OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as "developed", "industrialized" and "developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org

XD9700059

(v), 205 p. tables graphs

21625

Distr.
RESTRICTED

DP/ID/SER.D/25
28 June 1996

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

ORIGINAL : ENGLISH

FACT FINDING MISSION AND CONTRIBUTION TO THE NATIONAL PROGRAMME AGAINST DISSEMINATION OF HIV

NC/NIR/94/01D

FEDERAL REPUBLIC OF NIGERIA

Report

Prepared for the Government of the Federal Republic of Nigeria
under UNDP-financed TSS-1 facility

V.96-84581

The report was coordinated by the Chemical Industries Branch of Industrial Sectors and Environment Division based on the work of UNIDO staff members : Mr. Z. Csizer, ISED/CHEM, Mr. F. Ugbor, CFD/AFR, Ms. B. Riezky, RPD/STAT; International consultants : Mr. D. Subrahmanyam, International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India and Mr. S. Yunkap Kwankam, Centre for Health Technology (CHT), Yaounde, Cameroon; National consultants : Mr. Felix Orbih, Abuja; Mr. V. Ahuchaogu, Enugu; Mr. A. A. Adetoro, Ibadan; Ms. A. Jane Ibrahim, Kaduna and Mr. L.Y. Gana, Maiduguri.

It should be noted that the country study presented is an integral part of a regional study in Africa entitled "*Local production of health system inputs related to HIV/AIDS*" prepared under the framework of NC/RAF/94/02D UNDP-financed TSS-1 facility (UNIDO, DP/ID/SER.D/20, 1 April 1996) and therefore it should be regarded as the first national follow-up of the referred study.

The designation employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of firm names or commercial products does not imply endorsement of UNIDO.

This document has not been edited.

TABLE OF CONTENTS

Page

Page

ABBREVIATIONS

Abbreviation	Meaning
AIDS	Acquired Immunodeficiency Syndrome
AIDSCAP	AIDS Control and Prevention
ANC	Antenatal Clinics
AZT	Azidothymidine
BBC	British Broadcasting Corporation
BCG	Bacillus Calmette Guerin
CIDA	Canadian International Development Agency
CSM	Condom Social Marketing
CSW	Commercial Sex Workers
EDL	Essential Drug List
ESC	Economic & Social Council
FCT	Federal Capital Territory
FHI	Family Health International
FMST	Federal Ministry of Science and Technology
HIV	Human Immunodeficiency Virus
IBRD	International Bank for Reconstruction and Development
ICGEB	International Centre for Genetic Engineering and Biotechnology
IDA	International Development Assistance
IDDC	Industrial Development Co-ordinating Committee
IEC	Information, Education and Communication
IV	Intravenous fluids
KABP	Knowledge, Attitude, Beliefs and Practices
LDTD	Long Distance Truck Drivers
LED	Local Education Districts
LGA	Local Government Area
LUTH	Lagos University Teaching Hospital
MAN	Manufacturing Association of Nigeria
MTP	Medium Term Plan
NACP	National AIDS Control Programme
NAFDAC	National Agency for Food Drug and Control
NCI	National Council on Industry
NEPA	Nigeria Electric Power Authority
NGO	Non-governmental Organisation
NTA	Nigerian Television Authority
OAU	Organisation of African Unity
ODA	Overseas Development Administration
OPEC	Organisation of Petroleum Exporting Countries
ORS	Oral Rehydration Salts
PATH	Programme of Appropriate Technology in Health
PHC	Primary Health Care
PSI	Population Services International
PTF	Petroleum Trust Fund

Abbreviation	Meaning
SAPC	State AIDS Programme Co-ordinator
SME	Small and Medium-sized Enterprises
SMI	Small and Medium-sized Industries
SSS	Sentinel Sero-prevalence Surveillance
STD	Sexually Transmitted Diseases
TB	Tuberculosis
UCD	UNIDO Country Director
UNDP	United Nations Development Programme
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organisation
USAID	United States Agency for International Development
VOA	Voice of America
WHO	World Health Organisation
ZPL	Zaria Pharmaceuticals Limited

SUMMARY AND RECOMMENDATIONS

The immediate objective of the mission was to undertake a study aiming to identify and review the policies and institutional measures adopted by the Government of Nigeria in the control of HIV/AIDS. In this context the following broad areas were addressed:

1. sustainable development and promotion of local production of health care system inputs related to HIV/AIDS in Nigeria.

2. capacity building for increased availability and quality of primary health care and basic hospital services to contain HIV/AIDS.

The study was designed to contribute to the control measures in operation under the national programme against dissemination of HIV in Nigeria. The measures related to the extent of local production/availability of health care system inputs needed for the control of HIV/AIDS such as diagnostics; plastics including condoms, gloves, disposable syringes, absorbents, intravenous fluids, and pharmaceuticals particularly those against AIDS-associated opportunistic infections.

The study was also aimed at investigating the market demand for the above health care system inputs and identification of opportunities for local production of these goods in large quantities at country/regional level in a financially sustainable manner.

Detailed and comprehensive planning constituted a preliminary and indispensable part of the study. For this purpose, the Federal Republic of Nigeria was divided in 5 zones, each comprising 5-7 states (Annex 3). Five short-term (1 m/m) National Consultants (Annex 4) were appointed. These were either senior officials in Nigeria with responsibilities related to health care services and/or primary health care needs and inputs, or professionals who had working experience in programmes related to HIV/AIDS control. Each consultant was assigned a zone within which to gather information required for the project. The major cities in the five zones were Abuja, Enugu, Ibadan, Kaduna and Maiduguri (Annex 5). The staff of the UNIDO Country Director (UCD), Nigeria was requested to cover Lagos State.

A questionnaire (Annex 6) was prepared to facilitate in-house data collection on relevant aspects of HIV/AIDS and STDs and of measures used for their control within the country. This was distributed to the National Consultants. In addition, a Format (Annex 7) was designed to focus data collection and particularly to facilitate reporting by the National Consultants.

The consultants were requested to:

1. collect data pertinent to the issues raised in the Format from the States in their zones.
2. administer the questionnaire to officials of each State in the zone, process the data and present it in a clear and concise manner.
3. submit both the raw data and their reports to the UCD/JPO.
4. comment on the data collected and the process.

Two short-term (3w/m) Senior International Consultants with broad experience in health care technology, production of biologicals including diagnostics and pharmaceuticals were engaged and assigned the task of co-ordinating the study with UNIDO Headquarters, the UCD staff and the National Consultants.

The International Consultants undertook site visits to the major cities in each zone, during which they held in-depth discussions with the National Consultants on the data base generated. The International Consultants also had extensive meetings and discussions with officials responsible for HIV/AIDS control programmes or for industries involved in the manufacture of inputs used in these control programmes. The officials met included senior staff of the Federal and State Ministries (planning, health and industry); private and public sector enterprises, international bodies (UNDP, World Bank, UNICEF), NG0s, academics at the University Teaching Hospitals and health practitioners in Private Hospitals (see Annex 1).

The discussions centred around assessment of the HIV/AIDS situation in the States; the current policies and programmes on HIV/AIDS prevention and control; measures being taken to contain the infection, IEC materials; and availability of tools such as diagnostics, plastics - including syringes and condoms - and pharmaceuticals used to fight HIV/AIDS and associated infections. Current and future plans to set up industries to produce these tools in an economically sustainable manner were also discussed with representatives of the government and industry.

Where this had not been done, before the site visits, questionnaires were distributed to the concerned authorities through the assistance of the National Consultants. These elicited adequate information on the HIV/AIDS and other relevant data in the five zones. The data, along with the formats and other responses received from the National Consultants are annexed (Annex 8).

Available documents published on HIV/AIDS control by the Federal and State Governments, International Agencies and NG0s were collected (see Annex 2).

An invited scientific seminar was presented by one of the International Consultants (Mr. D. Subrahmanyam) to the staff of the National Institute of Pharmaceutical Research and Development, Abuja, highlighting the diagnostic kit on HIV/AIDS developed by the International Centre for Genetic Engineering and Biotechnology (ICGEB) - a centre of excellence originally promoted by UNIDO.

The following observations were made based on the site visits and discussions.

1. Available statistics on HIV/AIDS and STD infections in the country are incomplete and inaccurate. This notwithstanding, some trends can be gleaned from the data. Sample surveys under the Sentinel Sero-prevalence Surveillance carried out in 1993/94 revealed that the rate of sero-prevalence for HIV in the population is alarming. There has been a 10 fold increase in AIDS cases in three years. STDs and tuberculosis infections associated with HIV/AIDS are on the increase.

2. Although the second Medium-Term Plan (MTP-II) had laudable strategic objectives as concerns the control of HIV/AIDS in the country, financial commitment by the Federal and State Governments to the fulfilment of the objective was inadequate and in some States non-

existent. (As stated by Commissioner of Health, Kaduna; AIDS Co-ordinators, Abuja, Ibadan and Enugu).

3. Assistance from the International Agencies such as WHO, UNICEF, World Bank and from USAID for the control of HIV/AIDS is dwindling. The country thus suffers from resource constraints and is unable to carry out a vigorous programme against HIV/AIDS.

4. Several NG0s operating in the country are concentrating on IEC programmes (e.g STOPAIDS, AFRICARE, AIDSCAP, SWAAN and AIDS Club of Nigeria, etc.). Existing IEC programmes do not seem to have the desired effect as reflected by average awareness of HIV/AIDS in the country (30 - 75%); and especially low behaviour modification as a consequence of the programmes. IEC printed materials are in short supply. Several States requested UNIDO assistance for their IEC programmes (e.g. Commissioners of Health, Lagos; Kaduna and Enugu).

5. Diagnostic equipment and reagents are not available and routine screening of blood from donors for HIV was not done. This is further complicated by the fact that reliable blood banking systems do not exist in many states (as stated by Commissioners of Health, Kaduna; Director General of Health, State of Jigawa; AIDS Co-ordinators Maiduguri and Abuja).

6. There is practically no industry that produces quality syringes and gloves in the country.

7. Several multinational pharmaceutical industries operate in the country and produce basic drugs. Drugs for treatment of HIV (such as AZT) were non-existent and even antituberculars such as rifampicin are in short supply. Few States had plans to set up national pharmaceutical manufacturing units (e.g. Borno, Enugu) and even though feasibility studies were conducted at one time the plans never matured due to lack of financial commitment. The States requested UNIDO's assistance to revive the plans.

8. Consistent with its industrial policy, the Government is encouraging privatisation of industries. However, industrial development through private sector is not advancing satisfactorily.

A number of proposals for local production of health care system inputs needed for HIV/AIDS control have been submitted by officials of the Ministries of Health and Industry encountered during the site visits. Among these, the following need particular attention:

1. During the discussions, the Commissioner of Health, Lagos State requested assistance to support IEC programmes, particularly print media materials such as pamphlets/brochures on HIV/AIDS and on methods to prevent infection.

2. The Federal Minister of Science and Technology requested a phased technology transfer of the HIV/AIDS diagnostic kit developed by the ICGEB (Annex 9). A similar request was made during discussions with officials of the Federal Ministry of Health at Lagos.

3. The State Ministries of Health at Lagos and Ibadan showed interest in the prospects of UNIDO providing assistance towards setting up syringe manufacturing plants, and

appropriate requests are expected from them in due course. A request to this effect has been received from the Director General of Health, State of Lagos (Annex 10).

4. The State Ministry of Health at Kaduna wanted UNIDO's assistance in conducting a feasibility study for the production of condoms in the State.

5. The State Ministries of Health and Industry at Maiduguri and Enugu wanted to reactivate their plans to promote pharmaceutical industries in their States and a request to UNIDO for assistance is expected from the authorities soon.

6. The Eastern Nigeria Medical Centre, a private enterprise at Enugu, manufactured intravenous (IV) fluids for two years (1993-95) but discontinued production due to technical problems. The Centre requested assistance from UNIDO to revitalise the industry. A formal request is expected from the company through the Ministry of Health.

7. Although no informal request was made to this effect, there is a dire need for maintenance industries to support HIV/AIDS control programmes in all states. Broken down equipment and rolling stock represent large amounts of immobilised capital, and attest to the need to create maintenance services. A maintenance service industry in each state could be a collaboration between several ministries and the private sector, and could provide service for a fee - to commercial enterprises as well.

8. A mechanism for local financing of IEC campaigns would be to encourage manufacturers to carry specific messages on the labels of their products, in return for reduced taxes on their sales. This idea could cover products such as books, match boxes, cigarette packs, beer, etc. and in general any product with a label. Broadcast media could also participate by carrying public service messages. As this would in kind contribution involving no financial outlays beyond the initial investment required to retool the labelling facilities, it should be attractive to manufacturing companies.

As can be seen from the above, several states have recognised the alarming spread of HIV/AIDS infections in the country, and are considering setting up industries to produce tools used in the control of HIV/AIDS.

The decision on where to locate a particular industry must take into consideration available infrastructure including technical expertise, physical facilities, power and water resources, transport and communication facilities.

With the above issues in mind it would be advisable for UNIDO to react promptly to requests for assistance, by commissioning feasibility studies, industry rehabilitation studies and site planning activities so as to assist Federal and State governments in developing industries in this area of great need.

As regards diagnostics, immediate steps should be taken to initiate the process of technology transfer from ICGEB to the institution/company designated by the Federal Ministry of Science and Technology (FMST).

I. BACKGROUND INFORMATION ON HIV/AIDS

1. Introduction

The prevalence of Acquired Immunodeficiency Syndrome (AIDS) in Africa, in general, and sub-Saharan Africa in particular, has reached pandemic proportions. Significant increases in Human Immunodeficiency Virus (HIV) infections, implicated to be the causative agent for development of AIDS, have been reported in recent years from all African countries in all socioeconomic levels.

HIV belongs to the Lentivirus group which constitutes a separate genus of the Retroviridae family. HIV-1 isolates were recovered from the blood of AIDS-infected patients since 1983. A separate subtype HIV-2 was identified in 1986 in West Africa. Although HIV-1 is the major source of infection leading to AIDS, HIV-2 strains have now been increasingly detected in AIDS cases from Europe, South Africa and USA.

At least eight genotypes of HIV-1 which are designated as A to H subtypes or "clades" of the virus have been identified which differ in the sequence of its surface protein. The subtypes differ in their geographical distribution. Predominantly, HIV of A, C, D, and E types are seen in Africa and South East Asia and B in North America and in Europe. Recently, a divergent strain within the HIV-1 family designated as Group "O" viruses was reported from patients in Cameroon.

Serological evidence suggests its occurrence in patients from other parts of West Africa, including Nigeria.

More recent picture on the pattern and progress of HIV infection depicts it to be a dynamic process. HIV, once introduced, appears to reproduce fast in the infected population. The immune system of the patient wages a constant battle to contain the multiplication of the virus. It is estimated that more than a billion virus particles are produced and destroyed daily in a person with the HIV infection. However due to, perhaps, rapid genetic variation in the virus and other ill-defined reasons, the immune system eventually fails to contain the multiplication of the virus resulting in AIDS and death of the infected individual. The incubation period between the HIV infection and the onset of AIDS depends on the ability of the immune system to cope up with the viral multiplication. While some HIV infected people develop AIDS within two years after infection, others more immune competent individuals take 10 years or more to develop the disease. Malnutrition which is highly prevalent, particularly in the developing countries, may lead to rapid progress of HIV infection leading to AIDS. A similar situation is seen in children and in immunocompromised individuals.

AIDS has gradually shifted from a disease prevalent in the industrialised world to a disease of developing countries where 90% of infections are reported to occur. Globally AIDS cases increased by 60% since 1993. Currently, according to the World Health Organization, 20 million people were estimated to be infected with HIV in the world of which 1.5 million are children and 4.5 million cumulated cases of AIDS. Some 6,000 new HIV infections occur every day. About 45% of the infected are women and this proportion is on the rise. AIDS has claimed many lives, particularly of adults in their prime life (25-44 years of age) leaving many orphans in the process. Currently AIDS kills annually 100,000 people. By the end of the century, HIV infections are predicted to rise to 40

million of which 4-8 million could be children, unless effective measures are taken to contain the infection. There are likely to be 10 million AIDS cases by the year 2,000 with some 400,000 dying annually due to the infection.

AIDS was clinically documented in Africa in the early 1980's and its alarming spread through the continent is a matter of deep concern. Currently almost 70% of the HIV infections occur in Africa, most of them in Sub-Saharan Africa, with almost 50% of the AIDS cases attributed to the continent. Around 2 million people in South Africa are reported to be infected with HIV. The peak prevalence of the infection is in most sexually active age groups (15-45 years) and the mode of spread being predominantly heterosexual. A slightly higher percentage of the infection is seen in women than in men. Sexual transmission accounts to about 80% of the spread of the infection with 10% each due to perinatal and blood transfusion routes. Some 2 million cumulative cases of AIDS occurred in Africa. Several co-factors, among which sexually transmitted diseases (STDs) particularly aid the spread of HIV in Africa.

Decreased spending on public health, together with poor management and inefficient and wasteful use of scarce resources resulted in the sub-Saharan region in chronic shortages of essentials drugs and in deterioration of health infrastructures which further contributed to aggravation of HIV/AIDS infections.

Recognising the magnitude of the problem, most African countries have taken urgent steps to reduce STDs to contain the spread of HIV. However, more intensive expansion of these containment programmes and socioeconomic, behavioural and prevention-oriented research are needed in the region to make a significant intervention of the spread of the infection.

In 1988, the African region of the World Bank adopted an Agenda for action on AIDS in Africa. A re-evaluation of the AIDS situation was undertaken by the Bank in 1992. The review revealed the magnitude of the AIDS problem in Africa and its predominant sexually-transmitted character spreading rapidly from a disease of the urban population to that of rural areas. The Bank urged the African governments to direct their financial and planning agencies to focus on AIDS and its implications for development.

In 1992, the Organisation of African Unity (OAU) signed the Dakar Summit Declaration concerning the AIDS epidemic in Africa and committed to an agenda for action against AIDS. More recently, The African Development Bank Group devoted their 1993 Annual meetings symposium at Abidjan on the theme "HIV/AIDS and Development in Africa" and renewed their commitment to fight against the alarming spread of AIDS in Africa. The symposium concluded that AIDS can be prevented with cost-effective interventions starting with community initiatives to certain concrete actions by policy-makers and citizens of Africa.

II. PREVENTION AND CONTROL OF HIV INFECTION

Major strategies identified for the prevention and control of HIV/AIDS infections contain different components. Among these are:

a. Sensitising and educating the public at all levels on HIV infection and AIDS

b. prevention and treatment of other sexually-transmitted and AIDS-related diseases

c. Condom promotion

d. Early diagnosis, treatment and intervention of spread of HIV

e. Prevention of transmission through contaminated blood

Possible approaches for contributing to the above components are briefly reviewed below.

1. Sensitising and Educating the Public, Students and Teachers at All Levels on HIV Infection and AIDS

Many factors influence the spread of HIV/AIDS in the context of sub-Saharan Africa including social, cultural and demographic ones. Close community involvement an social mobilisation that address some of the underlying factors could significantly slow the spread of the epidemic. Free flow of information on sexually-transmitted diseases including HIV infections and on sexually safe behaviour to public across the strata can contribute to an effective preventive strata can contribute to an effective preventive strategy of AIDS control. NG0s and community groupings of women and youth could assist effectively in the dissemination of information, in opening communication channels and in distribution of supplies for prevention and care. Incorporation of reproductive health education curricula and HIV/AIDS awareness and counselling at the high school and college levels ensure youth participation in the fight against HIV/AIDS. Appropriate programmes in the area of AIDS control and environmental education can be designated to train the trainers (teachers, community health workers, etc.). Intensive training programmes could be incorporated in the medical curricula to train the future medical personnel to stem the tide of HIV/AIDS effectively.

In a recent project proposal under the sub-regional programme on community-based initiatives in Eastern Africa, UNDP underlined the importance of some of the above community outreach programmes.

2. Prevention and Treatment of Other Sexually-Transmitted and HIV Related Diseases

Sexually-transmitted diseases (STDs) increase the risk of contracting HIV transmission. STD infections facilitate greater susceptibility to AIDS infection. This route of transmission of HIV infection assumes great importance in the African continent where the spread of HIV being

predominant through heterosexual intercourse. STDs pose a serious problem in the African continent and diagnosis and treatment of STD infections should form a priority in the public health programme of the countries. There are reliable and robust diagnostic techniques for detection of STDs and these should be made available. Also, effective chemotherapeutic agents are known for the treatment of these infections and national and regional efforts should be made to produce these drugs in adequate quantities and supplied at reasonable prices.

There is at present no effective chemotherapeutic agent against AIDS, although there are few drugs such as AZT that inhibit the multiplication of the HIV and thus prolong the life of the infected individual. However, there is effective armamentarium to combat many of the associated infections such as tuberculosis and opportunistic-fungal and parasitic infections that establish and cause increased morbidity and mortality in the immunocompromised AIDS patient. These should be made available in the public health programmes of the country.

3. Condom Promotion

The persistent use of condoms could slow the spread of HIV infection and protect the infected individual. Condoms are a key component of the principal measures to prevent HIV transmission. This is particularly relevant to Africa where the spread of HIV infection is predominant through heterosexual transmission. Condom use has been reported to be infrequent in most countries of Africa. Concerted approaches should be made by the African governments to promote availability of adequate quality condoms at affordable prices. Programmes should be devised to educate and motivate men and women to use condoms in risky situations. The public and private enterprises should explore the feasibility of establishing local or regional condom manufacturing facilities for attaining self-sufficiency.

4. Early Diagnosis of HIV Infection

Precise figures on the quantum and the rate of infection among the population, particularly in African countries are hard to come by because of infrequent epidemiological surveys. It is vital that extensive diagnostic surveys should be conducted to monitor the extent of AIDS epidemic so that effective measures can be implemented to contain the infection. Early diagnosis would help in quickly adopting available measures in intervention in the affected population.

Serological methods are usually most definitive for diagnosis of HIV infection and they are also cost effective. There are several diagnostic kits available but none of these are produced in Africa and they need to be imported. The prices of most of these kits are high and not within the reach of many African countries. There is a need to stimulate the local industry in Africa to develop/adapt the technology and produce diagnostic kits that are relatively less expensive but having high sensitivity and specificity for use in the surveillance programmes in their countries. The technology developed by the International Centre for Genetic Engineering and Biotechnology (ICGEB) for detection of HIV-1 and HIV-2 infections could serve such a purpose.

Similar diagnostic facilities should be made available in Africa to detect sexually-transmitted diseases (STDs).

5. Prevention of Transmission Through Contaminated Blood

Besides sexual contact and maternal to fetus axis, the other main route of transmission of HIV infection is through blood transfusion which amounts to 10% of new HIV infections in certain African countries. Diagnostic facilities should also be made available for routinely screening for HIV contamination of blood used for transfusion.

Several reports emerged in recent years, including from developed countries, of accidental contamination of blood used for transfusion with HIV leading to detransfusion and blood collection centres should have facilities for HIV screening. Re-use of non-sterile surgical and dental instruments and accessories should be avoided to prevent transmission of infection.

III. MISSION OBJECTIVES

An inter-Agency Co-operation programme (UNAIDS) has been established and in operation with a concrete programme for the containment of HIV/AIDS. The objectives of the programme are to advocate global action against AIDS and build national capacity strengthening to contain the infection. The Economic and Social Council (ESC), in a resolution at the 33rd meeting in July 1994 at New York, called for participation and contribution of all UN organisations towards substantive issues of the programme. UNIDO, therefore, has undertaken to contribute substantially to the internationally co-ordinated efforts in the area. In view of the magnitude severity of HIV/AIDS epidemic in Sub-Saharan Africa, UNIDO, to begin with, targeted its project to selected African countries in the region. The immediate objective of the project was to investigate market demand for pharmaceuticals and allied products used in diagnosis, treatment and prevention of AIDS and AIDS-related diseases or conditions in Sub-Saharan African countries and to identify opportunities for the local production of these goods needed in sufficiently large quantities at country or regional level. The study was intended to provide strategy advice for the development, establishment and promotion of local or regional production of these items. A report of the study conducted earlier on the above issues in East African countries and South Africa has already been documented. The present report forms part of the project and an extension of the study and covers the work done during an in-depth mission to Nigeria during 15 January - 6 February 1996.

The itinerary of the mission and information on the officials met from academia, government, industry, NGOs and international organizations, etc. are included in Annex 1.

A list of the available reports/references collected on the subject during the mission is appended under Annex 2.

IV. BACKGROUND INFORMATION ON NIGERIA

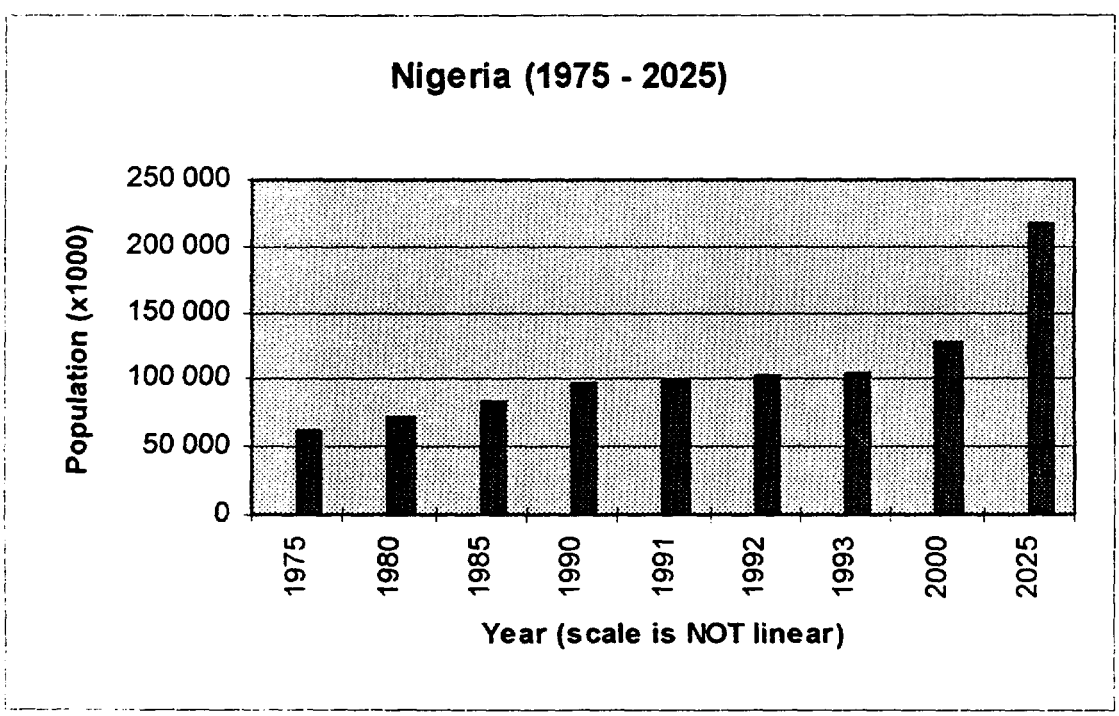
1. Geography

Nigeria is a federation of 30 states. In addition there is a Federal Capital Territory (FCT), which is governed in much the same way as a state.

2. Demographics

The Federal Republic of Nigeria is the most populous country in the African Continent with 112 million population. This has grown from 72 million in 1980 to 105 million in 1993, and is projected to reach 127 million in the year 2000 and 216 million by 2025 (see Fig.1 and Table 1 in Annex 13).

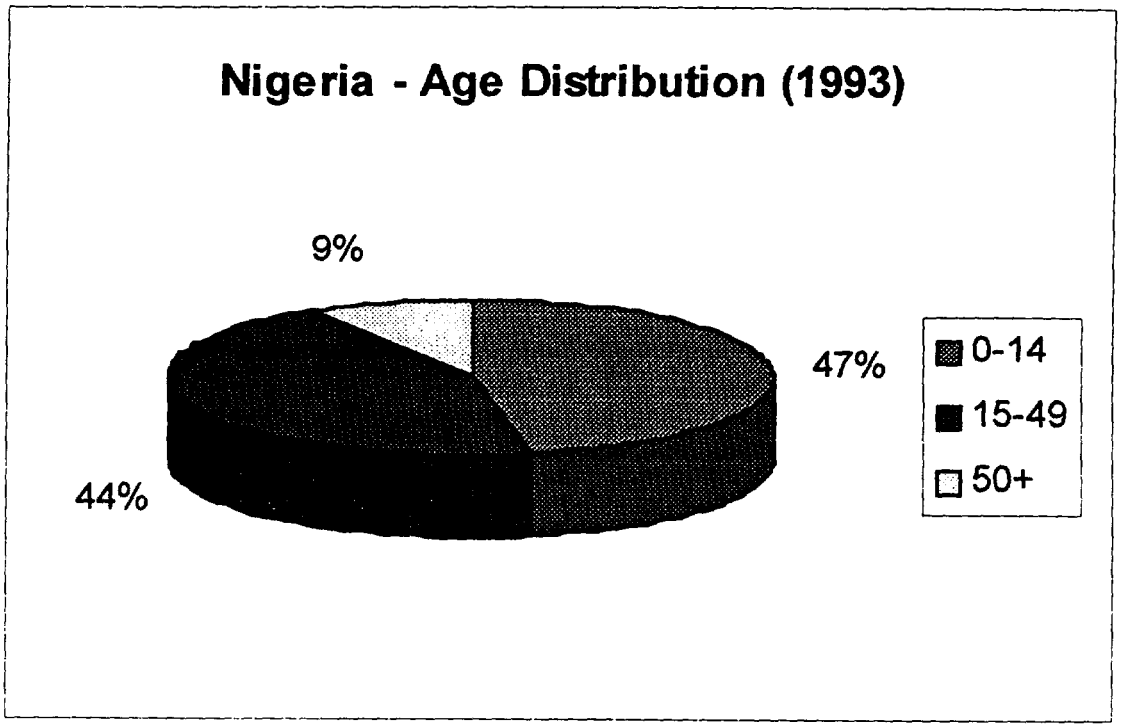
Fig. 1 : Population of Nigeria (1975-2025)



Annual percentage population growth rate is expected to decrease slightly from 2.9% in 1992 to 2.7% in 2000 and 1.6% by 2025. In 1970 urban dwellers made up 20% of the population. By 1993 this had increased to 43%, and is projected to remain at this level throughout the rest of the decade. The above information is shown in Tables 2 and 3 of Annex 13.

Almost one half of all Nigerians are under 15 years old, as can be seen from Fig. 2. This age group accounts for 47% of the population, while the 15-49 age group represents 44%, with only 9% of the population over the age of 50.

Fig. 2: Age Distribution of the Nigerian Population



Nigeria with its dense multi-tribal and multi-cultural population has a high Illiteracy rate (40 million; male 38% and female 61 %). Roughly 44.6% of the population is urban.

3. The Economy

Although Nigeria has primarily an agricultural economy, the country has large petroleum reserves which constitute a major source of national income (85%) and foreign exchange earnings (95%). Nigeria accounts for 8% of the crude oil produced by the Organisation of Petroleum Exporting Countries (OPEC). Per capita GNP is US$340.

The Nigerian economy recovered from a period of negative GDP growth in 1975-80 and a slump in 1980-85, to post a 2.4% annual growth rate during the second half of the eighties. This growth rate slowed to 0.9% during the first three years of the 1990s. In the mean time the consumer price index has soared to 180% of its 1980 value in 1993. (See Tables 4 and 5.) The Naira (local currency) has also suffered losses compared to the US dollar going from near parity in 1985 to 22:1 in 1993 (Table 6). The Naira was trading at around 84 Naira to the US dollar in January 1996.

The low per capita expenditure on health care (US$ 9) and low consumption of essential drugs (US$1.5) together with the deteriorating foreign exchange rate reflect Nigeria as a country spending one of the lowest percentage of GNP on health in the region.

4. Industry

Nigeria is blessed with many natural resources such as crude oil, tin, columbite, iron ore coal, limestone lead, zinc, natural gas. As to agriculture the following crops are the major products of the country: peanuts, cotton, cocoa, rubber, yams, cassava sorghum, grains livestock. In the industrial sector, the major industries are: mining, wood products, food processing, textiles, building materials footwear, chemicals, printing, iron and steel. More details on these appear in Annex 14.

The share of manufacturing in GDP has remained modest, hovering around 5% throughout the past two decades (see Table 7).

5. The Health System

The Federal, State and local Governments together hold responsibility for health delivery to the population.

Health demographics for Nigeria show that in 1990 there were approximately 91,000 beds in health facilities in the country, 61,000 of them in hospitals. Thus ,there were 1,600 persons per hospital bed, 3,500 persons per bed for other categories of health facilities, for a combined total of 1,200 persons per bed. During this period there were 6,000 persons per doctor and 1,000 persons per nurse.

5.1 Health Indicators

Infant mortality decreased from 139 per 1000 live births in 1970 to 95 per 1000 in 1992. By 1992 life expectancy was 55 for females and 51 years for males. The crude birth rate in 1991 was 43 per 1000 while the crude death rate stood at 14 per 1000, and the prenatal coverage rate was 78% during the period from 1985 to 1990. In 1991 immunisation coverage for infants ranged from 44% for DTP3 to 57% for BCG, with 58% of pregnant women immunised for tetanus. Daily per capita calorie intake rose between 1980 and 1990 from 2,190 to 2,200, while protein intake rose over the same period from 46 to 70 grams.

6. HIV/AIDS in Nigeria

The magnitude of HIV/AIDS epidemic was thought to be not as severe in Nigeria as in certain other countries of Sub-Saharan Africa. The first case of AIDS was reported in 1986 in the country. According to the HIV/AIDS surveillance data of the US Bureau of Census 1992, there was a sero-prevalence of under 1% for HIV infections in the low risk urban population. However, the sero-prevalence in the high risk group was 10-25%.

AIDS is the most important emerging health problem in Nigeria today. The prevalence of premarital sex, extra marital relationships, other habits such as partner exchange and polypartner sexual activity lead to greater susceptibility to HIV infections.

6.1 Government Structures

The statutory authority responsible for national direction in the fight against HIV/AIDS in Nigeria, is the National AIDS and STD Control Programme (NASCP). Originally, it was the National AIDS Committee, created in 1988 as part of the first Medium-Term Plan (MTP-I) which covered the period 1988-92. Four years later the National AIDS Control Programme (NACP) was merged with the STD Programme to become the NASCP, with a view to decentralise HIV/AIDS control and integration of STD control activities into the Primary Health Care (PHC) programme. The NASCP is a parastatal organisation of the Federal Ministry of Health and Social Services, and is currently based in Lagos, acting as the Ministry.

There is an AIDS programme based in the Health Ministry of each state. At the helm of the state AIDS control machinery is a State AIDS Programme Co-ordinator (SAPC). Finally, each Local Government Area (LGA) has a committee on AIDS control, whose members come from various ministries directly concerned with health and social welfare. NGOs are also represented at this level.

National health policy is adopted at the National Council of Health, which includes the Minister, the Director General, 31 State Commissioners for Health, and 31 Directors General of the state Ministries of Health.

There is strong interest in creating administrative units in Nigeria. Borno State, for example was one of the original 12 states in Nigeria. Later, Bauchi and Gongola States were carved out of it. There are currently 31 states (counting the Federal Capital Territory), and 591 Local Government Areas. That notwithstanding, there are requests pending to the State Creation, Local Government and Boundary Adjustment Committee for 80 new states and 2,242 new council areas. Whereas geographically smaller and smaller administrative units ostensibly are designed to bring government closer to the governed, there is a down side in terms of administering programmes. More and more administrative bodies have to be dealt with to reach the same population as before

6.2 Statistics

It is difficult to comprehend the full magnitude of the AIDS problem in Nigeria because although data is available, it is incomplete and not accurate. The first case of HIV positive appeared in 1986. By 1990 there were over 1000 sero-positive cases. It is generally accepted that HIV infections by risk group range from 2.8% for antenatal patients to about 40% among commercial sex workers, with an average of 3.8%.

In 1991/92 limited sentinel surveys conducted in 11 States revealed upper limits of 52% HIV positivity among CSW, 22% among STD patients, 14% among tuberculosis patients and 6% among antenatal clinic attendants. There was a ten fold increase in AIDS cases in three years (1991-93). Nigeria reported some cumulative 2680 AIDS cases as of September 1995. It was recognised that the actual number was much higher because of under-reporting and poor epidemiological surveys.

Sentinel Sero-prevalence Surveillance (SSS) was again carried out with technical and financial support of USAID and WHO in 1993/94 in 17 States. The study incorporated a total of 64 sentinel

sites with an estimated sample size of 44,800. The sentinel groups covered were the Commercial Sex Workers (CSW), patients with STD and tuberculosis (TB), Long Distance Truck Drivers (LDTD) and those attending antenatal clinics (ANC). The results are summarised below:

Table 1: Number of AIDS cases

Total number of cases of AIDS (as of September 1995)	2680
Sero-positive prevalence	3.8%
% of the population which is sexually active	58%

The breakdown of HIV infections by risk group is shown in Table 2.

Table 2: Breakdown of HIV Infections

Commercial Sex Workers (CSW)	30% - 50%
STD patients	28 %
TB patients	7.8%
Long distance truck drivers	4.0%
Antenatal care patients (used as control group)	2.8%
National Average	3.8%

The study results also showed the following:

- Some States had high HIV sero-positivity. Among CSWs (highest being 57.9%), the average figures were 46.3% in Benue, 40.3% in Enugu and 39.3% in Osun.
- The sero-prevalence among STDs was 33% in Jos and 20.6% in Plateau.
- The HIV positivity in TB patients was 20% in Borno State as opposed to the average prevalence rate of 7.8% in the country.
- Among the ANC patients the overall prevalence was highest in Plateau State with 8.2%.
- The overall prevalence of HIV infection among the groups was in the order CSW>STD>TB>ANC.
- Interestingly, the HIV positivity among 15-19 years old was higher in females while in the later ages (20-29 years) it was higher in males.

The HIV prevalence in the general population of the country is now estimated to be 4 million with 25,000 cumulative AIDS cases by the end of 1995. It is projected that the AIDS cases could become over 41,000 by the year 2000.

The third survey was under way, and not yet completed, in January 1996. However, well documented statistics from the University of Maiduguri Teaching Hospital in Borno State, which does 100% screening on all blood transfused, show rapid growth in the number of sero-positive persons over the past few years. Data from this source is shown in Table 3.

Table 3: Evolution of HIV Sero-prevalence

Year	HIV Sero-prevalence
1987	0
1988	0.33
1989	0.38
1990	0.94
1991	2.76
1992	3.76
1993	4.35
1994	4.71

There is a high prevalence of STDs notably gonorrhoea, herpes, chlamydia and syphilis. No precise national or regional estimates of STD prevalence were made. However, a national mean prevalence of 26% was indicated in the STD infections with 18% for post-pubertal gonococcal urethritis and 2% for syphilis. Tuberculosis is highly prevalent in the Nigerian population (more than quarter of a million cases) and it is among the third leading cause of death in the country.

6.3 Data Collection

An STD survey was going on in 21 states in January 1996, sponsored by WHO and the Federal Government. Sero-positivity involves tests in the field, using antibody detection (ELISA and rapid tests), followed by confirmation at blood centres using an antigen detection test (Western blot). This is mandatory in Nigeria. Six centres are available nationally for verification and quality control of all HIV/AIDS testing. Despite this, there is some disagreement about the statistics cited in the official literature on HIV/AIDS in Nigeria, particularly as concerns Borno State. This has been brought to the attention of the NASCP authorities in Lagos and the SAPC.

6.4 Epidemiology of HIV/AIDS

Transmission of the HIV is primarily by sexual intercourse (80%) followed by blood transfusion (10%). Other causes make up the rest, and include practices such as use of unsterilised needles and skin piercing devices used in circumcisions and tribal marking. However, the main mode of HIV transmission among paediatric patients in rural areas appears to be through needle injection, accounting for 80 - 90% of the infections. In one centre 60% of all sero-positive persons also had tuberculosis.

Several factors point to the potential for an outbreak of the infection in an uncontrolled manner unless effective preventive measures are taken early. Among these are:

- the youthfulness and the density of the population (40% between 15-44 years of age which is the most vulnerable group) and first sexual experience reportedly occurring in the population at an early age (1 5 years in male and lower age in female).
- rapid urban expansion
- socioeconomic inequalities experienced by women
- political instability
- deteriorating economy, decreased political and financial commitment at the State and local levels of the Government.

Other statistics are shown in Table 4, which shows that 1 in 4 HIV infected persons exhibits HIV-2. Even so, there are few cases of full-blown AIDS from HIV-2 infection. Around 4% of AIDS patients in Nigeria are HIV-1 subtype 0.

Table 4: Distribution of HIV Types

HIV-1	HIV-2	Atypical
48% - 50%	24%	26% - 28%

An interesting phenomenon observed in Jigawa State is "migratory prostitution". This is associated with a mobile market which holds on different days at different sites within a group of neighbouring communities. The merchants tend to be the same at many of the sites. Some CSW have tapped into this and now make their services available whenever and wherever the market is held.

7. Industry

7.1 Industrial Policy

States, apparently, do not routinely develop policy on industry. The National Council on Industry (NCI), in which all states participate, develops policy for the entire country. The states then implement what aspects devolve to them from the national charter. Even so, the Borno State Executive Council (composed of the Military Administrator and all Commissioners) policy is now to lease all state owned industries to private sector operators. For better co-ordination at federal level, there is an Industrial Development Co-ordinating Committee (IDCC) with eight Federal ministries represented.

One area in which policy is needed at the state level is exemplified by the fact that the Ministry of Industry in Enugu state is not routinely informed about creation of new industries in the state. The

Ministry enters the loop only when the company has unmet needs in one or more of the following areas; land, financing and technical expertise. A company with all inputs in place is not required to register with the Ministry. The only exception to this is that in cases where the expertise of non-Nigerians is needed, the Ministry of the Interior must be solicited to obtain residency (work permits) for the foreign nationals. As a result, there is no comprehensive list of industries in the state at the Ministry. Officials did inform the team that an exhaustive survey was being planned (perhaps to be followed by new regulations requiring registration).

7.2 The Pharmaceuticals Industry

The production base of the Pharmaceuticals industry in Nigeria is not geared towards antimicrobials. It is aimed more at analgesics and antipyretics. Regulations governing the type of products manufactured only cover government facilities, which are constrained to produce only the items on the Essential Drugs List (EDL). Private establishments can import or manufacture whatever they wish, hence the proliferation of syrups for all sorts of conditions, including some miracle ones which claim to be good for all ailments.

