Social Dimensions of HIV and AIDS Prevention in Nigeria

A Report by the Research Alliance to Combat HIV and AIDS (REACH)

Supported by the Bill & Melinda Gates Foundation
This report summarises the findings of studies on the social and cultural factors that influence vulnerability to HIV infection and on the utilisation and acceptability of voluntary counselling and testing. They were conducted by the Research Alliance to Combat HIV and AIDS (REACH), a collaborative programme of Northwestern University and the University of Ibadan. Funding was provided by the Bill & Melinda Gates Foundation.

The opinions expressed herein are those of the authors and do not necessarily reflect the views of the Bill & Melinda Gates Foundation.

Additional information about REACH may be obtained from the REACH office in Ibadan, Faculty of the Social Sciences, University of Ibadan, Nigeria; or the Buffett Center for International and Comparative Studies, Northwestern University, Evanston, Illinois, U.S.A. www.bcics.northwestern.edu/projects/reach.

Social Dimensions of 
HIV and AIDS Prevention in Nigeria: 
Risk Behaviours, Testing, and Counselling

A Report by the 
Research Alliance to Combat 
HIV and AIDS (REACH)

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The reduction of HIV transmission rates in Nigeria depends on the design and implementation of locally relevant prevention strategies responding to cultural, socioeconomic, and institutional realities of the targeted populations. To research such an agenda, the Research Alliance to Combat HIV/AIDS (REACH) was launched.

REACH has been a collaborative effort from the onset. Faculty from Northwestern University; the University of Ibadan; Olabisi Onabajo University; Benue State University, Makurdi; and Cross River State University of Science and Technology, Calabar, devoted their time and knowledge to REACH. The commitment of the field staff of about 20 graduate assistants and more than 80 field workers from 12 study communities in four states ensured the success of REACH. We are extremely grateful to them all.

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Dr. Rasak Olajide, the programme manager, and REACH programme assistant Olufunke Adegoke (earlier, Bola Lawal) oversee the day-to-day running of REACH in Nigeria. In addition, five principal researchers who are faculty members at the University of Ibadan and Benue State University — Professor Gbenga Sunmola, Dr. Yinka Aderinto, Dr. Oka Obono, Dr. Fred Tamen, and (earlier) Dr. Benjamin Olley — were assisted by approximately 80 field assistants. As the project scope enlarged, two postdoctoral fellows (Dr. Rachel Weber and Dr. Chukwuemeka Anyamele) from Northwestern University became part of REACH research team at the University of Ibadan for a year (2008–09). We are also grateful to Dr. Remi Alarape, Dr. Bayo Ajala, Oluyinka Adegoke, David Akeju, Cordelia Chiagozie, Olaoluwa Fajobi, Uche Onuoha, Kunle Owoyokun, Adewole Raufu, and Boniface Ushie, each of whom at different periods of involvement has been extremely resourceful, dependable, supportive, and effective.

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Finally, we are especially grateful to all individuals and households selected from our study communities who opened their doors to our field staff and patiently answered questions in the survey interviews. We also appreciate the time given by participants in the in-depth interviews and focus group discussions. This study would not have been possible without their willingness to participate and provide their frank and insightful responses.
Executive Summary

Nigeria, Africa’s most populous country, has the second-highest rate of AIDS worldwide, with almost 3 million citizens living with the disease. Despite growing awareness of HIV and AIDS, risk-taking behaviour is still widespread. REACH conducted two studies to gauge Nigerians’ perceptions and practices related to HIV counselling and testing and to learn about sexual behaviour patterns, especially high-risk ones, across the community. Knowledge about both is important to solving the problem.

Background on Nigeria, HIV/AIDS in Nigeria, and REACH

Despite its oil wealth, Nigeria remains mostly underdeveloped, with two-thirds of its over 150 million citizens living on less than $2 per day, average life expectancy of about 47 years, and infant mortality rates 10 times those of developed countries. High-quality health care is not available, accessible, or affordable for most Nigerians. These and other negative trends are expected to worsen; the population is projected to double in 22 years; and migration from rural to urban settings has led to shortages in housing, food, and employment while exacerbating social vices. In 2004 Nigeria unveiled a new population policy calling for the enhancement of reproductive and sexual health-care and fertility management programmes, including behavioural change communication. The policy aimed for a 25 percent reduction in AIDS cases every five years.

Four factors render African countries particularly vulnerable to HIV and AIDS: poor governance, weak institutions, poverty, and cultural norms and practices. Low-income sub-Saharan African countries bear the heaviest AIDS burden worldwide, and Nigeria, Africa’s most populous country, has the second-highest rate of the disease, with current prevalence estimated at 4.6 percent. An estimated 3 million Nigerians currently live with AIDS, and 280,000 AIDS deaths and 370,000 new infections are reported each year. Polygyny (cohabitation of multiple sexual partners), wife inheritance, adultery, urbanisation, poverty, social conflict, and poor health-care practices (e.g., quackery, risky blood transfusions) are contributors. The Nigerian government was inactive several years ago but now has several AIDS-related programmes and policies in place, including a National Policy on HIV and AIDS and a National HIV and AIDS Prevention Plan. These contributed to reducing prevalence from 5.8 percent in 2001 to 4.6 percent today. Much work remains to be done, as evidenced by low availability of information regarding HIV testing and therapy and by pervasive misconceptions about the disease and its transmission.

