Plan of Action for a HIV/AIDS Accounts for Nigeria

February 5, 2002

Authors

Olakunle Odumosu, Ph.D Nigerian Institute of Social and Economic Research (NISER)

Adedoyin Soyibo, Ph.D University of Ibadan

Ajay Mahal, Ph.D Harvard University

Acknowledgements

First, we are extremely grateful to Professors D. Olu Ajakaiye (Director General, Nigerian Institute of Social and Economic Research) and Jeffrey Sachs (Director, Center for Development Research) for their support and overall guidance of this project.

We wish to thank the following individuals for their material help and/or support in the development and writing of this report. They are (in alphabetical order) Soji Adeyi (The World Bank), Paulo Belli (Harvard School of Public Health), Peter Berman (Harvard School of Public Health), Teresa Harrison (Center for International Development, Kennedy School of Government, Harvard University), Pia Malaney (Center for International Development, Kennedy School of Government, Harvard University) and Wole Odutolu (Country coordinator of the APIN program, Nigeria).

This report is part of a larger project that is supported by the Bill and Melinda Gates Foundation.

Table of Contents

| 1. | Introduction | 4 |
|------|--|----|
| | Overview of National Health Accounts Previous Literature on HIV/AIDS Accounts in | 5 |
| | Developing Countries | 5 |
| | Purpose of this Plan | 8 |
| II. | An HIV/AIDS Accounts Methodology as Applied to | |
| | Nigeria | 8 |
| | List of Activities to be Included | 8 |
| | List of Sources of Funds, Financial Intermediaries | |
| | and Providers | 11 |
| | List of Data Sources | 12 |
| | Discussion of Data Collection | 13 |
| | Data Collection from Survey Methods | 16 |
| III. | Proposed Timeline | 19 |
| IV | References | 21 |

I. Introduction

This Draft Plan of Action sets out the rationale and a detailed plan of action to undertake a study of the National and/or State HIV/AIDS Accounts for Nigeria based on the well known National Health Accounts (NHA) framework set out in Berman (1997).

In undertaking this work for Nigeria, we are guided by several key considerations. First, apart from being one of the largest (whether in terms of population or geographical area) and important countries of sub-Saharan Africa, Nigeria has a significant HIV/AIDS epidemic. Although its HIV prevalence is not quite as high as in the countries of southern Africa that have been characterized by a rampant HIV/AIDS epidemic, it is noteworthy that HIV prevalence in Nigeria has increased rapidly from 1.8 percent of population aged 15-49 years in 1993 to nearly 5.4 percent in 1999 (National Action Committee on AIDS (NACA) 2001). As per the most recent estimate, there were nearly 2.5 million people living with HIV in Nigeria, with an estimated 250,000 people having died of AIDS in 1999 alone (UNAIDS 2000).

A second motivation for the proposed work stems from the high priority given by the Nigerian government to poverty alleviation. One key element of the government's strategy for poverty reduction involves improving the health status of Nigerians and reducing the financial burden of ill health on already impoverished households. This program will have to be intimately concerned with people living and affected by HIV/AIDS, given the high level of expenditure associated with treatment and care, providing for orphaned children, and the relative absence of insurance mechanisms and other safety nets. One indicator of the magnitude of the financial burden are the one million children orphaned as a result of the AIDS epidemic and whose support poses significant social and economic challenges to families, communities and the government. Careful accounting of expenditures incurred on HIV/AIDS – whether on care or prevention – is an obvious first step in addressing the needs of the Nigerian population affected by the epidemic since it would help provide estimates of the distributional implications and the financial burden imposed by the epidemic.

Third, we believe that a careful construction of a National HIV/AIDS Accounts would contribute greatly to informing rational policy making related to resource allocation, both across sectors, and within the health sector. Information on costs and expenditures provided by the HIV/AIDS Accounts can be effectively used for undertaking cost-benefit and cost-effectiveness analyses of different interventions in HIV/AIDS (Bloom *et al.* 2001). Such analyses can be facilitated, for instance, by the calculation of economic rates of return on expenditures on HIV/AIDS, or of gains made in terms of quality- and disability adjusted life years (World Bank 1993). Indeed, this work can be used to guide the direction of donor funding on HIV/AIDS as well.

The process of constructing HIV/AIDS accounts would have other incidental benefits as well. These include the development of detailed databases on institutions and entities

¹This is different from UNAIDS estimates of HIV/AIDS prevalence 5.1 percent for 1999 (UNAIDS 2000).

involved in HIV/AIDS work in Nigeria, the development of capacity in the field of financial accounting in health, and help in better planning and coordination in general.