Earlier on antibiotics were made in Nigeria. Currently, the trend is to import a given product in bulk (from India, Brazil, etc.) and repackage it in Nigeria, to reduce high production costs. The low value of the Naira is part of the reason. The general rule of thumb is that 70% of the inputs needed should be available locally for local manufacture to be profitable. An example cited was the case of batteries, which used to be manufactured locally by a company called BEREC, batteries were not imported into the country during this period. Now, all batteries are imported. This has a bearing on the success of IEC campaigns carried out on radio, for the large number of listeners who use battery operated receivers.

V. PREVENTION STRATEGIES

HIV/AIDS control work at national and state levels follows the classic five-pronged approach, covering:

a. Programme Management
b. Information, Education and Communication (IEC)
c. Blood and blood products
d. Epidemiology and surveillance
e. Laboratory work

Local manufacture of inputs, in the Nigerian context in less likely to be concerned directly with programme management and epidemiologic surveillance as it is with the other three areas of focus. This report therefore concentrates on IEC, blood screening and diagnostics (laboratory work).

The MTP-II (1993-97) aimed at control of HIV/AIDS and STDs through prevention of sexual transmission, as a result of behavioural change. The plan had four strategic objectives namely:

1. prevention of HIV infection through specific interventions

2. reduction of the personal and social impacts of HIV/AIDS on patients and their families

3. reduction of the impact on society

4. concertation and mobilisation of national and international efforts and resources in the fight against AIDS.

The work plan set specific goals in primary, secondary and tertiary stages through prevention of STD infections, early diagnosis and treatment and care of HIV/AIDS patients and families including. A number of target interventions were planned among CSWs, military and the youth including condom programming in the control of STDS. Although the plan realised that the success of condom promotion depended, among others, on local production of quality condoms, no attempts have been made in this direction.

Seven of the States had well-organised tuberculosis control units but essential drugs to fight the TB were inadequate.

1. Awareness and IEC

During the MTP-I (1988-92) Nigeria laid emphasis on the control of HIV/AIDS through promotion of IEC. The Presidential declaration of "war against AIDS" was launched in 1991 with allocation of budget at Federal, State and local levels.

The Federal Government's strategy on HIV/AIDS awareness is to increase public enlightenment

through the media (print and broadcast).

Other prevention strategies are:

a. Mandatory blood screening
b. Curbing commercial blood donation programs
c. Targeting IEC at high risk groups; there are clinics among CSWs
d. Condom social marketing (CSM) through radio and tv spots
e. IEC effort includes plays and skits by CSWs
f. Integrating HIV/STD prevention into PHC programmes

1.1 IEC Broadcast Media Campaigns

IEC campaigns include media components. Jingles on state radio are generally free if requested officially by the state government. In this regard, some stations have greater credibility than others. The British Broadcasting Corporation (BBC) is a highly trusted medium in the northern states, and thus very effective in reaching people at grassroots level. Next in line is the Voice of America (VOA).

Video and film are also used. The film entitled "The Dawn of Reality in Nigeria" aimed at persuading policy makers that AIDS exists in Nigeria was produced in 1992. In the FCT, for example, the SAPC takes the 45-minute video along with a VCR and TV around for viewing at schools and community groups.

1.2 Print Media Campaigns

The Federal and State Ministries of Health have put out several publications and promoted public awareness of HIV/AIDS through IEC campaigns (Annex 2). Among these were:

a) manuals on STDs
b) a guide book on HIV/AIDS
c) a manual on management and monitoring of STDs and AIDS prevention and control
d) training manuals for AIDS control/PHC integration at local Government and district levels
e) guidelines on appropriate use of blood and blood products
f) reproductive health education manuals for primary and secondary school students.

However, the implementation of the IEC agenda has been poor. One reason is that print media IEC materials, including decals and bumper stickers for cars, prepared by the NASCP, are unfortunately not usually available in quantity to the States. The policy is for the NASCP to send out one copy for reproduction and distribution by each state AIDS Control Programme using its own resources.

1.3 A Name for HIV/AIDS in Local Languages

One way in which HIV/AIDS workers promote acceptance of IEC programmes is to introduce a word, or expression, for AIDS in local languages. In this vein, a name has been coined for HIV/AIDS in both Hausa and Ibo. The Hausa name is **"kariwa garka jiki"** which literally means "breaker of the body's mechanism" and is understood to mean "killer of the body's soldier". This is consistent with educational material on HIV/AIDS put out by the national programme which depicts AIDS as killing off the body's while blood cells, which act as soldiers to fight off infections. In Ibo, the name translates to "a diseases which drains you until you die". This, again is an imaginative term as it graphically translates what actually happens to the AIDS victim. It also conveys the idea that this is something awful, which should help to drive home the message.

1.4 Influence of Culture and Religion

Religious and cultural beliefs are important factors in the fight against HIV/AIDS in Nigeria. Enugu State, for example, is a very strong Catholic, and thus there is vociferous official opposition to condoms. Any project for local production of condoms would not receive state support. In the northern states, Muslims also voice objection to the use of condoms for family planning purposes, as stated elsewhere in this report. There is social resistance to blood donation in Borno State due to the widespread belief that a person giving blood will die.

Urban populations pose a special problem as concerns community mobilisation through a traditional leader. The "chief" in an urban setting does not have the allegiance of his people, as does the traditional chief in a rural area. Mass awareness campaigns for health education, vaccination etc. need to address this issue.

1.5 AIDS in the Curriculum

Although there are no funds earmarked for this, the Federal government encourages health education by states. There is not yet formal inclusion of HIV/AIDS in the curriculum. In the mean time, outreach programmes for elementary and secondary schools, including talks by health officials, bring the message to school aged children. Sex education is included in school syllabuses. However, schools are under the Ministry of Education, and are run through the Local Education Districts (LEDs). On the other hand, an Executive Council exists in each state, made up of all Commissioners and the State Military Administrator. It suffices for the Executive Council to approve a curriculum change for this to become law in the state. At the national level, there is a plan to include HIV/AIDS educational material in the curriculum starting this academic session, with funding from CHEVRON. VMO/GPA, USAID, and UNICEF.

There is also a need for AIDS awareness courses in the curriculum of the medical school, as well as for training physicians on syndromic management - given that early diagnosis and treatment of STDs is often quite expensive.

1.6 Peer Education

Peer education has been shown to be an effective tool for IEC campaigns. Here, it does not suffice to have peer educators delivering a curriculum designed by outsiders. The curriculum and course need to be developed by the community itself. This is particularly true on school children.

In one prevention programme run by an NGO, the IEC campaign includes plays and skits produced and performed by CSWs. Other peer education programmes have focused on university students (at the University of Ibadan), and employees of a large construction firm (Julius Berger). The project at the University of Ibadan is part of the West African Youth Initiative, which has ten sites - eight in Nigeria, and two in Ghana. The project is supported by Advocates for Youth, out of Washington D.C. in collaboration with the Association for Reproductive Health in Nigeria.

1.7 Little Behaviour Modification

Despite the efforts made at national and state levels, there are disturbing signs that people are not convinced that AIDS exists in Nigeria. Data from the second national survey shows that HIV/AIDS awareness is 80%. Behavioural change, on the other hand is only 15%. Thus the message is getting across, but only superficially.

AIDSCAP, an NGO involved in condom social marketing, in collaboration with the Student Affairs Office of the University of Lagos commissioned, a baseline survey on the Knowledge, Attitude, Beliefs and Practices (KABP) of the students aged 15-30 years through structured questionnaires (Annex 2). The study conducted by VIBEC VENTURES LTD., Lagos, was quite revealing and reflected the inadequate impact of IEC programmes in the country on the youth. About 1/3 of the students had multiple sex partners. An equal number never used condoms or only rarely used them during sex. Only about one half of the students who used condoms knew the appropriate time to use them. Only 6.8% knew what HIV is and 11.4% quoted correctly the mechanisms of HIV/AIDS transmission. 15.7% of the respondents considered themselves at risk of getting HIV/AIDS and only 6.8% knew how to prevent getting the infection. 40-50% knew the correct signs of infection with STDs and AIDS.

According to one SAPC, the symptomology of AIDS compounds the issue, as several opportunistic infections can occur when the body's immune system is compromised. This makes it difficult to educate people at the community level, as the idea of all these different diseases being cause by AIDS is not comprehensible to many.

One approach to resolving this specific aspect of the dilemma is that adopted by the NASCP in its booklets. The body's immune system is described as the body's defender - the body's soldier while AIDS, the enemy, tries to kill the soldier. With the soldier gone, diseases are free to ravage the body.

A major problem with the counselling aspects of IEC is the gross insufficiency of any advice that could be offered when what patients really want is to be cured.

2. Blood Screening

HIV/AIDS diagnostic facilities are available in selected locations, including the 56 blood screening centres and 6 reference centres throughout the country. All diagnostic reagents/kits are imported or obtained through donations from international agencies such as WHO, UNICEF and USAID. Diagnostics from Genelavia, Wellcozyme, Immunocomb, Specialty Biosystems Inc., and spot test kits from ORTHO Diagnostic are in use in the country. The supplies from internal sources were erratic and aid-giving agencies are withdrawing their support.

Nationally, about 6% of blood donations are voluntary, and the majority of donors are relatives of patient needing blood. The national blood transfusion policy is still to be launched. The general strategy is to make blood screening mandatory, and to curb commercial blood donation programmes. To achieve this more screening centres will be needed. In Borno State, for example, the two existing centres are in the capital, Maiduguri. State health officials claim there is a need for 3-4 more screening facilities to serve other urban centres.

Some states, such as Oyo, have laws requiring private blood banks and laboratories to forward blood samples to recognised centres for testing. In Lagos State N10m (US$120,000) has been voted for the launching of blood collection centres, and two screening centres for HIV are to start operations soon. Plans call for private blood transfusion centres to be outlawed when state blood banks become operational.

At the Ibadan centre, there was a drop from 1.0% to 0.7% HIV sero-positivity of donated blood when screening for Hepatitis B was introduced before donations were made.

2.1 Rapid Tests

ELISA tests take around two hours. This delay is not suitable for blood transfusion services in places where there is no blood banking system. Usually, donors are summoned because there is an immediate need. A two-hour delay for the test itself leads to a three-four hour wait for test results. This could be costly in terms of outcomes to the patients needing the blood transfusion. Rapid tests, such as the HIV-1/2 dipstick developed by the Programme of Appropriate Technology in Health (PATH), are more suitable for these situations. A rapid (membrane) test in use in Nigeria is the HIVACHECK by Orthodiagnostick. It can be stored at temperatures up to 30^0C, and has proven reliable - the first 20 positive tests were all confirmed using other methods. In Jigawa state screening is done with rapid tests. (There are also 2 ELISA machines in two of the general hospitals in the state.) One SAPC goes as far as to claim that they are not only faster but work better.

2.2 Cost of Testing

HIV tests cost between N400 and N500 per test, including a small margin of around N50. The fee structure set up by the Oyo State Ministry of Health, which subsidises the testing, is as follows:

N150 for blood screening
N400 for diagnostic testing

N600 for testing in connection with visa applications, which some embassies require.

Every test must be recommended by a physician, except where needed to fulfil visa requirements, in which case the appropriate form from the embassy will do. Syringes with needles cost around N20.

Blood screening was originally fully funded by the Federal Government, when it began in 1989-90.In the past two years, however, there have been frequent interruptions in the supply of reagents. A cost recovery component, introduced by some centres at the inception of the programme, has allowed the operation of a revolving fund which is used to supplement materials supplied by the government.

The few blood banking system which are available suffer from lack of appropriate diagnostic reagents. Commercially donated blood is not systematically screened against HIV infections.

2.3 Confirmatory Test Centres

Nigerian definition of AIDS includes a laboratory test for HIV; clinical symptoms not enough. There are six confirmatory centres across the country. The Department of Virology, University of Ibadan College of Medicine is one such centre. It serves as a confirmatory service (using Western blot) for blood screening services operated at blood banks. They see about 10 new cases of AIDS per month. HIV infection could be as high as 7% in the general population of the seven states of the region.

3. Condom Social Marketing

The use of condoms is a proven effective measure in the fight against HIV/AIDS, and Condom Social Marketing (CSM) is the strategy used to promote condom use. Condom sales in Nigeria are shown in Table 5.

Table 5: Condom Sales

Year	Sales
1993	23
1994	45
1995	55

All condoms are imported by the United States Agency for International Development (USAID) through Population Services International (PSI) - Nigeria, the sole wholesale distributor of condoms. USAID works with major NG0s in local distribution, some of which also use smaller NG0s in their marketing programmes. Two of the international NG0s are AIDSCAP and Family Health International (FHI). Some National NG0s include the Nigeria Youth AIDS programme, Cross River AIDS network, and the Jigawa Youth AIDS Programme.

In Enugu and Anambra states, condoms are supplied through Family Health International (FHI)/AIDSCAP. The complete package marketed in one programme run by an NGO includes antimalarials, analgesics and syrups for children of the women helpers. The packages also include

instructions in local languages. In the Muslim part of the country the women helpers are replaced by men because of the need to take cultural sensitivities into account.

The price ranges from N3 to N10 for a pack of 4 condoms, depending on place and time. In general, demand has been created for programmes, including CSM through AIDS awareness campaigns. But often this demand is not met due to lack of commodities.

3.1 AIDS at the Work Place

Several companies in Nigeria such as Shell, Julius Berger, etc. have an AIDS policy and work with NG0s towards implementing them. Workers unions play an important part in these programmes. One AIDS prevention programme which focused on long-distance truck drivers at motor parks has succeeded, in large part because it involves two unions - a truck drivers union and a transporters union. Union officials know their members well and can readily identify high risk groups. One large construction company uses labour unions for condom distribution. The company also provides counselling of STD patients and treats family members as well.

The initiative: "AIDS in the Work Place" promoted by the Enugu SAPC has been very successful in Zimbabwe. Companies have an interest in curbing the spread of HIV/AIDS so as to avoid the situation in Eastern and Southern Africa, where it is estimated that some companies have to train three people for every position because of deaths due to AIDS.

4. The Role of NG0s

Several NG0s such as STOPAIDS, Family Health International (FHI), AFRICARE, Society for Women and AIDS, Nigeria (SWAAN), PPHI have been active in the IEC and counselling programmes, distribution of condoms, and training - through organisation of seminars and workshops.

While some states in Nigeria depend greatly on NGO participation for the success of their IEC campaigns, there is little or no harnessing of NGO potential in others. Those states which work with NG0s, typically, register the NG0s, make them file periodic reports on their activities to the state health ministry, and monitor their activities. A parallel effort has been carried out successfully with private pharmacies Some donors and agencies already have their own lists of approved NG0s. This is the case with UNICEF, which operates the IEC aspects of the primary health care project through NG0s. The PHC project began in 1991 and ran until 1995 but was extended for another year to 1996. There is a small AIDS component on production of IEC materials, which only went active in 1995 because of problems with information on the side of government. The programme supports NG0s involved in IEC AIDS programmes and can cover any IEC activity including both print and broadcast media. UNICEF, however, requires that the NGO have broad coverage over much of Nigeria.

A few of the NG0s involved in IEC and CSM activities are profiled in Annex 15. UNICEF has published a comprehensive catalogue of the most reputable NG0s operating in the health sector in Nigeria.

5. Funding

There are problems with perception of the health sector, which is not seen as income generating. Hence it receives low priority, particularly in austerity budgets brought on by sustained economic crises. The general cry heard throughout the mission was that there were not enough funds to carry out the programmes planned by various bodies responsible for IEC in HIV/AIDS prevention.

Plans called for the Federal Government to allocate Nl.0 m to each state for AIDS control activities. The Area Councils were then supposed to vote an additional N500K from their own budgets to the effort. The reality has been quite different. Very few states have anything beyond a token amount budgeted for AIDS control programmes. Fiscal allocations were routinely included in the budgets of State Ministries of Health for use in the control of HIV/AIDS but the amounts were not generally, released for the purpose intended. One state budgeted N200,000 in 1995, but nothing was actually disbursed.

To exacerbate the situation, IEC media campaigns are not cheap. A thirty-minute spot on the Nigeria Television Authority (NTA) channel costs around N20K, while a similar spot on radio goes for about N5K. A policy declaration that AIDS spots on radio and television would be free is in conflict with the requirement that these state-owned media corporations be financially selfsufficient. In practice AIDS spots are paid for. In Jigawa State, for example, a compromise has been reached, whereby one out of three spots per week on radio is free.

5.1 Support from the Donor Community

International agencies such as WHO, World Bank, UNFPA, IPPF, EU, the Overseas Development Administration (ODA) of the British Government, supported condom programme and arranged to procure large supplies for use in the country. UNDP planned to establish four AIDS control offices at a cost of US$ 635,000 to implement IEC, training and condom supply in support of the programmes of the MTP-II. UNFPA undertook to supply condoms (1.4 million pieces) in 1996 and planned to promote IEC programmes, working with both the government and NG0s. WHO's support has been in the area of prevention of HIV through sexual transmission and in planning and management, at a cost of US$187,000 per year under the MTP-II. Bilateral support to the NASCP was received from several sources, notably from the ODA and the Canadian International Development Agency (CIDA) (US$5.16 million) for HIV screening, equipment and supplies. Janssen donated drugs for the control of opportunistic fungal infections. Multilateral aid from EEC, NIE and NG0s and private sector also contributed to the NASCP. USAID, through AIDSCAP has contributed US$15 million over 5 years, starting in 1992, to the States of Lagos, Cross River, and Jigawa for condom promotion and distribution; STD diagnosis and treatment; communication for behavioural change; policy development and support; behavioural research activities; strengthening institutional capacity and evaluation.

The World Bank forwarded a project on request to the Federal Republic of Nigeria on STD prevention in June 1995 with the NASCP as the implementation agency. The project carries a credit amount of US$13.7 million from the Bank, US$4.4 million from the government and US$0.3 million from Japan PHRD. The main strategies developed in the project were prevention of STDs including HIV/AIDS, diagnosis and early treatments of STDs and care of AIDS patients and families. The project targets youth, CSW and commercial sex clients, women of reproductive age and selected high risk occupational groups such as miners and long distance truck drivers. The project components were to:

- design and implement IEC
- promotion of condom use
- a improve STD services through training
- provision of drugs and diagnostic equipment and their increased utilisation
- strengthening of programme management through training and hands-on experience in policy development, planning, monitoring and evaluation
- support project implementation including technical assistance
- expand information base

The project terms also include exploring feasibility to manufacture condoms and rubber gloves in Nigeria. Regrettably, the Government had not acted favourably to implement the project.

The World Bank is preparing a US$10m project, with an STD/AIDS IEC component, to cover Lagos and Plateau States. The project will focus on community needs and will be community based. Preparations for the project began with a beneficiary assessment. Nigeria is a blend country, qualifying for both International Bank for Reconstruction and Development (IBRD) and International Development Assistance (IDA) loans. There is also a population project worth about $75m under discussion. One component would possibly fill any gap in funding condom supplies left by USAID, if the latter were to pull out of Nigeria as has been threatened. However, all of these are currently on hold, the Government of Nigeria having halted all loans from the Bank.

The consultants were informed that the ODA is interested in setting up STD centres in 21 states in the country.

5.2 Local Financing of IEC

Several states are unable to cope with the need for IEC materials, due to lack of funds. One way of financing media IEC campaigns locally would be to encourage manufacturers to carry specific messages on the labels of their products, in return for reduced taxes on their sales. These would be similar to the warnings carried on cigarette packs in the United States, but focused on HIV/AIDS. Already, one producer of exercise books in Oyo state carries a message about AIDS prevention on the cover of the exercise books. As such, books are used by elementary and secondary school children, this constitutes an excellent form of IEC. This idea could be extended to other products such as: match boxes, cigarette packs, beer labels, etc. Broadcast media could also participate by carrying public service messages.

As this would in kind contribution involving no financial outlays beyond the initial investment required to retool the labelling facilities, it should be attractive to manufacturing companies.

VI. LOCAL PRODUCTION OF HEALTH SYSTEM INPUTS FOR HIV/AIDS

1. Policy and Local Production

The Federal Republic of Nigeria has taken a policy stand in favour of privatisation, and is thus reluctant to undertake publicly-financed industries. However, the Government would encourage, through incentives, private industries that undertake to manufacture the much-needed tools that serve to fight against HIV/AIDS infections. A variation on the privatisation theme in Nigeria, is commercialisation, whereby government contracts management of a state-owned enterprise to the private sector for limited but renewable periods of time. This is the case with management of some hospitals in Borno State.

There is also a need to convince people to invest in industry, as people usually want quick returns on their money and so find commerce more attractive than industry. Some states, such as Enugu State have a policy to provide incentives for industry, which includes:

a. industrial layout - plots are given at heavily subsidised rates
b. revolving loans for small and medium sized industries (SMIs)

One example of government policy incentives was the case of oral rehydration salts (ORS). AREWA pharmaceuticals has a product which met all the standards. However, government did not purchase from them because UNICEF was supplying OR salts purchased in bulk from abroad. A compromise was reached whereby UNICEF was given authorisation to buy about 30% of its needs for Nigeria locally.

1.1 Local Capacity

Several multinationals have established in Nigeria Pharmaceuticals production which supply basic drugs. No indigenous national manufacturing unit was existing in the country. State Ministries of Industries at Maiduguri and Enugu attempted to establish the industry and although feasibility studies were completed on this some years ago, no progress could be made because of paucity of funds (see section on *Lessons Learned* below). Both the ministries sought UNIDO's assistance in this context and planned to submit formal requests in this vein.

Some academic institutions showed interest in production of reagents and other inputs in the fight against HIV/AIDS. The Virology Laboratory at the University of Ibadan, for example, has the technology for small scale production (for laboratory use only) of most of what they use, including antisera, substrates, etc. However, interest shown by academic and research institutions, and technological know how available at these institutions must be backed by interest from manufacturing concerns for any sustainable local production operation to be carried out.

1.2 Lessons Learned from Previous Attempts

The Kano factory for syringe manufacture collapsed because all their moulding machines failed due to malfunction caused by the electricity supply. Zaira Pharmaceuticals Ltd. (ZPL) will have its own stand-by generator.

The Mina facility for infusion fluids had prepaid orders even before production started. The market was assured. The business still collapsed for three main reasons:

a. the project was designed to supply the hospital alone, and not the broader market;
b. the main promoter of the project went into politics;
c. poor support from government, perhaps due to many changes in the state government.

Changes in state government were also responsible for shelving a project in Borno State, for production of IV fluids, syringes and needles, although a feasibility study had been conducted under a previous government. The new priorities did not include this project.

2. Potential Products

2.1 Syringe Manufacture

Meanwhile, the State Government at Kaduna entered into an Austrian collaboration to manufacture. Hungary was to supply the needles to the plant. The plant, with a capacity to produce 135 million pieces of 2.5 and 10 ml denominations was expected to start production by March 1996. Although there is some local manufacture of syringes, these are said to be of very poor quality. Needles are not yet produced locally. This situation is about to change, as the State of Kaduna will be producing plastic disposable syringes under the trade name ZARINJECT in a new Nlb facility to be commissioned in the first half of 1996. Zaria Pharmaceuticals Limited (ZPL) will produce syringes of 2-ml, 5-ml and 10-ml capacity. The manufacturing process is such that it can be rapidly modified to produce one size or another of syringe. Initially, the factory will not produce needles. These will be imported from Hungary and marketed with the syringes. Total production capacity of the plant is 135 million pieces per year (working 4 shifts).

Syringes will be made of high density polyethylene using INJECS machines from Hungary, acquired through an Austrian technical partner. Sterilisation will be by ethylene oxide, not formalin, and technical assistance will be provided for one year by the foreign partners.

ZPL has applied for approval from the National Agency for Food Drug and Control (NAFDAC), the statutory body which gives quality control approval for food and drugs. Raw materials are all locally available, and already enough has been stockpiled for one year's production. For now, the needles will be imported from Hungary.

Syringe manufacture is only the first phase of a project which, eventually will have three items in the line of products, namely:

- syringes

- infusion fluids
- compounding and tableting, especially syrups

Pricing structure is still under study. Since the business is trying to break into a new market, they will need some protection. Part of ZPL's marketing strategy is to seek the status of sole supplier to the needs of project funded under the Petroleum Trust Fund (PTF). The business plan call for the investment in this first phase for production of syringes only, to be paid back in four years.

The ZPL project was initiated by the Kaduna State government, and is financed by a soft loan from an Austrian bank with backing from the Federal Government of Nigeria. The state government has credibility. However, there could be a problem with continuity if the Government should change. Later plans may include production of catheters as proposed by the foreign partner.

Disposal of used disposable syringes remains a problem in some places. A study showed that some children tested positive for HIV, while none of their parents had the virus, Further investigation traced their infections to the use of disposable syringes. It was discovered that disposable syringes were being cleaned, repackaged and sold as new. As a consequence UNICEF will recommend that only single-use syringes be made available in its programmes.

2.2 Manufacture of Gloves

There ware no plastic industry for the manufactures of gloves. All the supplies are currently imported. The Chief Medical Director, University Teaching Hospital and State Ministry of Health, Lagos were examining proposals to start an industry in this direction. The Enugu State Ministry of Health, also expressed interest in initiating a proposal on the manufacture of plastic gloves.

2.3 Manufacture of IV Fluids

There are a few I.V. fluid-manufacturing industries but none of them were able to produce enough units to meet the requirements of the nation. The Christela Chemical Works Ltd. at Lagos; Afrik Pharmaceuticals PLC at Awo-omamma; Ashmina Ltd, Ibadan; and Biomedicals Ltd., Ilorin, Kwara State produce some units. But supplies are erratic, inconsistent and limited. State Governments at Kaduna and Maiduguri were keen to identify industries in their states which could be involved in the production of I.V. fluids. The Eastern Nigeria Medical Centre at Enugu produced I.V. fluids from 1992-1995 but discontinued due to outdated equipment and quality control problems. The company is preparing a request to UNIDO for revitalising the industry.

There are 6 plants for manufacture of infusion fluids in Nigeria, in Ilorin, Mina (shut down) Federal Government in Lagos, Ibadan, Ogun State, and ??

There is an I.V. production unit owned and operated by the Lagos University Teaching Hospital (LUTH). However, it appears this is currently just for the needs of the hospital alone.

Also a factory is about to be commissioned in Port Harcourt for production of I.V. fluids, etc. Estimated demand for I.V. fluids at 5,000 litres per day, in Jigawa state?

2.4 Production of Vaccines

Vaccine production capability exists in Nigeria. This now includes production of the polio vaccine. A brand new laboratory has been set up for production of yellow fever vaccines and bottling of viral vaccines. The Dunlop company is involved in this effort, as well as the Manufacturing Association of Nigeria (MAN).

2.5 The ICGEB Diagnostic Kit

National approval of the HIVA test kit developed by the International Centre for Genetic Engineering and Biology (ICGEB) and produced by LUPIN Industries, India. Requirements for diagnostic testing tools for the NASCP are: at least 99% specificity and 99% sensitivity or better. In response to the offer of transfer of diagnostic kit technology from the ICGEB, the NASPC said there would be a need for 6 kits to be sent for testing at the 6 national confirmatory centres. In addition, some funds for transportation of the kits to the centres would be needed. In all an estimated $5,000 would be needed. It would take about 2 weeks to get the results back from the centres. If found satisfactory a recommendation would be made to the Ministry of Health, by the NASCP, for the product to be put on the approved list of diagnostic tools for AIDS for the country.

The Federal Republic of Nigeria strategy is to import diagnostics technology and to manufacture reagents locally. In this context, the Federal Ministry of Health at Lagos expressed deep interest in the ICGEB kit and wished to assess the kit for its suitability to Nigeria and requested for a small grant for this purpose. The Federal Ministry of Science and Technology was also keen on the diagnostics technology developed by ICGEB and proposed in a letter to the Director, New Delhi component of the Institute for initiation of a step-by-step transfer of technology to Nigeria. It was proposed that two scientists from Nigeria will be sent to ICGEB, New Delhi along with the test samples to examine the specificity and sensitivity of the technology on Nigerian samples. Thereafter, a MOU will be entered into by the Government and the ICGEB spelling out the terms of transfer of the technology. Among the other Ministries that endorsed the need to be selfsufficient in diagnostics were Ibadan and Kaduna.

2.6 Manufacture of Condoms

There was no enthusiastic response in the manufacture of condoms in the Sates although the needs are obvious. Condom sales are increasing, as a reflection of growing acceptance by the public. The State Ministry of Health, Lagos requested UNIDO's assistance for a feasibility study to manufacture syringes, gloves and condoms in the State (Annex 10). The country is endowed with the raw materials and other components needed for the industry.

2.7 Production of Materials

There is an ongoing STD prevention project, at the Nigerian Television Authority (NTA), financed by The World Bank. The project includes studio equipment worth about $8.6m, and $2.14m for

services. There is a great need for published materials, as well as for local inputs in the fight against AIDS, and the services component of the project will be used for local production of videos with social messages, including some on AIDS. The project also aims at expanding the information base of the NTA.

There is a need for facilities for local production of IEC materials including an electronic studio for audio visual materials. There are a few companies in Lagos which produce videos, but these are not indigenous companies. There is a state-owned printing press in Enugu. The equipment is in disrepair, but there are trained technical staff still available. Thus the potential exists for the print media aspects of local production of IEC materials.

3. Requests for UNIDO Assistance

Insufficient public awareness, poor coverage of health services due to lack of diagnostics and pharmaceuticals, inadequate supplies of condoms pose formidable obstacles to the control of HIV/AIDS in the country. Authorities of every state visited, administrators in medical colleges and hospitals and heads of NG0s, project an alarming picture as concerns the growing incidence of HIV/AIDS and the lack of practically every tool required to fight this menace. As a result, there was no shortage of interest in UNIDO support. Among the principal requests made and are being processed by the representative functionaries of the Government that of immediate relevance to UNIDO are:

a. Transfer of diagnostics technology developed by ICGEB by the Federal Ministry of Science and Technology (Annex 9).

b. Revitalisation of I.V. fluids manufacturing unit of the Eastern Nigeria Medical Centre.

c. Feasibility study for manufacturing basic pharmaceuticals at Enugu and Maiduguri by the receptive State Ministries of Industries, in collaboration with the Health Ministries.

d. Setting up of industrial units for the manufacture of syringes, condoms and gloves at Lagos (Annex 10) and condoms at Kaduna as proposed by the respective State Ministries.

4. Other Project Ideas

4.1 Distribution Service Industries

There is a need for a well organised distribution system, as sometimes funds are available but reagents and other consumables are not available on the market.

4.2 Maintenance Project

Maintenance is a major problem in Nigeria, as it is in many developing countries. Several district hospitals visited had no maintenance service. The ELISA machine in one testing facility broke down and was returned to Lagos for repair. The machine had not been returned even after two years. The hospital no longer does blood screening. The Enugu State Ministry of Health has a "morgue" of 12 vehicles at the Secretariat in various states of disrepair. Elsewhere, there are complaints about logistics. If vehicles and equipment were well maintained this would solve the greater part of the logistics problem.

The following scenario could be foreseen for a project aimed at maintaining equipment and other logistics for AIDS, IEC campaigns and HIV testing.

Phase 1: Inventory to catalogue all broken down equipment and rolling stock

Phase 2: Design repair scheme for
- i) items used in AIDS work
- ii) other items

Phase 3: Design maintenance scheme

Phase 4: Implement maintenance scheme.

A maintenance service industry in each state could be a collaboration between several ministries - Industry, Health, Science, Works and Housing, etc. Such services could be created or use existing small and medium-scale enterprises (SMEs) where available. In order to ensure sustainability of the operations, cost recovery could be built in and services could be offered to commercial concerns on a fee for service basis.

4.3 Assembly of Microcomputers

There is a dire need for computer processing facilities in health facilities in Nigeria. At State House clinic in Abuja, HIV/AIDS data was hand written, stored on sheets of paper, and analysed manually using a calculator. Proper planning requires quick and convenient access to data, and rapid and accurate analysis of raw data. Accurate information is also needed for AIDS programme management. The inaccuracies observed in the reported statistics, for example in Borno State, could arise from either poor data collection or incorrect analysis. Local assembly of microcomputers would greatly facilitate availability of computing power for use in the health, industry and other sectors of the economy. Human resources need to run such assembly operations are readily available in Nigeria.

4.4 Production of "Heatmarkers"

There is a need for proper storage of diagnostic kits, particularly those which require refrigeration. This includes all the ELISA-based tests. The growing number of testing centres also means that

demand for proper storage and transportation facilities for consumables will increase. In Enugu State, for example, there were 2 blood screening sites in 1991. By 1995 the number had increased to 12.

A partial solution to the problem of refrigeration facilities, would be to use heatmarker to identify those products which have been exposed to a cumulative amount of heat in excess of a given safety threshold. Heatmakers, developed by the Programme of Appropriate Technology in Health (PATH), of Seattle, WA, USA could be produced locally in Nigeria to be used for tagging of HIV diagnostic kits, vaccines used in immunization programmes, and in general, all consumables which are sensitive to heat.

4.5 Institution Strengthening in Monitoring of Compliance with Industrial Policy

Companies have funds for programmes for their workers. Initiative : "AIDS in the Work Place", being promoted by the Enugu State SAPC, has been very successful in Zimbabwe in bringing about behaviour modification of workers. It would appear that companies in Nigeria are interested in the idea. UNIDO could encourage and support this type of initiative through policy reforms. But as with policy matters, the crux of the problem lies not so much with formulation and dissemination as with implementation. Nigeria has very sound policies as concerns AIDS. But implementation lags far behind.

One project could be to strengthen the capacity of governments (State and Federal) institutions to monitor compliance with industrial policy, not only in connection with HIV/AIDS, but also as concerns other industrial policies and regulations, for example in the area of the environment.

4.6 Electronic Mail

Computer-mediated communications should be encouraged, throughout the country, to provide electronic mail (e-mail) and other types of connectivity among the various players in the AIDS control effort in Nigeria. Communications are a major handicap to workers, who often have to resort to expensive courier services to deliver information on time.

The following types of information can be transmitted by e-mail

a. Normal unformatted text (ASCII)
b. Formatted text (word processed files in any of the commercially popular systems, WORD, WORDPERFECT, etc)
c. Messages to fax and telex machines
d. Computer files (text, spreadsheets, graphics, sound files)
e. Executable computer programs

This represents major advantages over current practices in Nigeria.

- It is fast, taking anywhere from a few seconds if both source and destination are connected on a communication backbone, to a day or two if store-and-forward (Fido)

technology is used and depending on how many levels there are between source and destination. On the information super highway the entire 30 volume Encyclopaedia Britannica can be transmitted in less than 10 seconds.

- It is inexpensive. An A4 page of text takes about 5 seconds, compared to about a minute for fax at the same modem speed.

- Compatibility: Message (and files) received can be processed (edited) and retransmitted or incorporated into other files.

Internet service providers currently operate in Nigeria, and provide e-mail and fax (through E-mail) services through the SPRINT system. Messages are forwarded immediately at 9600 bps from Lagos, as SPRINT has two dedicated transponders channels, one to London and one to New York.

Rates:

Option 1 - N12,000 per year; plus connect charges for fax transmissions
Option 2 - N4,000 per year subscription, plus $50 corporate or $20 individual monthly fees.

E-mail service provider in Nigeria:
INFOCOM
22 Musa Yaradua St.
Victoria Island, Lagos
Tel: +234 1 262 3132

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING (herein after referred to as UNDERSTANDING) is entered into on this..... day of..... 199_ between the United Nations Industrial Development Organisation, Vienna International Centre, A-1400 Vienna, Austria (hereinafter referred to as "UNIDO") as the part of the ONE PART

AND

COMPANY XX, a company incorporated under the provisions of the... act of COUNTRY YY and having as its Registered Office at (address) hereinafter referred to as "COMPANY" as the party of the OTHER PART.

WHEREAS:

A. UNIDO is assisting in the establishment of the International Centre for Genetic Engineering and Biotechnology (hereinafter referred to as "ICGEB") and, in particular is implementing the activities of the component of the ICGEB at New Delhi.

B. ICGEB is a specialized Research Centre for Genetic Engineering and Biotechnology and has developed inter alia technology for the manufacture of Enzyme Linked Immuno Sorbant Assay for the detection of antibodies to HIV-1 and HIV-2 viruses (HIV-1/2) specified in Annexure I enclosed herewith (hereinafter referred to as "PRODUCT"), and UNIDO is entitled to sell, license or otherwise transfer the technology (as per Annexure II) to any person, firm or body corporate and has till the date of this UNDERSTANDING not sold, transferred assigned or licensed fully or partly the said technology to any person, the firm or body corporate.

C. COMPANY is engaged in the business of manufacture of pharmaceutical formulations, hi-tech bulk drugs, agrochemicals, diagnostic aids, etc. and is willing to expand and diversify its activities inter alia by manufacturing and selling the PRODUCT for the detection of antibodies to HIV-1/2 viruses specified in Annexure I attached herewith.

D. COMPANY wishes to obtain the necessary technology for the manufacture of the PRODUCT from UNIDO/ICGEB and UNIDO agrees to transfer the technology referred to herein to COMPANY, and to license COMPANY to use the technology, on the following terms and conditions:

8. In the event UNIDO/ICGEB fails to transfer and license the TECHNICAL KNOW-HOW or part thereof to COMPANY, or in the event the three batches do not get completed successfully at COMPANY's Plant the reasons for which are attributable to UNIDO/ICGEB, then UNIDO shall return to COMPANY the money paid or deposited with UNIDO by

COMPANY. If 3 batches have been made successfully at ICGEB, 10% of the amount paid to UNIDO will be retained by UNIDO.

9. In order to determine whether COMPANY has absorbed the technology transfer successfully and has marketed the PRODUCT effectively, a review of COMPANY's activities towards this end will take place for the first time four years after entry into effect of this UNDERSTANDING in accordance with its clause 18, and subsequently every year. If a review shows that COMPANY has failed to market the PRODUCT effectively in a given country or countries, UNIDO will have the right to terminate this UNDERSTANDING forthwith for the country or countries concerned.

10. COMPANY further agrees to pay UNIDO royalties in "local currency" in COUNTRY YY at the rate of 5% (five per cent) on the net sales in COUNTRY YY during the duration of this UNDERSTANDING but not exceeding a period of seven years starting from the date of marketing of the PRODUCT. The royalties shall be paid quarterly to the bank account in COUNTRY YY designated by UNIDO. For the sale of the PRODUCT outside COUNTRY YY, COMPANY shall also pay to UNIDO royalties in the amount of five per cent of the net sales price. These royalties shall be paid in convertible currency of unrestricted use, subject to the prevailing policy of the Government of COUNTRY YY. The royalties shall be paid biannually to the bank account designated by UNIDO. The net sales price shall exclude excise duty and other taxes and levies.

11. ICGEB shall provide necessary training to COMPANY's personnel at its Laboratories as specified in Clause 1.A of the Time Schedule set out in Annexure III. The personnel costs including insurance of the trainees will be borne by COMPANY. The trainees will comply with the safety regulations of ICGEB, New Delhi. ICGEB further shall provide at its cost to COMPANY the assistance described in Clause 1.B of the Time Schedule set out in Annexure III, and shall send its staff for ascertaining the quality and specifications of the PRODUCT at COMPANY's production site for the first three batches of the PRODUCT. COMPANY agrees to pay travel and stay expenses for ICGEB staff for such visits.

12. During the period of this UNDERSTANDING, any improvement made by ICGEB on the TECHNICAL KNOW-HOW transferred to COMPANY shall be promptly made available to COMPANY at no additional cost.

13. COMPANY and UNIDO hereby expressly agree that they will keep secret and confidential all the information given to them by the other Party and the same shall not be disclosed or made available to any other party other than their employees for the normal discharge of their duties without prior written consent of the other Party. This obligation shall not lapse upon expiration or termination of this UNDERSTANDING.

14. COMPANY shall be entitled to transfer and assign this UNDERSTANDING to any of its associated companies only with the express consent of UNIDO.

15. UNIDO hereby confirms and declares, that it has the right and authority to transfer the TECHNICAL KNOW-HOW as provided herein to COMPANY.

16. In consultation with UNIDO, COMPANY shall give due recognition/acknowledgement to ICGEB on packaging and product inserts and advertising or promotional literature. COMPANY shall not otherwise use the name, emblem or official seal of UNIDO and/or ICGEB or any abbreviation of the name of the United Nations Industrial Development Organisation or the International Centre for Genetic Engineering and Biotechnology in connection with its work or otherwise. COMPANY is required to exercise utmost discretion in all matters relating to this UNDERSTANDING. These obligations do not lapse upon expiration or termination of this UNDERSTANDING.

17. Any amendment to this UNDERSTANDING will be effective only if it is in writing and is signed by both Parties hereto.

18. This UNDERSTANDING is subject to the approval of the Government of India and to the extension of the present legal arrangement between UNIDO and the Government of India to the activities under this UNDERSTANDING. Upon receipt of such approval and extension this UNDERSTANDING shall come into effect, and shall continue to be in effect or for a period of nine years from the date of its coming into effect or for a period of seven years from the date of COMPANY starting to market the PRODUCT, whichever is later, unless terminated earlier in accordance with Cause 9.

19. Nothing in or relating to this Understanding shall be deemed a waiver of any of the privileges and immunities of UNIDO.

20. UNIDO shall have the right, upon the establishment of the ICGEB as an independent international organization, separate from UNIDO, to assign or otherwise transfer its rights and obligations under this Agreement to the ICGEB.

21. In the event of any party commits any breach of the terms of this UNDERSTANDING, the party not committing the breach may serve upon the first party a Notice in writing requiring the first party to remove the breach within a period of 30 (thirty) days of the Notice. In the event the first party fails to remove the breach within the period of 30 (thirty) days from the date of this Notice, or in case any other dispute arising out of the interpretation or application of the terms of this UNDERSTANDING cannot be settled by direct negotiation, such dispute shall be settled in accordance with the arbitration rules established by the United Nations Commission on International Trade Law (UNCITRAL) as at present in force. There shall be a single arbitrator, provided the amount claimed by any of the Parties in the arbitration does not exceed US$200,000. The appointing authority shall be the International Chamber of Commerce acting in accordance with the rules adopted by the International Chamber of Commerce for this purpose. The place of arbitration shall either be Vienna, Austria, or a place mutually agreed between the Parties. The arbitral proceedings shall be conducted in the language of this UNDERSTANDING. The Parties shall be bound by any arbitration award rendered as a result of such arbitration award rendered as a result of such arbitration as the final adjudication of any such disputes. It is understood, however, that the provisions of this paragraph shall neither constituted nor imply the waiver by UNIDO or its privileges and immunities.