REACH grew out of the need to increase the involvement of social scientists in HIV research, an idea championed at Northwestern University by Professor Richard Joseph. In 2005, with support from top university administrators, grant proposal documents were completed to form REACH as a programme focused on understanding HIV/AIDS-related patterns and devising recommendations to improve prevention, treatment, and care in Nigeria. Support came from the Bill & Melinda Gates Foundation, Northwestern, and Nigeria’s University of Ibadan.
The Two REACH Studies

REACH’s cross-sectional study examined the rates of HIV counselling and testing, factors accounting for low acceptability and use of counselling and testing facilities, and ways of enhancing testing uptake in Nigeria. The variables studied included demographics, knowledge of HIV/AIDS and testing/counselling facilities, prior testing experience, and testing-related attitudes and barriers.

The semi-longitudinal study examined social, cultural, and contextual factors associated with HIV-related risk behaviours in low- and high-prevalence Nigerian communities. Variables studied included demographics, migration patterns, cultural beliefs and practices, and power and communication structures.

Methodologies

Both Cross-Sectional and Semi-Longitudinal Studies

- **Personnel**: Field interviewers and supervisors with postsecondary education and English fluency were recruited using community advertisements. They received standardised training and evaluation.
- **Ethical considerations**: Investigators had to satisfy requirements of the institutional review boards of Northwestern University and the University of Ibadan and receive clearance from authorities in the targeted communities. Field personnel sought participant and parental consent.

Cross-Sectional Study

- **Design**: Study objectives were pursued through a large-scale survey, focus groups, and key-informant interviews.
- **Setting**: Field research was conducted from late 2008 to mid-2009 in the Nigerian states of Oyo (population 5.6 million, HIV prevalence 2.2 percent, and home of the University of Ibadan), Lagos (15–17 million people, 5.1 percent prevalence), and Benue (4.2 million people, 10.6 percent prevalence). Three communities were selected for study in each state. Community meetings were used to inform and sensitise participants.
- **Sample**: 2,453 Nigerians ages 15–59 years were surveyed. Focus groups included Nigerian adults willing to share HIV/AIDS-related knowledge. Key-informant interviews targeted Nigerian health professionals, policy makers, and religious and opinion leaders.
- **Instruments**: Survey questions were carefully worded, easily understandable, and framed to be culturally appropriate.

Semi-Longitudinal Study

- **Design**: Study objectives were accomplished through a large-scale survey, focus groups, key-informant interviews, and in-depth interviews with selected respondents.
- **Setting**: The field research was conducted from late 2008 to mid-2009 in two regions. The first
region, Oyo State’s Badeku and Olunloyo communities, are part of metropolitan Ibadan. Ona-Ara, the local government area consisting of Badeku and Olunloyo, has more than 265,000 people. HIV prevalence in these communities is about 1 percent, much lower than the national average. The second region was Ugep in Cross River state. Ugep has an estimated population of 240,000 and a high and rising HIV prevalence. Community gatekeepers (e.g., village heads) and Ugep’s Palace were approached for approval of the study and assistance in recruiting participants.

- **Sample**: 1,033 Nigerians ages 15–59 were surveyed. Focus groups and 25–30 in-depth interviews included Nigerian adults willing to share HIV/AIDS-related knowledge. Thirty key-informant interviews targeted Nigerian health professionals, policy makers, and religious and opinion leaders.
- **Instruments**: The individual survey instrument comprised 11 sections, including demographics, HIV/AIDS knowledge, and HIV/AIDS-related risky behaviour. Focus group discussion guides and in-depth interview guides included questions probing for HIV-related risk perception, sex and sexuality, and other topics.

### Findings

#### Cross-Sectional Study

#### Qualitative Findings

Several factors play a role in the community’s use of voluntary counselling and testing centres (VCTs): stigma, fear, fatalism, centre locations, HIV/AIDS misconceptions, health-worker attitudes, confidentiality of results, and accuracy.

- **Stigmatizing of individuals with HIV/AIDS remains a major problem**: ‘. . . People don’t even want to shake hands with them’. Concern about lack of privacy of HIV testing exacerbates this issue.
- **Money remains a barrier to use of HCT, given Nigerians’ low incomes**.
- **Testing centres can be miles away from many communities, and many citizens find health-care workers unfriendly, impeding access**.
- **HIV/AIDS-related misconceptions are another barrier**: ‘The youths do not believe that the disease exists’.
- **Participants worried that testing results would be nonconfidential or inaccurate**.

#### Demographics

- **Gender**: 51.3 percent of participants were male; 48.7 percent were female.
- **Marital status**: The vast majority of participants were married/cohabitating (51.7 percent) or single (43.3 percent); 4.9 percent were separated/divorced/widowed.
- **Other demographics**: 65.7 percent of respondents were living in urban areas; 34.3 percent in rural areas. The majority (75 percent) had completed secondary education. 71.3 percent were Christian; 27.6 percent were Muslim. Many respondents were petty traders (19.1 percent) or self-employed professionals (18.3 percent); 20 percent were unemployed.
Quantitative Findings: HIV/AIDS Testing — Patterns and Influencers

- **Knowledge of HCT facility location and ability to pay:** 70 percent of respondents knew where they could obtain an HIV test within a day’s travel. Knowledge was highest among the most educated. 71.6 percent of the sample felt they could afford HCT; the highest percentage (82.2 percent) were those with postsecondary education.

- **Past testing:** 35 percent had taken an HIV test, mostly in hospital settings. The proportion dropped to 16.1 percent of those without formal education. About half of respondents were required by health-care providers to take the test; another 10.3 percent had involuntary testing for various other reasons. 60 percent had taken the test in the preceding 12 months. 95 percent of all respondents who had taken the test had received their results. Of those who were not tested, 51.8 percent believed they were unlikely to be infected, and 24.1 percent did not want to think about HIV.

- **Interest in testing:** 45.2 percent of males and 38.5 percent of females interviewed planned to be tested in the 12 months following the study. 86.8 percent of respondents would accept a free, in-home, confidential test. 84.8 percent stated they were more likely to seek HCT if effective treatment were guaranteed for positive cases.