Overview of National Health Accounts (NHA)

Briefly, the NHA offers a systematic method for recording and analyzing financial flows between different *ultimate* sources of funds, financing agents, and the ultimate providers of health care. Sources of funds typically include the major branches of the government (such as the Ministry of Finance/Treasury), international donor agencies, households, private firms/employers and the like. Financing agents, or intermediaries, refer to entities that directly pay the providers of care and/or users of health funds. Examples include insurance companies, households, government agencies like the Ministry of Health, the Ministry of Education, local governments, non-governmental organizations, health research institutions and universities. A household that directly pays for the services of a provider would enter in the system both as an ultimate source of funds as well as a financial agent. As another example, if care is financed by means of payments by an insurer, the insurer appears as a financial agent in the NHA system, whereas the household appears as the ultimate source of funds, assuming that it paid the premium. Providers include hospitals, clinics, primary health centers, traditional health care institutions, pharmacies and researchers (Berman 1997).

A standard NHA approach towards health-related financial flows would require the construction of three related sets of matrices – a description of the flow of funds between financial agents and sources of funds, financial agents and uses of funds (institutional classification), and financial agents and activities (preventive care, management and treatment). In addition, these analyses are accompanied by a summary NHA that describes the sources and uses of health care funds by broad categories. As an example of an application of the NHA method to HIV/AIDS, see Barnett *et al.* (2001).

Previous Literature on HIV/AIDS Accounts in Developing Countries

There are eight main sets of studies that have previously been undertaken to estimate the amounts spent on HIV/AIDS-related activities. Some focused only on expenditures, incurred by the public sector, whereas others provided more information on sources and uses of funds for HIV/AIDS, although falling short of applying the full-fledged NHA method. However, two studies do examine HIV/AIDS expenditures using an NHA methodology and come closest to the analyses proposed in this Plan of Action.

In the early 1990s, two studies sought to estimate expenditures on HIV/AIDS in Asia – one in Thailand for 1991-92 (Viravaidya, Obremsky and Myers 1993), and the other in Sri Lanka for 1993 (Bloom *et al.* 1997). The Thailand study highlighted HIV/AIDS expenditures by various *ultimate* sources of funds – the government, donors and the private sector. The results were presented in the aggregate which included expenditures incurred by financial intermediaries such as non-governmental organizations and ministries other than the Ministry of Finance, and expenditures incurred by selected use categories (e.g., testing of military recruits). Due to the peculiarities of presenting

expenditure data in this manner, and the possibility of double counting, the study is not particularly effective in yielding an accurate estimate of expenditures on HIV/AIDS, whether by sources, or by use categories. Therefore, this presents only a partial picture of expenditures of the listed entities, as the authors themselves acknowledge, "...this is clearly only a partial list of expenditures for AIDS prevention...." (Viravaidya, Obremsky and Myers, p.17). The authors also tried to estimate expenditures incurred on treatment, using estimates based on costs for a limited sample of AIDS patients in two provincial and two central hospitals. Many health care providers (e.g., traditional providers) are excluded from their analysis and it is not clear, except by way of guesstimates, what proportion of the estimated expenditures in their study was out-of-pocket payments by households, and what proportion was paid by other agencies. More generally, the analysis does not appear to have captured all the expenditures incurred by the main sources of funding, even excluding households. It failed to include, for example, expenditures linked to management of HIV/AIDS related activities and research.

The study for Sri Lanka considered expenditures incurred by the government, non-governmental organizations and international donor agencies. Data for this study were obtained from government records, Sri Lanka's national AIDS control agency, and from international donor groups. The study suffered from many of the coverage inadequacies identified above for the Thailand analysis. For instance, it did not include any estimate of household expenditures on prevention and treatment. The study also failed to distinguish between ultimate sources of funding and financial agents/intermediaries so there was also the possibility of double counting items listed under some of the expenditure categories. Nor did the study provide a breakdown of the HIV/AIDS expenditures by use categories, or providers.

The second study for Thailand (Pothisiri et al. 1999) presents data on public expenditures that have directly related to HIV/AIDS. Public expenditures accounted for in the study related to five HIV/AIDS activities: health promotion and medical services, coordination, empowerment of individual and community, social and psychosocial services, research and local intellectual capacity development. While including expenditures of this type across several ministries, the data do not account for HIV/AIDS expenditures potentially arising from any use of public health services by AIDS patients not necessarily identified as HIV-positive. Thus, HIV-positive individuals who report to a hospital for symptomatic illnesses (such as tuberculosis) associated with AIDS could end up using public health services, but the resulting public expenditures excluded from the calculations reported in the study. Nor does the study include out-of-pocket expenditures that may have been incurred by households that have persons living with HIV/AIDS. More generally, like the studies reviewed above, Pothsiri et al. fail to distinguish between ultimate sources of HIV/AIDS funds in the public sector, and financing intermediaries, or explicitly identify providers of health care, or users of health care funds. Thus, even for this limited set of data, the study falls short of the standards of a typical NHA-based framework.