IN WITNESS WHEREOF the Parties hereto have signed this UNDERSTANDING on..... at Vienna and on.... COUNTRY YY, respectively.

For and on behalf of United Nations Industrial Development Organization

Director-General of UNIDO

For and on behalf of COMPANY

Director, ICGEB

ANNEXES

Annex 1

OFFICIALS MET DURING THE MISSION

PLACE	OFFICIAL/DESIGNATION	ORGANIZATION
January 16-18, 1996		
Lagos	Mr. Anton Sarbu, Country Director	UNIDO
	Mr. A.O. Ajani, Programme Officer	UNIDO
	Dr. Segun Ogundimu, Commissioner	Ministry of Health, Lagos State
	Dr. M. Iyabo Forresythe, Director-General	Ministry of Health, Lagos State
	Dr. Lolo Ojo, National Coordinator	AIDS/STD Control Programme, Federal Ministry of Health
	Ms. Pearl Nwashili, Manager	STOPAIDS
	Dr. Joseph Nnorom, Manager	USAID/AIDSCAP
	Ms. Eileen B. Nkwanga, Principal Educator	World Bank
	Prof. Debo Adeyemi, Chief Medical Director	University of Lagos Teaching Hospital
	Dr. A.O.O. Sorungbe, Executive Director	National Primary Health Care Development Agency, Federal Ministry of Health
	Dr. A. Ananie Arkutu	Country Director, United Nations Population Fund
	Ms. Sarwar Sultana	Deputy Resident Representative, UNDP

January 19-20, 1996

Ibadan	Dr. Oladimeji Oladepo, Senior Lecturer	Dept. of Social & Preventive Medicine University College Hospital
	Dr. Wuraola A. Skokunbi, Senior Lecturer	Department of Haematology University College Hospital
	Prof. D.O. Olaleye	Department of Virology University College Hospital
	Prof. K.A. Obisessan	Department of Gynaecology & Obstetrics, University College Hospital
	Dr. I.O. Adigun, Director	Primary Health Care Oyo State Ministry of Health
	Mr. J.O. Ademosum, Production Planning Manager	NIPOL Plastics

January 22-24, 1996

Kaduna	Mr. Ado Yusuf, Commissioner	Kaduna State Ministry of Health
	Ms. Hajia Sa'Adatu D. Ahmed, Director-General	Health & Social Development Kaduna State Ministry of Health
	Dr. Dogra G. Bok, Director	Health & Social Development Kaduna State Ministry of Health
	Dr. I.M. Tanimu, Director/Coordinator	AIDS/STD Control Programme Kaduna State
	Ms. Hajiya A'Ishatu Seleiman, Project Manager	AFRICARE
	Mr. Ahmed T. Mora, Project Coordinator	Ministry of Health & Social Development Kaduna State
	Mr. Babatunde T. Lawson, General Manager	AREWA Pharmaceuticals

January 24, 1996

Dutse	Mr. Nuhu Isa Abdullahi, Director-General	Health Services Jigawa State
	Dr. Mohammed Lawal Garba, Field Manager	Family Health International

January 25-26, 1996

Maiduguri	Dr. Haruna Mshelia, Commissioner	Borno State Ministry of Health
	Dr. Abdullahi A. Isa, Director-General	Ministry of Commerce & Industry Borno State
	Dr. T.O. Harry, Professor	Department of Immunology University of Maiduguri Teaching Hospital
	Ms. Aishatu Galadima, Director	AIDS Control Programme

January 29-30, 1996

Abuja	Mrs. Omobola Adeola Imianvan, Director	Planning, Research and Statistics Dept. Federal Ministry of Industry, Abuja
	Dr. M.A. Momoh, Coordinator	AIDS Control Programme Federal Capital Territory, Abuja
	Dr. Martin Wilczec, Medical Director	Julius Berger Nigeria PLC, Abuja
	Prof. Charles Wambebe, Director	National Institute for Pharmaceutical Research and Development (NIPRD), Abuja
	Dr. R.O. Barrow, Director	Health Sciences, Federal Ministry of Science & Technology, Lagos
	Brig. Gen. Sam Momah, Minister	Federal Ministry of Science & Technology, Abuja

February 1-2, 1996

Enugu	Dr. I.N. Echiegu	Commisisoner of Health, Enugu States, Enugu
	Mrs. V.L. Okolo	Director General, Ministry of Health and Social Development, Enugu States, Enugu
	Dr. Lyn U.M. Onoh	Acting Director, Public Health Servcies, Ministry of Health and Social Development, Enugu State, Enugu
	Mr. Thomas O. Elom	Director General, Ministry of Industry, Enugu States, Enugu
	Dr. Tony Eloike	AIDS Coordinator, Ministry of Health and Social Development, Enugu States, Enugu
	Mrs. Ileoma E. Okeke	Director of Nursing and Administration, Eastern Nigerian Medical Centre, Enugu

Annex 2

LIST OF DOCUMENTS

	TITLE	AUTHOR
1.	Ylang Publications YOU and HIV/AIDS	Corpers Forum against the Spread of AIDS, 1992
2.	Care of a Person with AIDS in the Community	Federal Ministry of Health & Social Services, Lagos, 1992
3.	Guidelines on appropriate use of Blood & Blood Products Nigeria	The National Blood Transfusion Service of the Federal Ministry of Health, 1991
4.	Handbook on HIV Infection and AIDS for Health Workers	National AIDS and STD Control Programme Federal Ministry of Health & Social Services, 1992
5.	Training Manual for AIDS/PHC Integration (LGA Level)	National AIDS and STD Control Programme Federal Ministry of Health & Social Services, Lagos, 1993
6.	Training Manual for AIDS/PHC Integration (District Level)	National AIDS and STD Control Programme Federal Ministry of Health & Social Services, Lagos, 1993
7.	A Companion to HIV/AIDS Case Management	National AIDS and STD Control Programme Federal Ministry of Health & Social Services, Lagos, 1993
8.	The AIDS Control and Prevention Project Summary of Accomplishments September 1994	AIDSCAP
9.	Reproduction Health Education for Primary School Pupils	National AIDS and STD Control Programme Federal Ministry of Health & Social Services, Lagos, 1994
10.	Reproduction Health Education for Secondary School Pupils	National AIDS and STD Control Programme Federal Ministry of Health & Social Services, Lagos, 1994
11.	Nigeria AIDS Monitor A Quarterly Newsletter	National AIDS and STD Control Programme Dept. of Primary Health & Disease Control Federal Ministry of Health & Social Services, Lagos, 1994

12.	AIDS Prevention and Control in	World Health Organization/Federal Ministry of Health, Primary Health Care 1993
13.	Sexually Transmitted Disease Prevention Project	World Bank, 1995
14.	AIDS Mirror Newsletter	AIDS Information Exchange Resources Centre (AIRC), 1993
15.	Industrial Directory, 1994	Federal Ministry of Industry
16.	Industrial Policy of Nigeria, 1989	Federal Ministry of Industry
17.	UNILAG AIDS PROGRAMME Youth Health Survey Report	VIBEC VENTURES LTD., Lagos, 1993
18.	NIGERIA	WHO document, July 1995
19.	Organizational Profile (case statement)	STOPAIDS Organization, 1994
20.	UNDP Project of the Government of Nigeria	UNDP, 1994
21.	Federal Ministry of Industry	Procedures for setting up Industry/Business in Nigeria, 1992
22.	Federal Ministry of Industry	Incentives to industry in Nigeria
23.	Appropriate Health Resources and Technologies Action Group (AHRTAG)	AIDS ACTION, Issue 29, June-August 1995
24.	Appropriate Health Resources and Technologies Action Group (AHRTAG)	AIDS ACTION, Issue 30, Sept.-Nov. 1995
25.	Federal Ministry of Health	Standing order for the Management of Sexually Transmitted Diseases (STD) including HIV/AIDS, 1992
26.	Federal Minitry of Health	Manual on Sexually Transmitted Diseases, 1992
27.	Martin J.J. Wilczek	Julius Berger Plc- a pragrmatic approach to HIV and AIDS, Nov. 1995
28.	UNICEF	The Bamako Initiative - Rebuilding Health Systems, 1995
29.	Federal Ministry of Health	1993/94 Sentinel Sero-prevalence Surveillance Report, 1995

Annex 3

LIST OF STATES UNDER THE FIVE ZONES

ABUJA

1. FCT
2. Kogi
3. Kwara
4. Plateau
5. Benue
6. Niger

ENUGU

1. Enugu
2. Anambra
3. Imo
4. Abia
5. Cross River
6. Akwa Ibom
7. Rivers

IBADAN

1. Oyo
2. Osun
3. Ondo
4. Ogun
5. Edo
6. Delta

KADUNA

1. Kaduna
2. Kano
3. Sokoto
4. Kebbi
5. Katsina
6. Jigawa

MAIDUGURI

1. Borno
2. Yobe
3. Bauchi
4. Adamawa
5. Taraba

Annex 4

NATIONAL CONSULTANTS	ZONE
1. Dr. F.E. ORBIH Deputy Director Hospital Services Federal Capital Development Authority Abuja Tel: 234-9-2341153	ABUJA
2. Mr. Victor AHUCHAOGU VIBEC VENTURES LTD. 21 Unity Road Ikeja, Lagos Tel: 234-1-4974173	ENUGU
3. Mr. Abiodun ADETORO Zonal Office National Primary Health Care Agency, Ibadan	IBADAN
4. Ms. Amina IBRAHIM AFRI-PROJECTS CONSORTIUM 25, Lamido Road, GRA Kaduna Tel/Fax: 234-62-211516	KADUNA
5. Dr. Lawan Y. GANA Chief Medical Director Hospital Management Board Maiduguri Tel: 234-76-232565	MAIDUGURI

FEDERAL REPUBLIC OF NIGERIA

Annex 5

Annex 6

QUESTIONNAIRE

Project NC/NIR/94/O1D - Fact-finding mission and contribution to the National Programme against dissemination of HIV

QUESTIONNAIRE - PART I Time Series Data

Country: _____

	1975	1980	1985	1990	Latest Year	Projected 2020
Population (1000' S)						
GDP/Capita $US						
Consumer Price Index 19..=100						
Exchange rate local currency/$US						
Share of manufacturing in GDP (%)						
Health care expenditure ($US)						

QUESTIONNAIRE PART II - Data for latest available year(s)

Country: _____

Demographic Data:

Population by age group (1000's)	Latest year	0-4	5-14	15-24	24-49	50-60	over 60
Rural/Urban distribution	Latest year		% urban		% rural		
Literacy rate	Latest year		female		male		
Econornically active population	Latest		female		male	unemployed	

Health indicators:

Infant mortality	Latest year	
Life expectancy at birth	Latest year	female male
Daily p. capita calorie intake	Latest year	
		Per 1000 population
Number of physicians	Latest year	
Number of hospital beds	Latest year	
Number of other health care personnel	Latest year	
Number of pharmacies	Latest year	

Country: _____

Major causes of death

Latest year	1	_____	6	_____
	2	_____	7	_____
	3	_____	8	_____
	4	_____	9	_____
	5	_____	10	_____

Number of HIV infections	Latest year	Reported	Estimated
Number of AIDS cases	Latest year	Reported	Estimated
Number of cases of tuberculosis	Latest year	Reported	Estimated

Major diseases

		Name	Incidence	Name	Incidence
Latest year	1	_____	_____	7 _____	_____
	2	_____	_____	8 _____	_____
	3	_____	_____	9 _____	_____
	4	_____	_____	10 _____	_____
	5	_____	_____	11 _____	_____
	6	_____	_____	12 _____	_____

Market data:
Pharmaceuticals and allied products

Sales	Latest year (time series, if available)
Imports	Latest year (time series, if available)

Country: _____

Sales of leading pharmaceutical products

Latest year	Name	Sales
	1 _____	_____
	2 _____	_____
	3 _____	_____
	4 _____	_____
	5 _____	_____
	6 _____	_____
	7 _____	_____
	8 _____	_____
	9 _____	_____
	10 _____	_____

Sales of:

Hormonal contra-ceptives	Latest three years 19..	19..	19..
product name _____			
product name _____			
product name _____			

Condomes with or without spermicides	Latest three years 19..	19..	19..

Diagphrams with or without spermicides	Latest three years 19..	19..	19..

Intrauterine devices	Latest three years 19..	19..	19..

Country: _____

Government purchases
through tenders (US$)

	Latest three years		
Hormonal contra-ceptives	19..	19..	19..
product name _____			
product name _____			
product name _____			

	Latest three years		
Condomes with or without spermicides	19..	19..	19..

	Latest three years		
Diaphragms with or without spermicides	19..	19..	19..

	Latest three years		
Intrauterine devices	19..	19..	19..

Sales of other
health care products:

disposable syringes

disposable needles

surgical gloves

other (see specify)

Pharmaceutical manufacturers

Please list names and addresses:
(If room insufficient, please provide separate page)

QUESTIONNAIRE - PART III QUALITATIVE DATA

Awareness of AIDS:

very low	low	medium	high	very high
_____	____	_____	_____	_____

Do anti -AIDS campaign exist?

yes: no:

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
____	_____	_____	_____	_____	_____

If other, please specify: _____

Regular: Intermittent: Special campaigns:

Direct AIDS-related data:

Incidence of AIDS:

known: estimated:

Main sources of AIDS and frequency of transmission:

Source:	Frequency:	Known:	Estimated:
Sexual transmission			
Blood transfusions			
Mother/child infection			
Drug abuse			
Other, please specify			

Is there epidemiological surveillance?

Yes No

If yes, please give details.

Do national programmes exist with respect to AIDS prevention?

Yes No

If yes, please give details.

Is there an AIDS related national budget?

Yes No

If yes, please give details.

Please list international assistance given with respect to AIDS prevention or treatment:

Organization: Frequency: Volume:

Please list organizations dealing with the prevention of HIV infections and AIDS:

Do family-planning campaigns exist?

yes: no:

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
____	_____	_____	_____	_____	_____

If other, please specify: _____

Regular: Intermittent: Special campaigns:

Condome use:
known: estimated:

Diaphragm use:
known: estimated:

Use of intrauterine devices:
known: estimated:

Annex 7

FORMAT

1. STATISTICAL DATA

1.1 Population in the Region
1.2 Reported and estimated infections
1.3 Reported and estimated AIDS cases
1.4 Routes of transmission
1.5 Prevalence and types of STD
1.6 HIV associated infections
- Tuberculosis
- Fungal infections
- Parasitic infections

1.7 Regional priorities and commitment

2. IMPACT OF NATIONAL AIDS CONTROL PROGRAMME TO THE REGIONS

2.1 Diagnostics - source of kits and availability
2.2 Chemotherapy
2.3 Health Educational programmes (IEC, counselling)
2.4 Socio-economic programmes, management of infected population
2.5 Condoms - quantitative aspects, availability
2.6 Plastics including syringes - availability
2.7 Blood banks - screening
2.8 Control of drug abuse
2.9 Regional support for the control as % of total budget and as % of health budget
2.10 Capacity building, needs

3. STD CONTROL

3.1 Diagnostics
3.2 Chemotherapy

4. HIV - ASSOCIATED INFECTIONS - CONTROL

4.1 Diagnostics
4.2 Chemotherapy

5. EXTERNAL AID AND NATURE OF SUPPORT

5.1 World Bank

5.2 UNDP
5.3 WHO/UNAIDS
5.4 USAID/other Governmental agencies
5.5 EEC
5.6 Private Sector
5.7 NG0s

6. SUPPORT FROM LOCAL INDUSTRY
6.1 Nature of industries operating
6.2 Sustainability

7. INDUSTRIAL NEEDS

7.1 Diagnostics
7.2 Chemotherapeutic agents
7.3 Plastics including syringes and condoms
7.4 Disinfectants
7.5 IV fluids
7.6 Nutrition

8. MAJOR INDUSTRIAL PARTNERS

9. TRENDS

10. CONCLUSIONS

Annex 8

QUESTIONNAIRE

prepared by Mr. Felix Orbih, National Expert for Abuja

Project NC/NIR/94/O1D - Fact-finding mission and contribution to the National Programme against dissemination of HIV

QUESTIONNAIRE - PART I Time Series Data

Country: ABUJA REGION (5 states + FCT)

	1975	1980	1985	1990	Latest Year 1995	Projected 2020
Population (1000' S)					14,170,891	29,670,679
GDP/Capita (N)				1042	1062	
Consumer Price Index (Composite) 19..=100				292.8	1334.2	28,324.5
Exchange rate local currency/$US					6%	
Share of manufacturing in GDP (%)						
Health care expenditure ($US)						

Please return completed questionnaire to : UNIDO, 11 Oyinkan Abayomi Drive, Ikoyi, Lagos

Year	Population
1990	12,212,935
1995	14,170,891
2020	29,670,679

Composite Consumer Price Index	
1990	292.8
1991	330.9
1992	478.4
1993	751.9
1994	1180.7

QUESTIONNAIRE PART II - Data for latest available year(s)

Country: ABUJA REGION (5 States + FCT)

Demographic Data:

Population by age group (1000's)	Latest year	0-4	5-14	15-24	24-49	50-60	over 60 (not available)

Rural/Urban distribution	Latest year	% urban	% rural
		25%	75%

Literacy rate	Latest year	female	male
	1995	35%	57%

Economically active population	Latest	female	male	unemployed
	n/a			n/a

Health indicators:

Infant mortality	Latest year	
	(1995)	87 per 1,000

Life expectancy at birth	Latest year	female	male
	(1995)	54	50

Daily p. capita calorie intake	Latest year	
	(1995)	(2245)

		Per 1000 population
Number of physicians (1555)	Latest year	0.1 per 1000 population
Number of hospital beds (22762)	Latest year	1.6 per 1000 population
Number of other health care personnel	Latest year	n/a
Number of pharmacies	Latest year	559 pharmacies in the Region
Nurses (11317)	1995	0.8 per 1000 population

Country: ABUJA REGION (5 States + FCT)

Major causes of death

Latest year	1	Malaria	6	Tuberculosis
	2	Diarrhoea	7	Obstretric/gynae complications
	3	Pneumonia	8	
	4	Measles	9	
	5	Typhoid Fever	10	

Number of HIV infections	Latest year 1995	Reported 1892	Estimated 300,000 (about 2% of population
Number of AIDS cases	Latest year 1995	Reported 67	Estimated
Number of cases of tuberculosis	Latest year 1995	Reported 822	Estimated

Major diseases

		Name	Incidence		Name	Incidence
Latest year	1	Malaria		7	Typhoid	
	2	Diarrhoea		8		
	3	Pneumonia		9		
	4	Measles		10		
	5	Gonorrhoea		11		
	6	Leprosy		12		

Market data:
Pharmaceuticals and allied products

Sales — Latest year (time series, if available)
n/a

Imports — Latest year (time series, if available)
n/a

Country: ABUJA REGION (5 States + FCT)

Sales of leading pharmaceutical products

Latest year	Name	Sales
	1 Paracetamol	
	2 Chloroquine	
	3 Ampicillin	
	4 Cotrimoxazole	
	5 Streptomycin	
	6 Dextrose infusion	
	7 Penicillin	
	8 Canesten	
	9 Trosyd	
	10	

Sales of:

Hormonal contra-ceptives	Latest three years (Quantity dispensed in public) 1993	1994	1995
product name Lofemenal	11,2084	75,697	60,586
product name Neogynon	418	3,539	2,281
product name Microgynon	125	81	4,447

Condomes with or without spermicides	Latest three years 1993	1993	1995
	204,523	157,765	91,342

Diagphrams with or without spermicides	Latest three years 19..	19..	19..
	NOT IN USE IN THE REGION		

Intrauterine devices	Latest three years 1993	1994	1995
	9,972	9,518	6,352

Country: ABUJA REGION (5 States + FCT)

Government purchases
through tenders (US$)

Hormonal contra-ceptives	Latest three years 1993	1994	1995
product name _____			
product name _____	N/A		
product name _____			

Condomes with or without spermicides	Latest three years 19..	19..	19..
		N/A	

Diaphragms with or without spermicides	Latest three years 19..	19..	19..
		N/A	

Intrauterine devices	Latest three years 19..	19..	19..
		N/A	

Sales of other
health care products:

disposable syringes
disposable needles
surgical gloves
other (see specify)

Pharmaceutical manufacturers

Please list names and addresses:
(If room insufficient, please provide separate page)

1. National Institute for Pharmaceutical Research, Idu
2. Minna Pharmaceutical and Surgical Co. Ltd, Old Paiko Road, P.O. Box 338, Minna
3. Adam Laboratories, plot 3010, old Airport Road, Jos.
4. Europham Laboratories, Plot 7364, Anglo - Jos
5. ECWA Pharmacy, 1 North Road, Jos
6. Christian Central Pharmacy, Muritala Mohammed Way, Jos
7. Sam Pharmaceuticals Ltd., 2 Western Reservoir Road, P.O. Box 318, Ilorin
8. Biomedical Services Ltd., 1 Ohemege Road, Industrial Estate, Ilorin
9. Rasjab Ltd., 72-80 Coca Cola Road, Ilorin

QUESTIONNAIRE - PART III QUALITATIVE DATA

Awareness of AIDS:

very low	low	medium	high	very high
_____	____	xxx	_____	_____

Do anti -AIDS campaign exist?

yes: xx no:

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	_____	_____	_____
Interm.	Reg.	Interm.	Interm.		

If other, please specify: WORLD AIDS DAY (ONE WEEK ACTIVITIES)

Regular: Intermittent: xx Special campaigns:

Direct AIDS-related data:

Incidence of AIDS: N/A

known: estimated:

Main sources of AIDS and frequency of transmission:

Source:	Frequency:	Known:	Estimated:
Sexual transmission	80% of all cases		
Blood transfusions	15%		
Mother/child infection	4.5%		
Drug abuse			
Other, please specify	>0.5%		
Tattoing, Traditional marks			

Is there epidemiological surveillance?

Yes	No
xx	

If yes, please give details.

3 States (Kogi, Kwara and Plateau) are among the 21 States of the Federation when there are sentinel surveillance centres.

Do national programmes exist with respect to AIDS prevention?

Yes	No
xx	

If yes, please give details.

Each State has AIDS Programme Coordinator and Committees.

Is there an AIDS related national budget?

Yes	No
xx	

If yes, please give details.

Each State of the Federation (and Region) was directed to budget N1 million annually for AIDS and each LGA N500,000 annually not being followed.

Please list international assistance given with respect to AIDS prevention or treatment:

Organization:	Frequency:	Volume:
O.D.A		Condoms, screening machines/reagents
W.H.O.		Condoms, screening machines/training
USAID		
I.C.S.C.		Lab. equipment, reagents, training

Please list organizations dealing with the prevention of HIV infections and AIDS:

1. Rotary/Rotaract Clubs
2. St. Johns Ambulance, Hospital Support Service
3. Lions Club
4. Soroptimist International
5. National Youth Service Corps.

Do family-planning campaigns exist?

yes:	no:
xx	

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	_____	_____
Reg.	Reg.	Interm.	Interm.		

If other, please specify: _____

Regular: Intermittent: Special campaigns:

Condome use: N/A
known: estimated:

Diaphragm use: N/A
known: estimated:

Use of intrauterine devices: NIL
known: estimated:

QUESTIONNAIRE

prepared by Mr. V. Ahuchaogu, National Expert for Enugu

Project NC/NIR/94/O1D - Fact-finding mission and contribution to the National Programme against dissemination of HIV

QUESTIONNAIRE - PART I Time Series Data

Country: SOUTH EASTERN REGION (Summary) i.e. ENUGU

	1975	1980	1985	1990	Latest Year 1995	Projected 2020
Population (1000' S)						
GDP/Capita (N)						
Consumer Price Index 19..=100						
Exchange rate local currency/$US						
Share of manufacturing in GDP (%)						
Health care expenditure ($US)						

1994 =N=687.09m

QUESTIONNAIRE PART II - Data for latest available year(s)

Country: SOUTH EASTERN REGION (Summary) i.e. ENUGU

Demographic Data:

Population by age group (1000's)	Latest year	0-4	5-14	15-24	24-49	50-60	over 60
Rural/Urban distribution	Latest year		% urban		% rural		
Literacy rate	Latest year		female		male		
Econornically active population	Latest		female		male	unemployed	

Health indicators:

Infant mortality	Latest year	
Life expectancy at birth	Latest year	female male
Daily p. capita calorie intake	Latest year	

		Per 1000 population
Number of physicians	Latest year	
Number of hospital beds	Latest year	
Number of other health care personnel	Latest year	
Number of pharmacies	Latest year	
Nurses		

Country: SOUTH EASTERN REGION (Summary) i.e. ENUGU

Major causes of death

Latest year	1 Malaria	6 Ill- defined
	2 Thyphoid	7 Appendicitis
	3 Pneumonia	8 Hypertensive Heart
	4 Tuberculosis	9 Diabetis
	5 Measles	10 Cerebro Spinal Minigitis

Number of HIV infections	Latest year 1994	Reported 3491	Estimated
Number of AIDS cases	Latest year 1994	Reported 375	Estimated
Number of cases of tuberculosis	Latest year 1994	Reported 2904	Estimated

Major diseases

		Name	Incidence		Name	Incidence
Latest year 1994	1	Malaria	158902	7	Appendicitis	1431
	2	Pneumonia	11177	8	Ill-defined	2063
	3	Typhoid	6145		Intestinal inf.	
	4	Aneamia	2825	9	Tuberculosis	2839
	5	Measles	8013	10	Viral Hypertisis	2337
	6	Filariasis	2861	11	Pertusis	678
				12	Cholera	14170

Market data:
Pharmaceuticals and allied products

Sales — Latest year (time series, if available)

Imports — Latest year (time series, if available)

1992 - N1,573m)
1993 - N1,738m)
1994 - N1,218m)
1995 - N4,241m)

These figure represent total amount of drugs including raw material and veterinary products imported into Nigeria.

Country: SOUTH EASTERN REGION (Summary) i.e. ENUGU

Sales of leading pharmaceutical products

Latest year	Name	Sales

A comprehensive list of drugs required by the government owned medical centres was attached in Enugu National expert's report. It is estimated that government carter for 45% of medical requirements.

Sales of :

Hormonal contra-ceptives	Latest three years (Quantity dispensed in public)		
	1993	1994	1995
product name Pills	0.55m	1.07m	1.31m sachets
product name Injectables	164,500	119,500	226,100
Condomes with or without spermicides	Latest three years		
	1993	1993	1995
	10.683m	20.831m	25.532m units
Diagphrams with or without spermicides	Latest three years		
	1993	1994	1995
	587	920	1018
Intrauterine devices	Latest three years		
	1993	1994	1995
	12,427	24,232	29,700 units

Country: ENUGU REGION

Government purchases
through tenders (US$)

Hormonal contra-ceptives
product name _____
product name _____
product name _____

Latest three years
1993 1994 1995

Government does not engage in purchase of contraceptives

Condomes with or without spermicides

Latest three years
1993 1994 1995
Government is not involved in purchases

Diaphragms with or without spermicides

Latest three years
19.. 19.. 19..
Govt. does not purchase

Intrauterine devices

Latest three years
19.. 19.. 19..
Govt. does not purchase

Sales of other
health care products:

disposable syringes	1992	N19.2m	) These figures represent annual
disposable needles	1993	N21.9m	) national importations, under the heading
surgical gloves	1994	N34.9m	) medical devices which includes syringes,
other (see specify)	1995	N289.1m	)needles, gloves, etc. - source : National Agency for Food & Drugs and Allied Chemicals

Pharmaceutical manufacturers

Please list names and addresses:
(If room insufficient, please provide separate page)

QUESTIONNAIRE - PART III QUALITATIVE DATA

Awareness of AIDS:

very low	low	medium	high	very high
_____	xx	_____	_____	_____

Do anti -AIDS campaign exist?

yes: xx no:

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	xx	xx

If other, please specify: Seminar/workshops are being organized for heads of secondary and tetiary institutions, as well as for health care personnel

Regular: Intermittent: Special campaigns:

Direct AIDS-related data:

Incidence of AIDS:

known: 375 estimated: 1,875

Main sources of AIDS and frequency of transmission:

Source:	Frequency:	Known:	Estimated:
Sexual transmission	93%	349	1,744
Blood transfusions	3%	11	56
Mother/child infection	1%	4	19
Drug abuse			
Other, please specify	3%	11	56

Is there epidemiological surveillance?

Yes	No
xx	

If yes, please give details.

A yearly sentinel sero-surveillance is being done in the region. A total of 11 sites and four group namely commercial sex workers (CSW). STD patients, TB patient and Ante-natal clinic attenders. The criteria for selection of sentinel group, sites, and states follow the recommended requirements in the adapted WHO sero-surveillance protocol.

Do national programmes exist with respect to AIDS prevention?

Yes	xx	No

If yes, please give details.

The Federal Ministry of Health and Social Services instituted the National AIDS/STD Control Programme (NACP) in 1992. In all the seven states visited there are state branches with a state coordinator. There are also local government committees. Most of their activities/objectives involve monitoring, control and prevention of the spread of the disease, this is done through awareness campaign, encouragement of state sexual behaviour, etc.

Is there an AIDS related national budget?

Yes	xx	No

If yes, please give details.

There is a Federal Government Policy that all the three tiers of Government must have a budget for AID, - each State is to allocate N 1.0 M, while each local government is to spend N 0.5M . But in practice, the funds are not released and this hampers the effectiveness of the programme.

Please list international assistance given with respect to AIDS prevention or treatment:

Organization:	Frequency:	Volume:
W.H.O.	Regular	Supports the NACP at national level with funds and technical support.
ODA	Regular	Supports and Funds 2 STD clinics. Now collaborating with PSI/SFH to produce/market youth targeted condoms called cool condoms.
UNICEF	Intermittent	Provided funds to our seminars for secondary school principals.
BRITISH COUNCIL	"	Funds seminars/workshops. Also sponsored overseas training for one of the state co-ordinators.
USAID		

Do family-planning campaigns exist?

yes: xx no:

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	xx	xx

If other, please specify: Seminar and workshop

Regular: Intermittent: Special campaigns:

Condome use: 1995
known: 15.32m estimated: 25.532m

Diaphragm use:
known: 610 estimated: 1,018

Use of intrauterine devices:
known: 17,820 estimated: 29,700

QUESTIONNAIRE

prepared by Mr. A.A. Adetoro, National Expert for Ibadan

Project NC/NIR/94/O1D - Fact-finding mission and contribution to the National Programme against dissemination of HIV

QUESTIONNAIRE - PART I Time Series Data

Country: IBADAN REGION

	1975	1980	1985	1991	Latest Year 1995	Projected 2020
Population (1000' S)				16,644,889	18,879,804 (3.2% Growth Rate)	
GDP/Capita (US$)					$ 250	
Consumer Price Index 19..=100						
Exchange rate local currency/$US				N10/$1	N85/$1	
Share of manufacturing in GDP (%)						
Health care expenditure ($US)						

This questionnaire summarises the questionnaires from the following states and institutions:

Delta State
Edo "
Ogun "
Ondo "
Osun "
Oyo "
Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife University of Benin Teaching Hospital, Benin-City

Note: Copies of the questionnaires except for Edo State are attached. This summary has been compiled by: Abiodun A. Adetoro B.A. (Hons); M.Sc.
UNIDO National Expert, Ibadan Region
c/o P.O. Box 5251
Oshodi, Lagos State, Nigeria

QUESTIONNAIRE PART II - Data for latest available year(s)

Country: IBADAN REGION

Demographic Data:

Population by age group (1000's)	Latest year	Data not available at the regional level			
Rural/Urban distribution	Latest year 1995		% urban 39%	% rural 61%	
Literacy rate	Latest year 1994		female 39%	male 61%	
Econornically active population	Latest 1994		female 5,285,397	male 5,325,398	unemployed 30%

Health indicators:

Infant mortality	Latest year (1994)	114 of 1,000 live births		
Life expectancy at birth	Latest year (1994)	female 56	male 50	
Daily p. capita calorie intake	Latest year (1994)	90% of requirements		

		Per 1000 population
Number of physicians	Latest year	Data not
Number of hospital beds	Latest year	available
Number of other health care personnel	Latest year	state/regional
Number of pharmacists		basis

Country: IBADAN REGION

Major causes of death

Latest year	1	Malaria	6	Accident	
	2	Hypertension	7	Tetanus	
	3	Respiratory infections	8	Measles	
	4	Gastroenteritis	9	Sepsis	
	5	AIDS	10	Tuberculosis	

Number of HIV infections	Latest year 1995	Reported 786 (5 states)	Estimated 371,378
Number of AIDS cases	Latest year 1995	Reported 534	Estimated
Number of cases of tuberculosis	Latest year 1995	Reported 262 (2 states)	Estimated

Major diseases

		Name	Incidence		Name	Incidence
Latest year 1995	1	Gastroenteritis	very high	7	Tuberculosis	high
	2	Malaria	" "	8	AIDS	"
	3	Hypertension	high	9	STDs	very high
	4	Ante Natal Prob.	"	10	Anaemia	" "
	5	Measles	"	11	Diabetes	high
	6	Respiratory inf.	"	12	Hepatitis	high

Market data:
Pharmaceuticals and allied products

Sales — Latest year (time series, if available)
n/a

Imports — Latest year (time series, if available)
n/a

Country: IBADAN REGION

Sales of leading
pharmaceutical products

Latest year

Note: Pharmaceutical companies were not forthcoming in releasing their sales figures

Country: IBADAN REGION

Government purchases through tenders (US$)

Hormonal contra-ceptives	Latest three years 1992/3	1993/4	1994
product name Lo-femenal	149,312	132,045	66,350
product name Micro/neogynon	-	63,360	11,000
product name Excluton	-	21,600	6,000
product name Depo-provera	18,118	35,942	17,858
product name Noristerat	21,432	39,893	42,021

Condomes with or without spermicides	Latest three years 1992/3	1993/4	1994
Sultan and Gold Cycle	480,200	352,900	119,800

Diaphragms with or without spermicides	Latest three years 19..	19..	19..
Not in use			

Intrauterine devices	Latest three years 1992/3	1993/4	1994
	67,655	43,830	27,570

Sales of other health care products:

disposable syringes
disposable needles
surgical gloves — Data not available
other (see specify)

Pharmaceutical manufacturers

Please list names and addresses:
(If room insufficient, please provide separate page)

1. Finishing Enterprises Incorporation, North Torawanda New York
2. Upjohn S.A. Puurs, Belgium
3. Schering AG Federal Republic of Germany
4. Ansell Incorp., Dotham Alabama, USA
5. Aladan Corp.. Dorham Alabama, USA
6. N.V. Organ Oss Holland

Note: Supplies of commodities up to 1994 were free from USAID/FHS. Thus cost in terms of US$ cannot be obtained. So data collected are of units of items/commodities bought or received and not cost.

QUESTIONNAIRE - PART III QUALITATIVE DATA

Awareness of AIDS:

very low	low	medium	high	very high
			xx	

Do anti -AIDS campaign exist?

yes: xx no:

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	xx	xx

If other, please specify: Theatre, Film Shows and public lectures

Regular:	Intermittent:	Special campaigns:
TV, Radio, Press through Health personnel	Leaflets Theatre, Public Lectures and film shows	Theatre, public lectures and film shows

Direct AIDS-related data:

Incidence of AIDS:
known: 534 estimated:

Main sources of AIDS and frequency of transmission:

Source:	Frequency:	Known:	Estimated:
Sexual transmission	95%		
Blood transfusions	2%		
Mother/child infection	1%		
Drug abuse	No available data		
Other, please specify	2%	Traditional practices using unsterilised needles, knives or blades	

Is there epidemiological surveillance?

Yes	No
xx	

If yes, please give details.

Sentinel Sero-Prevalence Surveillance 1993/94 and 1995.
1993/94 Report put national sero-prevalence rate at 3.8% of sexually active age group.
1995 Report is yet to be released.

Do national programmes exist with respect to AIDS prevention?

Yes	No
xx	

If yes, please give details.

There is a National AIDS/HIV/STD Control Programme in the Federal Ministry of Health and Social Services headed by an Assistant Director. Each of the states visited has an officer designated State AIDS Control Programme Coordinator.

Is there an AIDS related national budget?

Yes	xx	No

If yes, please give details.

Each of the state under Ibadan region has a vote for AIDS Control Programme. Nearly all of them put a vote of N 1 million or $12,500 for the programme but I gathered that none of these states released the money. On paper, the states have AIDS as a budget item.

Please list international assistance given with respect to AIDS prevention or treatment:

Organization:	Frequency:	Volume:

None of the states received any support from international or external sources. Support to the states are always routed through the NASCP, Lagos

Please list organizations dealing with the prevention of HIV infections and AIDS:

1. Students' Unions, University of Ibadan and Polytechnic, Ibadan
2. Venereal Diseases Association, UCH, Ibadan
3. Freedom International Incorporation, Ibadan
4. Lifevanguards, Osogbo
5. National AIDS Theatre Organization, Warri
6. Zonta International
7. Inner Wheels Club
8. Federation of Muslim Women Association of Nigeria
9. Christian Association of Nigeria
10. Association of Reproductive Health, Ibadan
11. Planned Parenthood Federation of Nigeria

Do family-planning campaigns exist?

yes:	no:
xx	

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	xx	xx

If other, please specify: Theatre, film shows and public lectures

Regular:	Intermittent:	Special campaigns:
xx	xx	xx

Condome use: The data below is only for 2 states. The other states have no proper record.

known: 51,743 estimated: 10 million

Diaphragm use: Not in use
known: estimated:

Use of intrauterine devices:
known: 82,055 estimated:

QUESTIONNAIRE

prepared by Ms. A. Jane Ibrahim, National Expert for Kaduna

Project NC/NIR/94/O1D - Fact-finding mission and contribution to the National Programme against dissemination of HIV

QUESTIONNAIRE - PART I Time Series Data

Country: NIGERIA/KADUNA REGION

	1975	1980	1985	1990	Latest Year 1991	Projected 2020
Population (1000' S)					88,514,501	
GDP/Capita (N)			1982 : 98.42 B (N)			
Consumer Price Index 19..=100						
Exchange rate local currency/$US						
Share of manufacturing in GDP (%)					8-88%	
Health care expenditure ($US)						

QUESTIONNAIRE PART II - Data for latest available year(s)

Country: KADUNA REGION

Demographic Data:

Population by age group (1000's)	Latest year	0-4 <6	5-14	15-24 <15	24-49	50-60	over 60
		22,128,625		42,486,960			2,124,348

Rural/Urban distribution	Latest year	% urban 25%	% rural 75%

Literacy rate	Latest year	female 31%	male 54%

Economically active population	Latest	female	male	unemployed

Health indicators:

Infant mortality	Latest year	104/1,000

Life expectancy at birth	Latest year (1985-90)	female 52	male 50

Daily p. capita calorie intake	Latest year	18,000kcal	22,000kcal

			Per 1000 population
Number of physicians	Latest year	1993	360
Number of hospital beds	Latest year	1994	12,231
Number of other health care personnel	Latest year	1993	22,841
Number of pharmacies	Latest year		
Nurses (11317)	1994		233

Country: KADUNA REGION

Major causes of death

Latest year	1	Malaria	6	Pneumonia
	2	Diarrhoea	7	CSM
	3	Typhoid	8	Dysentry
	4	Gastro	9	Chicken Pox
	5	Measles	10	Pregnancy

Number of HIV infections	Latest year 1994	Reported 1698	Estimated 3-8% of total population
Number of AIDS cases	Latest year 1995	Reported 54	Estimated 3-8% of total population
Number of cases of tuberculosis	Latest year	Reported 8,358	Estimated

Major diseases

		Name	Incidence		Name	Incidence
Latest year	1	Malaria	610,368	7	CSM	40,740
	2	Diarrhoea	197,070	8	Dysentry	194,148
	3	Typhoid	74,418	9	Chicken pox	718,962
	4	Gastro	8,490	10	Pregnancy	
	5	Measles	8,490	11		
	6	Pneumonia	98,604	12		

Market data:
Pharmaceuticals and allied products

Sales n/a	Latest year (time series, if available)
Imports n/a	Latest year (time series, if available)

Country: KADUNA REGION

Sales of leading
pharmaceutical products

Latest year	Name	Sales
	1 Multivitamin tablets	
	2 Cotrimoxazole	
	3 Paracetamol	
	4 Chloroquine	
	5 Mag. Trisilicate	
	6 Amalgin	
	7 Procain Penicillin	

Note: Essential drug list utilised. Most did not have record of leading sales. One would have to go through their records and EDL.

Sales of :

Hormonal contra-ceptives	Latest three years (Quantity dispensed in public) 1993	1994	1995
product name Loki feminal			
product name Moristerat			
product name Microgynon/Depovera			

Condomes with or without spermicides	Latest three years 1993	1993	1995 332,262

Diagphrams with or without spermicides	Latest three years 19..	19..	19..

Intrauterine devices	Latest three years 1993	1994	1995 2,898

Country: KADUNA REGION

Government purchases through tenders (US$)	(Not available)		
Hormonal contra-ceptives	Latest three years 1993	1994	1995
product name _____			
product name _____	N/A		
product name _____			
Condomes with or without spermicides	Latest three years 19..	19.. N/A	19..
Diaphragms with or without spermicides	Latest three years 19..	19.. N/A	19..
Intrauterine devices	Latest three years 19..	19.. N/A	19..

Sales of other health care products:

disposable syringes
disposable needles
surgical gloves
other (see specify)

Pharmaceutical manufacturers

Please list names and addresses:
(If room insufficient, please provide separate page)

1. West African Drugs
2. Arena Pharmaceuticals
3. SmithKline Beecham
4. Pfizer
5. May & Baker
6. Foods & Pharmaceuticals
7. Rajrab
8. Nigerian Hoesch

QUESTIONNAIRE - PART III QUALITATIVE DATA

Awareness of AIDS:

very low	low	medium	high	very high
	xx			

Do anti -AIDS campaign exist?

yes: xx no:

If yes, state method and frequency: Intermittent quarterly varies from State to State

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx		xx	xx	xx

If other, please specify: NGO's programmes

Regular: Intermittent: xx Special campaigns:

Direct AIDS-related data:

Incidence of AIDS:

known: estimated: 3% of population (NGO source)

Main sources of AIDS and frequency of transmission:

Source:	Frequency:	Known:	Estimated:
Sexual transmission			
Blood transfusions			
Mother/child infection			
Drug abuse			
Other, please specify			

Is there epidemiological surveillance?

Yes xx No

If yes, please give details.

Primary Health Care (PHC) Department in the Ministry of Health
UNICEF Programme

Do national programmes exist with respect to AIDS prevention?