- **Partner-related factors:** 24.5 percent of respondents overall (slightly more men than women) worried that their spouse or sex partner might be infected, and the percent increased with higher education and urban dwelling. 71.1 percent believed they could convince their partners to be tested. 76.9 percent supported HCT for couples.

- **Beliefs about testing:** 71.6 percent believed HCT and knowledge of one’s status could help control rates of infection, and those with higher education were more likely to endorse this view. Significantly, 86.6 percent believed health-care practitioners should routinely offer HCT.

- **Influencers of testing:** Of those respondents who had heard of HIV or AIDS, 38.8 percent of females and 33.7 percent of males had been tested at least once in their lifetime. Among those who had been tested at least once in their lifetime: less than half of females (45.8 percent) and males (33.0 percent) knew that the use of condoms can reduce risk; about half of females (50.4 percent) and males (45.2 percent) knew someone with HIV or AIDS. The media was respondents’ most trusted source for HIV-related information.

- **Barriers to testing:** Fear of stigma (82.6 percent) and concern over disclosing results to spouse/partner (70.8 percent) were the largest barriers to HCT. Respondents who perceived barriers to testing were less likely than others to have been tested in the past year.

Semi-Longitudinal Study

Qualitative Findings

Findings showed that multiple high-risk factors fuel HIV and AIDS in the studied communities: transactional sex, the ‘sugar daddy/mummy’ phenomenon, age of sexual debut, HIV/AIDS-related misconceptions, multiple sexual partnerships, marital problems, lack of parental oversight, high sexual needs, fatalism, low condom use, alcohol use, the denial of AIDS ‘syndrome’, stigma.

- **Transactional sex was the most prominent problem:** Job offers, money, and other items were traded for sex. ‘...Men these days believe that girls that collect money or gifts from them, they must have sex with that person’. The ‘sugar daddy/mummy’ (an older person trades money/gifts...
and general support for ongoing sex with a younger one) is part of this issue.

- **Children are having sex earlier, partly due to low parental oversight:** Girls on average make their sexual debut between ages 10 and 12; boys, around age 15. Under pressure to earn a living, parents may be away from the home for long periods, leaving the children unsupervised and available for consensual or assault-based sex.  

- **Multiple sex partnerships:** Polygamy is still common in Nigeria. Many men seek to ‘sample’ multiple women: one respondent stated, ‘Nobody eats one type of soup’.  

- **Denial of AIDS:** Some, especially youth, tend to believe AIDS does not exist. ‘Some people do not agree the disease exists in the world . . . because [it] is not visible to the naked eye’.

**Demographics**

- **Gender and age:** 46.6 percent of participants were male; 53.4 percent were female. Mean age was 31.7 years. Ugep had the lowest average age (30.3 years). The number of older people was declining across communities.  

- **Marital status:** 63.4 percent of respondents were married; 32.1 percent had never been married. The remainder fell into the categories of separated, divorced, and widowed. Higher proportions of Badeku/Olunloyo respondents than of Ugep participants were married.  

- **Education and occupation:** 58.4 percent had at least some secondary education; 11.3 percent had no formal education. Females had lower education levels than males. Largely rural Badeku had lower levels of education (36.3 percent with none). Many respondents were petty traders (26.8 percent) or self-employed professionals (20.1 percent); 17.7 percent were unemployed. Females earned less than males.  

- **Migration patterns:** 80.3 percent of respondents had lived outside their communities, with outmigration high in general. Olunloyo had the highest proportion (88.8 percent) and Ugep the lowest (69.5 percent). Two in five respondents spent nights away from home in the month preceding the interview.

**Quantitative Findings**

- **HIV/AIDS knowledge:** All but 0.7 percent of respondents were aware of HIV; their primary source for information was the radio (94.1 percent) and TV (72.2 percent), with doctors and nurses as sources increasing with education. More than half had low knowledge of HIV prevention. Men and unmarried respondents had more overall knowledge than other groups; knowledge of prevention increased with education.  

- **HIV testing/treatment knowledge:** 95.4 percent of Ugep respondents had heard of HCT, compared with 66.3 percent for Olunloyo and 50.0 percent for Badeku, with familiarity higher for urban than rural residents, men than women, unmarried than married, and educated than uneducated. The region-based pattern was similar for the proportion of individuals who had been tested — Ugep (47.2 percent), Olunloyo (21.7 percent), Badeku (12.3 percent) — and percentages who had heard of antiretroviral drugs. The majority of those who had not been tested felt they were not likely to be infected. Married people were more likely than single ones to have been tested.  

- **HIV prevention:** Over 70 percent of Ugep respondents were familiar with HIV prevention programmes provided by the government, compared with only half of Olunloyo respondents and a third of Badeku respondents. Ugep had the highest proportion of individuals (28 percent) who had participated in such a programme. One-fifth of the total sample expressed favourable HIV prevention attitudes, with the highest proportion for Ugep (25.6 percent) and the lowest for Badeku (4.9 percent). Higher proportions expressed favourable attitudes toward fidelity and condom use than toward screened blood and avoidance of contaminated sharp objects. More
males and older respondents expressed favourable prevention attitudes than other groups. Half of female respondents who had given birth in the previous three years had not undergone voluntary HCT as part of antenatal care. Education was associated with likelihood to seek testing and to follow up for test results.

- HIV stigma and discrimination: Stigmatizing of HIV was high across communities, but lower for Ugep (58.6 percent felt HIV-infected people should be ashamed) than for the others (Badeku, 80.6 percent; Olunloyo, 67.2 percent). A similar pattern emerged for perceptions that HIV-infected people are promiscuous and should be expelled from the community. One focus group participant characterised HIV as a ‘masquerade within the body’ (an unpredictable and likely dangerous spirit).