The Harvard School of Public Health undertook a study on behalf of UNAIDS to track the level and flow of national and international resources to HIV/AIDS related activities in developing countries during 1996 and 1997 (Ernberg *et al.* 1999). It relied mainly on

mailed questionnaires to collect information on HIV/AIDS expenditures from 64 developing countries and transition economies of Eastern Europe, and provided information only on funds provided by government and donor agencies, while data on expenditure by households, employers and NGOs, and the entire private sector, were not captured by the study. Indeed, the study was unable even to capture public sector spending on HIV/AIDS in its entirety, failing to account for overhead spending, and in particular, expenditures on HIV/AIDS patients who may have received treatment at public facilities for symptomatic illness and the like. Overall, the authors suggest that they underestimate national and international HIV/AIDS spending by nearly one-third. The study did meet some of the standards of an NHA approach, however. For instance, while not explicitly using the term financing intermediaries to describe entities that directly pay for health care provisions and/or users of health care funds, this study did, at least with regard to HIV/AIDS related funds provided by Official Development Agencies (ODA), trace the flow of funds in a way that agencies serving as financing intermediaries could be identified. However, the study failed to identify providers of health care services and/or uses of health care funds in any explicit fashion.

In contrast to the above, the next three sets of studies that we discuss are much closer in spirit to an NHA approach. Shepard and others undertook a five-country study of the sources and uses of health expenditures linked to AIDS - in Brazil, Cote d'Ivoire, Mexico, Tanzania and Thailand, respectively (Shepard et al. 1998; Kone et al. 1998; Izazola et al. 1998; Iunes et al. 1998; Tibendebage et al. 1998; Kongsin et al. 1998). These studies used a variety of sources (e.g., official documents, expert assessments, household health surveys) to bring together estimates on sources of funds by public, private and international sources, and uses – by prevention and treatment. For example, expert assessments were used to estimate the health care utilization patterns of AIDS patients and per-case costs of treatment of AIDS, which were then multiplied by the estimated number of AIDS cases to obtain total treatment costs. When available, information about social insurance schemes was used to estimate the distribution of treatment costs between insurers, the public sector, employers, and out-of-pocket payments by households. The level of detail provided for each country depended on the data available, with information about Brazil being the most detailed. The estimates of HIV/AIDS expenditures typically did not include expenditures on "mitigation" – for example, caring for HIV/AIDS orphans, empowerment and human rights issues linked to HIV/AIDS and the like. More generally, these studies typically did not distinguish between ultimate sources of funds and financing intermediaries, thereby leaving open the possibility of double counting some of the expenditure numbers.

SIDALAC (Regional AIDS Initiative for Latin America and the Caribbean) has served as a supporting body for a number of HIV/AIDS expenditure studies based on the NHA framework (Izazola 2000; SIDALAC 1999). Studies for Brazil, Guatemala, Mexico and Uruguay have been completed as part of this work thus far (Izazola 2000, p.1). The methodology adopted by these studies essentially revolves around defining a set of activities to be included in the HIV/AIDS calculus and describing financial flows related to these activities in the form of three main types of matrices – ultimate financial sources and financial agents, financial agents and the providers of care, and financial agents and

the main expenditure categories (prevention, treatment and the like). Izazola *et al.* (2000) illustrate this method using Guatemalan data.

Barnett et al. (2001) used a methodology similar to the one for Latin America and adapted it to the case of Rwanda to construct HIV/AIDS accounts based on the NHA approach. This study identified three HIV/AIDS-related activities, namely those relating to prevention and promotion, such as raising awareness, effecting behavior change and promoting safe sex campaigns; management, such as palliative care, surveillance, blood screening and family support; and treatment, including hospital and clinic expenditures, counseling and alternative/traditional therapies. As in the case of the studies supported by SIDALAC, the analysis for Rwanda explicitly distinguished ultimate sources of funds from financing intermediaries, and these, in turn, from providers of services/uses of funds. It estimated three major matrices describing flow of funds between sources and financing intermediaries, financing agents and uses, and uses/providers of services, types of activities and providers of services. The present study will adapt the Rwandan study to suit the Nigerian situation.