Yes xx No

If yes, please give details.

National AIDS Control Programme (NACP) - Federal State Representation

Is there an AIDS related national budget?

Yes xx No

If yes, please give details.

Usually component of the health sector budget.

Please list international assistance given with respect to AIDS prevention or treatment:

Organization:	Frequency:	Volume:
USAID	Regular	not available
UNICEF	Regular	"
AFRICARE	Regular	"
ODA	Intermittent	

Please list organizations dealing with the prevention of HIV infections and AIDS:

1. AFRICARE
2. AIDSCAP
3. STOP AIDS
4. HCWS

Do family-planning campaigns exist?

yes:	no:
xx	

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	xx	

If other, please specify: _____

Regular:	Intermittent:	Special campaigns:
xx		xx

Condome use:

known: estimated:

Diaphragm use:

known: estimated:

Use of intrauterine devices:

known: estimated:

QUESTIONNAIRE

prepared by Mr. L. Y. Gana, National Expert for Maiduguri

Project NC/NIR/94/O1D - Fact-finding mission and contribution to the National Programme against dissemination of HIV

QUESTIONNAIRE - PART I Time Series Data

Country: MAIDUGURI REGION

	1975	1980	1985	1990	Latest Year 1995	Projected 2020
Population (1000' S)	7,800	9,100	10,400	11,700	13,080	
GDP/Capita (US$)	1236	1225	1024	1147	1179 (1992)	
Consumer Price Index 19..=100	47.3	100	2404	7060	1813.0 (1993)	
Exchange rate local currency/$US	615	547	894	8038	81500	
Share of manufacturing in GDP (%)	3.05	5.0	5.14	4.96	5.00 (1992)	
Health care expenditure ($US)				906		

QUESTIONNAIRE PART II - Data for latest available year(s)

Country: MAIDUGURI REGION

Demographic Data:

Population by age group (1000's)	Latest year	0-14	15-24	24-49	50-60	over 60
		6200	2093	1884	1046	549

Rural/Urban distribution	Latest year	1995	% urban	% rural
			36%	64%

Literacy rate	Latest year	female	male

Economically active population	Latest year	female	male	unemployed

Health indicators:

Infant mortality	Latest year	(1995)	87 - 103/100

Life expectancy at birth	Latest year	(1995)	female	male
			54	51

Daily p. capita calorie intake	Latest year	(1995)	2000

			Per 1000 population
Number of physicians	Latest year	1995	1-14185
Number of hospital beds	Latest year	1995	1 - 945
Number of nurses	Latest year	1995	1 - 1420
Number of pharmacies	Latest year		

Country: MAIDUGURI REGION

Major causes of death

Latest year 1995	1	Maternal	6	Typhoid
	2	Pneumonia	7	Cancers
	3	Tuberculosis	8	Road Accidents
	4	Diarrhoea	9	Surgical
	5	Malaria	10	

Number of HIV infections	Latest year 1995	Reported 958	Estimated 4790
Number of AIDS cases	Latest year 1995	Reported 170	Estimated 670
Number of cases of tuberculosis	Latest year 1995	Reported Prevalence	Estimated rate 254/100,000

Major diseases

		Name	Incidence		Name	Incidence
Latest year 1995	1	Malaria		7	Cancers	
	2	Typhoid		8	Obstetrical	
	3	Pneumonia		9		
	4	Bronchitis		10		
	5	Diarrhoeas		11		
	6	Tuberculosis		12		

Market data:
Pharmaceuticals and allied products

Sales — Latest year (time series, if available)
n/a

Imports — Latest year (time series, if available)
n/a

Country: MAIDUGURI REGION

Sales of leading pharmaceutical products

Latest year	Name	Sales (Data unreliable)
	1. Paracetamol Tabs/Syrup	
	2. Chloroquine (tabs/injections/syrups)	
	3. Disposable syringes	
	4. Infusions	
	5. Ampicillin Caps	
	6. Cotrimoxazole Taps	
	7. Anaesthetic Drugs	
	8. Opthalmic preparations	
	9. Procaine Penicillin	
	10. Streptomycin Injection	

Sales of: (Given free until three months ago)

Hormonal contra-ceptives	Latest three years 1993	1994	No sales/free 1995
product name Depo provera/Noristerate			
product name Lofemenal			
product name Neogynon			

Condomes with or without spermicides	Latest three years 1993	1994	1995

Diagphrams with or without spermicides	Latest three years 19..	19..	19..

Intrauterine devices	Latest three years 1993	1994	1995

Average daily sales N1050 in Maiduguri Family Planning Unit

Country: MAIDUGURI REGION

Government purchases through tenders (US$) NIL

Hormonal contraceptives	Latest three years 1993	1994	1995
product name Depo provera/Noristerate			
product name Lo-femenal			
product name Neogynon minipills			

Condomes with or without spermicides	Latest three years 19..	19.. N/A	19..

Diaphragms with or without spermicides	Latest three years 19..	19.. N/A	19..

Intrauterine devices	Latest three years 19..	19.. N/A	19..

Sales of other health care products:	(1995)	Borno State only	Yobe State only
disposable syringes		N1,849,000	N576,000
disposable needles			
surgical gloves		N 145,500	N 96,000
all infusions		N1,638,560	
other (see specify)			

Pharmaceutical manufacturers

Please list names and addresses:
(If room insufficient, please provide separate page)

QUESTIONNAIRE - PART III QUALITATIVE DATA

Awareness of AIDS:

very low	low	medium	high	very high
		xxx		

Do anti -AIDS campaign exist?

yes: xx no:

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	xx	xx

If other, please specify: _____

Regular: Intermittent: xx Special campaigns:

Direct AIDS-related data:

Incidence of AIDS:

known: estimated:

Main sources of AIDS and frequency of transmission:

Source:	Frequency:	Known:	Estimated:
Sexual transmission	xx		
Blood transfusions	xx		
Mother/child infection	xx		
Drug abuse	Nil		
Other, please specify			

Is there epidemiological surveillance?

Yes	No
xx	

If yes, please give details.

Included in tables 2, 3 and 4 of the Maiduguri National Expert's report.

Do national programmes exist with respect to AIDS prevention?

Yes	No
xx	

If yes, please give details.

Sentinel survey & screening kits for AIDS.
Intermittent workshops

Is there an AIDS related national budget?

Yes	No
xx	

If yes, please give details.

Please list international assistance given with respect to AIDS prevention or treatment:
NIL

Organization:	Frequency:	Volume:

Please list organizations dealing with the prevention of HIV infections and AIDS:

Do family-planning campaigns exist?

yes:	no:
xx	

If yes, state method and frequency:

TV	Radio	Press	Leaflets	Through health-care personnel	Other
xx	xx	xx	xx	xx	

If other, please specify: _____

Regular:	Intermittent:	Special campaigns:
	xx	

Condome use: Data unreliable

known: estimated:

Diaphragm use:

known: estimated:

Use of intrauterine devices:

known: estimated:

Annex 9

FEDERAL MINISTRY OF SCIENCE AND TECHNOLOGY

NEW FEDERAL GOVERNMENT SECRETARIAT
ABUJA, NIGERIA

OFFICE OF THE HONOURABLE MINISTER

P.M.B. 9
Telegrams:.....
Tel: 09-5233397
FAX: 09-5233903

Ref. No FMST/PARA/109/1/S.

Date: 31st January, 1996

Prof. K. K. Tewari
Director
ICGEB (India)
Aruna Asaf Ali Marg
New Delhi 110067
India
Fax: 91-11- 6862316

RE: COLLABORATION FOR THE TRANSFER OF TECHNOLOGY FOR THE DIAGNOSIS OF HIV-I AND HIV-II TO NIGERIA

We understand that a diagnostic test for the detection of HIV-I and HIV-II has been developed by your Centre and the Centre wishes the member countries to benefit from that technology. As a founding member of the ICGEB, we are interested in benefitting in this development through a transfer of the technology to Nigeria.

2. In this regard, we have discussed with your representative, Prof. D. Subrahmanyam who visited us along with Prof. S. Y. Kwankam as part of a UNIDO delegation.

3. To begin with, we would like to examine the validity of the AIDS Diagnostic Kit to detect the infection in Nigerian samples. We therefore suggest that two scientists from Nigeria would visit your Centre with the HIV samples from this country and perform the test in your Laboratory. Thereafter, the scientists would carry the antigens from your Centre and conduct the test with the samples at a Nigerian Laboratory. For this purpose, we will bear the travel expenses of the scientists between Nigeria and India and we expect that your Centre will take care of their living expenses.

4. On satisfactory completion of the above, we will then enter into a Memorandum of Understanding (MOU) on the Basis of which a technology transfer agreement will be entered into with your Centre for eventual manufacture of the Kit in Nigeria and marketing in the Country.

5. We look forward to your prompt response to the above proposal.

6. With our best wishes.

Brigadier-General Sam Momah, mni
Honourable Minister of Science and Technology

cc: Prof. A. Falaschi, Director
ICGEB
Trieste, Italy
Fax: 39-40-3757353

Dr. Z. Csizer
UNIDO, Vienna, Austria

UNIDO

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO Director in Nigeria
11, Oyinkan Abayomi Drive, Ikoyi,
P.O. Box 2075, Lagos.
Telephone: 2692141 - 3 Telex No. 28404 Fax: 234 - 1 - 2691746

FAX MESSAGE

Please Deliver This Material TO: Z.CSIZER COMP/INT/ADV FROM: ANTON SARBU UNIDO COUNTRY DIRECTOR DATE: 6 FEBRUARY 1996 NUMBER OF PAGES (INCLUDING THIS SHEET):2 PRIORITY: URGENT X ROUTINE	FAX NO:43-1-211316819 UNIDO,VIENNA REF: NC/NIR/94/01D DRAFTER: AS/mo AGENCY: UNIDO FAX NO: 234-1-2691746 TRANSMISSION REF. NO. FA 151

PLEASE TRANSMIT TO DR. SUBRAHMANYAM

FURTHER TO YOUR VISIT AND DISCUSSIONS WITH OFFICIALS OF THE MINISTRY OF HEALTH IN LAGOS, PLEASE FIND HEREWITH A COMMUNICATION FROM THE DIRECTOR-GENERAL OF THE MINISTRY.

REGARDS.

RECEIVED
27702 06 FEB 1996
Chemical Industries Branch
Industrial Sectors and Environment Division

ANTON SARBU, UCD

LAGOS STATE GOVERNMENT

P.M.B.
Telephone:
Telegram: Healing LAGOS
All letters to be addressed to
~~the Honourable Commissioner~~

Ministry of Health and Social Welfare
Obafemi Awolowo Way
Ikeja, Lagos State

Ref. No. HC.08/III/19

5th February, 1996.

THE UNIDO COUNTRY DIRECTOR,
MR. ANTON SARBU,
11 OYINKAN ABAYOMI DRIVE,
IKOYI,
LAGOS.

RECEIVED
06 FEB 1996
Chemical Industries Branch
Industrial Sectors and Environment Division

ATTENTION MR. D. SUBRAHMANYAM

Dear Sir,

You will recall the meeting held with you in the office of the Hon. Commissioner for Health Lagos State, DR. SEGUN OGUNDIMU on 16/1/96 at your instance. I am to convey formally the interest of the State Government in a joint venture with a Nigerian-German pharmaceutical firm.(NIGERIAN-GERMAN CHEMICALS) formerly HOECHST) in the manufacture of the following items in the war against AIDS.

1) Syringes & Needles

2) Blood bags

3) Condoms.

To this end, it shall be greatly appreciated if UNIDO could assist this joint venture with the benefit of a relevant feasibility study for immediate implementation.

Thank you for a despatch action.

Dr. (Mrs.) M. I. Foresythe
Director-General
Lagos State Ministry of Health.

1993/94 SENTINEL SERO-PREVALENCE SURVEILLANCE REPORT

NATIONAL AIDS/HIV/STD CONTROL PROGRAMME

FEDERAL MINISTRY OF HEALTH
AND SOCIAL SERVICES

1995

TABLE OF CONTENTS

GRAPHS

TABLES

ACKNOWLEDGEMENT

The National AIDS/STD Control Programme is very grateful to the Honourable Ministers of Health and Social Services (both past and present) for giving us a chance to serve humanity in our own little way. We are also deeply appreciative of the support always provided by the Director, PHC & Disease Control: Dr. O.F.A. Ashley-Dejo.

We are indebted to the numerous State AIDS/STD Programme Coordinators, the survey site and screening centre personnel who defied all the prevailing hardships to ensure the successful implementation of this survey. The cooperatin of the numerous Nigerians who served as the survey populations albeit mostly anonymous is highly appreciated.

This assignment owes a lot to the technicl and financial support provided by USAID and WHO.

Finally, the survey could not have been completed but for the dedication and enthusiasm of Dr. David Olajire Durojaiye, during which course he unfortunately lost his life. May his soul rest in perfect peace.

Dr. A. Tilley-Gyado
National AIDS/STD Programme Coordinator

NASCP SENTINEL SURVEY TEAM

1. Dr. A.Tilley-Gyado
2. Dr. M. Gboun
3. Dr. J. Nnorom

** 4. Dr. D. Jire Durojaiye

*** 5. Dr. Abdi-Kamal Ali-Salad

**** 6. Dr. E. Ekanem

* Formerly NASPC, now with USAID

** Deceased

*** Formerly of NASCP, WHO GPA Epidemiologist now redeployed

**** Provided techncial assistance from LUTH on data analysis.

EXECUTIVE SUMMARY

The 1993/94 Sentinel Sero-prevalence Surveillance (SSS) was carried out in 17 States incorporating a total of 64 sentinel sites with an estimated samples size of 44,800. The sentinel groups of interest were the Commercial Sex Workers, STD patients, Tuberculosis patients and the antenatal clinics attenders. the criteria for selection of sentinel groups, sites and states followed the recommended requirements in the adapted WHO Sero-surveillance protocol.

The staff and field workers were formally trained to ensure a uniform and standardized procedure and methodology for all the sites. The methodology used was the unlinked anonymous method except for the commercial sex workers where consent was linked to provision of some other health care services. The collected data from all the sentinel states were entered into the computer using EPI-info (version 6) statistical software. Prevalence rates (at 95% confidence intervals) were determined for each of the participating states and groups. It was not possible to determine the age-sex specific prevalence for all the sites except in Enugu State as a result of the loss of the raw data in the computers where they were intially housed.

The prevalence rates in % as determined on the4 survey data according to the sentinel groups were in the order of CSW>STD>TB>LDTD>ANC. The national prevalence was 3.8% using the overall antenatal results from all the states.

The 1990/91, 1991/92 and 1993/94 antenatal results were compared; also, a comparison of the results of all the sentinel groups of 1991/92 and 1993/94 sentinel surveillance showed a significant difference using computed z score with p-value of 0.5.

There is also no doubt that the transmission of HIV in Nigeria is mostly of a heterosexual nature. The vulnerable groups are the youths and women. Efforts therefore, at intervention should concentrate mostly on preventing transmission among the youth particularly the girl child, the early recognition and management of sexually transmitted diseases as well as breaking the cycle of transmission among the commercial sex workers. The demonstrated rising HIV prevalence amongst patients with TB has obvious implications for the management of Nigerians with TB and vice versa particularly with reference to the administration of Thiacetazone, there is clearly a need to fill the research gap in this field.

Even though the unstable socio-economic and political climate of 1993/94 and the tragic loss of the sole member of the Epidemiology Component militated against the timely completion of the site operations, the data analysis and the final release of results; it is hoped that this report will be a very useful tool for several appropriate interventions and preventive measures.

1.0 INTRODUCTION

The AIDS/HIV epidemic was first described in Nigeria in 1986 when some workers identified the HIV virus in some commercial sex workers in Lagos and Enugu. Since then, there has been an alarming increase in the number of AIDS cases over the years. Though, the number of AIDS cases is universally accepted as being only the tip of the iceberg of the spectrum of the HIV Epidemic, cynics might dismiss the increase as artificial rather than real.

For any disease control programme to achieve any acceptable result, geographical, spatial and population distribution of the disease must be taken into consideration. In a young growing HIV epidemic such as ours, the organisation of periodic sentinel seroprevalence Surveillance using specific interest groups and geopgrahical distribution will in no doubt provide useful information for both the cynics as well as the AIDS stake holders and interest groups in AIDS control intervention activities. The design of this survey took into consideraiton the survey population, sample size and methodology as much as possible bearing in mind contemporary global indications and standards.

When the Medium Term Plan (MTP-I) was designed, most of the sero-prevalence data that constituted the input, came from established screening centres who were basically emphasising on provision of safe blood for patients. The vast majority of the study Population were blood donors. The MTPI strategies were consequently concentrated mainly on the control of HIV trans-mission through blood, whereas, the realities of the significance of the sexual mode of HIV transmission was highlighted in the 1990 serosurvey which has been corroborated by the results of the 1991/92 survey. The 1990 sero-survey took place in 4 states of the Federation whilst the 1991/92 sentinel surveillance covered nine (9) states. The 1993/94 sentinel surveillance involved 17 states incorporating a total of 64 sentinel sites with an estimated sample size of 44,800.

2.0 METHODOLOGY

The initial activities carried out before the commencement of the 1993/94 sentinel sero-surveillance involved:

(a) A training course in HIV/AIDS Applied Epidemiology and Surveillance for all the State AIDS Programme Coordinators and functionaries of the NASCP as well as Epidemiology division of the FMOH and Social services. This course was jointly designed and organised by the FMOH and Social Services, USAID, (CCCD) Centres for Disease Control (CDC) and WHO. It was fashioned after the WHO/CDC/Emory University HIV/AIDS Applied Epidemiology Course. It's major objective was to heighten the awareness and skills of the trainees on HIV/AIDS epidemiology methodology and uses. At the end of the course, a protocol adapted from the WHO sentinel surveillance protocol was designed by the participants for the 1993/94 exercise. The designed protocol addressed the criteria for choosing the participating states, Local Government Areas and survey sites, the identification and training of survey site, personnel, sample size and sampling methods in each state was in accordance with the perceived level of risk. It also dealt with issues concerning screening algorithmic analysis and reporting of the results.

(b) Using the designed protocol, the sentinel sites and site staff were identified and trained by the SAPC, with active technical support provided by National resource persons. The training programme contained the selection and enrolment of survey population; the methodology for classifying the subject and sample collection (by using vacutainers), sample coding, preservation, transportation and final screening of samples collected from the sites. It also involved the identification of quality assurance control samples and filling of the sentinel form.
This training of site personnel started at different times in each sentinel state as it depended on the preparedness of each state.

2.1 SAMPLE COLLECTION

Each survey site was expected according to the designed protocol, to collect samples by anonymous unlinked methods in all the sentinel groups except amongst the commercial sex workers where some sort of informed consent was obtained linked to some other Health Care delivery activity.

(i) Commercial Sex Workers (100 subjects).

(ii) Sexually Transmitted Disease Clinic attenders (100 subjects).

(iii) Tuberculosis patients (100 subjects)

(iv) Long distance truck drivers (100)
from Kaduna and Anambra States only

(v) Long distance women traders (100)
from Cross River State

(vi) Antenatal Clinic attenders (Low risk group) 400 subjects

On collection of samples from subjects using vacutainer, each sample was screened for HIV and also syphillis. HIV screening was first run using Welcozyme HIV 1 test kits. The positively reactive samples were further screened using HIV CHEK. The initially reactive sampels with RPR kits were further subjected to MHTPA confirmation. Positivity for HIV was identified by repeated reactivity on both Welcozyme and HIV CHEK. For the samples screened for syphillis, a repeated positivity with MHTPA was defined as syphillis positive.

2.2 ANALYSIS OF DATA

Data were entered into the computer using EPI-info (version 6) statistical software. Prevalence rates at 95% C.I. were determined for each of the participating states as well as for each risk group. Age-sex specific prevalence rates could only meaningfully be determined for Enugu State. The above analyses were done in collaboration with the technical assistance given by Dr. E. E. Ekanem of the Department of Community Helath, College of Medicine, Idi-Araba, Lagos.

Furthermore, the prevalence rates of 1991/92 were compared with those of the 1993/94 data and a significant difference was said to have occured with the computed z score yielding a p-value of .05 or less.

3.0 RESULTS

It was noticed from most of the results sent in from the sentinel states that the use of 2nd Elisa was almost as good as using 1st Elisa alone, except in some very few sentinel sites that showed little disparity. The results from one of the states which arrived much later than permissible, were muddled and disjointed giving an unrealistic projection on analysis. This would have adversely affected the final report and therefore had to be excluded from the final analysis.

Most of the sites were still not familiar with the use of MTHPA. Therefore the findings on syphilis as reported here would need further corroboration at a later date except in very few states.

Only Anambra out of the two states who had proposed it, could screen the Long Distance Truck Drivers while Cross River State could also not screen the long distance women traders.

3.1 SERO PREVALENCE OF HIV AMONG SENTINEL GROUPS IN THE STATES

Table 1. shows the results ofr all sentinel groups from the 16 sentinel states. The HIV percent positivity range by site for CSWs was **0 - 57.9%** with an overall prevalence of **22.5% (20.7 - 24.3)**. The states with the highest rates as shown on Graph 5 were Benue **46.3%** (range **39.2 - 54.0**), followed by Enugu **40.3% (31.6 - 50.0)** and Osun **39.3% (29.1 - 50.3)**. Patients with STDs were screened in 28 sites in 14 states. The highest prevalence was found in Plateau at **20.6% (16.0 - 25.8)**. The site positivity range was between **0 -33.3%** per site. Jos has the highest prevalence by site at **33.3% (24.1 - 44)**. Graph 6. the overall HIV prevalence among STD patients is **8.9% (7.9 - 10.10)**.

Among the TB patients screened in 24 sites in 14 states, the positivity range was between **0 - 25%**. The highest prevalence was in Achi in Enugu State and in Jos, Plateau State. The highest prevalence by state was in Borno State and Lagos State each at **20%** (Graph 7). The overall prevalence rate of TB patients in the country is **7.8% (6.7 - 9.0)**.

ANC patients were screened in 43 centres in 16 states. The positivity range in the sites was between **0% - 13.2%**. Barkin-Ladi in Plateau State had a prevalence of **13.2% (10.1 - 17.0%)**. Overall prevalence by state was highest in Plateau State with **8.2% (6.7 - 8.9%)**. Graph 8.

3.2 PREVALENCE OF HIV INFECTION IN STATES, AN OVERVIEW

The pattern in the states was similar in all those 12 states that sent in data comprising all the stipulated sentinel groups. Those that sent in data for less than 3 sentinel groups were not included in the graphical presentation. The prevalence was in this decreasing order **CSW > STD > LDTD > TB > ANC**. The age-

specific prevalence rate which was only calculated for Enugu State (Graph 11) showed an age range between 15 and 50 years. Age 15 - 19 showed a female preponderance in the positivity rate, which was only caught on by males in the 20 - 29 age group. The subsequent age groups showed a significantly high female infection rate. The grpahical presenttions for each state are as shown on Graphs 9 - 29. Long distance truck drivers were screened in only one site and the test results showed a prevalence of 4% for HIV.

3.3 OVERALL HIV PREVALENCE IN NIGERIA

The HIV prevalence among antenatal Clinic attenders was as usual used to represent that of the whole community. The national seroprevalence rate was therefore put at 3.8% of the sexually active age group. The age specific analysis of Enugu State points also to the fact that females acquire the infection at a much earlier age 15 - 19 years as compared to males who start about 5 - 10 years later (Graph 11).

3.4 PREVALENCE OF SYPHILIS INFECTION IN NIGERIA

Out of the 15 states screened for syphilis along side HIV, the overal lprevalence rate was **3.8%.** Adamawa had the highest prevalence of **21% (15.4 - 27.4)** as shown on Graph 22. Among the sentinel groups, syphilis was most prevalent among CSWs. The prevalence rate among this population was noticed in Adamawa State at **29.9% (15.4 - 27.4)** as shown on Graph 22.

The prevalence rate among STD patients with syphilis from the sites ranged betwen **1.4% - 46.5%.** Plateau State had the highest rte at **22% (19.7 - 32.0).**

The prevalence of syphilis among TB patients was highest in Plateau State **19.1% (10.4 - 20.3).**

Among antenatal patients, the prevalence rate ranged between **0.5 - 24.8%.** The overall ANC prevalence rate was **3.8% (12.2 - 19.5).** For the long distance truck drivers screened, syphilis infection was **2% (0.2 - 7.0).**

3.5 COMPARISON OF 1991/92 SENTINEL SURVEILLANCE WITH THE 1993/94 RESULTS

Statistical comparison of the 1991/92 and 1993/94 sentinel surveillance results showed a significant increase in all the states except in Benue and Oyo States using chique square test with P value < 0.001.

4.0 CONSTRAINTS

General constraints that affected every facet of the survey was the socio-political crisis of the year. However, specific constriants were:

1. All states did not start at the same time due to logistic and advocacy problems involved in the training of personnels at the site. This delayed the onset of surveillance in most states and ultimately prolonged the sentinel surveillance period from 8 weeks to 20 weeks.

2. Most states did not collect the desired sample size from the sentinel groups. Infact some states had only 2 sentinel sites instead of 4.

3. It is quite obvious that the site personnels were undertrained as they didn't adhere strictly to the prescriptions on the designed protocol, with respect to coding systems, labelling and meeting up the survey period, etc.

4. Loss of some personnels in the programme affected the collation, analysis and timely release of results.

5. Reagents and other consumables were not collected on time by some states. In others it was under estimated.

6. Some states did not identify with the objectives of the sentinel sero prevalence surveillance as they saw it only as a National Exercise and therefore did not provide supportive logistics.

7. The Quality assurance control results were not reliable and therefore discarded due to a lot of inconsistencies.

8. There was inadequate funding to promote supervision and monitoring during the course of the survey.

9. There was delayed release of funds due to bureaucratic red-tapism from the ministry.

5.0 DISCUSSION

This report summarises the findings of an active HIV/Syphilis Sentinel Sero-surveillance in some groups in the Nigerian population, in the period October 1993 to March 1994.

While this data may not be absolutely representative of the general population, it is widely accepted that the procedure followed in this survey is the closest approximation to the general population in the face of the numerous problems that would be encountered in carrying out a Population-based HIV sero-survey in environments such as ours.

That Nigeria is now established in the throes of her own AIDS epidemic is glaring as evidenced by the frightening icnrease from the 1990 sentinel reports. (Graphs 2 and 3). This is sadly also corroborated by Graph 4 which shows the annual and cumulative reported AIDs cases in the country. This increase is significantly demonstrable in all sentinel grups (Graph 3).

Without any doubt, HIV infection in Nigeria is a sexually transmitted infection with the sexually active sectors constituting the major pools of the infection. In this context, the demonstrated high prevalences among the CSWs, STD must not be myopically seen as a problem affecting only that group, but recognised alongside all those factors that promote unprotected, casual and multiple sexual activities. The age-sex specific prevalence also points at the high vulnerability of our youths particularly the adolescent female, as well as females of 20 - 50.

Even though, it was not possible to graphically analyse the rural-urban difference due to certain problems of definition, a cursory glance at the details of Table 1 shows some disturbing congruence betwen the rural and urban rates of infection in some states. Data that emerged from a recent KABP survey conducted by NASCP among Workers in Nigeria indicated an alarming high level of casual sex in the rural areas. This could be as a result of the easy accessibility between the rural and urban areas in parts of Nigeria due to the good road networks.

The increasing rate of infection among TB patients is of grave public health importance both in the control of TB and HIV, as well as in health care costs. Reports that have emanated from older epidemics in Central and Eastern Africa have demonstrated the heavy burden that Tuberculosis and HIV impose on one another as well as the general health care delivery system.

5.1 IMPLICATIONS FOR HIV/AIDS CONTROL IN NIGERIA

This study has shown that intervention programmes that have the early detection and management of STDS as the central focus must be intensified in all levels of care particularly using the Primary Health Care strategy.

These efforts must be preferentially targetted at the hard-to-reach youths and women of child-bearing age.

Intervention programmes must focus on skill development for behavioural change as opposed to the general information giving. This is therefore inclusive of activities that will mitigate the need for frequent multiple sexual partners.

The rising seroprevalence also indicates the rising pool of People with HIV and AIDS and this must therefore be matched with activities that will cater for the needs of the affected at affordable costs to the affected and the nation.

There is an increasing need to research into the cost-benefit of INH PROPHYLAXIS FOR PHIV as well as the cautious administration of thiocetazone for TB pts.

So many other questions about the routine management of STD patients, TB patients and also atenatal care vis a vis the rising HIV epidemic, have been appropriately addressed in the Draft HIV/AIDS and STD Policy for Nigeria.

The involvement of all the identified sentinel groups would need to be reviewed and scaled down to only ANC annually in the face of the rising cost of things.

THIRD ROUND (1993/94) NATIONAL HIV/T. PALLIDUM SENTINEL SURVEILLANCE RESULTS.

STATE		ANC					CSW					STD					TB					LDTD				
		NO tested	Pos. for HIV	% Pos for HIV	Pos for syph ilis	% Pos. for syph ilis	No tested	Pos. for HIV.	% Pos. for HIV	Pos. for syph ilis	% Pos. for syphi lis	No tested	Pos. for HIV	% Pos for HIV	Pos. for syph ilis	% Pos for syph ilis	No tested	Pos. for HIV	% Pos for HIV	Pos. for syph ilis	% Pos for syph ilis	No tested	Pos for HIV	%Pos for HIV	Pos for syph ilis	%Pos for syph ilis
ADAMAWA	Yola	398	5	1.3%	62	15.6%	99	28	28.3%	29	29.3%	101	5	5.0%	19	18.8%										
	Mubi						92	12	13.0%	28	30.4%	100	8	8.0%	21	21.0%										
	Sub. 1	398	5	1.3%	62	15.6%	191	40	20.7%	57	29.9%	201	13	1.5%	40	19.9%										
ANAMBRA	Awka	200	2	1.0%	0	0.0%	199	4	4.0%	1	1.0%	100	5	5.0%	3	3.0%	100	3	..0%	2	2.0%					
	Ekwulobia	100	4	4.0%	2	2.0%						100	3	3.0%	1	1.0%	100	1	1.0%	1	1.0%					
	Ogidi	200	5	2.5%	4	2.0%						100	4	4.0%	2	2.0%	100	3	3.0%	1	1.0%					
	Onitsha	400	8	2.0%	2	0.5%	100	7	7.0%	0	0.0%	100	7	7.0%	2	2.0%	99	4	4.0%	0	0.0%	100	4	4.0%	2	2.0%
	Sub. 2	900	19	2.4%	8	1.1%	199	11	5.5%	1	0.5%	400	19	4.8%	8	2.0%	399	11	2.8%	4	1.0%	100	4	4.0%	2	2.0%
BENUE	Gboko	401	20	5.0%	32	8.0%	100	49	49.0%	6	6.0%	95	9	9.5%	8	8.4%	72	1	1.4%	11	15.3%					
	Ihugh	400	14	3.5%	99	24.8%						100	11	11.0%	27	27.0%										
	Otukpo	345	19	5.5%	12	3.5%																				
	Makurdi						87	38	43.7%	16	18.4%	100	30	30.0%	14	14.0%	84	5	6.0%	2	2.4%					
	Sub. 3	1146	53	4.7%	143	12.1%	187	87	46.3%	22	12.2%	295	50	16.8%	49	16.5%	156	6	3.7%	13	8.8%					
BORNO	Biu	375	18	4.8%	17	4.5%																				
	Maiduguri	400	32	8.0%	3	0.8%	74	19	25.7%	13	17.6%	92	4	4.3%	4	4.3%	70	14	20.0%	1	1.4%					
	Sub. 4	775	50	6.4%	20	2.6%	74	19	25.7%	13	17.6%	92	4	4.3%	4	4.3%	70	14	20.0%	1	1.4%					
CROSS RIVER	Calabar	401	19	4.7%	7	1.7%						100	24	24.0%	16	16.0%	100	9	9.0%	6	6.0%					
	Ikom	400	20	5.0%	38	9.5%						100	9	9.0%	5	5.0%	100	23	23.0%	7	7.0%					
	Ogoja	400	10	2.5%	26	6.5%																				
	Sub. 5	1201	49	4.1%	71	5.9%						200	41	16.5%	21	10.5%	200	32	16.0%	13	6.5%					
DELTA	Warri	399	6	1.5%	13	3.3%	96	26	27.1%	1	1.0%	103	6	5.8%	8	7.8%	101	9	8.9%	7	6.9%					
	Agbor	400	35	8.8%	2	0.5%	100	17	17.0%	3	3.0%	100	10	10.0%	0	0.0%	100	2	2.0%	4	4.0%					
	Sub. 6	799	41	5.1%	15	1.9%	196	43	22.0%	4	2.0%	203	57	7.9%	8	3.9%	201	11	5.5%	11	5.5%					

STATE		ANC					CSW					STD					TB					LDTD				
		NO tested	Pos. for HIV	% Pos for HIV	Pos for syph ilis	% Pos. for syph ilis	No tested	Pos. for HIV.	% Pos. for HIV	Pos. for syph ilis	% Pos. for syphi lis	No tested	Pos. for HIV	% Pos for HIV	Pos. for syph ilis	% Pos for syph ilis	No tested	Pos. for HIV	% Pos for HIV	Pos. for syph ilis	% Pos for syph ilis	No tested	Pos for HIV	Zpos for HIV	Pos for syph ilis	ZPos for syph ilis
EDO	Benin	400	7	1.8%	6	1.5%											101	2	2.0%	5	5.0%					
	Auchi																									
	Ubiaja																									
	Sub. 7	400	7	1.8%	6	1.5%											101	2	2.0%	5	5.5%					
KADUNA	Kafanchan	582	29	5.0%	25	4.3%						147		1.4%	5	3.4%										
	Kaduna	560	24	4.3%	22	3.9%																				
	Saminaka																									
	Giwa																									
	Sub. 8	1142	53	4.6%	47	4.1%						147	2	1.4%	5	3.4%										
KANO	Danbata	160	0	0.0%	9	5.6%	100	0	0.0%	6	6.0%															
	Gwarzo	399	0	0.0%	4	1.0%	100	0	0.0%	11	11.0%															
	Kano	400	3	0.8%	4	1.0%	101	11	10.9%	12	11.9%	100		5.0%	3	3.0%	100	19	19.0%	2	2.0%					
	Rano	399	4	1.0%	25	6.3%	100	14	14.0%	14	14.0%	100		3.0%	6	6.0%										
	Sub. 9	1358	7	0.4%	42	3.5%	401	25	6.2%	43	10.7%	200	18	9.0%	9	4.5%	100	19	19.0%	2	2.0%					
KWARA	Ilorin	400	15	3.8%	0	0.0%	100	15	15.0%	3	3.0%	101		0.9%	0	0.0%	100	5	5.0%	0	0.0%					
	Omu-Aran	396	4	1.0%	0	0.0%																				
	Offa	400	10	2.5%	2	0.5%																				
	Sub. 10	1196	29	2.4%	2	0.2%	100	15	15.0%	3	3.0%	101	9	0.9%	0	0.0%	100	5	5.0%	0	0.0%					
LAGOS	Badagry	354	19	5.4%	31	8.8%	91	9	9.9%	52	57.1%															
	Epe	405	17	4.2%	20	4.9%																				
	Ikeja	398	30	7.5%	25	6.3%	100	46	46.0%	23	23.0%	100		5.0%	16	16.0%										
	Ikorodu	400	27	6.8%	4	1.0%																				
	Lgos Island	337	34	10.1%	4	1.2%	101	30	29.7%	3	3.0%	100		8.0%	4	4.0%	100	20	20.0%	3	3.0%					
	Sub. 11	1894	127	6.8%	84	4.4%	292	85	28.5%	78	27.7%	200	13	6.5%	20	10.0%	100	20	20.0%	3	3.0%					

STATE		ANC					CSW					STD					TB					LDTD				
		NO tested	Pos. for HIV	% Pos for HIV	Pos for syph ilis	% Pos. for syph ilis	No tested	Pos. for HIV.	% Pos. for HIV	Pos. for syph ilis	% Pos. for syphi lis	No tested	Pos. for HIV	% Pos for HIV	Pos. for syph ilis	% Pos for syph ilis	No tested	Pos. for HIV	% Pos for HIV	Pos. for syph ilis	% Pos for syph ilis	No tested	Pos for HIV	%Pos for HIV	Pos for syph ilis	%Pos for syph ilis
OSUN	Ife	398	1	0.3%	0	0.0%						100		2.0%	1	1.0%	91	1	1.1%	0	0.0%					
	Ilesa	408	7	1.7%	3	0.7%	89	35	39.3%	5	5.6%															
	Oshogbo	282	6	2.1%	0	0.0%						86		2.3%	0	0.0%	76	2	2.6%	1	1.3%					
	Sub. 12	1088	14	1.4%	3	0.2%	89	35	39.3%	5	5.6%	186		2.2%	1	0.5%	167	3	1.9%	1	0.7%					
OYO	Ibadan	484	1	0.2	9	1.9											120	0	0.0%	5	4.2%					
	Ogbomosho																									
	Saki																									
	Sub. 1	484	1	0.2	9	1.9											120	0	0.0%	5	4.2%					
PLATEAU	Akwanga	413	26	6.3%	7	1.7%						79		16.5%	5	6.3%	140	4	3.8%	11	10.6%					
	Barkin Ladi	401	53	13.2%	32	8.0%	100	12	12.0%	11	11.0%	99		4.1%	13	13.1%										
	Jos	401	20	5.0%	3	0.7%	108	41	38.0%	9	8.3%	99		31.3%	46	46.5%	112	28	25.0%	31	27.7%					
	Sub. 14.	1215	99	8.2%	42	3.5%	208	53	25.0%	20	9.7%	277	57	20.6%	64	22.0%	216	32	14.4%	42	19.1%					
SOKOTO	Sokoto	402	6	1.5%	4	1.0%											101	3	3.0%	0	0.0%					
	Gusau																									
	Ilella	398	7	1.8%	8	2.0%																				
	Yabo																									
	Sub. 15	800	13	1.6%	12	1.5%											101	3	3.0%	0	0.0%					
ENUGU	Abakalike	439	17	3.9%			105	39	37.1%	2	1.9%	76	7	9.2%	4	5.3%	76	9	11.8%	1	1.3%					
	Auchi	202	11	5.4%								22	1	4.5%	0	0.0%	4	1	25.0%							
	UNTH	138	4	2.9%			19	11	57.9%	6	31.6%	27	0	0.0%	2	7.4%	109	5	4.6%							
	Parklane	91	0	-			0	0	0	0	0	0	0	0.0%	0	0.0%	0	0	0	0	0 %					
	Sub. 16	870	32	3.7%			124	50	40%			125	6	4.8%	0		189	15	7.9%	1	0.5%					
	GRAND TOTAL	14796	567	3.8%	566	3.8%	1937	413	21.3%	246	12.7%	2502	250	10.0%	229	9.2%	2031	158	7.8%	100	4.9%	100	4	4.0%	2	2.0%

TABLE 4

HIV PREVALENCE (%) IN NIGERIA

States	ANC	CSW	STD	T.B.	LDTD	TOTAL HIV	SYPHILLIS
Adamawa	1.3%	20.7%	1.5%	-	-	7.3%	20.%
Anambra	2.4	5.5	4.8%	2.8	4.0	2.8	1.7
Benue	4.7	46.3	6.8	3.7		11.0	1.3
Borno	6.4	25.7	4.3	20.0		7.2	
Cross River	4.1	-	16.5	16.0		6.7	4.9
Delta	5.1	22.0	7.9	5.5		10.9	2.7
Edo	1.8	-	-	2.0%		1.8	2.2
Enugu	3.7	40.3	4.8	7.9%		8.0	8.0
Kaduna	4.6	-	1.4	-		4.3	4.1
Kano	0.4	6.2	9.0	19		2.9	4.7
Kwara	2.4	15.0	0.9	5.0		3.9	0.3
Lagos	6.8	28.5	6.5	20.0		9.9	7.4
Oshun	1.4	39.3	2.2	1.9		3.7	0.71
Oyo	0.2	-	-	-		0.2	1.9
Plateau	8.2	25.0	20.6	14.4		12.6	8.8
Sokoto	3.8	-	-			1.8	1.3
TOTAL (Average)	3.8%	22.5%	8.9%	7.8%			

TABLE 5

COMPARISON OF 2ND (1991/92) HIV SENTINEL SURVEILLANCE WITH 3RD 1993/94 SENTINEL SURVEILLANCE RESULTS

States	1991/92 (RESULTS)			1993/94 RESULTS		
	Total No. Tested	No. HIV Positive	% HIV Positive	Total No. Tested	No. HIV Positive	% HIV Positive
Plateau	-	-	-	1,916	241	12.6
Benue	1323	127	9.6	1,784	196	11.0
Delta	1070	7	0.7%	1,399	152	10.9
Lagos	1322	30	2.3	2,486	245	9.9
Enugu	938	37	3.9	1,310	105	8.0
Adamawa	-	-	-	790	58	7.3
Borno	-	-	-	1,097	79	7.2
Cross River	615	18	2.9	1,541	104	6.7
Kaduna	1,131	10	0.9	1,289	53	3.9
Kwara	-	-	-	1,497	58	3.9
Kano	1,558	126	8.1	2,059	60	3.7
Osun	760	0	0.0%	1,530	56	2.9
Anambra	-	-	-	1,998	57	1.8
Edo	1,055	2	0.2	501	9	1.8
Sokoto	-	-	-	908	16	1.8
Oyo	2,629	16	0.6	484	1	0.2
Jigawa	509	109	21.4	-	-	-
GRAND TOTAL	11,907	482		22,589	1,490	