- HIV risk perception and behaviour: Urban and urbanizing communities expressed low levels of worry about HIV. Yet risky behaviour is evident: respondents perceived that 43.3 percent of females are 8–12 years old when they first have intercourse, though self-reported ages of first intercourse were higher; respondents reported generally high uncertainty about their partners’ fidelity; transactional sex is reported as common.

**Discussion and Recommendations**

**Cross-Sectional Study**

- Multisectoral engagement must address high risk, low uptake: Risk factors in studied communities included engaging in casual sex without consistent condom use and failing to seek testing, along with multiple-partner relationships and moderate rates of sexually transmitted infections. Though the overall testing rate of 35 percent was higher than measured previously, it is not sufficient to stem HIV/AIDS incidence. Multisectoral, more decentralised engagement by state and local stakeholders, with both existing and new interventions and better public-private linkages, is needed. Local interventions could be enhanced by use of multiple media channels. HIV prevention planning can be integrated with local activities (e.g., town meetings and market days).

- Address barriers to testing: Most respondents knew of testing sites, but only a third had ever been tested. Removing three barriers — difficulty disclosing positive status, high perceived cost, and belief that HIV-positive individuals will die soon — can yield a significant increment in testing. Focused communication programmes aimed at clearing misconceptions and emphasizing benefits of testing/disclosure can generate this improvement.

- Build on community’s interest in routine HCT and home testing: Respondents were interested in routine practitioner-initiated HCT and home-based HIV tests. Authorities can promote such HCT (including informed consent and confidentiality) in multiple health-care settings. To supplement poor testing infrastructure, home testing can be promoted via rapid test technologies.

**Semi-Longitudinal Study**

- It is important that Nigeria reinvigorate the state’s obligation to provide targeted mainstream social services: The ‘safety net’ for AIDS and its consequences (e.g., orphans) is diminishing, due in part to the weak social security programme and the falling number of older persons. The quest for new opportunities is associated with outmigration from rural areas and higher
education levels in urban areas, but AIDS forces migrants to return to rural areas without having saved money for key investments. Expanded public-private partnerships, NGOs, and other programmes, ideally customised to specific segments, can help address these issues.

- **HIV screening should be part of strategic life behaviour, rather than mainly a pregnancy-related option**: Pregnant women are routinely screened in many Nigerian antenatal facilities. Since this practice excludes the male population and much of the single and young-married population, broader-reaching screening and prevention programmes must be developed, along with better monitoring of their use.

- **Community-based systems of communication are important**: Especially in communities with power-supply challenges, alternative communication systems (e.g., through community leadership) that includes information about HIV are crucial.

- **Expanded educational opportunities are part of a comprehensive HIV prevention strategy**: Poverty alongside weak institutional development and the lower status of women facilitates high-risk sexual behaviour, including transactional sex. Reducing such behaviour through a multipronged, participatory educational programme with customised messages (e.g., emphasizing how AIDS disrupts specific aspirations) can help prevent HIV transmission.

- **Addressing the key social and economic factors that disproportionately affect women is fundamental to addressing HIV and AIDS**: Issues that affect women and girls need to be specifically addressed to increase HIV knowledge among women, support their ability to negotiate safe sex, and economically empower them to reduce transactional sexual activities.

**Acronyms**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ABCs</td>
<td>Abstinence, be faithful, use a condom</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal clinic</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired immune deficiency syndrome</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral therapy</td>
</tr>
<tr>
<td>ARV</td>
<td>Antiretroviral (drug)</td>
</tr>
<tr>
<td>CPR</td>
<td>Contraceptive prevalence rate</td>
</tr>
<tr>
<td>CRUTECH</td>
<td>Cross River State University of Technology</td>
</tr>
<tr>
<td>CSW</td>
<td>Commercial sex worker</td>
</tr>
<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
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<tr>
<td>EA</td>
<td>Enumeration area</td>
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<tr>
<td>EHPS</td>
<td>Enhanced HIV prevention strategies</td>
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<tr>
<td>FGD</td>
<td>Focus group discussion</td>
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<tr>
<td>FMOH</td>
<td>Federal Ministry of Health</td>
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<tr>
<td>FRN</td>
<td>Federal Republic of Nigeria</td>
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GHI Global Health Initiative
HCT HIV counselling and testing
HEAP HIV and AIDS Emergency Action Plan
HIV Human immunodeficiency virus
IBBSS Integrated Bio-Behavioural Surveillance Survey
IDI In-depth interview
IDU Injecting drug user
IRB Institutional review board
KABP Knowledge, attitude, behaviour, and practice
KII Key informant interview
LACA Local Action Committee on AIDS
LGA Local government area
MARPS Most-at-risk populations
MCH Maternal and child health
MSM Men who have sex with men
M&E Monitoring and evaluation
NACA National Agency for the Control of AIDS (before May 2007, National Action Committee on AIDS)
NACP National AIDS Control Programme
NGN Nigerian naira
NGO Nongovernmental organization
NPC National Population Commission
NU Northwestern University
OHS Optimal HIV testing and counselling scenario
OVC Orphans and vulnerable children
PEPFAR U.S. President’s Emergency Plan for AIDS Relief
PI Principal investigator
PTTC Provider-initiated testing and counselling
PLWA People living with AIDS
PR Principal researcher
PRB Population Reference Bureau
RCC REACH Research Coordinating Committee
REACH Research Alliance to Combat HIV and AIDS
RUN-HTC Routinise, universalise, and normalise HIV testing and counselling
SACA State Action Committee on AIDS
STD Sexually transmitted disease
STI Sexually transmitted infection
TFR Total fertility rate
UCH University College Hospital
UI University of Ibadan
UNAIDS The Joint United Nations Programme on HIV/AIDS
USAID United States Agency for International Development
VCT Voluntary counselling and testing
Chapter 1: Introduction

1.1 The REACH Story

1.1.1 Introduction

In conversations at the end of the 1990s, Richard Joseph, now a professor at Northwestern University, suggested to Helene Gayle, then director of AIDS programmes at the Centers for Disease Control and Prevention in Atlanta and later with the Bill & Melinda Gates Foundation, that effectively tackling the pandemic in Africa required the greater involvement of social scientists. Although individuals and health institutions can greatly reduce the risk of HIV infection, once the virus is no longer restricted to identifiable high-risk groups but is circulating among the general population, the challenge will become exceedingly complex.