Purpose of this draft plan

This draft plan of action aims in general at designing the approach to be adopted in constructing the Nigerian HIV/AIDS accounts. Specifically, it seeks to:

- Define HIV/AIDS-related activities to be included in Nigeria's accounts;
- Identify ultimate sources of funds used for HIV/AIDS activities in Nigeria;
- Identify the financing agents/intermediaries in the course of using these funds;
- Identify care providers/uses of funds used for HIV/AIDS expenditures in Nigeria;
- Determine the type and sources of data needed for the above purposes;
- Outline the methods and instruments for data collection; and
- Describe the process and a timeline according to which the above activities will be executed.

II. An HIV/AIDS Accounts Methodology as Applied to Nigeria

The *first* step in applying the NHA methodology to flow of funds associated with HIV/AIDS is a clear delineation of the list of expenditures for prevention, management and treatment.

1. List of activities to be included

The draft of HIV/AIDS-related activities to be examined and assessed in the Nigerian study is summarized below. The draft list closely follows the items included in the study on Rwanda (Barnett *et al.* 2001). We propose to present and discuss this list at a workshop of stakeholders, who will be asked to review and suggest amendments where necessary.

The list of HIV/AIDS-related activities that we propose to include in the development of HIV/AIDS accounts for Nigeria is:

A. PREVENTION AND PROMOTION ACTIVITIES

A.1. Awareness raising and behavior change

- Mass media (radio, TV, newspapers, magazines, videos, posters, public announcements)
- Peer education efforts
- School education campaigns (at the primary, secondary, university and technical school levels)
- Small group and community level communication
- High risk groups (commercial sex workers, truck drivers, migrant workers, itinerant market women, youth, military personnel, prison inmates)

A.2. Safe sex campaigns

- Condom social marketing
- Free distribution of condoms
- Safe sex workshops

A.3. Prevention of perinatal transmission

- HIV testing and counseling for pregnant women
- Provision of ART drugs to infected women during pregnancy and at the time of delivery
- Breast feeding interventions

A.4. HIV testing and Counseling

- Anonymous/confidential HIV testing
- Referrals for care
- Trained counseling for individuals/couples

A.5. STI Management

- Testing for sexually transmitted infections
- Prophylactic or syndromic management
- Counseling
- Referral
- Treatment (including drug expenditures)

A.6. Blood screening programs

Screening of donated blood

- Notification and counseling of infected donors
- HIV test kits

A.7. Universal precautions and other safety promoting interventions for infection control in medical settings

- Training programs
- Ensuring safe injections use of disposable injecting equipment, disposable bins
- Other interventions that protect health workers (including traditional birth attendants) from HIV infection

B. MANAGEMENT

B.1. Palliative Care

- Home-based care
- Psychosocial support programs

B.2. HIV/AIDS surveillance and research

- Training data collectors
- Epidemiological data collection and analysis
- Research and administrative spending (medical and non-medical)

B.3. Family Support programs

- Care for children orphaned by HIV/AIDS
- Support for families of people living with HIV/AIDS

C. TREATMENT

C.1. Hospital and ambulatory care expenditures

- Inpatient stays
- Outpatient consultations
- Psychiatric services
- Nutrition services
- Diagnostic services (laboratory, radiology)
- ART and drug-based treatments

C.2. Counseling for HIV/AIDS patients

C.3. Alternative and/or traditional therapies

The *second* step after having outlined the list of activities to be included in the NHA based flow of funds analysis of HIV/AIDS expenditures is to identify institutions, or

entities, that are the ultimate sources of funds, the financial intermediaries and providers of care associated with HIV/AIDS

2-4. List of Sources of Funds, Financial Intermediaries and Providers

For Nigeria, we identified these to be as follows:

A. Government Institutions and Parastatals

- Ministries of Health (Federal and State levels)
- Ministries of Education (Federal and State levels)
- Ministry of Defense
- Ministry of Finance
- Ministry of Internal Affairs
- Ministry of Labor (Federal and State levels)
- Ministry of Women's Affairs (Federal and State levels)
- Ministry of Transportation
- Departments of Health of Local Governing Areas (LGAs)
- Action Committees on AIDS (National, State and Local NACA, SACA, LACA)
- National Youth Services Corps (NYSC)
- Pubic health facilities (hospitals (secondary and tertiary), primary health centers and so on)
- Social insurance organizations

B. Non-profit and community-based organizations

- Religious organizations (for example, Christian Health Association of Nigeria, Islamic Organizations)
- Non-governmental organizations
- Trade unions
- Health facilities operated by NGOs and CBOs, including blood banks, pharmacies, and diagnostic centers

C. For-profit organizations

- Private employers
- Print and electronic media organizations
- Private insurers, including health maintenance organizations
- Private health care providers, including traditional healers, pharmacies, blood banks and diagnostic centers

D. International Donor Agencies

E. Households

We expect that one the major outputs of a preliminary workshop to be held with stakeholders will be a more detailed listing of major international donors, NGOs, ministries, missions and other players involved in HIV/AIDS activities.