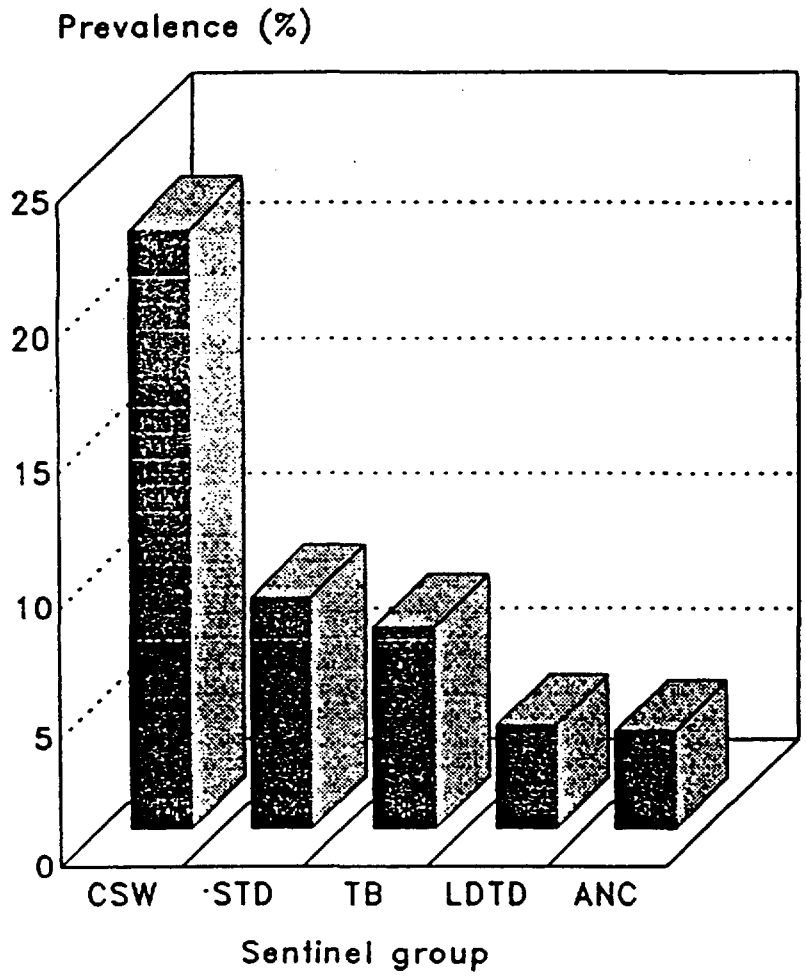
(b)

COMPARISON OF 2ND (1991/92) HIV SENTINEL SURVEILLANCE WITH 3RD 1993/94 SENTINEL SURVEILLANCE RESULTS

Setinel Groups	1991/92 (RESULTS)			1993/94 RESULTS		
	Total No. Tested	No. HIV Positive	% HIV Positive	Total No. Tested	No. HIV Positive	% HIV Positive
CSW	1,339	234	17.5%	2,061	463	22.5
ANC	4,517	61	1.4	15,666	599	3.8
STD	1,359	63	4.6	2,627	235	8.9
T.B.	944	21	2.2	2,220	173	7.9
LDTD	-	-	-	100	4	4.0

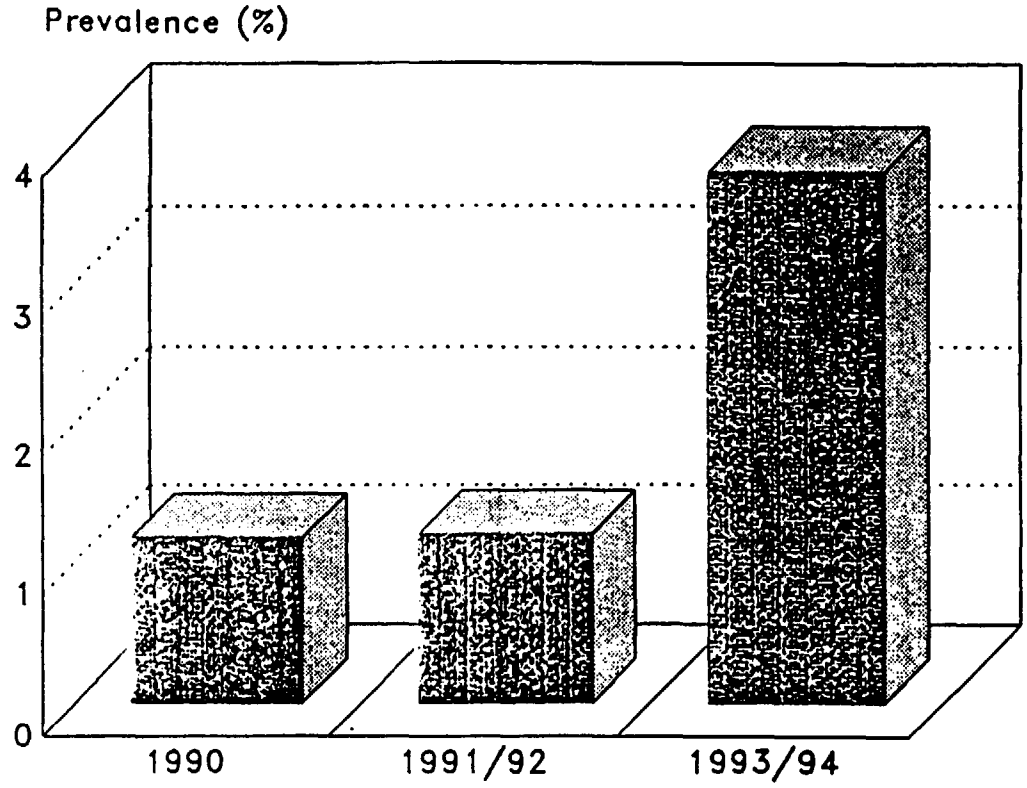
GRAPH 1

Seroprevalence of HIV infection in Nigeria, 1994



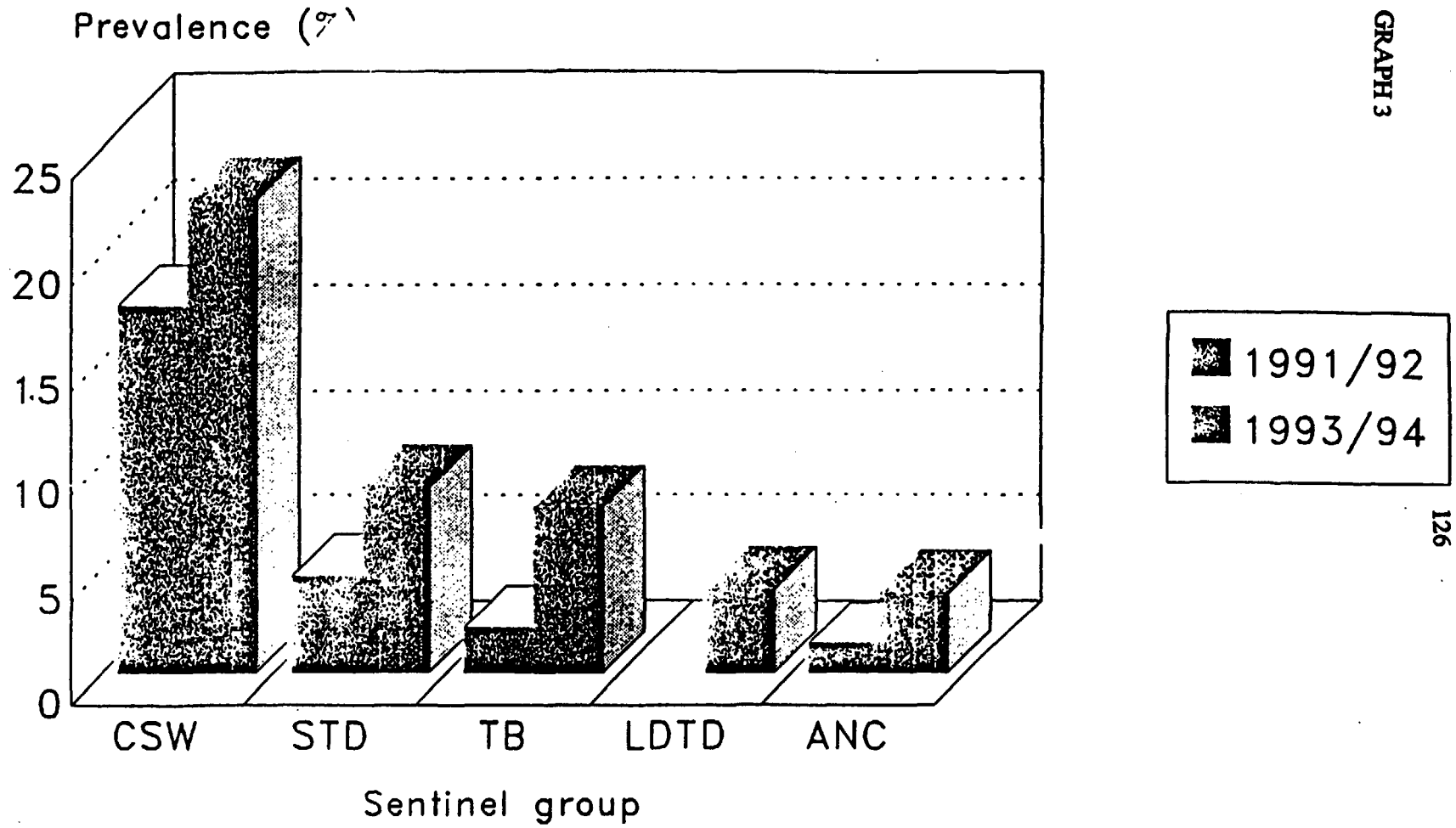
CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients, LDTD= Long Distance Truck Drivers

Prevalenece of HIV infection among ANC patients 1990–94



GRAPH 2

Comparison of seroprevalence of HIV infection in Nigeria 1991/92 and 1993/94



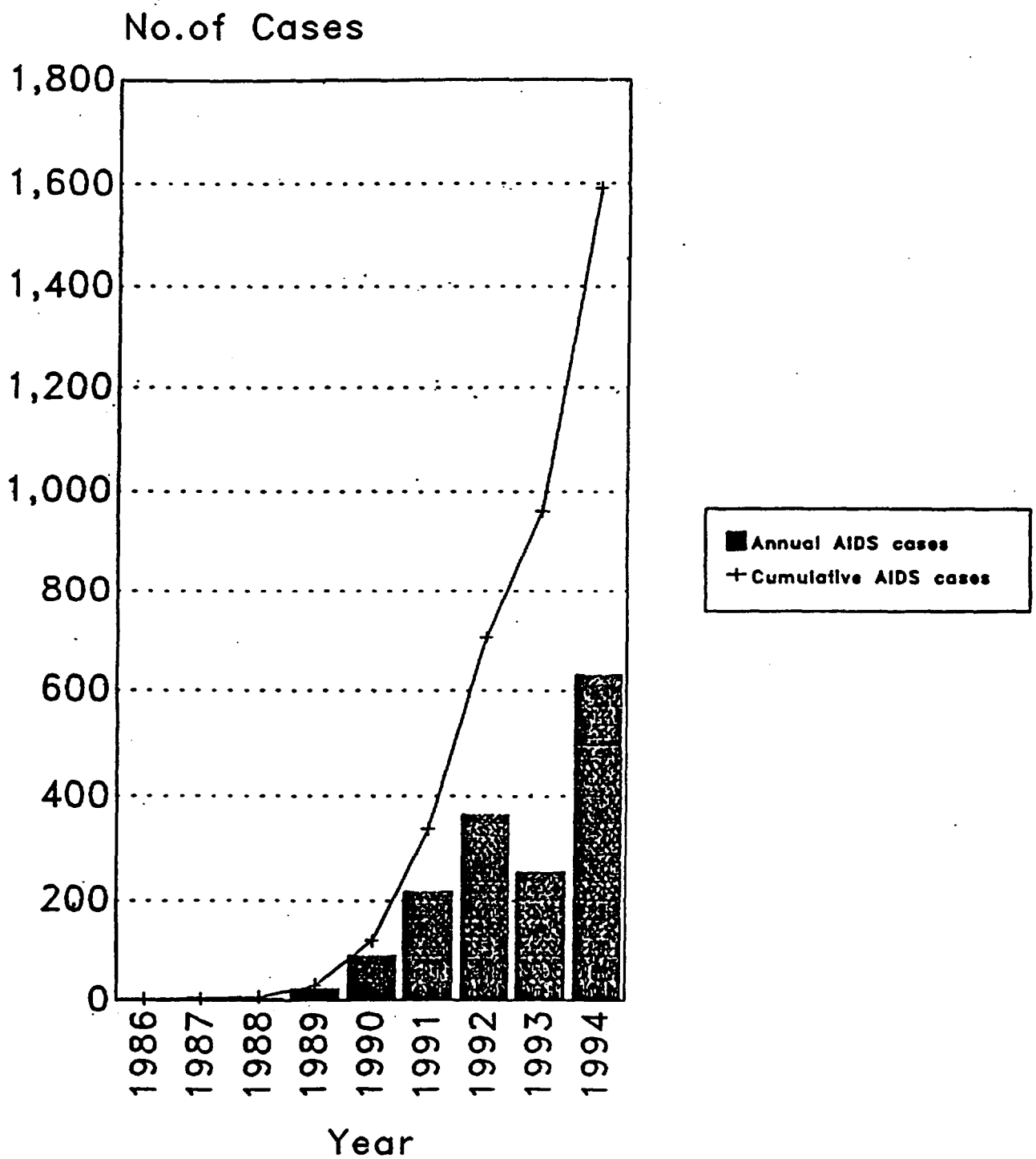
GRAPH 3

126

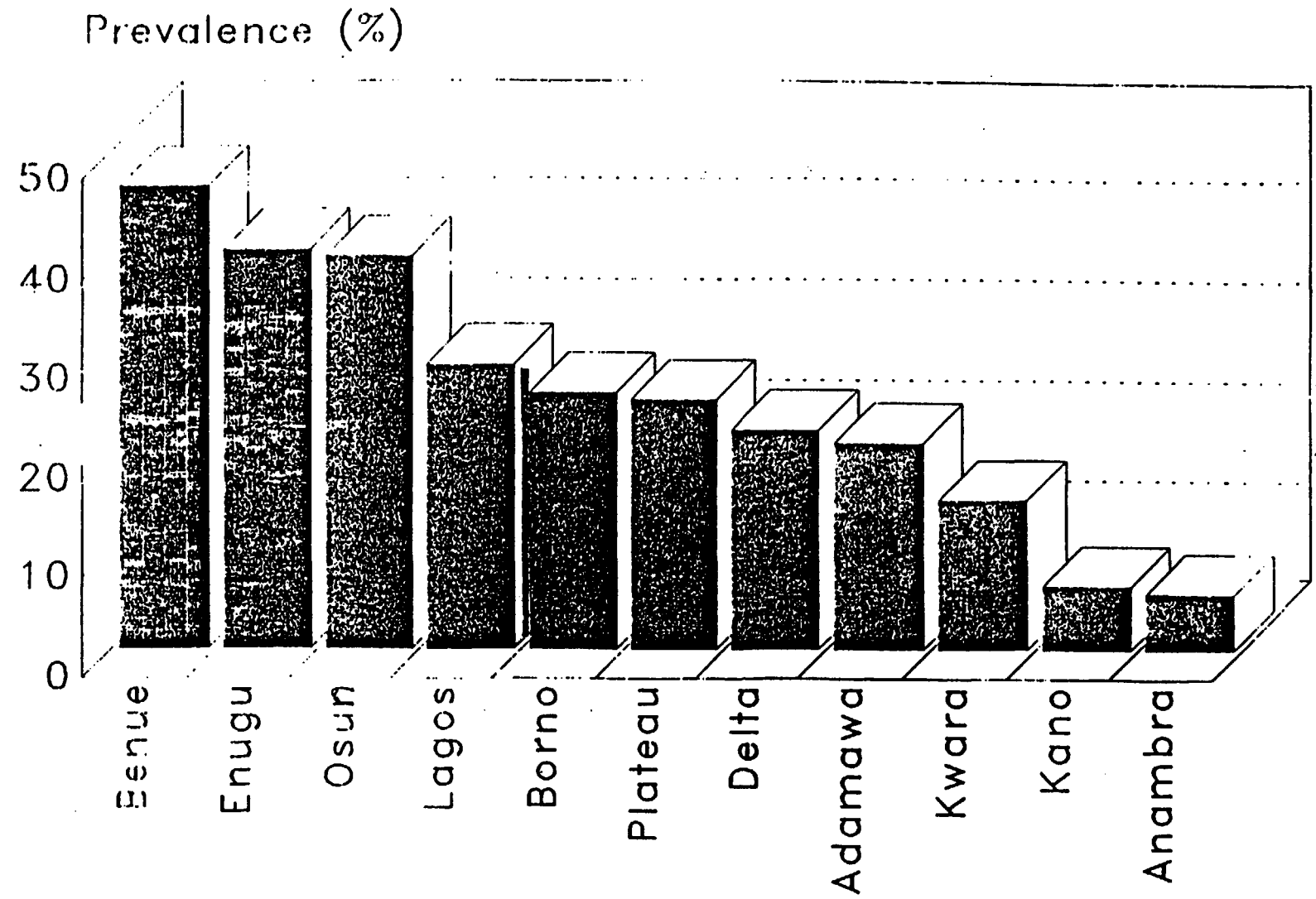
CSW = Commercial sex workers STD= Patients with sexually-transmitted diseases, TB= Tuberculosis patients,
LDTD= Long Distance Truck Drivers, ANC = Antenal clinic patients

GRAPH 4

Annual and Cumulative Reported AIDS cases in Nigeria, 1986 – 1994

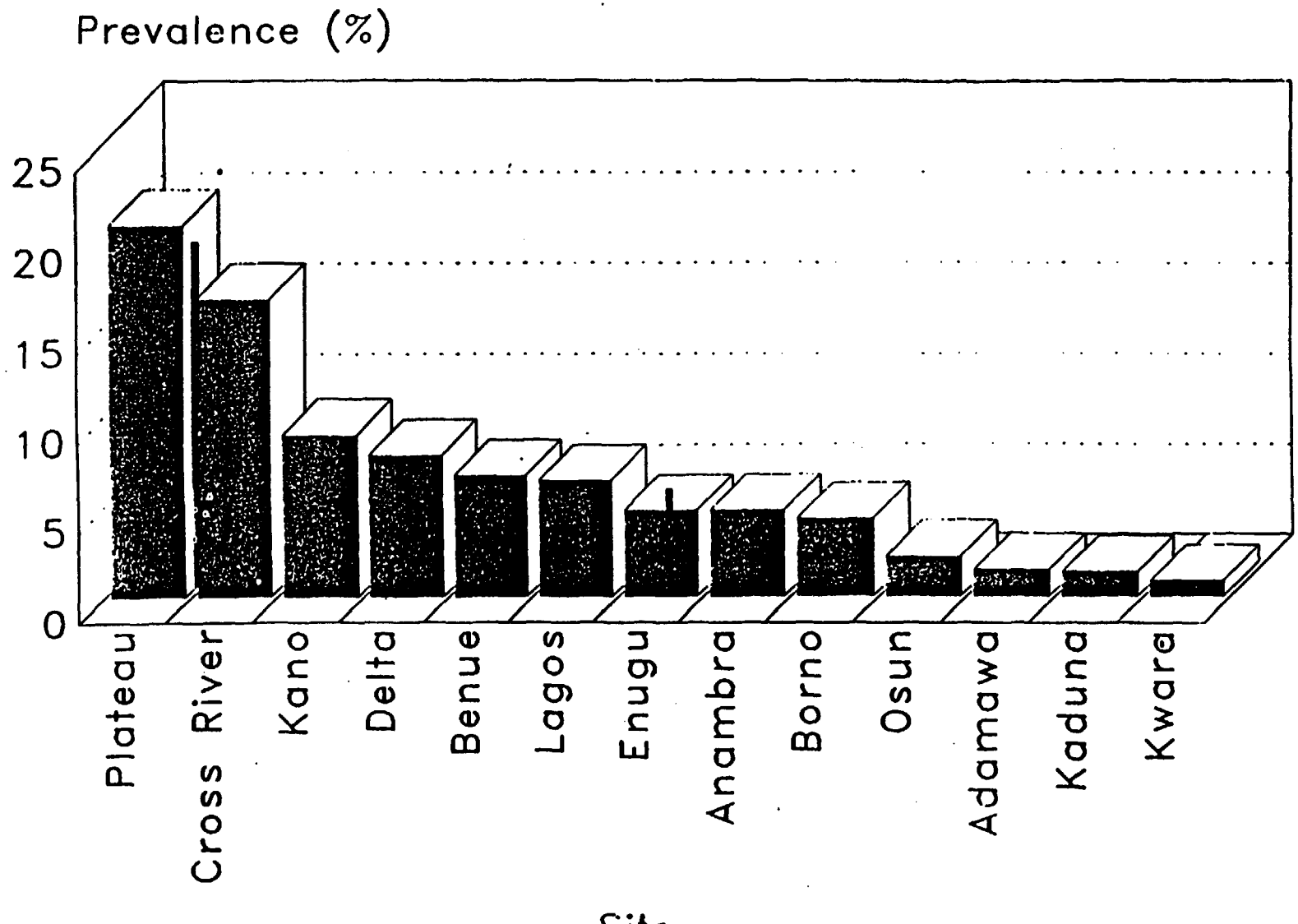


Seroprevalence of HIV among Commercial Sex workers in sentinel sites in Nigeria, 1994



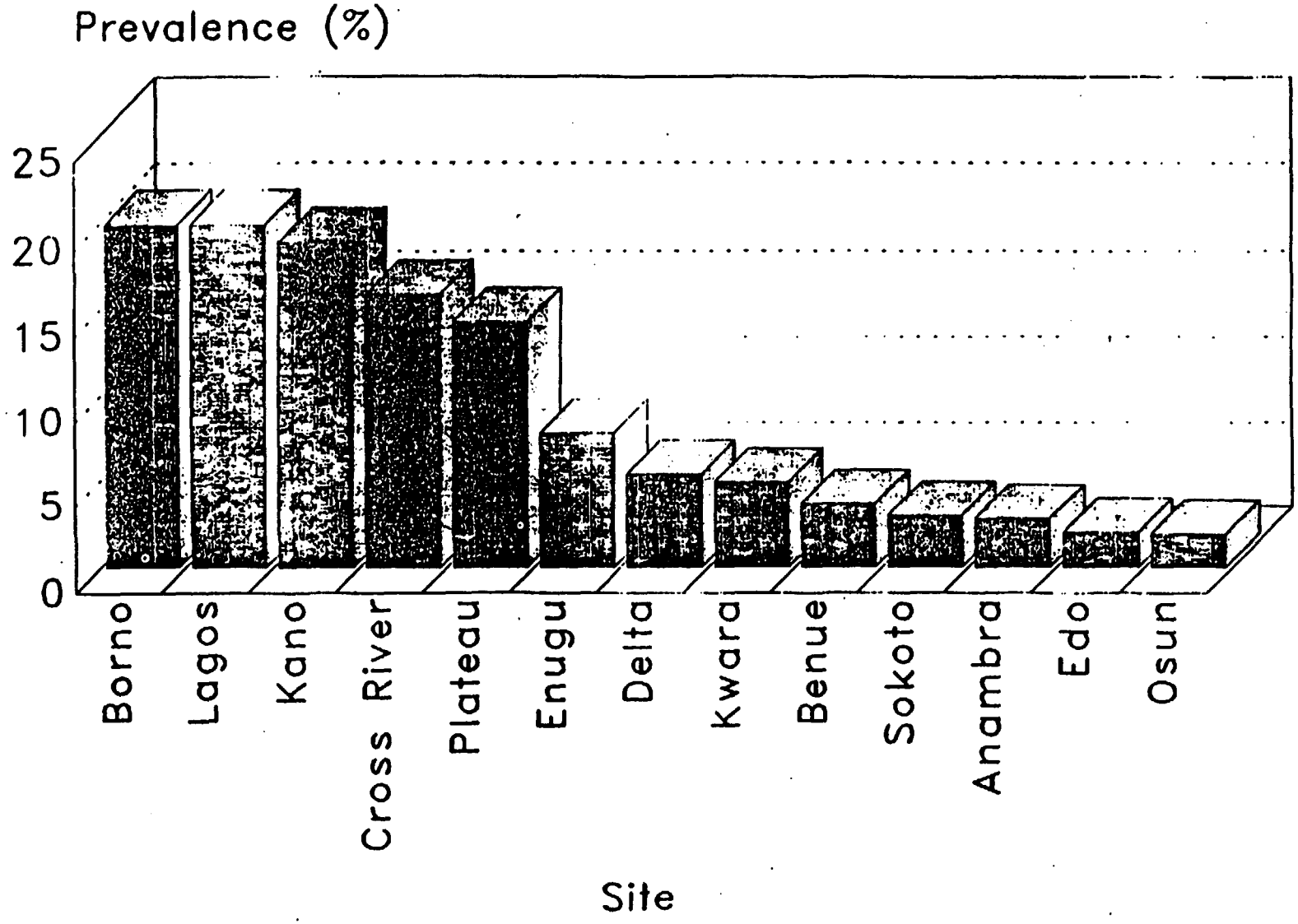
GRAPH 5

Seroprevalence of HIV among STD Patients in sentinel sites in Nigeria, December, 1993 – February, 1994



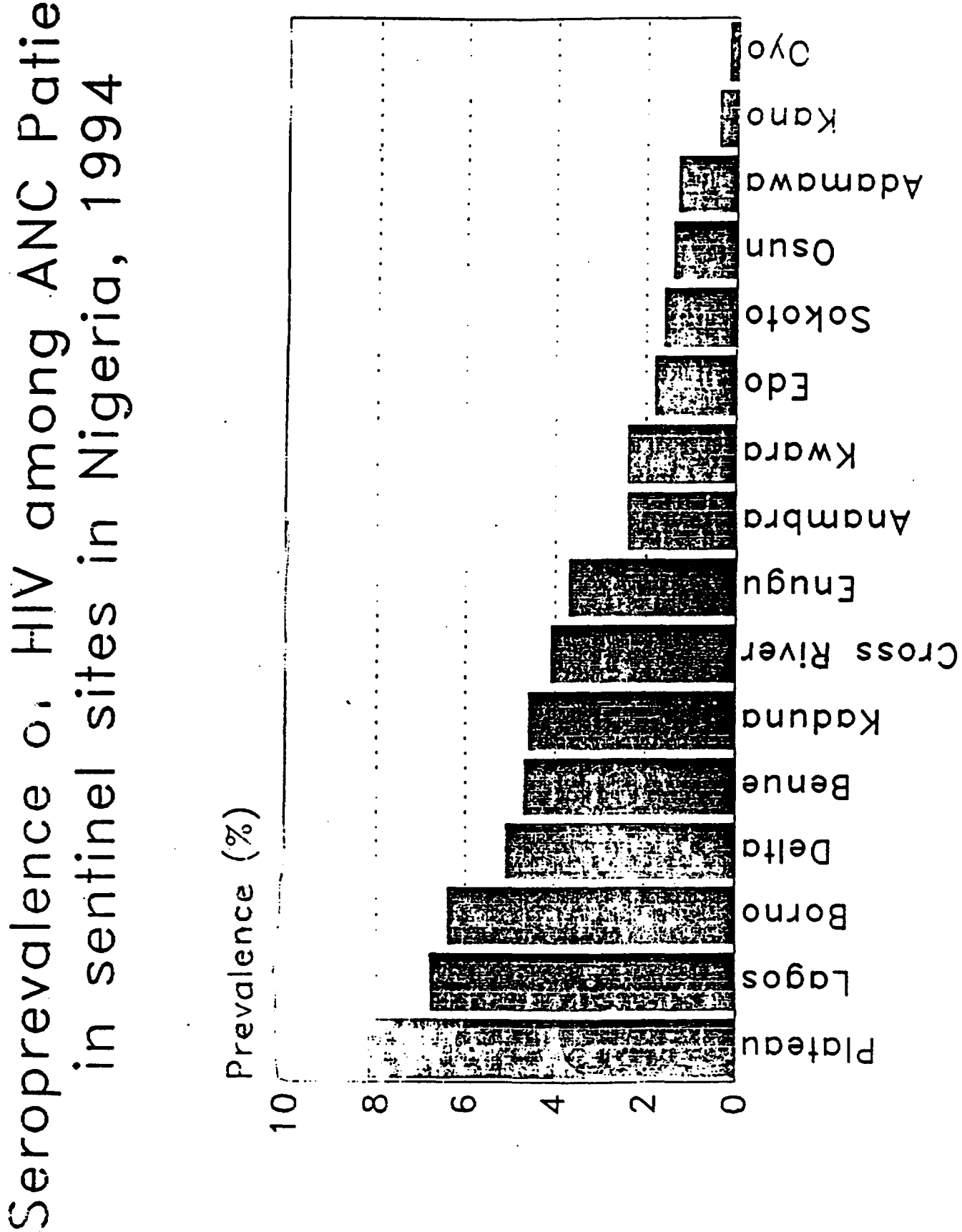
GRAPH 6

Seroprevalence of HIV among Tb Patients in sentinel sites in Nigeria, 1994



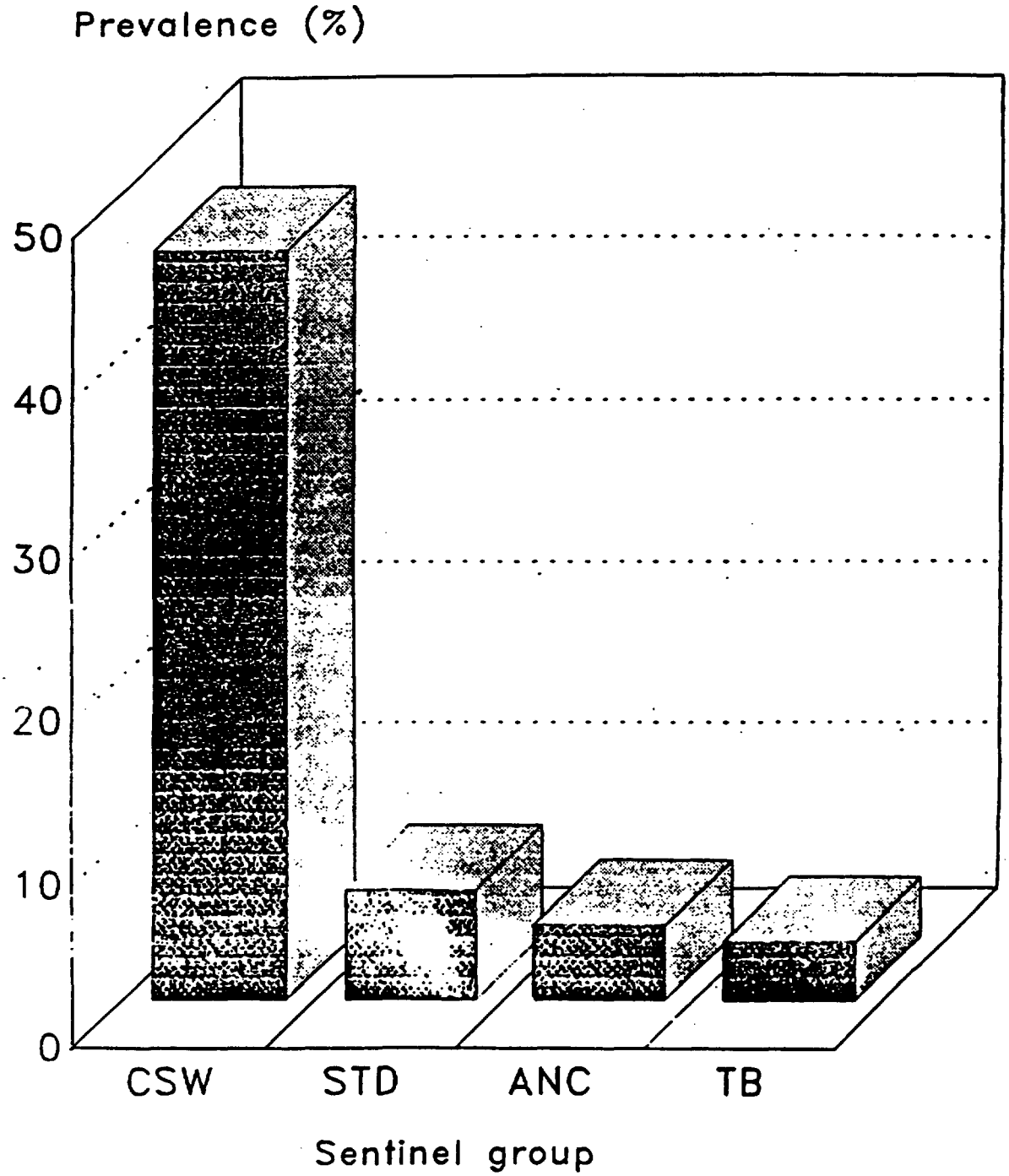
GRAPH 7

GRAPH 8


Seroprevalence of HIV among ANC Patients in sentinel sites in Nigeria, 1994
Prevalence (%)
0
2
4
6
8
10
Plateau
Lagos
Borno
Delta
Benue
Kaduna
Cross River
Enugu
Anambra
Kwara
Edo
Sokoto
Osun
Adamawa
Kano
Oyo

GRAPH 9

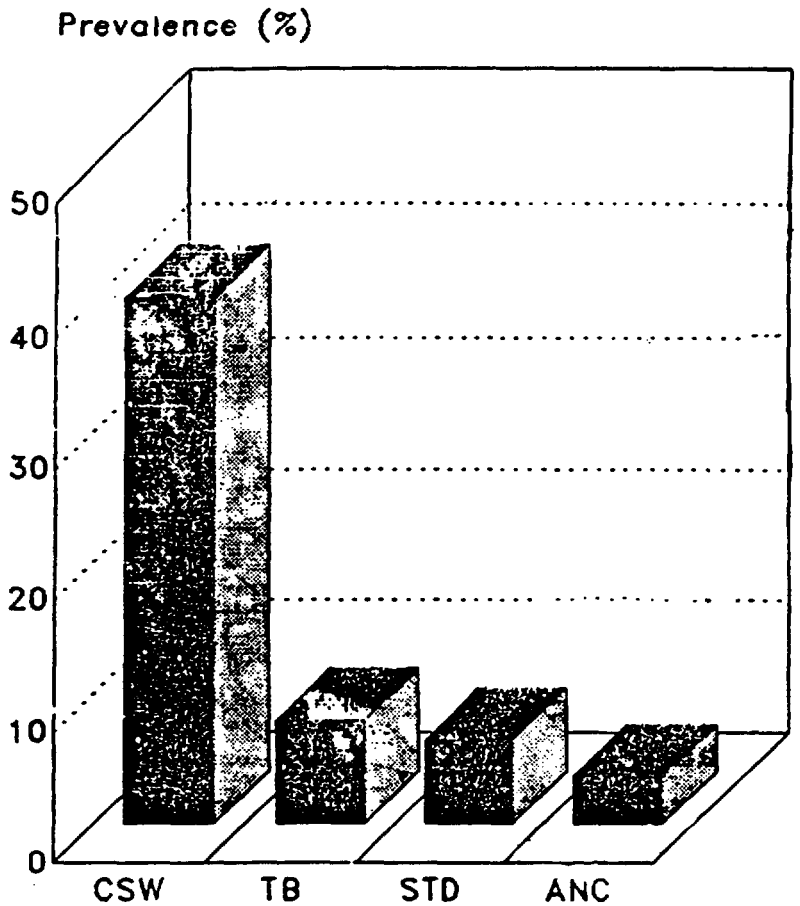
Prevalence of HIV infection in Benue State, Nigeria 1994



CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

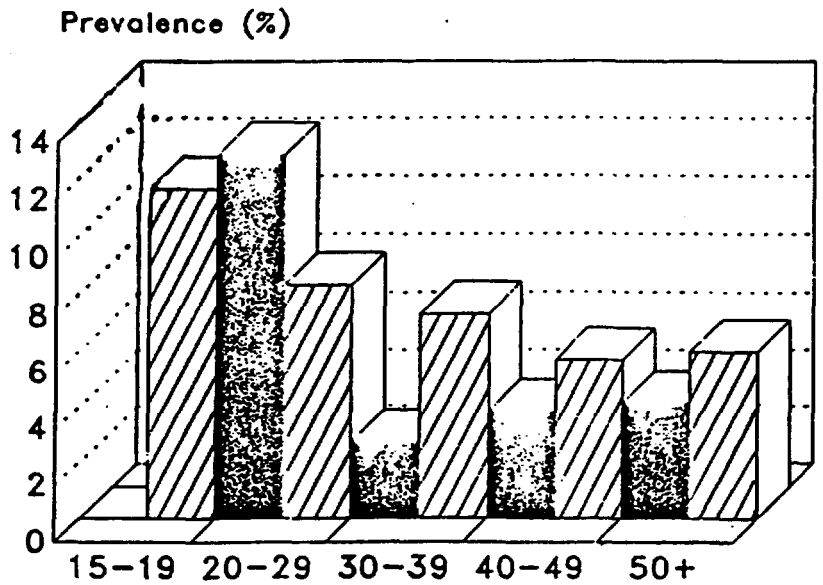
GRAPH 10

Prevalence of HIV infection in Enugu State, Nigeria 1994



CSW= Commercial Sex Workers, TB= Tb Patients
STD= Patients with Sexually Transmitted Diseases
ANC= Antenal Clinic patients

Age and sex – specific prevalence of HIV infection in Enugu State, Nigeria, 1994

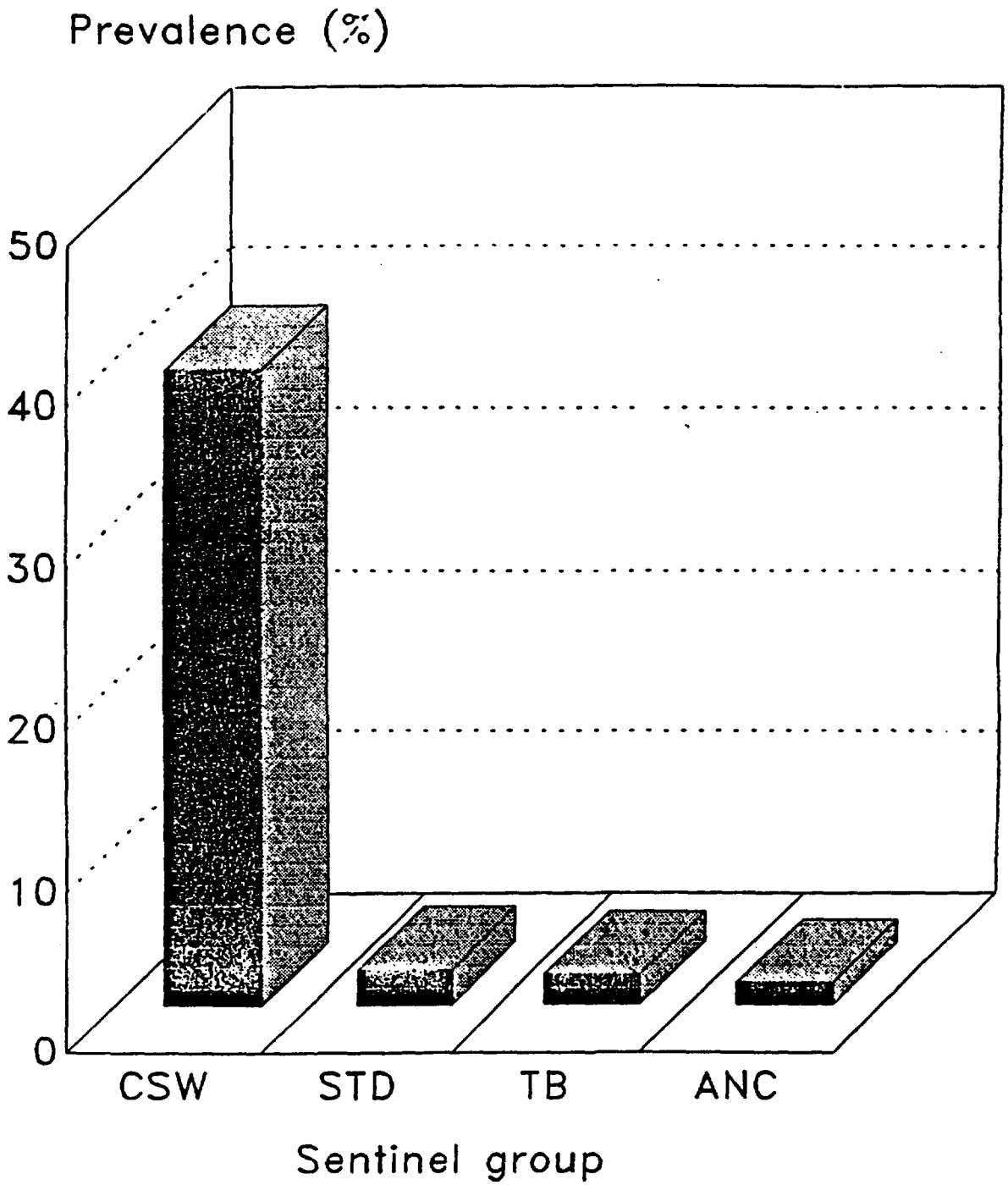


Males	0	12.7	2.7	3.8	4.1
Females	11.5	8.2	7.2	5.6	5.9

Age group (yrs)