A conference held at St. George’s University, Grenada, in December 2000 (Caribbean 2000 Plus, 2000) called attention to various behavioural practices that contributed to high HIV infection and served as a precursor to the consultations leading to the creation of REACH. The next germinating event for REACH was a conference of the Task Force on AIDS of the Center for Strategic and International Studies (CSIS) in Washington, D.C., in January 2003. Richard Joseph and Alexandra Gillies, then preparing to join Northwestern as director and assistant director, respectively, of the Program of African Studies (PAS), took away from this meeting the need to speed up the engagement of social scientists in HIV/AIDS research. Northwestern’s then-president, Henry Bienen, agreed with this concept; a symposium held at Northwestern in June 2003 provided a further opportunity to brainstorm.

When Richard Joseph and Alex Gillies visited the University of Ibadan (UI) in February 2004, two meetings were convened, the first by Professor Adigun Agbaje, then dean of UI’s Faculty of the Social Sciences, and the second by Professor Isaac Adewole, then provost of UI’s University College Hospital. Those interdepartmental meetings demonstrated a depth of support and a breadth of interest for an interdisciplinary HIV/AIDS research programme. In December 2004 a UI seminar entitled ‘HIV and AIDS Prevention in Nigerian Communities: Strengthening Institutional Responses’ brought together Nigerian scholars and AIDS activists and prominent researchers from other West African countries. The seminar was a significant watershed in demonstrating the breadth of intellectual resources available at UI and elsewhere in Nigeria.

After approval of a grant from the Bill & Melinda Gates Foundation in January 2006, a group of REACH staff members, faculty researchers, consultants, and graduate students worked on designing research instruments and the study protocol. Throughout its existence REACH had to overcome a number of technical, administrative, and organisational challenges, including

- Building a transnational research institution and pursuing community-centred research, which required devising an equitable and collaborative partnership between leading American and Nigerian universities that clearly identified respective roles and responsibilities and allowed the flexibility to accommodate the different working cultures.
• Creating an innovative model of community-based research that required a high level of buy-in from diverse Nigerian authorities — governmental, private, and communal.
• Introducing strict financial and monitoring procedures at both universities that would ensure transparency and the correct use of grant funds as well as allow for the periodic transfer of funds from Northwestern to Ibadan.
• Enhancing staff capacity and skills at all levels of the programme, including senior researchers, graduate assistants, and field researchers.
• Meeting REACH’s technical needs as they arose, including electric power, water supply, the security of research data, and the purchase and maintenance of computer hardware and software.

These and other challenges were all overcome. The fact that we are now in a position to make the findings widely available can be attributed to several factors:

• The strong and enduring support of the leadership of the Bill & Melinda Gates Foundation, Northwestern University, and the University of Ibadan.
• The character, dedication, and skills of key personnel at both Northwestern University and the University of Ibadan.
• Trust: we have been able to build and refine an organisation, accomplish our tasks, and overcome many hurdles because of the trust that exists among the principal actors.
• The normative and operational resources of two different university cultures.
• Organisational flexibility and consultative approaches, which enabled us to adopt and innovate in response to opportunities and hurdles.

1.1.2 REACH Study Rationale
Nigeria is still a long way from effectively tackling HIV/AIDS. Risk-taking behaviours are still pervasive despite the heightened awareness of the disease. This situation stimulated the REACH research initiative. Its overarching goals have been to develop the capacity of junior and midcareer scholars, engender productive networking, and conduct a study that will have a lasting impact on the trajectory of HIV and AIDS control programmes in Nigeria. In addition, REACH has sought to use innovative methodology to investigate risk-taking behaviours, including their link to the spread of HIV, and the social correlates of the use of voluntary counselling and testing (VCT) centres in parts of Nigeria.

Two complementary approaches were adopted by REACH to explore these issues:

The first approach was a semi-longitudinal ethnographic study of specifically targeted Nigerian communities with the specific objectives of examining the cultural context of the spread and impact of HIV/AIDS; assessing HIV/AIDS-related knowledge, attitudes, beliefs, and practices at the level of the individual, the household, and the community; and examining the impact of local concepts of gender and the responses of individuals, couples, and communities to the disease.

The second approach was a cross-sectional study in nine communities across three states. It explored the determinants of the use of voluntary HIV testing and counselling in order to understand the structural facilitators and barriers affecting HIV testing rates.
1.2 Demographic Background

The Federal Republic of Nigeria, which covers an area of 923,768 square kilometres and extends from the Atlantic coast in the south to the edges of the Sahara Desert in the north, consists of 36 states and a Federal Capital Territory. The states are grouped into six geopolitical zones (see Figure 1.1). Nigeria is a multiethnic country with at least 389 ethnic groupings (Otite, 2000). The three dominant ethnic groups, the Hausa, the Yoruba, and the Igbo, together constitute about 56 percent of the population (NPC, 2007). The notable religions in the country are Christianity, Islam, and traditional faiths.

