V398	V28	Uniquekey	contin	numeric	Uniquekey



**Serial (V1)**

File: ANC Data

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 10  
 Decimals: 5  
 Range: 1-1825

Valid cases: 36919  
 Invalid: 0  
 Minimum: 1  
 Maximum: 1825  
 Mean: 514.3  
 Standard deviation: 326.1

**Literal question**

Serial

**State (V2)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0

**Literal question**

State

**Sitecode (V3)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0

**Literal question**

Sitecode

**Hospitalna (V4)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0

**Literal question**

Hospitalna

**Sitetype (V5)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0

**Literal question**

Sitetype

**Pmtct\_prog (V6)**

File: ANC Data

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 7  
 Decimals: 5

Valid cases: 0  
 Invalid: 36919

**Literal question**

Pmtct\_prog

**Pmtct\_date (V7)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 10

Valid cases: 0

**Literal question**

Pmtct\_date

**Ownership (V8)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0

**Literal question**

Ownership

**Hivtesting (V9)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0

**Literal question**

Was the woman offered HIV testing for PMTCT

**Pre\_test (V10)**

File: ANC Data

**Overview**

Type: Discrete  
 Format: character  
 Width: 1

Valid cases: 0

**Literal question**

Pre\_test



## Ref (V11)

### File: ANC Data

#### Overview

Type: Continuous	Valid cases: 36919
Format: numeric	Invalid: 0
Width: 9	Minimum: 1
Decimals: 5	Maximum: 340
Range: 1-340	Mean: 128.4
	Standard deviation: 83.9

#### Literal question

Ref

## Siteid (V12)

### File: ANC Data

#### Overview

Type: Discrete	Valid cases: 0
Format: character	
Width: 1	

#### Literal question

ID (use preprinted label)

## Facilityco (V13)

### File: ANC Data

#### Overview

Type: Discrete	Valid cases: 0
Format: character	
Width: 1	

#### Literal question

Facilityco

## Age (V14)

### File: ANC Data

#### Overview

Type: Continuous	Valid cases: 36762
Format: numeric	Invalid: 157
Width: 8	Minimum: 15
Decimals: 5	Maximum: 49
Range: 15-49	Mean: 26.5

#### Literal question

Age in years

## Maritalsta (V15)

### File: ANC Data

#### Overview

**Maritalsta (V15)****File: ANC Data**

Type: Discrete  
 Format: numeric  
 Width: 7  
 Decimals: 5  
 Range: 1-4

Valid cases: 36798  
 Invalid: 121

**Literal question**

Marital status: single

**Edu (V16)****File: ANC Data****Overview**

Type: Discrete  
 Format: numeric  
 Width: 7  
 Decimals: 5  
 Range: 1-5

Valid cases: 36794  
 Invalid: 125

**Literal question**

Level of education

**Gravidity (V17)****File: ANC Data****Overview**

Type: Continuous  
 Format: numeric  
 Width: 8  
 Decimals: 5  
 Range: 0-99

Valid cases: 36810  
 Invalid: 109  
 Minimum: 0  
 Maximum: 99  
 Mean: 3.4

**Literal question**

Gravidity (total no of pregnancies including this one)

**Parity (V18)****File: ANC Data****Overview**

Type: Continuous  
 Format: numeric  
 Width: 8  
 Decimals: 5  
 Range: 0-99

Valid cases: 36778  
 Invalid: 141  
 Minimum: 0  
 Maximum: 99  
 Mean: 5.3  
 Standard deviation: 17.7

**Literal question**

Parity (total no births 28 wks and above)

**Referred (V19)****File: ANC Data****Overview**

**Referred (V19)**

## File: ANC Data

Type: Discrete  
 Format: numeric  
 Width: 7  
 Decimals: 5  
 Range: 0-2

Valid cases: 35989  
 Invalid: 930

**Literal question**

Was the woman referred

**Reason (V20)**

## File: ANC Data

**Overview**

Type: Continuous  
 Format: numeric  
 Width: 7  
 Decimals: 5  
 Range: 1-3

Valid cases: 35821  
 Invalid: 1098

**Literal question**

Reason for referred?

**Testing (V21)**

## File: ANC Data

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 7  
 Decimals: 5  
 Range: 1-2

Valid cases: 31729  
 Invalid: 5190

**Literal question**

Was the woman offered HIV testing for PMTCT

**Post question**

Was the  
 woman  
 offered  
 HIV  
 testing  
 for  
 PMTCT  
 Yes = 1  
 No = 2

**Accpttesti (V22)**

## File: ANC Data

**Overview**

Type: Discrete  
 Format: numeric  
 Width: 7  
 Decimals: 5  
 Range: 1-3

Valid cases: 31719  
 Invalid: 5200

**Literal question**

Did the woman accept HIV testing for PMTCT

**Determine (V23)**

File: ANC Data

**Overview**

Type: Discrete

Valid cases: 39

Format: character

Width: 3

**Literal question**

HIV test result (Determine)

**Stat\_pak (V24)**

File: ANC Data

**Overview**

Type: Discrete

Valid cases: 1984

Format: character

Width: 3

**Literal question**

HIV test result (Stat – Pak )

**Qc (V25)**

File: ANC Data

**Overview**

Type: Discrete

Valid cases: 5354

Format: character

Invalid: 0

Width: 3

**Literal question**

Qc

**Final\_test (V26)**

File: ANC Data

**Overview**

Type: Discrete

Valid cases: 29

Format: character

Width: 3

**Literal question**

Final\_test

**Recstatus (V27)**

File: ANC Data

**Overview**

Type: Continuous

Valid cases: 36918

Format: numeric

Invalid: 1

Width: 7

Decimals: 5

Range: 1-1

**Literal question**

Recstatus

## Uniquekey (V28)

File: ANC Data

### Overview

Type: Continuous	Valid cases: 36919
Format: numeric	Invalid: 0
Width: 10	Minimum: 1
Decimals: 5	Maximum: 1825
Range: 1-1825	Mean: 517.5
	Standard deviation: 325.5

### Literal question

Uniquekey

## Related Materials

### Reports

#### National HIV Sero-Prevalence Sentinel Survey ACN Report 2008

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Title	National HIV Sero-Prevalence Sentinel Survey ACN Report 2008
Author(s)	National Health Insurance Scheme , Federal Ministry of Health (FMOH)
Date	2011-11-30T01:00
Country	Nigeria
Language	English
Contributor(s)	Federal Ministry of Health (FMOH)
Publisher(s)	National Health Insurance Scheme (NHIS)
Description	The description of national HIV Sero-prevalence Sentinel Survey 2008

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Filename \_docs/\_docs ACN/2008 ANC Report.pdf

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## Metadata Review

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Title Metadata Review  
Country Nigeria  
Language English  
Filename \_docs/\_docs ACN/ANC METADATA Report.pdf

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## Other materials

### National HIV Sero-Prevalence Sentinel Survey 2008 StudyDoc Report

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Title National HIV Sero-Prevalence Sentinel Survey 2008 StudyDoc Report  
Author(s) Federal Ministry of Health (FMOH)  
Date 2012-03-28  
Country Nigeria  
Language English  
Filename \_docs/\_docs ACN/ANC StudyDoc Report.pdf

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### DDI Review Report

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Title DDI Review Report  
Author(s) FMOH  
Country Nigeria  
Language English  
Filename \_docs/\_docs ACN/DDIReview\_ANC2008.doc

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