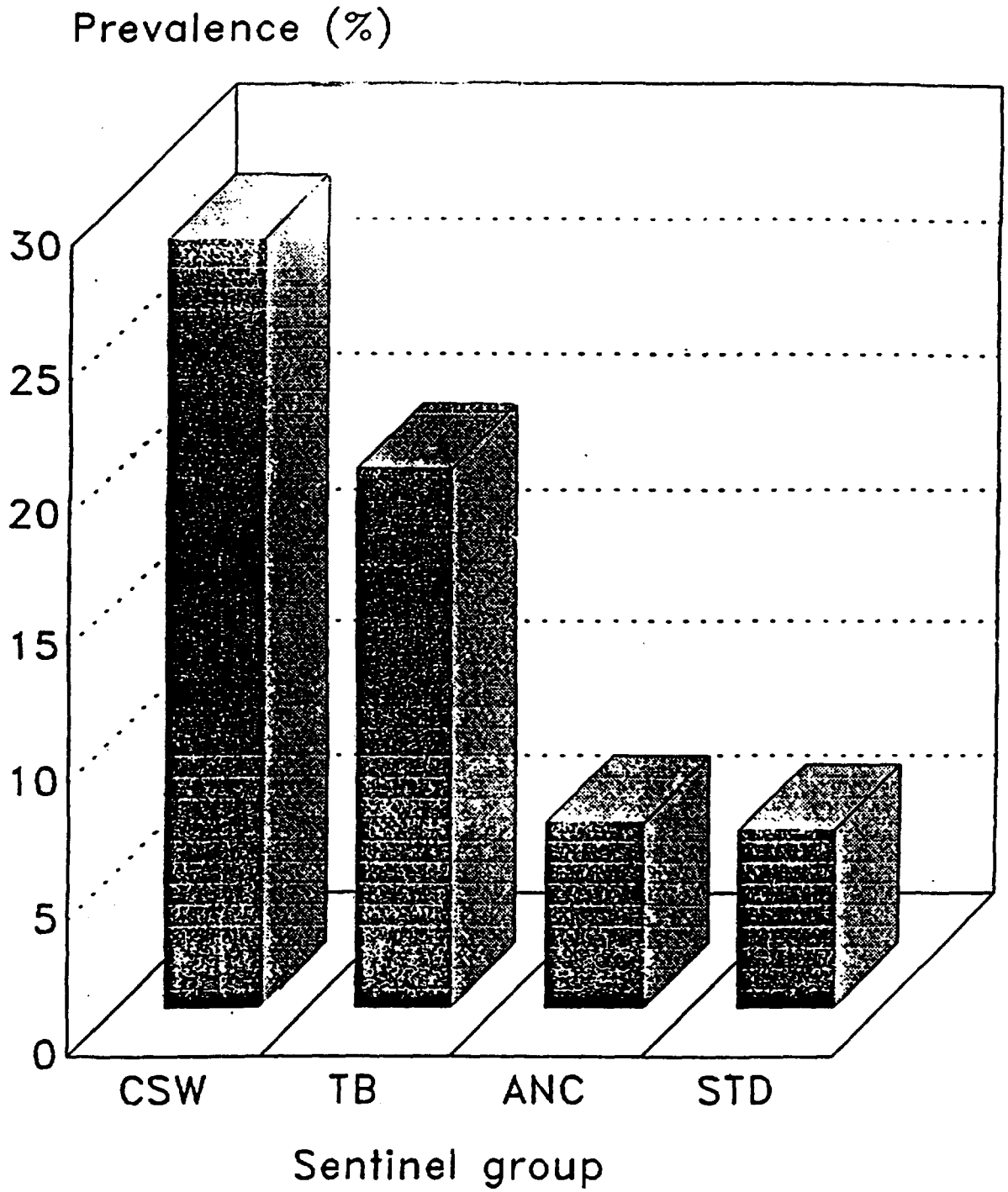
GRAPH 12

Prevalence of HIV infection in Osun State, Nigeria 1994



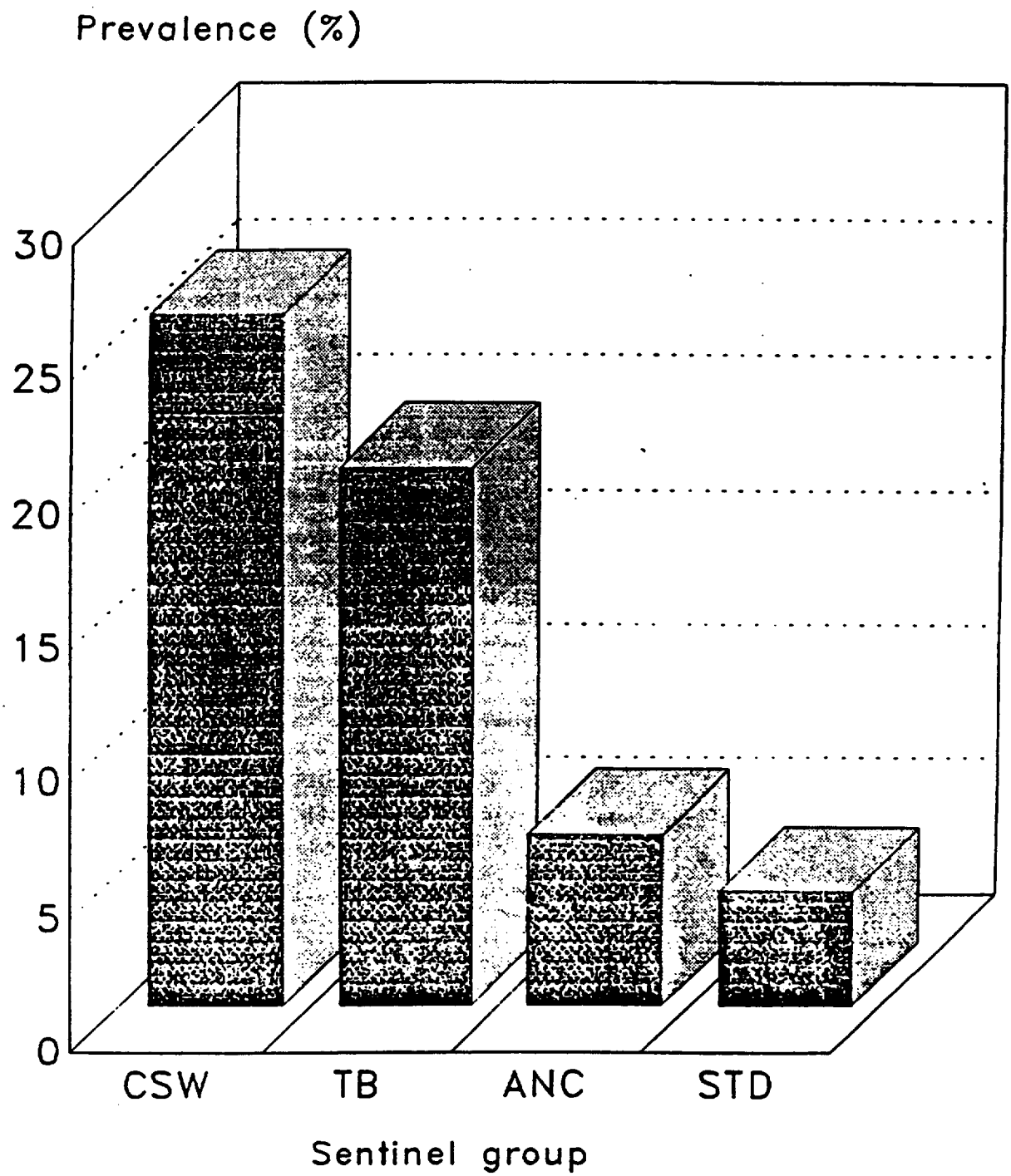
CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

Prevalence of HIV infection in Lagos State, Nigeria 1994



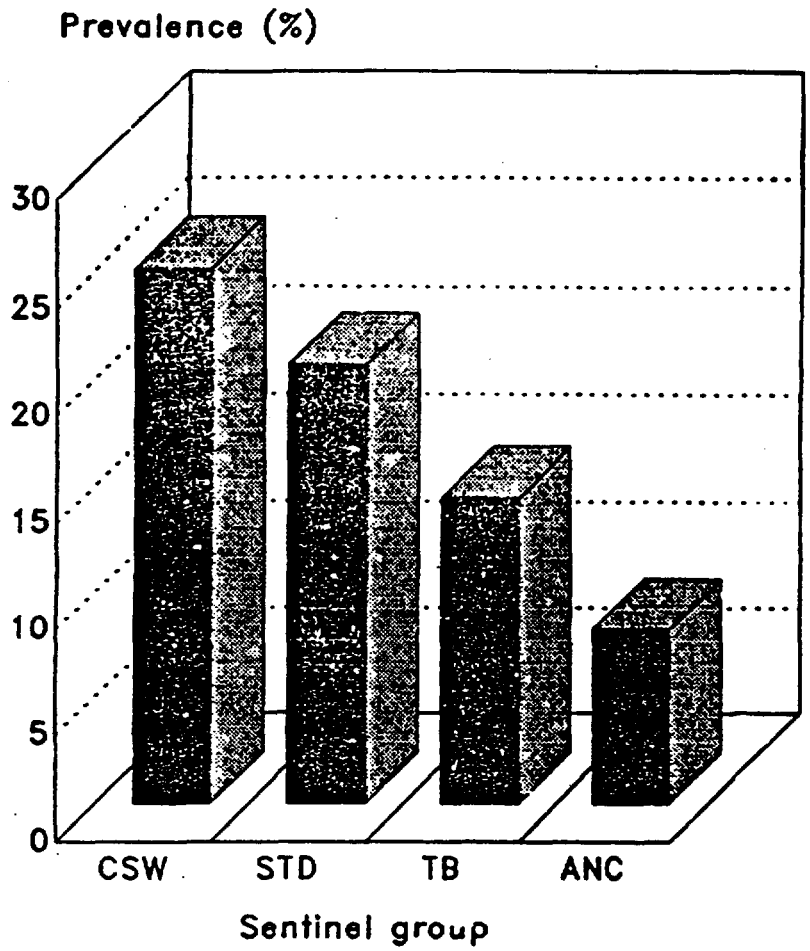
CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

Prevalence of HIV infection in Borno State, Nigeria 1994



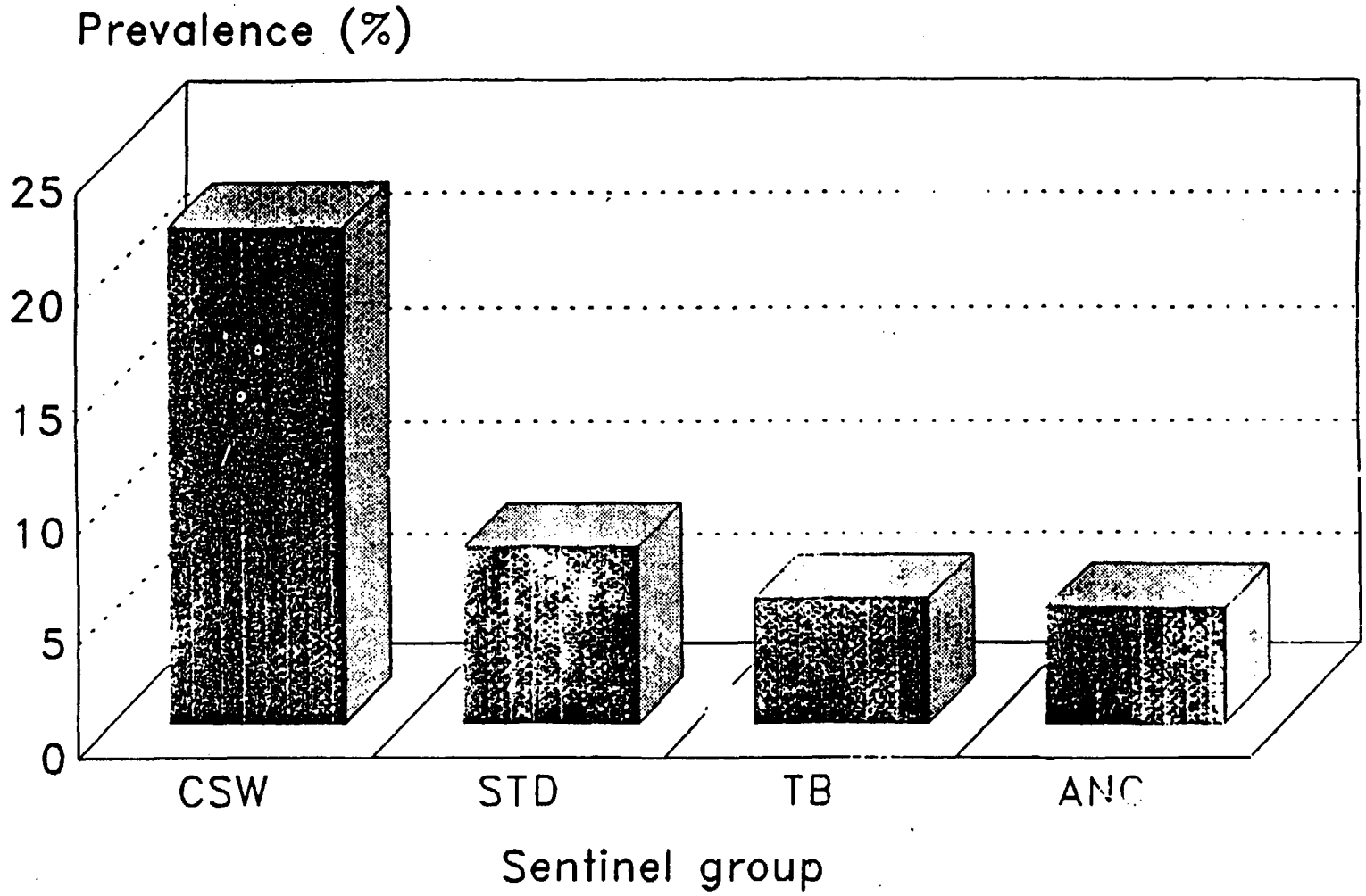
CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

Prevalence of HIV Infection in Plateau State, Nigeria 1994



CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

Prevalence of HIV infection in Delta State, Nigeria 1994

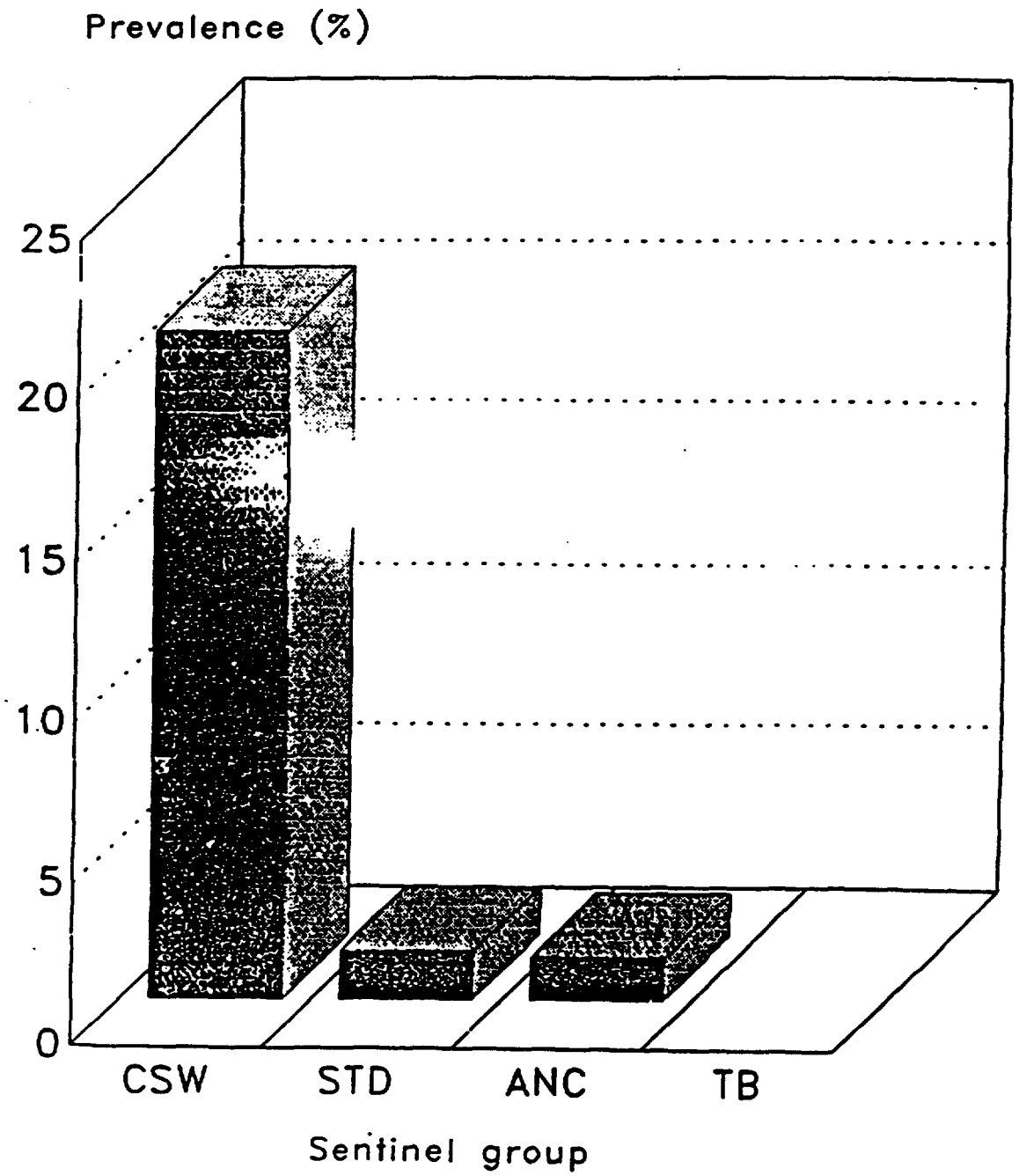


CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

GRAPH 16

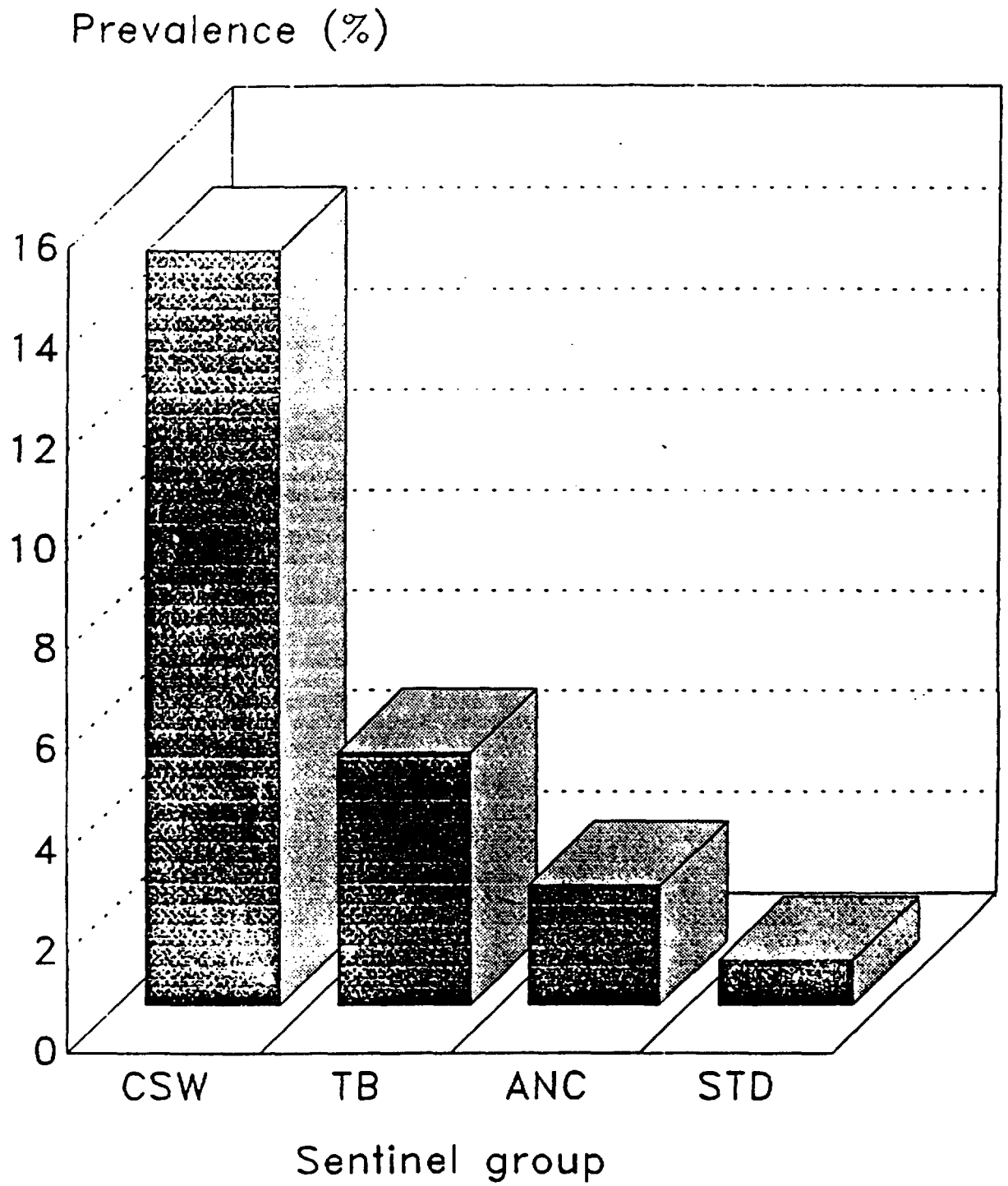
GRAPH 17

Prevalence of HIV infection in Adamawa State, Nigeria 1994



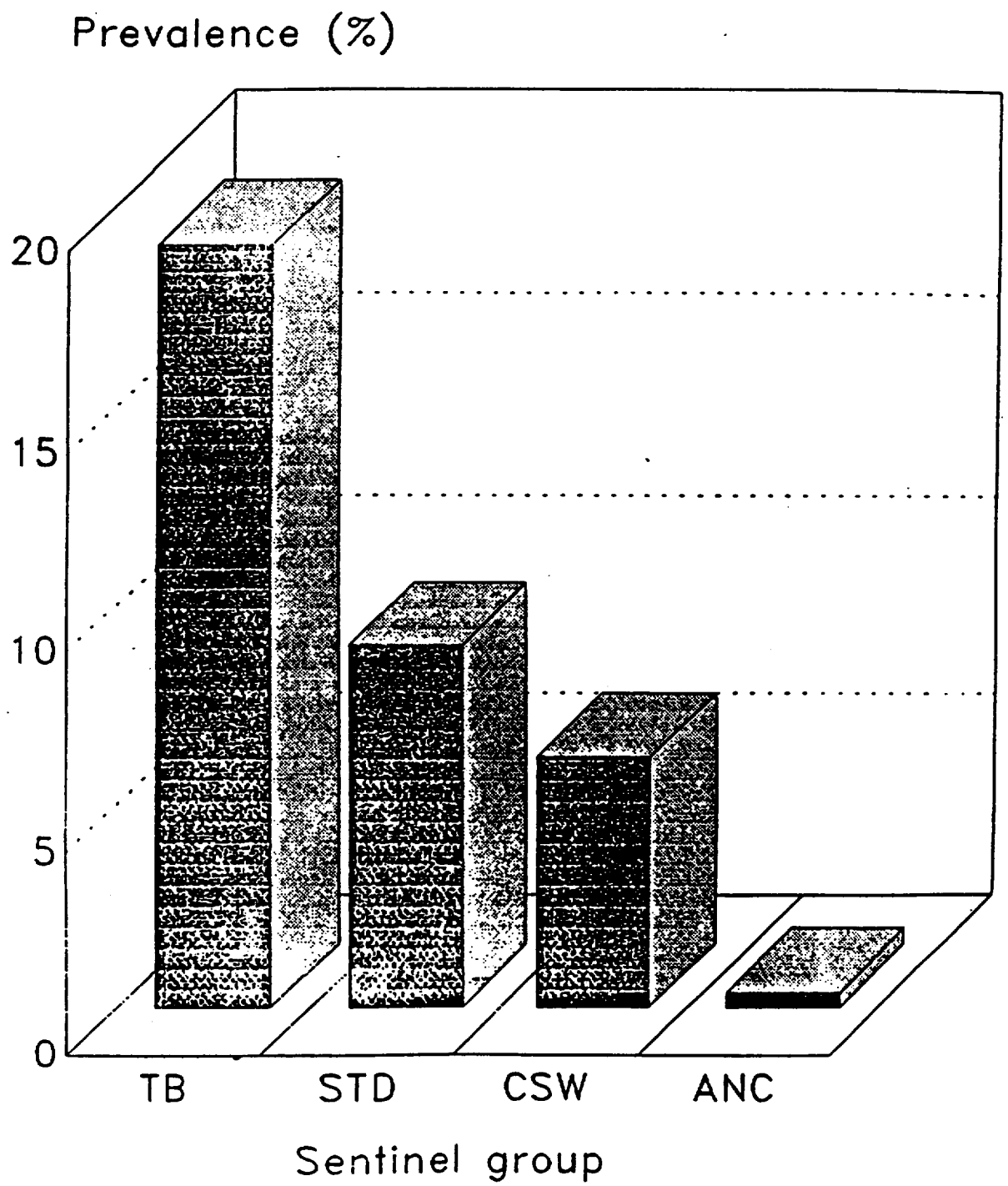
CSW= Commercial Sex Workers. STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

Prevalence of HIV infection in Kwara State, Nigeria 1994



CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

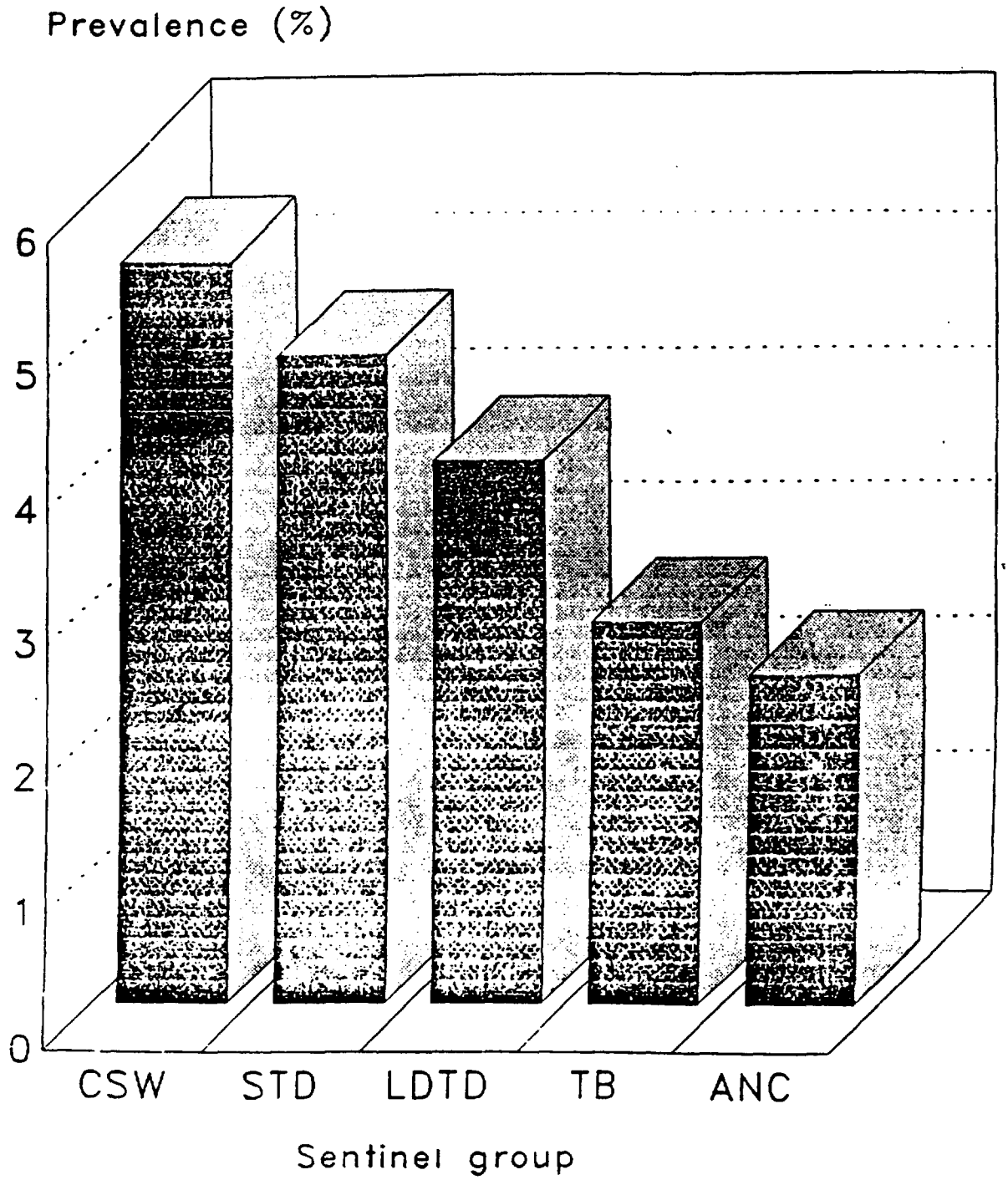
Prevalence of HIV infection in Kano State, Nigeria 1994



CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients

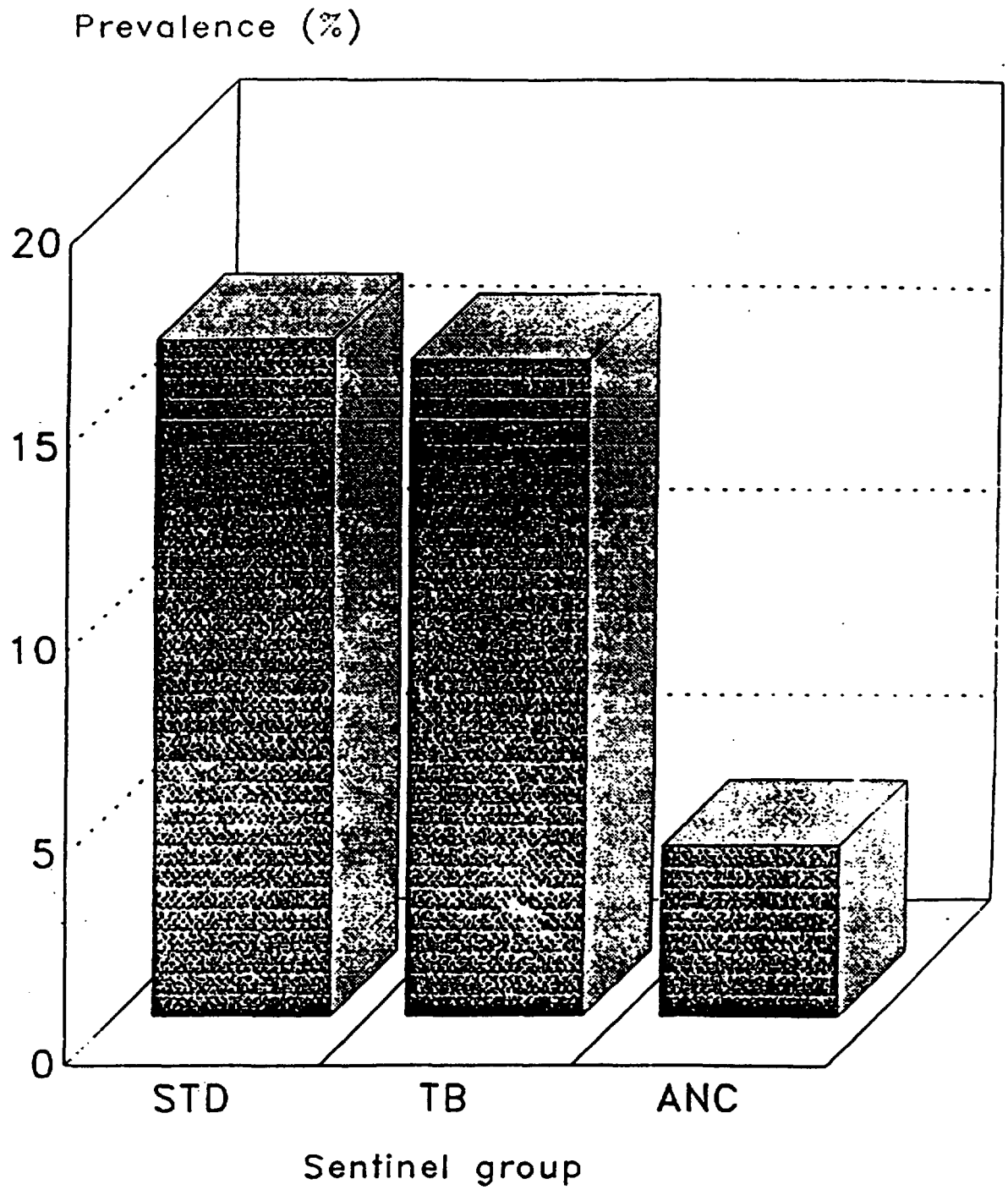
GRAPH 20

Prevalence of HIV infection in Anambra State, Nigeria 1994



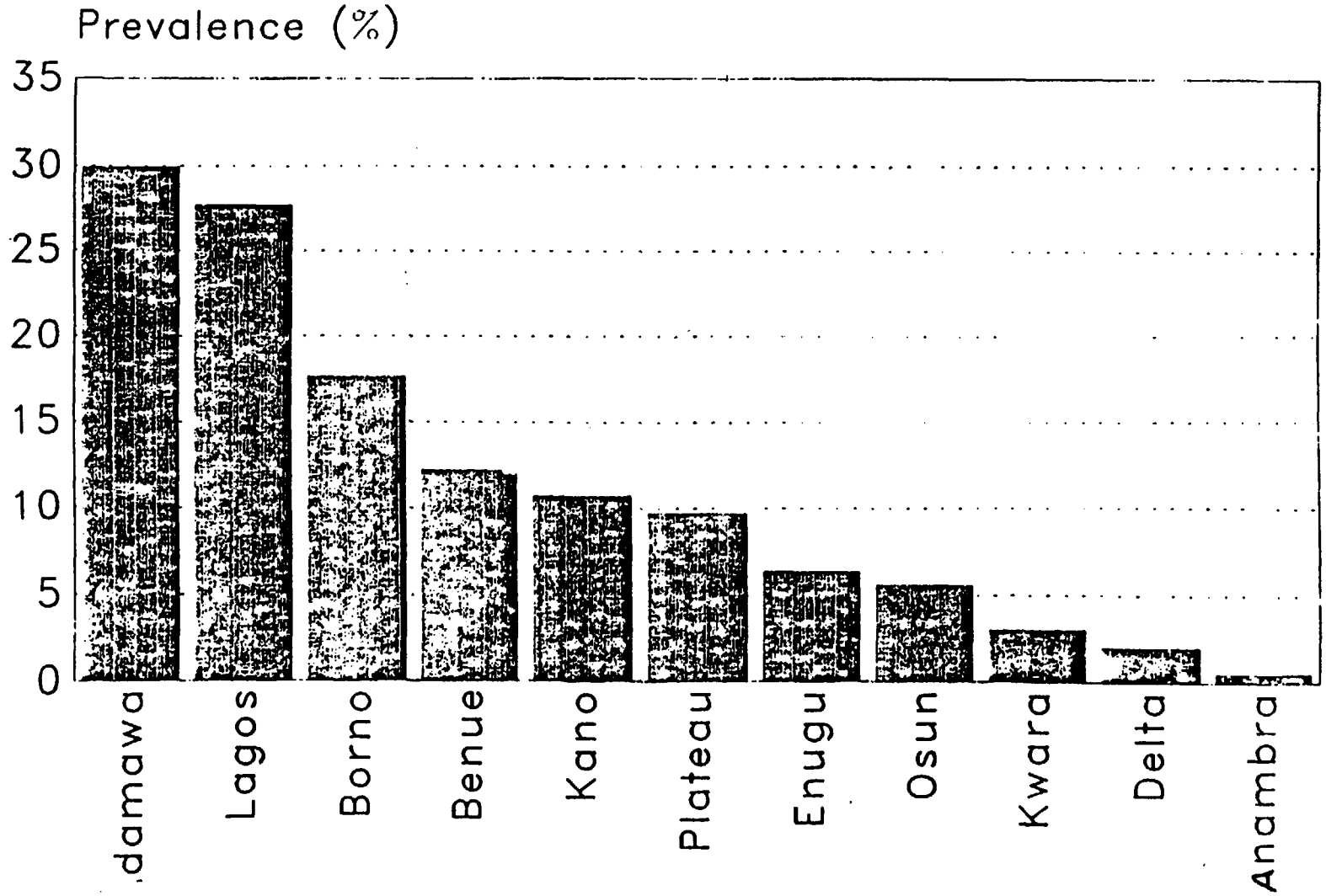
CSW= Commercial Sex Workers, STD= Patients with sexually-transmitted diseases, ANC = Antenatal Clinic Patients
TB= Tuberculosis patients, LDTD= Long Distance Truck Drivers

Prevalence of HIV infection in Cross River State, Nigeria 1994



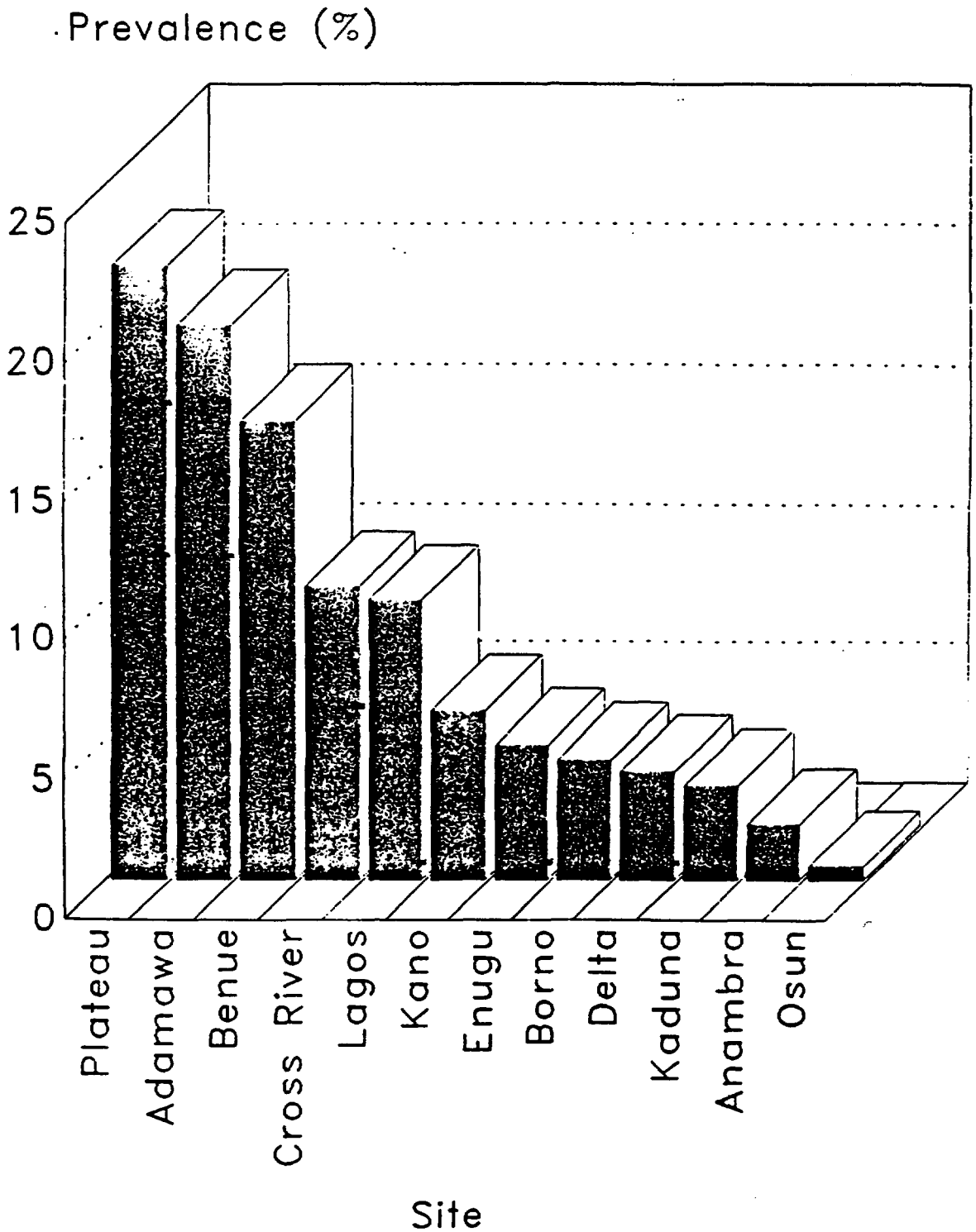
STD= Patients with sexually- transmitted diseases
ANC = Antenatal Clinic Patients, TB = Tuberculosis patients

Prevalence of syphilis among commercial sex workers in sentinel sites in Nigeria, 1994

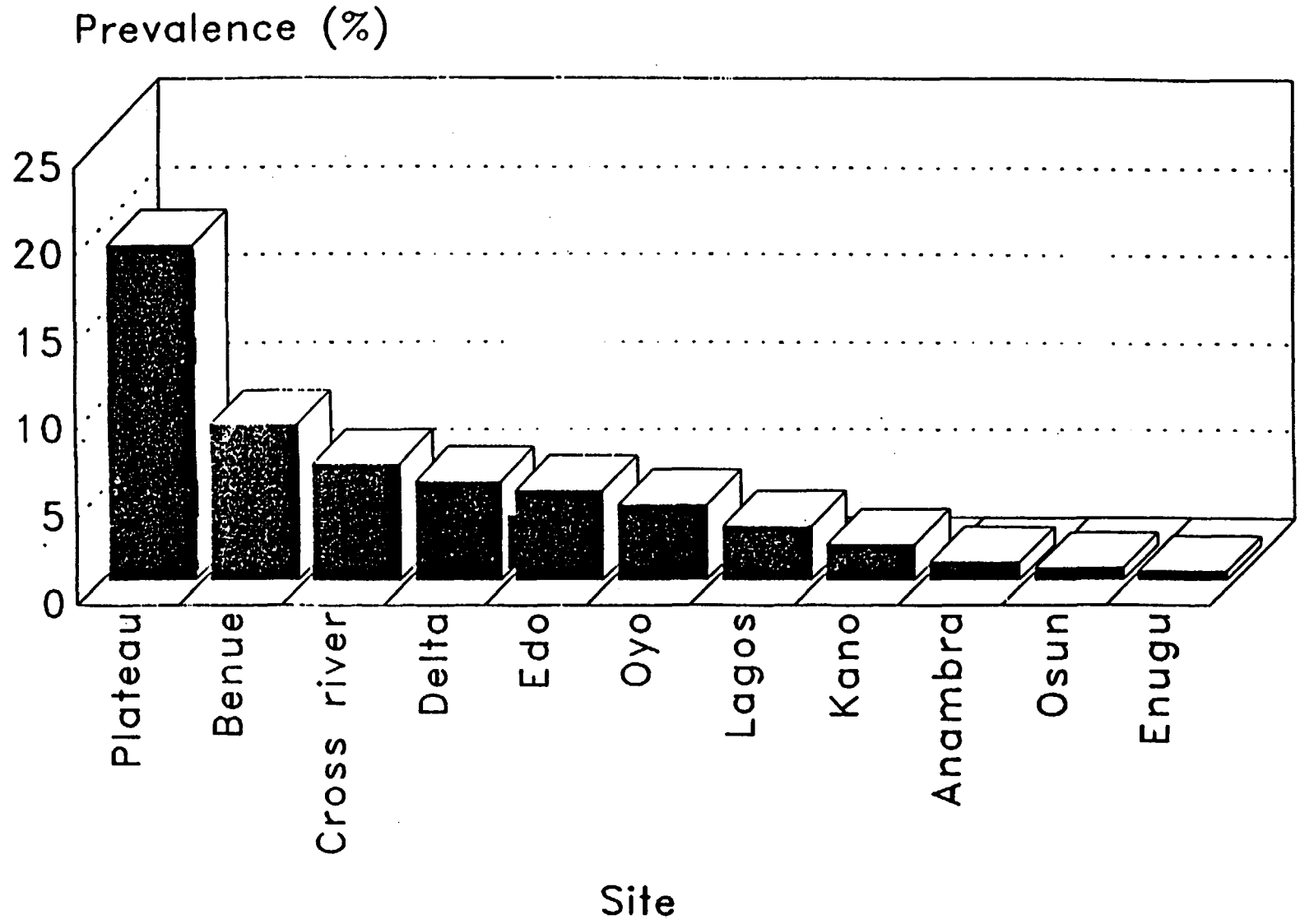


GRAPH 22

Prevalence of syphilis among STD Patients in sentinel sites in Nigeria, December, 1993 – February, 1994