![Map of Nigeria showing the 36 states and the Federal Capital Territory](image)

Figure 1.1: Map of Nigeria showing the 36 states and the Federal Capital Territory

The 2006 census of Nigeria reported a total population of 140.4 million Nigerians, a 58 percent increase from the 88.9 million counted in 1991 (FRN, 2007; NPC, 1998a). The country is the most populous in Africa and one of the 10 most populous in the world. Nigeria is still predominantly rural, although about 40 percent of the population now lives in urban areas. The rapid increase in the urban population over the last three decades has created serious problems of housing, sanitation, food shortages, and unemployment and has led to many social vices.

Nigeria is a country of high fertility, even by the standards of many low-income countries. The birth rate is 38 per 1,000 people, and the total fertility rate is 5.7. The contraceptive prevalence rate is low, averaging only 15 percent in 2008, with urban women about three times as likely as their rural counterparts.
counterparts to use a contraceptive method (NPC, 2007). Mortality is high, with a death rate of about 14 deaths per 1,000 population. Life expectancy at birth is low but has increased from 36 years in 1963 to 47 years in 2008 (PRB, 2008). Malnutrition accounts for 52 percent of all deaths among children below age 5. The maternal mortality rate is 545 per 100,000 (NPC and Macro, 2009).

1.3 HIV and AIDS Situation in Nigeria

Nigeria has the second-highest number of HIV-infected people in the world (USAID, 2008). After the first AIDS case was reported in 1986, the prevalence rate rose steadily to 5.8 percent in 1999. The current prevalence rate is estimated to be 4.6 percent (USAID/FMOH, 2008).

A recent study (NACA, 2009) estimated that at the end of 2008 there were in Nigeria
- 2.95 million people living with HIV/AIDS
- 280,000 AIDS deaths annually
- More than 2.2 million AIDS orphans
- 380,000 new HIV-infections annually, including more than 56,000 infants who become HIV infected during pregnancy or soon after birth
- 883,000 people who could benefit from antiretroviral treatment

Some of the factors that fuel the spread of HIV can be attributed to rapid urbanisation and extreme poverty. Determinants of the high prevalence of HIV/AIDS in Nigeria include (NACA, 2002)
- Low level of literacy, especially among females
- Widespread underemployment and generalised poverty
- Female sex work as an income source in urban centres
- A cultural milieu of male dominance (e.g., it is ‘acceptable’ for a man to have multiple female sex partners, most of whom are younger)
- An erroneous belief that sexual intercourse with a female virgin can cure sexually transmitted infections (STIs), including HIV, a factor that accounts for cases of rape of girl-children by older men
- Treatment of STIs through self-medication and/or by herbalists
- A weak health-care delivery system
- Weak community support for HIV and AIDS preventive programmes
- Infrequent use of condoms during casual sexual intercourse
- Stigmatisation and criminalisation of the high-risk behaviours (e.g., sex work, homosexuality, and injection drug use) associated with HIV transmission, making it difficult to reach the populations practicing these behaviours

1.4 National Response to the Epidemic

Nigeria’s AIDS response can be divided into three phases: the first from 1986 to 1991; the second between 1991 and 1997; and the third from 1999 to the present.

During the first phase (1986–91), the response was slow due to denial, apathy, lack of political will, and insufficient commitment by the federal government. Although a National AIDS Control Programme (NACP) was established in 1986, most Nigerians remained unaware of the risks and consequences of the disease.
During the second phase (1991–97), some efforts were made to decentralise the national response through the establishment of state and local government AIDS committees and the development of control programmes. The national programmes on AIDS and STD control were merged in 1992. Also during this second phase, the government supported and encouraged nongovernmental organisations working on AIDS and STDs; introduced a condom social marketing strategy; promoted early diagnosis and treatment of STDs through disease management and counselling; initiated periodic sentinel surveys for HIV among pregnant women coming to antenatal clinics; and launched the National Control Policy on HIV and AIDS/STIs.

The third phase (1999–present) has been characterised by a more robust response. The authorities approved a comprehensive work plan, the HIV and AIDS Emergency Action Plan (HEAP), which has been revised several times. The plan incorporates a wide range of activities that were initially implemented in collaboration with all tiers of government (local, state, and federal) and nongovernmental organisations (NACA, 2002). Additional highlights of the response to the pandemic since 1998–99 are as follows:

- National AIDS Conferences, beginning in 1998 and continuing through the fifth conference in 2010
- Formation of the National Action Committee on AIDS, currently the National Agency for the Control of AIDS (NACA), State Action Committee on AIDS (SACA), and Local Government Action Committee on AIDS (LACA)
- Mainstreaming HIV/AIDS policy into many sectors of the economy: health, education, agriculture, defence, banks, motor drivers/mechanics, etc.
- Greater political will and commitment by the federal government, with increased focus on care and support for AIDS patients, in addition to prevention efforts
- Massive awareness campaigns through television, radio, billboards, and posters
- Emphasis on preventing mother-to-child HIV transmission
- Establishment of an umbrella organisation for youth and gender subgroups
- Formation of support groups for people living with HIV/AIDS (PLWHA) and for AIDS orphans
- Support and care system that includes antiretroviral treatment for more than 200,000 people and the introduction of home-based care
- Negotiations with pharmaceutical companies to reduce the price of antiretroviral drugs

Several additional HIV/AIDS policy and programme documents have been developed and approved by the government. Among them are the National Policy on HIV and AIDS; National Workplace Policy on HIV and AIDS; National HIV and AIDS Behaviour, Change, and Communication Strategy (2009–14); National HIV and AIDS Prevention Plan; National Ethics and Operational Guidelines for Research on Human Subjects; National Strategic Framework for Action; and a National HIV Vaccines Development programme. A national bill for prevention and stigmatisation/discrimination to protect the rights and integrity of PLWHAs is under consideration.