5. List of Data Sources

Given the list of institutions and activities associated with HIV/AIDS, the next crucial step is to identify data sources that could be used to collect information on HIV/AIDS-related funds associated with these institutions.

A. Federal Government Ministries and National level organizations

- Approved budget of the Federal Republic of Nigeria (with expenditure data)
- Report of the Accountant General of the Federation
- Federal Statistical Agency
- Quarterly Release of funds by the Accountant General of the Federation
- Reports and expenditure data from approved budgets/audited accounts of the National Action Committee on AIDS, Ministry of Defense, Ministry of Education, Ministry of Internal Affairs, Ministry of Women's Affairs, National Youth Services Corps, National Planning Commission
- In-depth discussions and interviews with NACA officials and representatives of other government bodies

B. State Government Data

- Approved budgets of state governments
- Report of the Accountant General of States
- State Statistical Agencies
- Reports and expenditure data and approved budgets/audited accounts from the State Action Committee on AIDS, Ministry of Women's Affairs
- In-depth interviews with representatives of government bodies

C. Local Government data

- Approved budgets of local governments
- Report of the Auditor General of local governments
- Report and expenditure data from approved budgets/audited accounts of the Local Action Committees on AIDS
- In-depth interviews with representatives of government bodies

D. Private employers

- Records of the organized private sector (for example, Nigerian Employers Consultative Association, Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture)
- Interviews and surveys of a sample of large and small firms

E. Insurers

• Surveys of all (three) private insurers and (six) health maintenance organizations

F. Households out-of-pocket expenses

- Surveys of AIDS patients and their families where possible
- Expert assessments of utilization and unit costs of care (possibly by type of patient rural versus urban, big-city versus small-city). Interviews with health care providers, public and private, whether individually or in workshop-settings
- Household health use and expenditure surveys where they exist

G. International Donors/NGOs/Missions

- Federal Ministry of Finance data
- National Action Committee on AIDS
- Annual Reports/audited accounts of donors/NGOs/missions
- Interviews/surveys possibly of a representative sample of large NGOs; all donor groups.

H. Providers

- Public (blood banks, hospitals, primary health centers) facilities survey, interviews with select facilities
- Private (pharmacies, hospitals, doctors, laboratories, blood banks) facilities survey, interviews with select facilities
- Traditional providers and alternative therapies surveys and/or interviews with selected providers

Discussion of data collection

This discussion is not meant to be exhaustive, but indicative of the data collection plan and challenges likely to be faced during the data collection process on financial flows associated with HIV/AIDS in Nigeria.

Official government sources

Consider first the collection of data from official sources within the government. While budget documents at the Federal, state and local levels likely contain expenditure data, the precise form this data might take is less certain. One might need to go beyond published aggregate budget data and look at individual line items in greater detail. It is possible that detailed expenditure breakdowns are simply unavailable in government documents. As another example, with several hundred local bodies in Nigeria, it may not be readily possible, at least in the initial phase, to obtain HIV/AIDS expenditure data for each one. Finally, if the process of collecting information on HIV/AIDS accounts is intended to be more than just a one-shot process but a regular exercise, the approach towards data collection ought to promote approaches that build capacity and partnerships within Nigeria.

We believe that NISER may need to build partnerships with teams from the offices of statistics at the national and state levels to do this. Moreover, some form of sampling among local areas may be useful in the process of collecting data, if time and finances are constraints. Collection of data from local government sources may not be needed if the bulk of their resources for HIV/AIDS come from state and/or federal governments. But whether this is the case, needs to be assessed. In any event, collecting data from several sources and levels of government would be useful as a method of validating the accuracy of data collected from any one source.