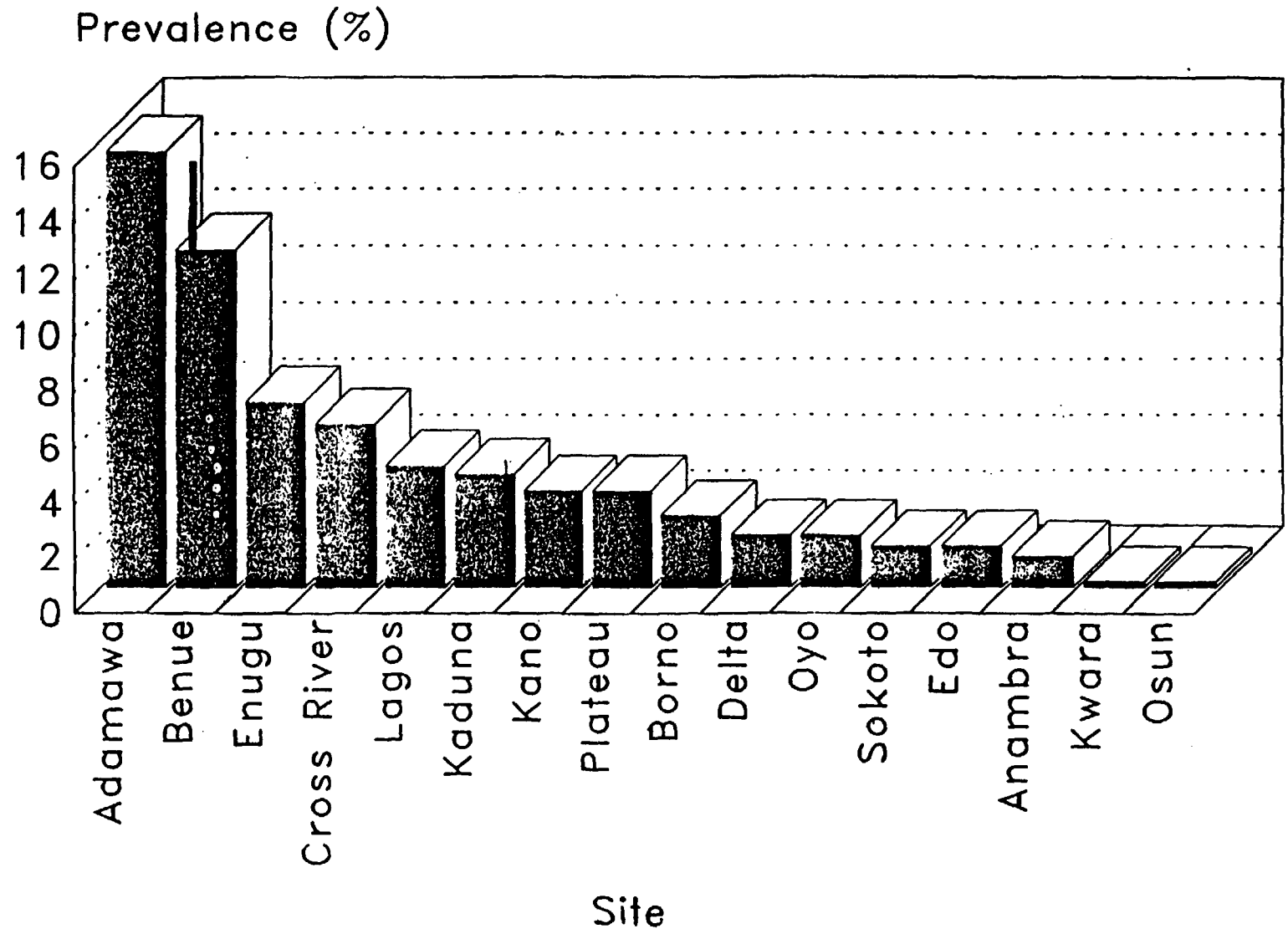


Prevalence of syphilis among Tb Patients in sentinel sites in Nigeria, 1994



GRAPH 24

Prevalence of syphilis among ANC Patients in sentinel sites in Nigeria, December, 1993 – February,1994



GRAPH 25

APPENDIX I

1993/94 SENTINEL SERO-PREVALENCE SURVEILLANCE

NAMES OF SAPC THAT PARTICIPATED

S/No.	NAMES	STATE	DESIGNATION
1.	Dr. N. Sanni-Gwarzo	Kano	SAPC
2.	Dr. I. M. Tanimu	Kaduna	SAPC
3.	Dr. Sahid	Lagos	SAPC
4.	Dr. C. Lar	Plateau	SAPC
5.	Dr. J. N. Ijezie	Anambra	SAPC
6.	Dr. Kwator T. Futules	Adamawa	SAPC
7.	Rev. Dr. S. O. Omokhua	Edo	SAPC
8.	-	Jigawa	SAPC
9.	Mr. I. O. Oguntunde	Osun	SAPC
10.	Dr. Niyi	Oyo	SAPC
11.	Mr. Mboto	Cross River	SAPC
12.	Dr. E. I. Omeni	Delta	SAPC
13.	Dr. I. Malgwi	Borno	SAPC
14.	Dr. Alabi	Kwara	SAPC
15.	Dr. Akute	Benue	SAPC
16.	Dr. T. C. Eloike	Enugu	SAPC
17.	Mr. Tangaza	Sokoto	SAPC

APPENDIX II

SENTINEL STATES FROM 1990 - 1994

1990 SURVEY	1991/92 SENTINEL STATES	1993/94 SENTINEL STATES
Oyo	Oyo	Oyo
Anambra	Anambra	Anambra
Borno	Borno	Borno
Kaduna	Kaduna	Kaduna
	Benue	Benue
	Edo	Edo
	Delta	Delta
	Kano	Kano
	Jigawa	Jigawa
	Cross River	Cross River
	Osun	Osun
	Lagos	Lagos
	Enugu	Enugu
		Adamawa
		Plateau
		Sokoto
		Kwara

APPENDIX III

GLOSSARY OF TERMS

1.	AIDS:	Acquired Immune Deficiency Syndrome
2.	ANC:	Antenatal Clinic
3.	CCCD:	Central for Disease Control
4.	CSW:	Commercial Sex Worker
5.	GPA:	Global Programme on AIDS
6.	HIV:	Human Immonodeficiency Virus
7.	KABP:	Knowledge, Attitude, Beliefs and Practices
8.	LDTD:	Long distance truck drivers
9.	NASCP:	National AIDS/STD Control Programme
10.	PHIV:	People with Human Immuno Deficiency Virus
11	PWA:	People with AIDS
12.	SAPC:	State AIDS Control Programme Co-ordinators
13.	STD:	Sexually transmitted diseases
14.	USAID:	United States Aid for International Development
15.	WHO:	World Health Organisation

BIBLIOGRAPHY

1. ADAPTED WHO DESIGNED PROTOCOL FOR SENTINEL SURVEILLANCE 1993

2. NASCP 1991/92 SENTINEL SURVEILLANCE REPORT 1992

3. STRIDES IN HIV/AIDS AND STDS PREVENTION AND CONTROL IN NIGERIA 1991-1993

4. WHO MANUAL ON SENTINEL SURVEILLANCE 1992

Annex 12

INDUSTRIAL POLICY OF NIGERIA

CHAPTER 1

Industrialisation in Nigeria: The Background

1.1 Throughout most of the post-independence era, Nigeria pursued an industrialisation strategy based on import substitution. As the economy benefitted from increased foreign exchange earnings from petroleum exports in the early to mid 1970's, ambitious and often costly industrial projects were embarked upon by government. Private Sector investment in manufacturing grew too, taking advantage of an array of government incentives such as the Pioneer Status and Approved Users Scheme.

1.2 By the late 1970's, a clear picture of the structure of the manufacturing sector had emerged. The sector was characterised by:

(a) high geographical concentration;
(b) high production costs;
(c) low value-added;
(d) serious underutilisation of capacity;
(e) high import content of industrial output and
(f) low level of foreign investment in manufacturing.

1.3 Most of the problems of the manufacturing sector have often been attributed to inadequate infrastructure, lack of executive capacity, poor utilisation of available manpower and absence of a sound technological base. Many more reasons could probably be adduced; but by the early 1980's, as the country's foreign exchange earnings declined significantly, the high import dependence of the manufacturing sector became a serious liability on the economy.

1.4 By this time too, government had invested heavily in a diversified portfolio of industrial projects including salt, iron and steel, cement, sugar, pulp and paper and fertilizers. The poor returns on these projects, however, could not justify the enormous public funds that had been committed to their execution. In fact, many industrial projects, in which huge amounts had been expended, remained largely uncompleted.

1.5 Against the background of these problems and after several exhaustive studies, it became clear that a restructuring of the manufacturing sector was required. To cope with the

problems of this sector and the economy in general, Nigeria embarked on a Structural Adjustment Programme (SAP) in July, 1986. The major features of SAP include increased import liberalisation and easier access to foreign exchange market (FEM), where foreign exchange rates for Naira are determined by an interplay of market forces.

1.6 SAP has important implications for government and industry alike. Among other things, it has brought about government's re-appraisal of the regulatory environment, the structure of protection for local industries and the package of incentives available. For the private sector, and industrialists generally, it will demand a more serious effort to control costs, increase production efficiency and stay competitive. SAP thus marks a watershed in the evolution of the manufacturing sector in this country.

CHAPTER 2

Policy Objectives and Strategies

Policy Objective

The objective of government industrial policy shall be to achieve an accelerated pace of industrial development. In this regard, the industrial sector would become the prime mover of the economy.

The elements of this objective include:

(a) Providing greater employment opportunities;
(b) Increased export of manufactured goods;
(c) Dispersal of industries;
(d) Improving the technological skills and capability available in the country;
(e) Increased local content of industrial output
(f) Attracting foreign capital, and
(g) Increased private sector participation in the manufacturing sector.

1. Employment generation

The social and political consequences of a high rate of unemployment make it imperative that the industrial sector should aim at creating job opportunities. This vital role has become even more crucial to the economy in view of the large number of trained technical manpower for which the industrial sector is yet to find gainful employment.

2. Increased export of manufactured goods

To diversify the nation's foreign exchange earnings base and strengthen the manufacturing sector through exposure to international competition, government will actively encourage a more export-oriented approach by the manufacturing sector. As a substantial part of our foreign exchange earnings is used up by the industrial sector, it is expected that industry should try to contribute more to foreign exchange earnings. This represents an important policy shift.

3. Promotion of Nationwide Industrial Development through industrial dispersal

To discourage over-concentration of industries in a few industrial centres and to promote national integration, the nation needs rational dispersal of industries. As a corollary, rural areas and

other hitherto neglected areas of the country will increasingly begin to feel the positive impact of industrial development.

4. Improving technological skills

To create and maintain a modern industrial society, the average level of technological competence of the Nigerian population needs to be significantly raised.

The quality and availability of technical education and industrial training, the content and level of industrial research being undertaken in the nation's industries and research institutes will all contribute to the achievement of this vital objective.

5. Increased local content

This will be achieved mainly through increased use of local raw materials and further backward integration by existing industries. Clearly, as local content of industrial output increases, this will affect the general level of economic activity and open up , employment opportunities across all sectors.

6. Attracting foreign capital

Attracting foreign capital into the manufacturing sector is crucial to the attainment of many of the policy goals of government. Indeed, government hopes that the restructuring of the economy through SAP and other measures taken would make the country more attractive to foreign capital.

7. Increased private sector participation

The realization of government objective of accelerated industrial development hinges critically on increased private sector participation in the manufacturing sector. Dwindling government financial resources, ever-increasing socioeconomic responsibilities to a rapidly increasing population and past experience with many public sector industrial projects have all combined to make increased private participation an important policy objective.

Strategies and Policy Measures

In pursuit of the central objective of accelerated industrial development, government shall take a number of steps, involving:

(a) encouraging in creased private sector participation in the industrial sector, and privatising and commercialising holdings in certain existing industrial enterprises;
(b) playing a catalytic role in establishing new core industries;
(c) providing and improving infrastructural facilities;
(d) improving the regulatory environment;
(e) improving the investment climate prevailing in the country;
(f) establishing a clear set of industrial priorities, and
(g) harmonising industrial policies at Federal, State and Local Government levels.

1. Employment generation

The major policy tool through which government plans to enhance employment generation is the promotion of small scale industries. In the light of SAP economic realities, "small scale" industries are defined as those with total investment of between one hundred thousand Naira (N100,000) and two million Naira (N2,000,000) exclusive of land, but including working capital. "Micro/Cottage industries" are defined as those whose total investment cost does not exceed one hundred thousand Naira (N100,000) including working capital but exclusive of land. Government therefore accords high priority to the small and medium scale enterprise (SME) projects whose main objectives are to develop in Nigeria, a broader base of entrepreneurial culture, a core of trained manpower and an effective institutional structure capable of providing technical services and credit facilities to viable small and medium scale enterprises with different organisations working at different levels, government considers it necessary to set up a co-ordinating umbrella organisation called "Small Scale Industries Corporation" charged with the following responsibilities among others:

(a) promotion of small scale industries;
(b) development of policies and programmes for small scale industries;
(c) provision of extension services;
(d) meeting the training needs of small scale industries;
(e) provision of technical and management assistance, and
(f) provision of facilities for credit delivery.

A key government strategy for the development of this class of industries is helping more actively to meet financing needs of small scale industries. Hitherto the Nigerian Bank for Commerce and Industry had been the major medium for providing funds for small scale industries. The Federal government shall evolve a broader-based mechanism of credit delivery, allowing small scale industrialists, greater access to credit facilities. To this end, government plans to involve the following mix of financial institutions.

(a) Five (5) commercial banks,
(b) Three (3) merchant banks,
(c) The Nigerian Bank for Commerce and Industry (NBCI),
(d) The Nigerian Agricultural Co-operative Bank (NACB) and

(e) State development finance Corporations.

Government shall also strive to encourage the growth of small scale industries through:

(a) the establishment of industrial estates with appropriate infrastructural facilities. Henceforth the Federal Government will assist States with matching grants in the establishment of industrial estates for the promotion of small scale industries. The administration of such estates, however, will be left to the States.

(b) In addition, the ongoing Entrepreneurial Development Programme (EDP), the Working For Yourself Programme (WFYP) and the Training The Trainers Scheme will be further intensified and improved upon as these are avenues for developing the corps of entrepreneurs needed in the economy.

(c) The Small Scale Industries Corporation will accord high priority to industries engaged in the manufacture of basic needs including food processing and agro-industries, household equipment manufacturing industries, building material industries, industries for manufacturing low-cost transport equipment, pharmaceutical industries, etc.

2. Increased export of manufactured goods

Government strategy for increased export of manufactured goods rests on making Nigerian exports more competitive internationally and export activities more profitable for industrialists.

The major planks for this strategy are:

(a) The regulatory environment,
(b) promotion of export free zones,
(c) liberalisation of access to foreign exchange and
(d) allowing a market-determined exchange rate for the Naira,
(e) fiscal and financial incentives.

The Nigerian Export Promotion Council is the premier organisation responsible for the administration of various incentive schemes and measures aimed at encouraging exports. It is also responsible for administering the Export Development Fund.

3. Dispersal of industries

In pursuit of this objective, local government areas (LGAS) of the country have been grouped into three zones:

Zone 1: Industrially and economically developed local government areas.

Zone 2: Less industrially and economically developed local government areas.
Zone 3: Least industrially and economically Developed local government areas.

The criteria for such classification include:
(a) industrial production in gross and per capita basis
(b) social and economic infrastructures available, and
(c) level of labour market development.

Through an array of incentives, including a programme of industrial layouts and craft villages development, government at various levels plans to make all areas attractive to new investment.

4. Improving technological capacity

Meaningful industrial development will necessitate the widespread acquisition of technical know-how by Nigerians. Every effort will be made to acquire the level of industrial technology that would establish a self-reliant economy. Government shall actively support industry's research and development efforts and promote agencies engaged in industrial research and manpower training.

The Industrial Development Centres (IDCS) represent an important instrument for improving technological capacity. The IDCs were created to ensure that small and medium scale enterprises (SME) not ordinarily in a position to employ highly skilled manpower, such as managers, engineers and technical staff, are assisted to solve their operational problems.

Specifically, the functions of IDC's are to provide:

(a) technical advice and assistance regarding the selection of the proper manufacturing process for the product in view, selection of the right machinery, equipment and raw materials for the purpose,

(b) assistance in the installation and operation of machinery

(c) on-the-job training of artisans in the handling of machines and simple tools

(d) assistance in the repairs of machinery and tools and tooling facilities of IDC's workshops;

(e) advice and assistance to resolve operational problems encountered by SMEs;

(f) advice and assistance to small scale industrialists to improve the design and quality of their products;

(g) training of proprietor and supervisory staff of SME's in modern management methods

and practices suited to their enterprises;

(h) marketing counselling regarding pricing, packaging, sales strategy, advertising and marketing methods for the promotion of sales of their products, and

(i) feasibility reports for intending small scale industrialists.

5. Increased local content

Increasing the local content of Nigerian industrial output is a central objective of government industrial policy. Finding suitable local raw materials and promoting their use by industry is one element of the strategy by which government plans to realize this objective.

The Raw Materials Research and Development Council will allocate resources to research and development of identified raw material substitutes or alternatives.

Government will actively encourage new industries with greater linkages to the rest of the economy. Existing industries will be encouraged to pursue further backward integration.

Assistance in the commercialization of research results represents another strategy which government plans to adopt in order to raise the local content of manufacturing output.

6. Attracting foreign capital

Accelerating the pace of industrial development will require enormous capital investments. While government welcomes domestic private capital investments, it also recognises that such investment may not be available in the required volume.

Government therefore welcomes foreign capital into the manufacturing sector. Indeed, the Structural Adjustment Programme was embarked upon with the prospect of increased inflow of foreign capital.

The main component of government strategy for attracting foreign capital is the liberalisation of access to foreign exchange for individuals and companies provided, through the foreign exchange market (FEM). Easier capital and dividend repatriation through less cumbersome procedures is a by-product of recent changes in the regulations.

Another element of government strategy consists of amendments to the Nigerian Enterprises Promotion Decree 1977 (NEPD). These amendments are designed to open up more areas for foreign investment. Thus in the amended Decree, only one list of scheduled enterprises instead of three have been retained and which list contains businesses exclusively reserved, for Nigerians. Foreigners and

Nigerians alike are now free to own up to 100% equity, separately or in partnership, in any unscheduled enterprises. Foreigners are welcome to invest in the scheduled enterprises with a minimum capitalisation of twenty million Naira (N20,000,000.00).

Government will continue to cultivate and improve bilateral trade links with other countries as a meant of encouraging foreign capital investment in the economy.

7. Increased private sector participation

The first main strategy by which government seeks-to achieve increased private sector participation in manufacturing is the privatisation/commercialization of public sector investments.

In this connection, Government has completely divested itself of holdings in 67 companies. In addition, while some companies will be fully commercialised, others especially those considered strategic for the moment will be partially privatised/commercialised. These arrangements as indicated hereunder are embodied in Decree No. 25 of 1988.

Enterprises in which 100% of Equity hold by the Federal Military Government shall be fully privatised

1. Nigeria Hotels Limited
2. Durbar Hotel Limited
3. Aba Textile Mills
4. Central Water Transportation Company Limited
5. National Cargo Handling Limited
6. Nigerian Dairies Company Limited
7. Nigerian National Fish Company Limited
8. Nigerian Food Company Limited
9. National Grains Production Company Limited
10. National Poultry Production Company Limited
11. National Root Crops Production Company Limited and other such food production companies
12. Nigerian National Shrimps Company Limited
13. New Nigerian Salt Company Limited
14. National Fruit Company Limited
15. National Salt Company Limited, Ijoko
16. Specomill Nigeria Limited
17. South-East Rumanian Wood Industry Limited, Calabar
18. Nigerian-Rumanian Wood Industry Limited, Ondo
19. Nigerian Yeast and Alcohol Company Limited, Bacita
20. Nigerian Film Corporation
21. National Freight Company Limited
22. National Animal Food Company Limited, Port Harcourt

23. Opobo Boat Yard
24. Madara Dairy Company Limited Vom
25. Ore/Irele Oil Palm Company Limited, Ondo
26. Okomu Oil Palm Company Limited, Bendel
27. National Livestock Production Limited
28. Road Construction Company of Nigeria Limited
29. National Film Distribution Company Limited
30. Nigerian Ranches Company Limited, Kaduna
31. Impressit Bakolori Nigeria Limited
32. North Breweries Limited, Kano
33. Nigerian Beverages Production Company Limited
34. West African Distilleries Limited
35. Nigeria Engineering Construction Company Limited
36. Tourist Company of Nigeria Limited (Owners of Federal Palace Hotels)
37. Electricity Meters Company Limited, Zaria
38. American International Insurance Company Limited
39. Guinea Insurance Company Limited
40. Sun Insurance Company Limited
41. United Nigeria Insurance Company Limited
42. United Nigeria Life Insurance Limited
43. Niger Insurance Company Limited
44. Mercury Assurance Company Limited
45. Crusader Insurance Company Limited
46. Royal Exchange Company Limited
47. NEM Insurance Company limited
48. Law Union and Rock Insurance Company Limited
49. Prestige Assurance Company Limited
50. British American Insurance Company Limited
51. West African Insurance Provincial Company Limited
52. Manchok Cattle Ranch
53. Mokwa Cattle Ranch
54. Poultry Production Units in Jos, Ilorin and Kaduna
55. Kaduna Abattoir and Kaduna Cold Meat Market
56. Bauchi Meat Factory and Galambi Cattle Ranch
57. Minna Pig Farm
58. Kano Abattoir Company Limited
59. Umuahia Pig Farm
60. Giant Cold Store, Kano
61. Ayip-Eku Oil Palm Company Limited
62. Ihechiowu Oil Palm Company Limited
63. Sokoto Integrated Livestock Company Limited
64. Motor Engineering Services Company Limited
65. Flour Mills of Nigeria Limited
66. Nigerian Yeast Alcohol Manufacturing Company Limited
67. Nichemtex Industries Limited.

Full Commercialisation

1. Nigerian National Petroleum Corporation
2. Nigerian Telecommunication Limited (NITEL)
3. Association Ores Mining Company Limited
4. Nigerian Mining Corporation
5. Nigerian Coal Corporation
6. National Insurance Corporation of Nigeria
7. Nigeria Re-insurance Corporation
8. National Properties Limited
9. Tafawa Balewa Square Management Committee
10. Nigerian Ports Authority
11. African Re-insurance Corporation

Partial Commercialisation

1. Nigerian Railway Corporation
2. Nigerian Airport Authority
3. National Electric Power Authority
4. Nigerian Security Printing and Minting Company Limited
5. All the River Basins Development Authorities
6. National Provident Fund
7. Ajaokuta Steel Company Limited
8. Delta Steel Company Limited
9. Nigerian Machine Tools Limited
10. Federal Housing Authority
11. Kainji Lake National Park
12. Federal Radio Corporation
13. Nigerian Television Authority
14. News Agency of Nigeria

Enterprises in which Equity held shall be Partially Privatised

Enterprises	Maximum Federal Government Participation as % Equity (after privatisation)
Commercial and Merchant Banks	
Savanah Bank of Nigerian Limited	51.34
Union Bank of Nigerian Limited	51.67
United Bank for Africa Limited	45.76
International Bank for West Africa Limited	50
Allied Bank Of Nigeria Limited	51
Continental Merchant Bank Limited	51
International Merchant Bank Limited	60
Nigeria Arab Bank Limited	60
Nigeria Merchant Bank Limited	60
First Bank of Nigeria Limited	44.8
NAL Merchant Bank Limited	20
Merchant Bank of Africa	5

Agricultural, Co-operative and Development Banks

Federal Mortgage Bank of Nigeria	70% by the Federal Government and its agencies
Nigerian Industrial Development Bank Limited	70% by the Federal Government and its agencies
Nigerian Bank for Commerce and Industry Limited	70%
Federal Savings Bank	70% by the Federal Government and agencies

Oil Marketing Companies

Unipetrol	40%
National Oil and Chemical Co. Limited	40%
African Petroleum Limited	40%

Steel Rolling Mills

Jos Steel Rolling Mill	40%
Katsina Steel Rolling Mill	40%
Oshogbo Steel Rolling Mill	40%

Air and Sea Travel Companies

Nigeria Airways Limited	40%
Nigeria National Shipping Line Limited	40%

Fertilizer Companies

Nigerian Superhospate Fertilizer Company Limited	40%
National Fertilizer Company Limited	40%

Paper Mills

Nigerian National Paper Manufacturing Company Limited	40%
Nigeria News Print Manufacturing Company Limited	40%
Nigeria Paper Mills Limited	40%

Sugar Companies

Savannah Sugar Company Limited	40%
Sunti Sugar Company Limited	40%
Lafiaji Sugar Company Limited	40%

Cement Companies

Ashaka Cement Company Limited	30%
Benue Cement Company Limited	30%
Calabar Cement Company Limited	30%
Cement Company of Northern Nigeria Limited	30%
Nigeria Cement Company Limited, Nkalagu	10%

Motor Vehicles and Truck Assembly Companies

Anambra Motor Manufacturing Company Limited	35%
Layland Nigeria Limited	35%
Nigeria Truck Manufacturing Company Limited	35%
Peugeot Automobile of Nigeria Limited	35%
Volkswagen of Nigeria Limited	35%
Steyr Nigeria Limited	35%

8. Role of the Private Sector

The various enterprises being privatised were set up when revenue accruing to Government were considerable. In a few cases, however, the private sector at that time was slow in reacting to the investment opportunities that existed either due to the heavy capital outlay involved or lack of technology and skill. To close the gap and provide the goods and services to the public, government took the initiative to invest in those activities. Indeed, during the Third National Development Plan period certain economic activities wore either exclusively reserved for government or for majority government interest. The situation that gave rise to the ' e predominance of government in some economic activities has, however now changed. What is more, the organised and even the informal sector have grown considerably over the years. There is need to release government resources, for the provision and development of infrastructures etc.. Government therefore welcomes and actively encourages a more significant role for the private sector in the restructuring of the economy and in improving the long term growth and development prospects. Government has in addition opened up hitherto restricted areas in manufacturing to the private sector. In defence industries, however, government shall establish regulatory mechanism guiding investment. Furthermore, government will maintain continuous contact and consultations with the private sector on issues of concern to industry. In view of the foregoing, government expects the private sector to seize the opportunity and play their rightful role in the economy.

9. Debt Conversion Programme

In addition to the privatisation/commercialisation exercise and in a determined effort to reduce the debt burden of the country and thereby improve the investment climate especially in the critical areas of the economy, Government has established a Debt Conversion Programme (DCP). The objectives of the Programme are:

(a) to improve Nigeria's external debt position by reducing the stock of outstanding foreign currency denominated debt in order to alleviate the debt service burden;

(b) to improve economic environment attractive to foreign investors;

(c) to serve as an additional incentive for the repatriation of flight capital;

(d) to stimulate employment generating investments in industries with significant dependence on local inputs;

(e) to encourage the creation and development of export base of the Nigerian economy, and to increase access to appropriate technology, external market and other benefits associated with foreign investment.

For the effective implementation of the programme, Government has set up a Debt Conversion Committee whose secretariat is located at The Central Bank of Nigeria, Tinubu Square, P.M.B. 12194, Lagos. Prospective participants in the programme, whether corporate or non-corporate, national or foreign, are required to obtain the prior approval in principle of the Committee in order to qualify for participation. Detailed guidelines covering rules and regulations as well as application forms are obtainable from the secretariat of the Debt Conversion Committee.

CHAPTER 3

Incentives to Industry

In order to induce greater support of the industrial development objectives outlined in Chapter 2 of this document and considering the need to promote a dynamic, efficient and balanced manufacturing sector, a package of incentives has been approved by Government. These incentives are designed to promote investment, employment, product mix and various other aspects of industry. In addition the nature and application of these incentives have been considerably simplified. In general, the package of incentives can be grouped into five. These are:

(i) Fiscal measures on taxation and interest rates
(ii) Effective protection with import tariff
(iii) Export promotion of Nigerian products
(iv) Foreign currency facility for international trade
(v) Development Banking

1. Taxation

Fiscal measures have been fashioned out to provide for deductions and allowances in the determination of taxes payable by manufacturing enterprises. The fiscal measures are targeted at aspects, of industrial activity as follows:

(i) Pioneer Status

By the provision of the Income Tax Relief Act 1958 (Amendment by Decree No.22 of 1971), public companies are granted specific tax holiday on corporate income. The object of the Decree is to encourage the establishment of such industries that government considers beneficial to Nigeria. During the period of the exemption, the companies are expected to achieve a reasonable level of profitability. To benefit from the Decree, the relevant company (or the product) is declared a pioneer industry (or pioneer product). The Act is applicable to both public and private limited liability companies.

Furthermore, the relief covers a non-renewable period of five years for pioneer industries and seven years for such industries located in economically disadvantaged areas.

Additional tax concessions are available to industrialists who take initiative in the following areas:

(a) local raw materials development
(b) local value added
(c) labour intensive processes
(d) export-oriented activities

(e) in-plant training
(f) investment in economically disadvantaged areas.

Details on these concessions are embodied in a separate pamphlet on incentives to industries. IDCD is responsible for the administration of these and other incentives to industry on application.

(ii) Tax Relief for Research and Development

Industrial establishments are expected to engage in Research and Development (R&D) for the improvement of their processes and products. Up to 120% of expenses on R&D are tax deductible, provided that such R& D activities are carried out in Nigeria and are connected with the business from which income or profit is derived. For the purpose of R&D on local raw materials, 140% of expenses are allowed. Where the research is long term, it will be regarded as a capital expenditure and will be written off against profits. In administering this tax relief, the Federal Ministry of Finance shall consult the Federal Ministry of Science and Technology to determine the genuiness of such R&D activities. The results of such research could be patented and protected in accordance with internationally accepted industrial property rights.

(iii) Companies Income Tax Act

This act has been amended in order to encourage potential and existing investors and entrepreneurs. Henceforth the following reliefs and regulations shall apply:

(a) Corporate Tax Rate is 40% from 1987;

(b) Penalty for failure to pay on due date is 10% per annum of the outstanding amount;

(c) Section 49(3) of the Companies Income Tax Act requires companies to submit detailed tax computations along with their returns and audited accounts; and Industrial Inspectorate department acceptance Certificate;

(d) When a tax payer wants to appeal against a court decision, the disputed tax shall be paid. The body of Appeal Commissioners as well as the courts have been empowered to impose a penalty of 10% where an appeal proves to be frivolous or groundless.

(e) power to obtain information by a tax authority on banks' customers which has been provided in the Income Tax Management Act is also applicable to Companies Income Tax Act 1979.

(f) Capital Allowance: The Current Rates Applicable in Respect of Capital Allowances are:

	Qualifying Expenditure in respect of:	Initial allowance	Annual allowance
(a)	Building Expenditure	5	10
(b)	Industrial Building Expenditure	15	10
(c)	Mining expenditure	20	10
(d)	Plant expenditure (excluding furniture and fittings)	20	10
(e)	Furniture and Fittings	15	10
(f)	Motor Vehicle Expenditure	25	20
(g)	Plantation Equipment Expenditure	20	33½
(h)	Housing Estate Expenditure	20	10
(i)	Ranching and Plantation Expenditure	25	15
(j)	Research and Development Expenditure	25	12½

The amount of capital allowances to be enjoyed in any year of assessment is restricted in Nigeria to 75% of the assessable profits in case of manufacturing companies and 66%% in case of others, except that companies in agro-allied industry are not affected by this restriction. If the leased assets are used in agro-allied company, the full 100% capital allowances claimed will be granted. Moreover, where the leased assets are agricultural plants and equipments, there will be an additional investment allowance of 10% on such expenditure.

(iv) Tax Free Dividends

An individual or a company deriving dividends from any company as from 1987 shall enjoy tax free dividends for a period of 3 years if:

(a) the company paying the dividends is incorporated in Nigeria

(b) the equity participation is imported into the country between lst January 1987 and 31st December, 1992; and

(c) the recipient's equity in the company constitutes, at least, 10% of the share capital of the company.

In addition to (a), (b) and (c) above, if the company paying the dividends is engaged in Agricultural production within Nigeria or processing of such Nigerian agricultural products produced within Nigeria or the production of petrochemicals or liquefied natural gas, the tax free period shall be 5 years.

(v) Tax Relief for Investments in Economically Disadvantaged Local Government Areas

Entrepreneurs who invest in economically disadvantaged local government areas are entitled to special income tax and other concessions. These include:

(a) Seven years income tax concessions under the pioneer status scheme
(b) Special concessions by relevant State Governments
(c) Additional 5% over and above the initial capital depreciation allowance under the Company Income Tax Act (Accelerated-Capital Depreciation).

For the purpose of administering these incentives, the country has been grouped into the following zones:

Zone 1 - Industrially and economically developed Local Government Areas,

Zone 2 - Less industrially and economically developed local Government Areas and

Zone 3 - least industrially and economically developed local Government Areas.

Less industrially and economically developed and least industrially and economically developed Local Government Areas are defined in terms of inadequacies of:

- industrial production in gross and per capital basis available
- social and economic infrastructures
- level of labour market development.

(vi) Double Taxation (Income Tax Act 1979)

By Decree No. 4 1985 (Miscellaneous Taxation Provisions) the Income Tax Act of 1979 was amended. The effect of the amendment was to eliminate double taxation on investment income.

(vii) Group of Companies Taxation

Companies can now pay interim company dividends without any double taxation since the amendment on franked investment income came into effect on lst January 1985.

2. Effective Protection

Tariff levels provide a simple and straightforward measure of protection against imports but may not provide the total effect anticipated. Government therefore puts in place other measures to ensure that locally produced goods are competitive in both domestic and export markets.

(i) Customs and Excise Regime

Pursuant to the trade liberalisation policies of the Government, a new Customs, Excise Tariff, etc. (consolidated) Decree has been published and which took effect from lst January 1988. The Decree (No. 1 of 1988) which repeals those of 1984, makes provisions for the imposition of ad valorem customs and excise duties payable on goods imported and manufactured in Nigeria basing its classification on the new Harmonised System of Customs Tariff. The essence of the review is to give effective protection to local industries and to promote further investments, competition and efficiency. Rather than outright prohibition, the new dispensation favours the use of tariff for the purpose of effectively protecting local industries, enhancing revenue generation, combatting smuggling and encouraging exports.

(ii) Dumped and Subsidised Goods

The Customs Duties (Dumped and Subsidised Goods) Act 1958 permits when necessary, the imposition of a special duty on any goods which are dumped in Nigeria or subsidised by any Government or authority outside Nigeria.

The provisions of this act will be invoked if the Government is satisfied that:

(a) material injury will be threatened or caused to potential or established industries in Nigeria by the entry of subsidised or dumped goods into the country; and

(b) the imposition of a special duty will not conflict with Nigeria's obligations under any international agreement such as the General Agreement on Trade and Tariffs (GATT).

3. Export Promotion

A variety of measures ranging from export insurance to outright grant to export oriented industries are applicable to manufacturers producing for export. These have been articulated in Decree No. 18 of 1lth July, 1986.

(i) Import Duty Drawback

Under the Customs (Duty Drawback), Regulations 1959, importers can claim repayment of

import duty paid for materials used in producing export goods. Repayment will be made in full if materials are imported for use in the production of goods which are exported. In the case of certain composite goods which contain wholly or partly duty-paid ingredients the Customs and Excise department may grant bona fide applicants a "fixed rate" drawback on proof of exportation of such goods or their disposal in an approved manner. The objective of the duty drawback is to encourage the production of various export goods as a way of diversifying the economy away from oil. To encourage non-oil export development and to enable exporters compete effectively on international markets, a duty drawback scheme involving and duty suspension for qualifying exporters backed by bankers' guarantees, has been put in place.

(ii) Export Licence Waiver

No export licence is required for the export of manufactured or processed products. Also exports have been exempted from excise tax.

(iii) Export Credit Guarantee and Insurance Scheme

In order to make Nigerian products compete effectively in the international market as well as to insure genuine exporters against some political and other risks including default in payment, government has approved the establishment of an export credit guarantee and insurance scheme. Exporters will also be in a position to grant their customers some credit facilities.

(iv) Export Development Fund

The Export Development Fund shall be used to provide financial assistance to private exporting companies to cover part of their initial expenses in respect of export promotion activities.

(v) Export Expansion Fund

The Export Expansion Fund shall be used to provide cash inducement for exporters who have exported a minimum of N450,000 worth of semi-manufactured or manufactured products.

(vi) Export Adjustment Scheme Fund

An Export Adjustment Scheme Fund has been established to serve as a supplementary export subsidy. Proceeds will be used to compensate exporters for:

(a) high costs of production arising from infrastructural deficiencies
(b) purchasing commodities at prices higher than prevailing world market prices but fixed by government, and

(c) other factors beyond the control of the exporter.

(vii) Rediscounting of Short Term Bills for Export

This facility will enable all exporters to rediscount their short term bills under a scheme provided for in the Central Bank of Nigeria (CBN) (Amendment) Act 1967.

(viii) Capital Allowance

Additional annual capital allowance of 5% on plant and machinery for 'manufacturing 'exporters' (those that export at least 50% of their annual turnover); provided that the product has at least 40 percent local raw materials content or 35 percent value added.

(ix) Tax Relief on Interest Income

The Companies income Tax Act 1979 has also been amended to grant ta ' x relief on interest accruing from any loans granted to aid investment in export oriented industries.

4. Foreign Currency Facility

A new trade and exchange rate regime has been adopted by government to ensure efficient and competitive local production. Adjustment in the exchange rate regime will provide greater access to external markets than before to industries relying extensively on local resource endowments. The facility also provides for easier movement of investable funds, goods and services in and out of Nigeria.

(i) Foreign Exchange Market

The foreign exchange market came into operation in September 1986 resulting in the abrogation of import levy and import licence. The market also provides manufacturers easy access to foreign exchange.

(ii) Repatriation of Imported Capital

An approved 'Status' permit for imported capital investment is conferred on companies with non-resident investment in cases where the original investment was imported in the form of equity either by way of cash and/or plant and machinery. The purpose of this 'Status" is to facilitate timely repatriation of remittances or other capital claims.

(iii) Payment of Technology Fees

In order to ensure effective assimilation and diffusion of foreign technology within a specific time frame at a fair and equitable contractual and payment terms; the rate for payments in technology transfer transactions have been reviewed. Fees for technical services are based on net sales (rather than profit before tax). Furthermore the rates applicable are as follows:

(a) Royalty: royalty in respect of know-how, patents and other industrial property rights shall now range from 1 5% of net sales.

(b) Technical/Management services: fees in respect of technical assistance/management services shall also range from 1 - 5% of net sales.

The upper-level of the ranges above will be considered as incentive remuneration or compensations allowed to deserving cases where:

(a) the local value added is not lower than 70% or
(b) the products are intended for export market and the fees for these services can be serviced from the export proceeds, or
(c) the benefits derived by the enterprises are considered desirable in the national interest.

(iv) Foreign Currency Domiciliary Account

Banking regulations in Nigeria make it possible for exporters of non-oil products to retain the proceeds of export in bank accounts denominated in foreign currency. Such accounts are operated at the owners discretion, for external transactions or conversion to Naira but in accordance with existing Central Bank of Nigeria guidelines.

5. Development Banking

Industrial development banks have been set up at both Federal and state levels to offer specialised services to industry. Paramount among these services is the provision of soft loans and advances to large, medium, small scale and cottage type industries on concessionary terms. These concessions are reviewed regularly in line with policy objectives of governments. Development Banks include, among others Nigerian Bank for Commerce and Industry (NBCI), and the Nigerian Industrial Development Bank (NIDB), state Investment corporations, etc.

CHAPTER 4

Guidelines to Investors and the Institutional Framework

This chapter is designed to provide investors with information on government requirements for establishing businesses or industries in Nigeria and the relevant government institutions involved in the process.

1. Guidelines to Investors

The main requirements for the establishment of business are:

(a) Business Permit including permit to employ expatriates
(b) Approved status to ensure that imported capital can be repatriated
(c) Investment guarantee approvals
(d) Approvals covering pre-investment technical fees agreement.

For investment in specific industries such as fishing, pharmaceuticals, etc. additional requirements are available in the Guide To Investors published by the Investment, Information. and Promotion Centre of the Federal Ministry of Industries.

A new institutional framework has been established by Government to administer the business/industry related approvals listed in paragraph 4.1 (a)-(d). The one stop approval agency known as the Industrial Development Co-ordinating Committee (IDCC) is located in the Federal Ministry of Industries and consists of seven ministers who are charged with the responsibility to ensure that all required approvals are given within sixty days. This new arrangement has removed the need to get required approvals from various Government agencies as was previously the case.

(i) Expatriate Quota

The IDCC will ensure that expatriate quotas are issued. Businesses with a capitalisation of five million Naira (N5,000,000.00) and above are entitled to a maximum automatic quota of two positions while those with a capitalisation of ten million Naira (N10,000,000.00) and above are entitled to four automatic quota positions. All other requests for expatriate quota will be considered on merit.

(ii) Product Standards

New companies, prior to importation of machinery, are required to lodge copies of the product standards, with the Standards Organisation of Nigeria (SON) for clearance.

(iii) Investment Guarantee Approvals

The Federal Government of Nigeria has bilateral arrangements with some countries for the purpose of guaranteeing investments in Nigeria by citizens of those countries. The aim is to ensure that in the event of sociopolitical changes affecting such investments, the repatriation of the imported capital investment is guaranteed. The conditions for such investment guarantee approvals are:

(a) that the capital required for such investments had actually been imported into the country through the approved status in principle issued by the IDCC.

(b) evidence of compliance with the provision of the Nigerian Enterprises Promotion Decree.

(c) submission of a copy of the Business Permit issued by the IDCC and

(d) submission of a copy of the audited account of the company if already in existence.