By and large, the establishment of NACA, SACAs, and LACAs has given considerable impetus to HIV and AIDS control programmes. It is anticipated that with the findings from our research, REACH will contribute to the work of NACA, SACAs, and LACAs by providing evidence-based data for policy formation and more comprehensive and effective prevention strategies in Nigeria.
Chapter 2: Research Methodology

2.1 Research Setting

REACH studies were carried out in 12 communities spanning four states in Nigeria. For the semi-longitudinal study, data were collected in three communities: Badeku and Olunloyo in Oyo State and Ugep in Cross River State. For the cross-sectional study, data were collected in nine communities: Ibadan North, Ibadan Southwest, and Atisbo in Oyo State; Lagos Island, Ikeja, and Epe in Lagos State; and Makurdi, Kwande, and Otukpo in Benue State.

For the semi-longitudinal study, the choice of Ugep (a high-HIV prevalence site and predominantly urban settlement), Olunloyo (a semi-urban area, but with a low HIV prevalence rate), and Badeku (a predominantly rural settlement) provides a good opportunity to draw comparisons of social, economic, and contextual factors in HIV spread, first between two semi-urban locations in different parts of Nigeria and second between urban and rural locations with low HIV prevalence. Olunloyo and Badeku are predominantly Yoruba-speaking areas in the Ona-Ara Local Government Area (LGA). The residents of Olunloyo are primarily petty traders and civil servants, while those of Badeku are mostly subsistence farmers and hunters. Ugep is located in west-central Cross River State, about 140 kilometres northwest of the capital city, Calabar. Commercial trading is a main feature, but the most important economic activity of Ugep is farming.

For the cross-sectional study, Oyo, Lagos, and Benue were chosen because of their diversity of size, ethnic composition, HIV prevalence rates, and mixture of rural and urban regions. Benue has a large rural population, primarily people of Tiv and Idoma ethnicity. The majority are farmers, traders, and miners. Lagos is predominantly urbanised, while Oyo has both large urban and rural populations. Lagos and Oyo have a number of high-density population settings and cosmopolitan characteristics, such as cross-border activities, poverty, industries, and military encampments. There is an active state response to HIV and AIDS in all the study states, and HCT services are available in most urban areas. The choice of Oyo (low HIV prevalence), Lagos (high HIV prevalence), and Benue (high HIV prevalence) makes it possible to compare the use of HIV counselling and testing services between high- and low-prevalence areas.

2.2 Community Mobilisation

To adequately sensitise community members about REACH research, intensive community mobilisation was undertaken. Community mobilisation in all 12 communities was conducted through the different phases of data collection as a continuous strategy for keeping the community informed of plans, allaying apprehensions about a research project that could so easily be misunderstood (and, in fact, occasionally was), and engaging local leadership structures to ensure success of data collection. The basic strategy was to have the community accept ownership of the study and act in accordance with that understanding. Practical measures taken to achieve these goals went beyond usual approaches to mobilisation. REACH viewed every community as having multiple gate-keeping systems that must be mobilised for a study that proposes to be thorough, to collect data over an extended period; and to operate over a large area.
To facilitate the cultural relevance of the research and have access to the communities, the research team organised a number of community meetings that attracted many adult inhabitants in the target communities. Community leaders, local chiefs, chairmen, and other executive members of landlord associations assisted in assembling community members who also reinforced the messages of the research team. Mobilisation efforts first required obtaining written and valid consent from the heads of each community. In each of the mobilisation meetings, the communities were briefed on the potential benefits of REACH research and its noncoercive nature. The ultimate goal of the study — to influence health policies and programmes in Nigeria — was emphasised. REACH team also promised to return, and did return, to the study communities after the research data had been analysed to share community specific findings with members of the community. There were also preliminary meetings with community members and leaders, health-care providers, and NGOs to introduce the research objectives. Community members were invited to visit REACH office in their communities. Further awareness announcements were made during religious services and by town criers.

2.3 Quantitative Sample and Sampling Procedures

Sections of each community were selected for study, and a few enumeration areas (EAs) were randomly selected from among them. Households were systematically listed, out of which 450 each in Ugep and Olunloyo were selected for the survey, 150 in Badeku, and a minimum of 200 from each of the nine cross-sectional communities. Interviews began with each head of the household or a representative and then went on with individual men and women between the ages of 15 and 59 who considered the household their primary residence, had lived in the household for at least six months prior to the survey, and could give consent to the study. The selection of the individual member of the household for the individual survey was achieved using the Kish grid, a widely used quasi-random procedure for selecting individual respondents when the household is a sampling unit (Németh, 2003). Overall, 1,050 individuals were surveyed in the semi-longitudinal study and 2,453 in the cross-sectional study.

2.4 Quantitative Research Instruments

The questions included in the survey questionnaire were developed by REACH researchers to directly relate to the study objectives. Culturally meaningful and relevant concepts were used in framing questions, and open-ended questions were avoided. Questions that required historical recall were minimised, since these could reduce the reliability of responses.

The questionnaire consisted of questions regarding different sociodemographic factors and HIV prevention issues (visit www.bcics.northwestern.edu/projects/reach for complete instruments). Sensitive questions were handled carefully. Questions were ordered, with those requiring basic background information of respondents at the beginning, while the sensitive questions (such as on sexual relationships) toward the end. It was expected that interviewers would establish rapport with participants before sensitive questions would be asked. Instructions in the questionnaire enabled interviewers to record responses correctly.
2.4.1 Household Survey
Household surveys were administered to household heads, who were asked to list all persons who lived in their households and to provide other sociodemographic information. They also described their household facilities, income and expenditure pattern, and illness characteristics.