Private Sector

Much as in the case of local bodies, the challenge would be to obtain information on HIV/AIDS expenditures – whether for prevention, reimbursements for treatment, employee participation in insurance schemes, direct provision of treatment, support for funeral expenses and the like. In the absence of surveying the full set of firms which will be time consuming and expensive, the next best approach would be to study the HIV/AIDS expenditures and funding patterns of a subset of firms – large and small – together with some estimates of the total number of firms and size distribution. Some of the latter information may be readily available with the Federal office of statistics that has previously conducted surveys of industries. Contacts with organizations of firms (business associations), both formal and informal, would also be useful in yielding information about their average HIV/AIDS expenditure patterns, care provision, private employee participation in national health insurance schemes and sources of funding. These could take the form of surveys, interviews, and focus group meetings. A sample of large firms could be assessed as well. The data collection could be by NISER staff in collaboration with the Federal office of statistics. We believe that a major difficulty would be to obtain a detailed breakdown of expenditures incurred by private firms, a fact already noted for Rwanda by Barnett et al. (2001).

Insurance Companies

Surveys of the six HMOs and three private insurance companies could potentially yield information on whether these insurers even cover AIDS cases, and if they do to provide approximate expenditures that may have been incurred on such cases, the treatment profile, as well as any out-of-pocket expenses that patients bear. The action plan envisages surveying all these firms, given their limited number.

NGO's and Community based organizations

The process would include first a listing of the major NGOs working on HIV/AIDS (whether providing treatment, prevention, counseling, condom distribution, training etc.), with the long-term idea of forming a full list of all such institutions. We understand that some government institutions (Ministry of Finance) maintain a list of the NGOs. Alternatively, if such a list were unavailable we would work through donor agencies to develop a list of NGOs involved in the health sector and HIV/AIDS work in particular.

Initial exercises would include a representative sampling of NGOs (some in rural areas, some in urban areas) to which a questionnaire would be administered, apart from obtaining annual reports and the like. Information on sources and uses of funding would be collected. The data collected may also be useful in double-checking of estimates of funding provided to NGOs by the government, private companies and international donors, apart from providing information on expenditures on uses, providers, and household expenditures.

Household spending

Household surveys – whether of households of persons living with HIV/AIDS, or general health surveys can be quite useful in obtaining information on care use patterns, public and private subsidies, and out-of-pocket spending on health care. One way would be to randomly sample households that have AIDS patients, but this might prove very difficult owing to the stigma attached to HIV/AIDS. Perhaps a procedure involving a mix of surveys of AIDS patients who access health facilities and services provided by NGOs, as well as expert assessments of care utilization patterns (as in Shepard et al. 1998) might be the answer. Given that ART is still not commonly used in Nigeria, standard surveys on health could be used to derive household expenditures on HIV/AIDS if combined with information on the symptomatic pattern of AIDS cases in Nigeria, on the assumption that there is only symptomatic treatment. We also plan to use surveys such as the "Health and Development Survey" used for Kagera (Tanzania) by the World Bank to guide questions to be included in our survey instruments.

Unfortunately, except for a recent DHS (confined to women in the reproductive age-group) there are no recent nationally representative health surveys of households. It has also been suggested that data built around the use of health services based on symptoms associated with AIDS can lead to "noisy" findings that would directly influence the statistical validity of results (Barnett et al. 2001). Our study would assess both the value

of data from existing surveys (if any) and use surveys and interviews with medical personnel to arrive at the necessary estimates.

6. <u>Data Collection from Survey Methods</u>

In this section we briefly assess from the sampling issues and outline the information that we expect to gather from the various surveys that we proposed above.

A. Survey of enterprises

For enterprises that belong to the formal sector, we believe that a sampling frame exists with NISER for the purposes of creating a scientific procedure for data collection through a survey. The survey data will be supplemented by information from the annual reports of the sampled firms. For the purposes of the enterprise survey, we expect to interview financial staff, medical personnel and workers' representatives for each sampled firm. The questions to be included in the instrument would attempt to elicit information on total expenditures on health by the firm, the types of health-related activities that it supports financially, total expenditures on activities linked to HIV/AIDS, financing mechanisms (including reimbursement policies), estimated proportion of the employees who are HIV-positive, HIV-testing policies, activities involving non-governmental organizations as partners, external sources of funds for HIV/AIDS and their magnitude and HIV-related research activities, including amounts spent.

For informal sector enterprises, we expect the most effective procedure for similar data collection to be focus group discussions with groups of representatives of such enterprises.

B. Survey of International Donor Agencies

The best approach appears to be to construct an inventory of all such agencies within Nigeria – and then to conduct a census for the purposes of collecting information on their HIV-AIDS related activities and expenditures. Possible sources for information as well as for facilitating the process of data collection about these agencies could be the donor coordination group, and/or the finance ministry, and possibly NACA.

The instrument would have to be designed to collect information about the funding provided by these agencies to health sector activities, financial support for HIV/AIDS work by type of activity, patterns of the flow of HIV/AIDS funds (whether through the government, or directly to recipient organizations outside the government) and their distribution across recipients, amounts committed and actual disbursements, administrative and overhead cost components of HIV/AIDS funding, and conditions imposed on recipients on funds obtained from donor/lending agencies.