(iv) Technical fees agreement

Applications for Technical Fees Agreement are required to be made to the IDCC. Investors are advised to abide by the Guidelines on Technical Fees Agreement as published by the National Office of Industrial Property (NOIP).

(v) Management of Industrial Waste

(a) All existing industries should treat their waste effluents at least up to the secondary level, (i.e. to the state where discharge will not pose danger to life and property), while those industries which produce toxic and hazardous waste should treat their waste beyond the secondary level. Toxic solid waste should be specially handled, collected and disposed off. Toxic gases should also be specially handled.

(b) New industries should have effluent treatment facilities incorporated into their systems right from inception.

(c) Industries should set up environmental quality control units.

(d) All major industrial projects should include an Environmental Impact Assessment (EIA) statement. This would be one of the conditions for permits for establishing such industries.

(e) Effluent discharges of industries will be monitored on a regular bases to ensure compliance with the waste disposal regulations.

(f) Emphasis will be placed on recycling of waste from industries, since the waste from one industry could bi feedstock for another industry.

CHAPTER 5

Institutional Framework

1. The Industrial Development Co-ordinating Committee (IDCC)

Initial authorisations for the establishment of new industries were, in the past, requested from several government ministries and agencies. The attendant chaos and delays inevitably slowed down the pace of establishment of new industries. Government has therefore established a new central agency known as the Industrial Development Co-ordinating Committee (IDCC) to oversee required approvals. The committee comprises ministers of the following ministries: Finance, Internal Affairs, Trade, Science and Technology, Agriculture, Industries, Employment, Labour and Productivity.

The main objectives for setting up the Committee are to:

(a) obviate the delays in granting approvals for the establishment of new industries;

(b) create one approval centre instead of the present situation where there is a multiplicity of approving centres with unnecessary costs to prospective investors in terms of time and financial resources;

(c) obviate the lack of co-ordination among approving ministries;

(d) remove the present conflicting and duplicated demands by ministries before approvals are granted;

(e) advise on policy review proposals on tariffs, excise duties, various incentive schemes and commodity pricing, as they relate to industrial development; and

(f) ensure adequate co-ordination and objectivity in the nations industrial development efforts.

2. The functions of the new IDCC are as follows:

(a) granting approvals for the commencement of new businesses and relevant expatriate quota for such businesses (expatriate quota approvals by IDCC will be limited to new businesses only);

(b) granting approved status in principle for imported capital in new ventures;

(c) approving technology transfer agreements as they relate to:

- assistance in procuring machinery, plants, equipments and components;

- engineering design services;
- plant installation and
- plant commissioning

(d) advising on, the administration of government industrial incentives;

(e) making recommendations on pertinent policies including tariff and various measures aimed at ensuring the industrial development of the country;

(f) other relevant functions assigned to the committee from time to time to facilitate meaningful industrial development.

The IDCC Secretariat will function as a co-ordinating centre for receiving applications from prospective investors, channelling such applications to the appropriate ministries for their comments and recommendations, and collating information received for briefing and decision-making. The decree provides that every application shall be processed within two months.

3. The Policy Analysis Department (PAD)

Government has established an organ known as the Policy Analysis Department within the Federal Ministry of Industries. The functions of this department are to undertake the collection of data, conduct economic research and policy analysis necessary for the evaluation of the effectiveness or otherwise of industrial policy.

4. Industrial Inspectorate Department (IID)

The Industrial Inspectorate Department of the Federal Ministry of Industries plays a pivotal role in certifying the actual values of capital investments in buildings, machinery and equipment of various industries. The Department also certifies the date of commencement of production for companies that enjoy pioneer status, and the value of imported industrial machinery and equipment for the confirmation of approved status for non-resident capital investment. IID also provides in-house technical services for the ministry, including negotiations, equipment selection and implementation of public sector projects.

It also plays a key role in the monitoring of the Comprehensive Import Supervision Scheme (CISS) to ensure that the operations are in the spirit of the Agreement. It is the intention of the Government to indigenise pre-shipment import inspection currently being undertaken by foreign companies. The IID which presently monitors the operations of the Inspection Agents is expected to be directly involved in preshipment import inspection in due course.

5. Data Bank

An Industrial Data Bank has been established in the Federal Ministry of Industries to gather, store and retrieve data. The Bank will provide information on existing industries in the various sub-sectors, their production capacities and expansion plans, production costs, the state of the market, price movement, raw materials available in various parts of the country, etc.

6. Raw Materials Research and Development Council

A Raw Materials Research and Development Council has been established and housed at the Federal Ministry of Science and Technology. The Council will be the umbrella organisation for all the various efforts by public and private sectors in the research and development of local industrial inputs. The Council shall work in close collaboration with the Federal Ministry of Industries which has the overall responsibility for the development of incentives pertaining to raw materials utilisation.

7. Investment Information and Promotion Centre

In practically all cases, whether the prospective investors are Nigerians or foreigners, it is advisable to contact the Investment Information and Promotion Centre of the Federal Ministry of Industries for the latest information on procedural matters and the industrial climate in Nigeria.

The Centre can advise and guide investors, free of charge, on most aspects of their investment proposals.

8. Industrial Training Fund

The Industrial Training Fund, established by Decree No. 47 of 1971, is the body responsible for promoting and encouraging the acquisition of skills in Industry and Commerce.

In the area of Industrial Training and development, the industrial Training Fund will continue to generate indigenous trained manpower sufficient to meet the needs of the economy. In this wise, the Fund will provide facilities for training of persons employed in industry and commerce; approve courses and appraise facilities provided for training by other bodies, particularly in industry or commerce; consider, regularly, operational areas of industry or commerce that require specific manpower training and development inputs and recommend kinds of training needed, the standards to be attained, and ensure that such standards are met. It would also assist individual persons or corporate organisations in finding facilities for training for employment in industry and commerce and will conduct or assist others to conduct research into any matter relating to training in industry

9. Standards Organisation of Nigeria

The Standards Organisation of Nigeria is the statutory body responsible for standardization and quality control in the nation's economy. In this connection it will prepare standards for products and processes, ensure compliance with Government Policy on standardization and quality of products both locally manufactured and imported, undertake investigations as necessary into the quality of products in Nigeria and establish a quality assurance system including certification of factories products and laboratories, maintain reference standards for calibration and verification of measures and measuring instruments and co-operate with corresponding national and international organisations with a view to securing uniformity in standards specifications.

With the semi-autonomous status now granted to the Standards Organisation of Nigeria (SON), it would henceforth strictly enforce the powers of seizure, confiscation and destruction of sub-standard goods and products and seal up factories which are regularly found to produce sub-standard or defective goods and products.

SCHEDULED ENTERPRISES

The following enterprises have been classified as scheduled businesses exclusively reserved for 100% Nigerian ownership.

1. Advertising and public relations business.
2. All aspects of pool betting business and lotteries.
3. Assembly of radios, radiograms, record changers, television sets, tape recorders and other electric domestic appliances not combined with manufacture of components.
4. Blending and bottling of alcoholic drinks.
5. Blocks and ordinary tile manufacture for building and construction works.
6. Bread and cake making.
7. Candle manufacture.
8. Casinos and gaming centres.
9. Cinemas and other places of entertainment.
10. Commercial transportation (wet and dry cargo and fuel).
11. Commission agents.
12. Departmental stores and supermarkets having an annual turnover of less than N 2,000,000.
13. Distribution agencies excluding motor vehicles, machines and equipment and spare parts.
14. Electrical repair shops other than repair shops associated with distribution of electrical goods.
15. Estate Agency.
16. Film distribution (including cinema films).
17. Hairdressing.
18. Ice-cream making when not associated with ti manufacture of other diary products.
19. Indenting and confirming.
20. Laundry and dry-cleaning.
21. Manufacturers' representatives.

22. Manufacture of suitcases, brief cases, hand-bags, purses, wallets, portfolios and shopping bags.
23. Municipal bus services and taxis.
24. Newspaper publishing and printing.
25. Office Cleaning.
26. Passenger bus services of any kind.
27. Poultry farming.
28. Printing of stationery (when not associated with printing of books).
29. Protective agencies.
30. Radio and television broadcasting.
31. Retail trade (except by or within departmental stores and supermarkets).
32. Singlet manufacture.
33. Stevedoring and shorehandling
34. Tyre retreading.
35. Travel agencies.
36. Wholesale distribution of local manufactures and' other locally produced goods.
37. Establishments specialised in the repair of watches, clocks and jewellery including imitation jewellery for the general public.
38. Garment manufacture.
39. Grain Mill products including rice milling.
40. Manufacture of jewellery and related articles including imitation jewellery.

CHAPTER 7

Relevant Law and Regulations

To guide prospective investors, the following laws and regulations related to industrial development in Nigeria are reproduced below:

(1) Customs and Excise Management Act 1938, No. 55 of 1958
(2) Customs (Drawback) Regulations Legal Notice, No. 70 of 1959
(3) Customs Duties (Dumped and subsidised goods) Act No. 9 of 1958
(4) Income Tax Management Act 1961, No. 81
(5) Factories Act Cap. 66
(6) National Provident Fund Act 1961, No. 20
(7) Workmen's Compensation Act: Cap 222
(8) Merchandise Marks Act Cap. 117
(9) Registration of Business Names Act 1901, No. 17
(10) Trade Marks Act 1965, No. 29
(11) Immigration Act 1963, No. 6
(12) Exchange Control Act 1962, No. 16
(13) Companies Act No. 51 of 1968
(14) Patents and Designs Act 1970, No. 60
(15) Industrial Inspectorate Act 1970, No. 53
(16) Industrial Development (Income Tax) Act 1971, No. 22
(17) Nigerian Standards Organisation Act 1971, No. 56
(18) Industrial Training Fund Act 1971, No. 47
(19) Wages Boards and Industrial Councils Act 1973, No. 1
(20) National Bank for Commerce and Industry Act 1973, No. 22
(21) Trade Union Act 1973, No. 31
(22) Excise Tariff (Consolidation) Act 1973, No. 7
(23) Customs Tariff (Consolidation) Act 1973, No. 6
(24) Labour Act 1974, No. 21
(25) Trade Disputes Act 1976, No. 7
(26) Trade Disputes Essential Services Act 1976, No. 23
(27) Nigerian Export Promotion Council Act 1976, No. 26
(28) Nigerian Enterprises Promotion Act 1977, No. 3
(29) Productivity, Prices and Incomes Board Act 1977, No. 30
(30) Pre-shipment Inspection of Imports Act 1978, No. 36
(31) Companies Income Tax Act 1979, No. 28
(32) Industrial Promotion Act 1979, No. 40
(33) Import Prohibition Order L.N. 10 OF 1979
(34) National Office of Industrial Property Act 1979, No. 70
(35) Securities and Exchange Commission Act 1979, No. 71
(36) The Electricity (Private Licenses) Regulations 1965, L.N. 76
(37) Bankruptcy Act 1979, No. 16

(38) Nigerian Export Promotion Council Decree No. 26, 1976

(39) Second-Tien Foreign Exchange Market Decree No. 23,1986
(40) Customs, Excise, etc. (Consolidated) Decree No. 1, 1988
(41) Factories Decree No. 16, 1987
(42) Workmen's Compensation Decree No. 17, 1987
(43) Industrial Development: Co-ordinating Committee Decree 1988
(44) Nigerian Export Credit Guarantee and Insurance Corporation Decree (No. 15) 1988
(45) Privatisation and Commercialisation Decree (No. 25) 1988

THE INDUSTRIAL TECHNICAL ASSISTANCE PROJECT (ITAP)

The following material describes a project which aimed in part to 'bridge the gap in knowledge between policy formulators and practitioners in industry, and to develop a cadre of professional staff in the general areas of industrial policy analysis, industrial planning, project analysis and industrial promotion". The material is condensed from two documents:

1. ITAP
   Training Manual for Rubber and Plastics Subsector, by Banji Oyelaran-Oyeyinka,
   PRSD, FMI, Abuja, Nigeria
   UNDP/UNIDO ITAP
   DP/NIR/84/020

2. ITAP
   Training Manual for Pharmaceuticals Subsector, by Olasunkanmi D. Kajogbola
   PRSD, FMI, Abuja, Nigeria
   UNDP/UNIDO ITAP
   DP/NIR/84/020

The Federal Ministry of Industry needed to study, analyse and if possible restructure its policy on incentives. A World Bank loan was obtained for the establishment of the Industrial Technical Assistance Project (ITAP) in the Federal Ministry of Industry. The project was Co-funded by IBRD, EEC, UNIDO, and the Federal Ministry. It was executed by the now defunct Policy Analysis Department (PAD) of Federal Ministry of Industry. Staff of this department are now integrated into the Planning, Research and Statistics Department (PRSD)

Objectives of ITAP:

- improve the economic efficiency and competitiveness of the manufacturing sector, its long-term growth potential and its use of scarce resources in the economy in line with Nigeria's comparative advantage
- promote increased use of domestically sourced raw materials and intermediate goods where these can be efficiently produced
- encourage more dynamic private sector investment and production in industry

Plans to carry this out included strengthening of analytic capacity of PAD, FMI, State Ministries of industry, and those of staff of other relevant government agencies and the organised private sector organisations. Component co-financed by UNIDO and FMI.

Delivery mechanisms:

- assistance in analysis of subsector
- carrying out instructional courses based on the various sub-sector studies conducted for the Strategic Management of Industries Development (SMID)
- workshops, seminars, study tours and plant visits organised to enable staff of Federal Ministry of Industry to become familiar with the nature and characteristics of Nigeria's

industrialisation, and in particular the concept of practice of the Strategic Management of the Industrial Sector

The training manuals were based on the mechanisms above and designed to impart the same knowledge to users (of the manual)

Target: Policy makers, policy executive - middle level and top: Assistant/Deputy/Substantive Directors in FMI and equivalent at state level; also National planning officers.

The main objective of the training is to bridge the gap in knowledge between policy formulators and practitioners in industry, and to develop a cadre of professional staff in the general areas of industrial policy analysis, industrial planning, project analysis and industrial promotion

Specific objectives of the training were to:

a) enable policy makers to have an in depth knowledge of the particular sub-sector in Nigeria;
b) exploit the basic knowledge and experience of the trainers to broaden their policy capability in terms of formulation, implementation and interpretation
c) enable policy makers to appreciate the magnitude of the problems and constraints confronting the sub-sector
d) assist him/her in recognising and appreciating the important role that the subsector plays in the economic development of the country,
e) establish a good rapport (i.e. effective communication channel) between the government and industrial operators and consumers, on the other
f) assist him/her in harmonising the divergent interests wand views of the government as the industry watcher (or referee) and the private sectors as players
g) enable him/her to articulate policies that will lead to closing of ranks and reduction of conflict areas between the government and the industrial operators
h) help him/her to design and formulate policies which are consistent with the overall objectives of the subsector from the point of view of both government and the private sector.

DATA TABLES

Total Population (thousands)								
1975	1980	1985	1990	1991	1992	1993	2000	2025
62 770	72 024	83 068	96 154	99 087	102 129	105 264	127 806	216 900

Table 1: Population of Nigeria (1975 - 2025)

Annual rate of population growth (percent)			Age Distribution 1993 (percent)			Population Age Structure 1990 (percent) *2025			
1992	2000	2025	0-14	15-49	>50	0-14	>65	0-14*	>65*
2.9	2.7	1.6	47	44	9	47	2	38	4

Table 2: Growth Rate and Age Distribution

Urban Population (percent)				Urban Population (thousands) 1993		Literacy Rate (percent) 1990	
1970	1990	1993	2000	Rural	Urban	female	male
20	35	43	43	60 462	44 802	40	62

Table 3: Urbanisation and Literacy Rate

ECONOMIC INDICATORS

GDP per capita (constant 1980)							GDP annual growth rate (percent)				GNP per capita (US$)		
1975	1980	1985	1990	1991	1992	1993	1975-80	1980-85	1985-90	1990-93	1990	1991	Annual growth rate 1980-91
1 236	1 224	1 023	1 147	1 166	1 178	1 177	-0.2	-3.3	2.4	0.9	290	340	-2.3

Table 4: GDP per capita

Consumer Price Index (CPI) per capita - 1980 = 1000							Annual Consumer Price Index change (percent)		
1975	1980	1985	1990	1991	1992	1993	1980-85	1985-90	1990-93
473	1 000	2 404	7 060	7 978	11 536	18 130	28	39	52

Table 5: Consumer Price Index

Exchange rate: local currency / 1000 $US						
1975	1980	1985	1990	1991	1992	1993
614	546	893	8 037	9 908	17 297	22 064

Table 6a: Evolution of the Naira Exchange Rate

Exchange rate changes (percent)				Average annual rate of inflation (percent)	
1975-80	1980-85	1985-90	1990-93	1970-80	1980-91
11	-64	-800	-175	15.2	18.1

Table 6b: Naira Exchange Rate and Inflation

Share of manufacturing in GDP (percent)						
1975	1980	1985	1990	1991	1992	1993
3	5	5	4	5	4	--

Table 7: Share of Manufacturing in GDP

The following additional tables are obtained from commercial data bases are included to give a rough picture of Nigeria, rather than provide accurate statistics on the country. Most of the data dates from 1990.

NIGERIA - GENERAL PROFILE

Area	356,667 sq mi
Population 1988	111,904,000
Population Growth	3.00 %
Population Density	314 /sq mi
GNP 1988 (millions)	$38,101
GNP per Capita	$340
Capital City	LAGOS

NIGERIA - MAJOR CITIES

	Population	Latitude Longitude	Internat'l Phone Code
LAGOS	1,600,000	6.27N, 3.28E	234-1
Ibadan	900,000	7.23N, 3.56E	234-
Ogbomosho	610,000	8.05N, 4.11E	234-
Kano	600,000	12.00N,8.31E	234-
Oshogbo	400,000	7.50N, 4.35E	234-
Ilorin	350,000	8.32N, 4.34E	234-
Abeokuta	300,000	7.10N, 3.26E	234-
Port Harcourt	270,000	4.43N, 7.10E	234-
Zaria	260,000	11.01N,7.44E	234-
Ilesha	250,000	7.39N, 4.38E	234-
Onitsha	230,000	6.10N, 6.47E	234-

Telex Access Code(s)	961
Ham Radio Prefix(es)	5N

NIGERIA - HEALTH STATISTICS

Life Expectancy (M)	48.0 years
Life Expectancy (F)	52.0 years
Crude Birth Rate	46.2 /1000
Crude Death Rate	17.2 /1000
Infant Mortality	122.0 /1000
No. of Hospitals	0 or N/A
Population/Hospital	0 or N/A
No. of Hospital Beds	61,628
Population/Hosp. Bed	1,816
No. of Physicians	8,037
Population/Physician	13,924
No. of Dentists	285
Population/Dentist	392,646
No. of Pharmacists	2,816
Population/Pharmacist	39,739
Nursing Personnel	37,370
Population/Nurse	2,994

NIGERIA - GOVERNMENT

Type of Government	Federal Republic
Government Leaders	PRESIDENT Sani ABACHA (1993)
Major Parties	None

GROSS NATIONAL PRODUCT (GNP)

GNP 1987 (millions)	$39,442	
GNP 1988 (millions)	$38,101	
GNP 1989 (millions)	$36,806	
Annual GNP Growth	-3.4 %	
GNP per Capita	$340	
%GNP for Agriculture		30 %
%GNP for Industry		43 %
%GNP for Services		27 %
%GNP for Defense		0.8 %

NIGERIA - LANGUAGES, ETHNIC GROUPS & RELIGIONS

Languages	English	
	Hausa	
	Yoruba	
	Ibo	
	Fulani & Other	
Ethnic Groups	Hausa	21 %
	Yoruba	20 %
	Ibo	17 %
	Fulani	9 %
	Other	33 %
Religions	Muslim	50 %
	Christian	40 %
	Other	10 %

NIGERIA - IMPORTS & EXPORTS

Major Imports	Machinery
	Transport Equipment
	Manufactured Goods
	Chemicals
	Foodstuffs
Major Exports	Oil
	Cocoa
	Rubber
	Timber
	Tin
Balance of Trade	$1,490,000,000 (1987)

NIGERIA - NATURAL RESOURCES, AGRICULTURE, INDUSTRIES

Natural Resources	Crude Oil Tin Columbite Iron Ore Coal Limestone Lead Zinc Natural Gas
Agriculture	Peanuts Cotton Cocoa Rubber Yams Cassava Sorghum Grains Livestock
Major Industries	Mining Wood Products Food Processing Textiles Building Materials Footwear Chemicals Printing Iron & Steel

NIGERIA - CULTURE & TOURISM

- Official Language: English. Hausa, Yoruba, Ibo common.
- Independence from Britain declared in 1960.
- Visa: Required. Copy of return ticket required with application.
- Health: Malaria endemic. Tap water not potable. Facilities available in most major cities.
- Sights: Ibadan, headquarters of the Yoruba; Olumo Rock; Yankari Game Preserve; Kano; Lake Chad; Benin City.
- Climate: Hot and dry in north; hot and wet in south. Tropical wash & wear clothing and rainwear recommended.

Currency: Naira (Jan. 1990: 7.80 = $1US).

Tourist Statistics:

Arrivals (1000s)	340
Receipts (million $)	175

NIGERIA - COMMODITY PRODUCTION

Aluminum	0 or N/A
Barley	0 or N/A
Bauxite	0 or N/A
Beer	8,052 1000s of hectoliters
Butter	8 1000s of metric tons
Cement	3,352 1000s of metric tons
Cheese	7 1000s of metric tons
Cigarettes	9,100 millions
Coffee	3.0 1000s of metric tons
Copper	0 or N/A
Corn	1,800 1000s of metric tons
Cotton	23 1000s of metric tons
Crude Oil	10,399 1000s of metric tons coal equiv.
Diamonds	0 or N/A
Eggs	250.0 1000s of metric tons
Electricity	1,213 1000s of metric tons coal equiv.
Gold	0 or N/A
Hard Coal	144 1000s of metric tons
Iron Ore	0 or N/A
Lead	3.0 1000s of metric tons
Magnesium	0 or N/A
Meat	350 1000s of metric tons
Merchant Ships	0 or N/A
Milk	359 1000s of metric tons
Natural Gas	4,194 1000s of metric tons coal equiv.
Natural Rubber	51.6 1000s of metric tons
Newsprint	33 1000s of metric tons
Oats	0 or N/A
Paper	43 1000s of metric tons
Passenger Cars	0 or N/A
Phosphates	0 or N/A
Potatoes	43 1000s of metric tons
Radios	103 1000s
Rice	1,416 1000s of metric tons
Silver	0 or N/A
Soybeans	68 1000s of metric tons
Sugar	50 1000s of metric tons
Tea	0 or N/A
Televisions	74 1000s
Tin	1,027 metric tons
Tobacco	11.5 1000s of metric tons
Uranium	0 or N/A
Wheat	50 1000s of metric tons
Wine	0 or N/A
Wool	0 or N/A
Zinc	0 or N/A

INVESTMENT OPPORTUNITY FOR JOINT VENTURE OR OTHERWISE THAT EXIST IN BORNO STATE.

INTRODUCTION

Borno state is the largest amongst the 30 states of the Federation in terms of land area. It occupies the greatest part of the Chad Basin located on the North Eastern corner of Nigeria. The state shares boarders with the Republic of Niger to the North, Chad to the North East and Cameroon to the East. The Capital, Maiduguri lies roughly on latitude 10 Degree North and Longitude 13.8 Degree East. The state has an estimated population of over six million people.

Borno state is endowed with numerous resources ranging from Agricultural, mineral and human resources. The Agricultural resources include cotton, groundnut, wheat, rice, millet, guinea corn, maize, cowpeas and gun arabic. The state is also blessed with mineral resources in large quantities with the following being predominant; limestone, kaolin, potash quart, Diatomite, Bentonite, Uranium, silica, Pegmatite, Potash felspar just to mention but few.

Conscious of the industrial and Economic backwardness and the hinterland disposition of the state and the need to approach the issue of economic development in a depressed economy from more than one front, the desire for joint venture can not be over emphasised. This economic corporation which entails the amalgamation of resources and harmonisation of efforts gives room to virile, dynamic and progressive socio-economic culture, Moreover with the aid of joint venture, the abundant industrial and economic potentialities amongst states could be fully exploited.

The project profiles that follow therefore are some of the many investment opportunities that abound in Borno state for joint venture with the state Government or private Investors.

(a) The fruit process plant is to be located in Damboa local government as to take advantage of the abundant fruit produced there. The project when completed will process 6- 800 kg of citrus fruit daily with reserve capacity to process other kinds of fruits and vegetable. The total estimated cost of the project as at 1988 in N6, million.

(b) The pilot soap and detergent factory is to be sighted in Askira/ubo local government area and will when complete produce 10 kg of detergent and 50 kg of laundry soap per show shift. It was estimated to cost N4 million.

(c) The polythene plant on the other with produce polythene sheet which would be cut and sealed in to various shopping bags. The initial cost of the project is put at:.....Feasibility on the three projects conducted by Messrs Akintola Williams indicates that the project are viable in term of availability of raw materials and demand/market. An up date of there studies may however be necessary to bring there in time with current economic realities.

SMALL, MEDIUM AND COTTAGE INDUSTRIES DEVELOPMENT PROGRAMME.

The Borno State Government in her bid to develop the small/medium Industries sub-sector mooted the cottage industries programme, in 1981/82. The programme is to serve as an umbrella under which various cottage industries are to be established through out the state . It will basically involve the implementation of small/ and cottage manufacturing projects which would serve as models for our industrialist/entrepreneur to copy. Such and cottage industries will process local resources as well as provide the community with some light consumer items at affordable price and at the same time generate employment opportunities. The programme is expected to be resource based and to cover the entire local government areas of the state in phases.

(2) Under the first phase of the cottage industries programme, two projects where established namely:-

(a) Maiduguri Stationary clips and pins project. The implementation of the project started in 1988 with the technical assistance of Messrs American Supply and Technology supply company (AMSTECO) who was award the contract for the supply and installation of machinery for production of office pins. The project which has commenced commercial production was completed at a total cost of N4.7 million Its products compares favourably with those imported from the Asia and Europe. The company's major problem relates to lack of working capital.

(b) The Combustible Briquettes plant, is another project set up to produce combustible briquettes (an artificial firewood) as an attentive source of energy to firewood. The main justification of the project is to save our fast depleting forest reserve and to desertification. The project which is located in Maiduguri was established at a cost of N1.8 million. The company has undergone test production but requires technical management and working capital to commerce commercial production.

(3) Under the second phase of the programme three projects have been identified for implementation. These soap and detergent factory fruit and vegetable processing plant and polythene bags project.

BORNO WIRE INDUSTRIES:

This company was established in 1981 by the Borno state Government and other local investors having foreign partners; Messrs, Concraft Services Limited, London.

Borno Wire Industries, although a viable venture has been facing problems which are: Lack of working capital, Lack of raw materials and lack spare parts. At present, the project is fully owned by Borno state, having settled the Yobe state Government and the technical partner. The state Government has so far injected some funds in the company and it has commenced production of nails of various sizes, chain-link and barbed-wires.

ENTREPRENEURSHIP DEVELOPMENT PROGRAMME (EDP).

The Entrepreneurship Development Programme (EDP) is a grass-root approach to industrialisation. It is a programme aimed at producing human capital for setting up of resource based small scale industries. Its main emphasis is training of indigenous entrepreneurs to acquire skills in running modern business and providing fund for the projects to take off.

In Borno state up to 17 people have undergone the training . The trained Entrepreneur were requested to prepare bankable business plans (Feasibility studies). Nigerian Bank of commerce and Industry was instrumental to this programme and was expected to finance up to 70 percent of the total costs involved.
After the training the Borno state Government released money as loan to the EDP participants. The money was to help the participants to fulfil NBCI's precondition before the Bank could disburse fund. Now the trained entrepreneurs are waiting for the fund disbursement from NBCI as they have fulfilled all the conditions. The Government intends to continue with the programme.

SODA ASH PROJECT

The Soda Ash project, is a catalytic model project jointly owned by the Borno State Government (BSGO) and the Raw Materials Research and Development Council (RMRDC).

The project is aimed at producing Soda Ash which is a mineral Raw Material used by the Glass, Pulp and paper, chemical, Iron, and Steel, Textile Industries etc.

The Borno state Government at the initial stage of the implementation constituted a project planning committee comprising officials of Raw Materials Research and Development Council (RMRDC), Ministries of Works and Housing, commerce and industry, Land and Survey and the Rural Electrification Board (REB) to select a suitable sit for the project.

The Borno State Government is committed to the civil works of the project while the Federal Government under the auspices of RMRDC financed the Technical aspect of the project comprising the supply and installation of machinery .

The contract for the civil works was approved and awarded on the 28th June, 1991 by the Ministry of commerce, Industry and Tourism, on behalf of Borno State Government to Alhaji Baba Gana Malami Marte for the construction of factory and administrative blocks and N.L. General stores Limited for the electrical and water supply works at total cost of N4,123,780.00. The implementation of the project started in June, 1991. From the foregoing, considerable progress on the implementation of the project has been achieved and the following works has been completed at the project site.

1. Factory and Administrative Blocks;
2. Power Supply and Distribution;
3. Borehole with Overhead Tank;
4. Supply of 250 KVA Generator and Power House;
5. Fencing of project sits;
6. Factory Extension to Accommodate more Machinery;
7. Purchase of project vehicles comprising Saloon car and one Peugeot pick up van; and

8. Machinery Installation by RMRDC.
9. Construction of 300 M square Raw Material Ware House
10. Construction of Factory Pavement.
11. Construction of two security.
12. Provision of furniture.

The present Administration in recognition of the viability prospects of the project approved and released funds for the complexion stage and is due for commissioning on 26th July 1995.

Arrangements to finalise the composition and selection of Board members for the company is also in progress.

NEITAL (NIG,) LIMITED

Neital (Nig,) Limited is a joint-Venture the then North -East Government and EFFE SPA of Italy. The project started in 1994 with the objective of exploitation and abundant hides/skins in this part of the country. The project was transferred to Borno State in 1976 after the creation states.

Since inception, the company was bedevilled by problems that continued to increase from poor implementation, irregular supply of raw materials, insufficient fund to managerial problems. This finally led to its closure in 1989.

Presently, then Borno state investment of the company. In its effort to reactivate the Neital (NIG) Limited, the present Administration under the ministry of commerce, Industry and Tourism has released the sum of four hundred and Eleven thousand Naira (N411, 000.00) to pay the arrears of staff salaries and to run some skeletal services in the short section.

The state Government has also reactivated the tannery section by infecting N2.0 million at the same time entered in to a contract fanning agreement with an indigenous company Brayan Multi Purpose Co. NIG. Ltd.

MEAT PROCESSING PROJECT

Historical Background

The idea of establishing a meat processing industry dates back as far as 1986 when the ministry invited centre for Agricultural Development Nigerian Limited based Agricultural Consultancy firm in Ibadan to submit proposal and feasibility study on the project. The intention was to reactivate the Maiduguri and Nguru Abattiors which have been rusting away unused for a long time so that animals could be slaughtered and cut in to pieces to be sold directly to local external while other parts could be stored in a refrigerator and transported later.

The feasibility report prepared by C.A.D. says that establishing a meat processing industry in Maiduguri is both socially beneficial and economically viable.
Borno state is one of the highest producer of cattle, sheep , and goats and is located between countries like Chad, and Niger which are also known for livestock rearing as such economic

indicators favours the formation of such company so that buying and selling of animals are not done haphazardly but organised which will reduce lose of meat and other cost. Apart from arresting the current practice of transferring live animals to South whereby up-to 20 percent of the live weight of these animals are lost in transit, chilling of the meat that is meant for public consumption will also provide a better hygienic condition and aside from hides and skins which is needed for shoes and leather industries other by products such as bones and blood will be used for manufacturing of animal and poultry feed etc.

Project Scope

Halves, pre-packed beef cuts, pre-packed parts and offal meals and meats, bones and blood fallout, hides and skin, beef sausage burgers and canned beef. All would be provided in stages 1, II, III.

Capacity

32, 000 heads cattle per annum with gradual expansion and 200 heads of sheep and goats per day on a single shift.

Location: MAIDUGURI

Equity And Financial Structure:

Loan 32.75 percent

Equity to be shared among:-

(a)	State Government	35 percent
(b)	Local Government	50 percent
(c)	Technical partner	7.25 percent
(d)	Private investors	20 percent

Cost

Total investment cost was put at N6, 107, 190.
The feasibility studies submitted by C.A.D. was updated by Akintola Williams and company which showed that the project is still viable for investment.

BORNO CLAY PRODUCT LIMITED (BCP).

The Borno Clay Product Limited (BCP) is a joint venture between Borno State Government (BOSG), the Nigerian Industrial Development Bank (NIDB), the New Nigerian Development Company (NNDC) and foreign private Company ENCON of Germany.

Established in 1979, with an authorised share capital of over N3.2 million, fully paid up, the BCP produces and markets baked clay products such as bricks, roofing sheets, floor and wall titles. Its capital structure and ownership are as follows:-

		N	percentage
i)	Borno/Yobe States	1, 000,499	31.23
ii)	NIDB	650,000	20.31
iii)	NBCI	650,000	20.31
iv)	NNDC	500,000	15.65
v)	ECON(Germany)	399,999	12.50
		3,200,498	100 00 percentage

The plant and machinery, which are supplied and installed by ECON of Germany, the Technical partners and managers of the company for three years, has an installed capacity utilisation of 20 million NF/Bricks of 250 x 115 x 71 mm and other corresponding shapes, per annum.

PROBLEMS: Since its establishment, the company has never operated profitably due largely to technical, managerial and financial problems. These had led to the closure of the company in 1985 and its directors winded-up in 1987.

In 1988, however, Messrs GIBMEX Nig. Limited was commissioned by NIDB to inspect, diagnose and assess the BCP with the aim of re-activating it. Their report shows that it is technically feasible to re-activate the company. As a result, a firm of values was also commissioned in 1990 by the Borno Clay products Limited in consultation with BICL to value the company .

A consultant from the university of Maiduguri was also commissioned in 1991 by the company to reappraise the project in view of its economic viability. The consultant upheld the view expressed by Messrs GIBIMEX Nigeria Limited that it is technically feasible to reactivate the company, but put the reactivation cost at over N87.0 million . This he said could be realised through enlightenment of capital restructuring of the company,
The report was discussed at the company share-holders meeting of 13th June, 1991 but found to be incomplete. The consultant was requested to up-date, the report and reproduce a clean copy. The report is still been expected. When the final report is submitted, a meeting of share-holders would be held immediately to deliberate on the report and take a decision regarding:-

(a) Rescinding its earlier decision to liquidate the company and
(b) Design a new package for the reactivation of the company.

It is only when decisions are reached on these two factors that the Government will be in the full picture of the actual position of the company to enable it take further appropriate line of action. However, it is pertinent for Government to note that the company is indebted to the following terms lenders. Nigeria Industrial Development Bank N3,576,441.00, which has risen to N4, 389,949.00 as at 30th September, 1991 due to mounting interest rates.

A term from the centre for Industrial Development, Lagos visited the state on the 28th May, 1995 to inspect Borno Clay products with the view of reactivating it.

The term in company of officials from ministry of commerce and industry and Borno investment Company Limited was taken to the factory site and were conducted round from raw material side to the factory particularly the grinder which has a faulty shaft and the conveyor belt to the generator house.

Every part of the production process were thoroughly inspected by the term in order to have a first hand assessment of the extent to which the machines were damaged.
The consultants were impressed by the state of the machinery and expressed optimism that it could be reactivated. The team has taken photographs of the various broken parts of the machinery and has advised Borno state Government to repair the blown up roof of the factory to save the machinery from further damages.

1 From the outset, the company had difficult times of incessant technical problems with the machines. There was also the problem of poor management, and insufficient funding. The incidence of fire disaster in the factory further compound the company is problems.

2 The technical, financial and management problems confronting the company reached its peak in 1985 and despite government assistance not even skeletal services could be maintained.

3 At present the company is legally owned by creditors. However, if the state Government is desirous of reactivating the project, it would have to carry out the burden alone in addition to settling all out standing loans and liabilities by thecompany. Reactivating cost is currently put at N87 million. BIC is expecting a report from consultants on the reactivation.

4 The construction industry is at the moment buoyant and the demand for clay productions picking up. The Borno Clay product can therefore, generate substantial revenue if the company is in production.

5 Given the fact that the raw material is 100 percent locally sourced, and the fact that the investment climate is now favourable. Government should endeavour to find alternative ways resuscitate the company. This is one of the companies that need direction from the States Government by virtue of its location. The company would be very returns on investment when put in to operation with good management.

THE BORNO PHARMACEUTICAL PROJECT

Introduction

The Borno pharmaceutical project is an incorporated Limited Liability Company: The project was originally conceived by the ministry of commerce, and industry. The site for the location of the company has been secured and is adjacent to the Maiduguri Animal feed Mills.

The company was conceived to produce 128 million tablets, 96 million capsules and 84 million bottles of syrup per annum when commissioned for production.

The then estimated total cost of the project was N26.5 million divided in to N13.0 million and N13.5 million as equity capital and loan respectively.
Suppliers of machinery and equipment (Technical partners) have been identified and recommended. They are Robert Boseh Ombh and fette Enterprises, both renowned manufactures of pharmaceutical based in Western Germany.

Well known establishments and individuals have been contacted for possible investment and or loan. Those who have agreed to participate include Nigerian - American Merchant Bank Limited. Allied Bank of Nigeria Limited, Daya Pharmaceutical Chemists Limited, The son (HOLDINGS) Limited, Nigerian Industrial Development Bank Limited, Alhaji Ibrahim Damcida, Mr. Minso W. Gadzama etc.

1.2 Present Position

Presently, the Borno Pharmaceutical Company is been promoted by the Borno Investment Company. The feasibility report on the project was updated by Akintola Williams and company but however, the study was found to be defective in terms of technical details by NNDC.

The NNDC had indicated interest in the project and had gone ahead to prepare a feasibility study on the project. The State Government encouraged by the zeal of the NNDC, had written to the NNDC and pledge her maximum co-operation to the NNDC in establishing the pharmaceutical project.

Also, some indigenous industrialists in the state notably Alhadji Ibrahim Damcida, Mr. Minso Gadzama had also indicated interest in the establishment of the pharmaceutical project and have even indicated interest to establish a pharmaceutical company.
The project is now been considered under the European International Bank facility extended to NNDC although it has not yet been finalised.

There is the need to immediately bring together for discussion all the interested parties in the project like Ministry of commerce and Industry, Borno Investment Company, NIDB, NNDC, Alhadji Ibrahim Damcida, Mr. Minso Gadzama etc. So that a final action plan for implementation of the project can be drawn up.

1.3 Equity

As investors for the project area still being scouted, the equity structure can not be determined because it is not clear on the percentage they are willing to take. However, over the last couple of years, it has been suggested that the equity be as follows:-

(a)	State Government	20 percent
(b)	Technical Partners	40 percent
(c)	Private Investors	40 percent
Total		100 percent

1.4 Project Cost

The project was estimated to cost 26.5 million in 1989. As of now the project cost will be higher than this figure in view of the development in the exchange rate of the Naira over the last couple of years. However, the Borno Investment Company Limited will be in a position to give the present project cost since they have been handling the project since 1990.

OTHER AREAS OF POTENTIAL INTEREST TO UNIDO

Some industries which could be of interest to UNIDO, particularly as concerns cleaner and more environmentally safe technologies are:

1. Soda ash company for producing crystals or concentrate, with calcium bicarbonate as raw material, has been commissioned in Borno State. It produces raw materials used in glass and pharmeceuticals industries and has a capacity of around 3,000 tons per year.

2. A plant for the manufacture of pins and paper clips is running but has problems. The state has requested technical assistance from the project's foreign partners in India, through the Association of SMIs of India.

3. Tannery with shoe making section

4. Dairy industry

5. Clay products, particularly fired bricks for building

6. Chain link and nails factory

There is a crying need to rehabilitate industries in Borno State.

Annex 16

PROFILE OF SOME NGOs IN IEC AND CSM

AFRICARE

AFRICARE works with the Center for Development and Population Activities (CEDPA) and the Federal Ministry of Health, doing IEC work on AIDS in Africa. The CEPDA projec includes sale of condoms and other commodities such as tablets, foam etc. Funding is from the Foundation for Education and Self Help (IFESH). The Headquarters of AFRICARE is in Washington D.C.. The organisation has offices in 21 countries in Africa, and in all 31 states (counting the Federal Capital Territory) in Nigeria. They donate equipment, including beds, to all states, and is a member of the state Committees on AIDS.

They have a new project entitled 'Literacy for health", in connection with which a literacy primer in the local language, Hausa. has been developed The NGO works at the community level through the local government and village heads. For financial soundness each community project opens a bank account to help guarantee sustainability. Each such account has three signatories; one from the community, one from AFRICARE and one from the local government. Africare forwards quarterly reports to the government - Health and Education ministries. In Kaduna State, they operate in four local government areas and in January 1996 had plans to add four more.

A teacher guide to their health primer has a section on AIDS. This is limited to the teachers guide on purpose. It is felt that AIDS is a touchy subject which needs to be introduced properly in order to make it comprehensible without alarming people; hence introduction through trained "teacher", who operates more or less like a peer educator. After the primer in Hausa, the next instructional material is in English, to broaden the scope of the learner and reinforce ideas introduced in the primer.

AFRICARE runs projects on onchcercaisis in some states.

STOPAIDS

STOPAIDS is involved in IEC and CSM campaigns in several states in Nigeria. This NGO registered success in two main areas. A project involving long distance truck drivers and work with companies such as Shell and Julius Berger. STOPAIDS claims that there was no testing for a while beginning some time in 1994 due to lack of reagents. However, a .2m pound sterling grant from ODA for reagents was used to start testing again, but there is much waste.

STOPAIDS uses peer educators in their CSM programmes. The complete package includes antimalarias, analgesics and sysrups for children of the women helpers, who still have to discharge their motherly responsible towards their children. The package also includes instructions in local languages on how to use the antimalarial medication. In the muslim part of the country the women helpers are replaced by men because of the need to take cultural sensitivities into account.

STOPAIDS claims ti receive 15 - 20 letters per week, and 5 - 8 persons come in per day for information. The organisation has Ford foundation funding through 1997

The Planned Parenthood Foundation of Nigeria

The Planned Parenthood Foundation of Nigeria (PPFN) is heavily involved in IEC and CSM work in Enugu and Anambra States, where they have clinics in all Local Government Areas of the former and in some LGAs in the latter. IEC materials supplied from Headquarters in Lagos are distributed in the two states, sometimes with local input - customisation it to suit local needs.