C. Health Insurance Companies and HMOs

Data collection would involve a census of the three private health insurance companies and six health maintenance organizations that exist in Nigeria.

We expect the survey instrument to include questions about the insured (for example, numbers, whether group or individual insurance, regional distribution), the nature of insurance packages offered (whether HIV/AIDS and ART covered), claims experience, whether clients are tested for HIV/AIDS before becoming eligible to be insured, and perhaps a hypothetical question about how much insurers would expect the claims to decline if there were no HIV/AIDS cases among their insured population.

D. Non-governmental organizations

The first task would be to construct an inventory of non-governmental organizations, whether through some pre-existing national registry with the governments at the national and provincial levels. The sampling strategy could include focusing on a few key representative locations and choosing a group of NGOs to administer a survey instrument

The survey instrument to be administered to NGOs would include questions that will seek to elicit the nature of HIV/AIDS activities they undertake, sources of funds and the amounts raised from such sources, expenditures by various HIV/AIDS activities, and other questions of interest.

E. Provider (Facility) Survey

We will develop a sampling frame with the help of the Federal Office of Statistics. The sample design would incorporate stratification by level of care and public and privately provided care. The instrument would be administered to hospital management and key medical personnel at various facilities.

The information to be collected via the instrument would include the estimated proportion of HIV/AIDS cases visiting the facility, socioeconomic background of people living with HIV/AIDS visiting the facility, the nature of treatment provided to such cases, lengths of stay of AIDS cases, HIV testing policies, facilities for counseling, costs of treatment, referral patterns (both from and to), the nature of opportunistic infections affecting AIDS cases, sources of financial support including any special funding for AIDS cases, in-kind support, and user charges information.

F. Household Survey of PLWHA

Here we expect to work with non-governmental organizations to identify households that have persons living with HIV/AIDS. The idea would be to use in-depth interviews to cover as many households as possible in selected locations, with a rough target of about 200 such households.

Information to be collected through an interview process would include the socioeconomic background of the household, the medical history of the HIV/AIDS case including disease pattern, facilities visited, treatments received, out-of-pocket expenses including on drugs, prevention activities and related expenditures, impact of HIV/AIDS on the household (school dropouts, lost incomes and the like), and sources of financial support for treatment activities.

III. PROPOSED TIME LINE

We suggest the following time line for the proposed activities. We believe this to be an optimistic one, given both the financial constraints that NISER faces, the size of Nigeria, and the almost complete absence of recent household health surveys in the country.

a. Establish a Steering Committee consisting of members from all the major stakeholders (Ministry of Health, Ministry of Defense, Ministry of Finance, Ministry of Education, National Planning Commission, Ministry of Women's Affairs, Donor agencies, non-governmental organizations, Federal Office of Statistics) that will provide oversight and support for the proposed work.

Set up the Steering Committee at the research identification workshop on January 7-8, 2002. Also, have regular meetings of the Steering Committee in January and February 2002 to set the work in motion.

b. Collect previous data collection instruments and develop instruments for the HIV/AIDS accounts work

January-early February 2002

c. Methodology Review and Stakeholders workshop

Mid-February 2002

d. Training workshop for field staff and conducting pilot surveys

End-February, 2002

e. Field Work

Administrative data (Federal, State, Local)

Enterprise/firm survey

Interviews and data collection from international donor agencies

Survey/interviews of health insurance companies/HMOs

Listing and survey/interviews with non-governmental organizations

Survey/interviews with traditional care providers

Survey of households with AIDS patients

Survey of providers

Survey of pharmaceutical manufacturers, importers of AIDS-related drugs

March-First Week of April (Six weeks in total), 2002

f. Data Analysis and Preparation of AIDS accounts based on NHA method

Second week of April-First Week of May, 2002

g. Work-in-Progress Workshop

Third week of April, 2002

h. Draft Report

Second week of May, 2002

i. Final Report

May 31, 2002

j. Workshop on National AIDS Accounts

May, 2002

References

Barnett, Courtney, Manjiri Bhawalkar, A.K. Nandakumar and Pia Schneider. 2001. The Application of the National Health Accounts Framework to HIV/AIDS in Rwanda." Special Initiatives Report #31. Bethesda, MD: Abt Associates.

Berman, Peter. 1997. "National Health Accounts in Developing Countries: Appropriate Methods and Recent Applications." *Health Economics*, 6:1.

Bloom, David, Ajay Mahal, Jaypee Sevilla and Riverpath Associates. 2001. "AIDS and Economics." Draft. Boston, MA: Harvard School of Public Health, Department of Population and International Health.

Bloom, David, Ajay Mahal, Lene Christiansen, Amala de Silva, Soma de Sylva, Malsiri Dias, Saroj Jayasinghe, Swarna Jayaweera, Soma Mahawewa, Thana Sanmugam and Gunatillake Tantrigama. 1997. "Socioeconomic dimensions of the HIV/AIDS epidemic in Sri Lanka." In David Bloom and Peter Godwin (eds.) The Economics of AIDS. New Delhi: Oxford University Press.

Ernberg, Gunilla, Marjorie Opuni, Bernhard Schwartlander and Neff Walker. 1999. Level and Flow of National and International Resources for the Response to HIV/AIDS, 1996-97. Boston, MA: Harvard School of Public Health and UNAIDS.

Iunes, Roberto, Antonio Campino, Jeffrey Prottas and Donald Shepard. 1998. "Expenditures on HIV/AIDS in the state of Sao Paulo, Brazil." In Martha Ainsworth, Lieve Fransen, and Mead Over (eds.) <u>Confronting AIDS: Evidence from the developing world</u>. Washington, D.C.: The World Bank.

Izazola, Jose-Antonio, Ricardo Valladares, and Edgar Barillas. 2000. "National Accounts for HIV/AIDS: Estimation of funding and expenditure flows with regard to HIV/AIDS." Draft. Tepepan, Mexico: SIDALAC (Regional AIDS Initiative for Latin America and the Caribbean), Mexican Foundation of Health.

Izazola, Jose-Antonio, Jorge Saavedra, Jeffrey Prottas and Donald Shepard. 1998. "Expenditures on the treatment and prevention of HIV/AIDS in Mexico." In Martha Ainsworth, Lieve Fransen, and Mead Over (eds.) <u>Confronting AIDS: Evidence from the developing world</u>. Washington, D.C.: The World Bank.

Kone, Tiekoura, Adele Silue, Justine Agness-Soumahoro, Richard Bail, and Donald Shepard. 1998. "Expenditures on AIDS in Cote d'Ivoire." In Martha Ainsworth, Lieve Fransen, and Mead Over (eds.) <u>Confronting AIDS: Evidence from the developing world</u>. Washington, D.C.: The World Bank.

Kongsin, Sukhonta, Charles Cameron, Laksami Suebsaeng, and Donald Shepard. 1998. "Levels and determinants of expenditure on HIV/AIDS in Thailand." In Martha

Ainsworth, Lieve Fransen, and Mead Over (eds.) <u>Confronting AIDS: Evidence from the developing world</u>. Washington, D.C.: The World Bank.

NACA (National Action Committee on AIDS in Nigeria). 2001 (February). <u>HIV/AIDS:</u> Emergency Action Plan. Abuja, Nigeria: NACA

Pothisiri, Pakdee, Viroj Tangcharoensathien, Jongkol Lertiendumrong, and Piya Hanvoravongchai. 1998. <u>Funding Priorities for the HIV/AIDS Crisis in Thailand</u>. Geneva: UNAIDS.

Shepard, Donald. 1998. "Levels and determinants of expenditures on HIV/AIDS in five developing countries." In Martha Ainsworth, Lieve Fransen, and Mead Over (eds.) Confronting AIDS: Evidence from the developing world. Washington, D.C.: The World Bank.

SIDALAC (Regional Initiative for HIV/AIDS Control in Latin America and the Caribbean). 1999. "National spending on HIV/AIDS." Paper presented at the Mexican Foundation for Health, April.

Tibandebage, Paula, Samuel Wangwe, Phare Mujinja, Richard Bail, and Donald Shepard. 1998. "Expenditures on HIV/AIDS in Tanzania." In Martha Ainsworth, Lieve Fransen, and Mead Over (eds.) <u>Confronting AIDS: Evidence from the developing world</u>. Washington, D.C.: The World Bank.

UNAIDS. 2000. Nigeria: Epidemiological Fact Sheets on HIV/AIDS and sexually transmitted infections. Geneva: UNAIDS.

Viravaidya, Mechai, Stasia Obremsky and Charles Myers. 1993. "The economic impact of AIDS in Thailand." In David Bloom and Joyce Lyons (eds.) <u>Economic Implications of AIDS in Asia</u>. New Delhi: Oxford University Press.

World Bank. 1993. World Development Report 1993: Investing in Health. Washington, D.C.: Oxford University Press for the World Bank