2.4.2 Individual Survey
The individual survey instrument comprised sections on demographic and socioeconomic characteristics, HIV- and AIDS-related knowledge and awareness, sex-related attitudes, HIV and AIDS testing and antiretroviral drugs, HIV- and AIDS-related behaviour, HIV- and AIDS-related risky behaviour, HIV and AIDS risk perception, domestic and sexual violence, stigma and discrimination, awareness of and access to HIV and AIDS prevention services, and policy awareness. Information in the individual surveys varied between in the two studies, with the cross-sectional study focusing primarily on HCT issues. Household questionnaires and consent forms were translated into the local languages of study communities.

2.5 Pretesting of Quantitative Instruments
Quantitative instruments were pretested in communities that were subsequently excluded from the main study. The aim was to ascertain their feasibility and reliability, especially on comprehensiveness, correctness, gaps, repetition, sensitivity to cultural conditions, and appropriateness of language. Field staff discussed their experiences with research personnel after the exercise, noting the importance of building rapport and posing probing questions. The pretesting results were crucial in identifying areas for improvement in the instrument design, such as restructuring and sequencing of questions and dynamics of interview administration.

2.6 Quantitative Data Collection
Survey data were gathered between late 2008 and mid-2009 in the study communities. Potential research participants were made aware of the project by field workers who visited their households. Once adult household members indicated a desire to participate, the purpose and procedures of the study were explained. Some questions were posed to potential respondents to determine whether they met the inclusion criteria: 15–59 years of age and having lived in the community for six months or more. All household members who met the criteria were asked to participate.

Prior to interviews, field workers assured respondents that responses would be kept confidential and briefly discussed other ethical issues guiding the study. Written or thumbprint consent was obtained from each participant. Interviews were conducted by interviewers of the same gender as the respondent. Venues, within households or outside, were selected on the advice of the respondents. At the end of interviews respondents were given a small gift as a token of appreciation. Field supervisors made periodic and unscheduled visits to monitor interviewers during field work. They also reinterviewed a small random sample of respondents to double-check the validity of responses. Supervisors and other study researchers frequently organised meetings with interviewers during the fieldwork period to discuss progress and respond to inquiries.
2.7 Qualitative Sample and Sampling Procedures

Focus group discussions (FGD), in-depth interviews (IDI), and key-informant interviews (KII) were used to explore important social and cultural risk factors for HIV and AIDS.

2.7.1 Focus Group Discussions
Participants were recruited through local community organisations, such as religious institutions, markets, and neighbourhood groups. The field workers visited community leaders and urged them to identify those willing to share their knowledge about HIV and AIDS issues. They enlisted the help of the leaders to invite eligible individuals to participate in the research. The leaders described the purpose of the study during the announcements and urged volunteers to see research assistants, who were usually at designated places in the community.

2.7.2 In-Depth Interviews
In-depth interviews were conducted to obtain more detailed information from selected respondents about sexual practices and HIV and AIDS prevention. Approximately 25 to 30 in-depth interviews were conducted in the three semi-longitudinal sites.

2.7.3 Key-Informant Interviews
Key-informant interviews were also conducted with local policy makers, opinion leaders, health-care practitioners, and religious leaders from the study communities. Participants were asked to suggest others with special knowledge of the same issues. Such consultations made it possible to assemble a knowledge-rich pool of people to be interviewed.

2.8 Qualitative Research Instruments

The FGD, IDI, and KII guides included questions that covered the objectives of the study, including questions on HIV and AIDS knowledge, perception, attitudes, and utilisation and acceptability of HCT services. FGD and KII guides are provided at www.bcics.northwestern.edu/projects/reach.

2.9 Qualitative Data Collection

Qualitative data collection was conducted in all 12 sites from February to May 2008 in community public meeting places to provide a familiar environment. One trained field researcher conducted each FGD, and another took notes. Permission to record the discussion was gained from participants at the beginning of each FGD. Some FGDs were conducted in English, but most were in local language. All FGDs were audiorecorded. Before an FGD session began, facilitators read the informed consent form to participants, and those who agreed to participate were required to sign or thumbprint the consent form. A brief rapport-building phase of open discussion then took place; when facilitators observed that participants were talking among themselves, they directed the conversation to FGD topics. Each FGD lasted between one and two hours. Participants were offered refreshments after the session.
Interviewers held IDIs and KIIs with participants in a place convenient for the respondents. Each interview session lasted about 60 minutes. At the beginning of KIIs interviewers read an informed consent form to the respondent and obtained consent. All KIIs were audiorecorded, and interviewers also took notes.

2.10 Recruitment and Training of Field Personnel

The skill, commitment, and motivation of field personnel were critical to the successful implementation of the study. This section describes the process of selecting and training the field staff.

2.10.1 Recruitment of Personnel

The field interviewers and supervisors positions were widely advertised in the study communities. After applications were reviewed, those who were short-listed using the selection criteria were interviewed. The outcomes of the interview exercise guided the final selection of field personnel. The requirements for selection were postsecondary education, fluency in English and in the language of the study communities, and a demonstrated interest in the study.

2.10.2 Study Manual

A manual was developed to guide interviews and other field activities. The manual outlined the rules and regulations for research staff; instructions for mapping study communities using the enumeration maps prepared by the NPC for the 2006 census; instructions for coding sites, communities, and houses in the study area; instructions for identifying households; techniques for conducting interviews; the order in which individual household members were to be registered; and instructions for randomly selecting respondents. Clear guidance was given on how to ask questions and handle unanticipated problems.

2.10.3 Training

Both Nigerian and international consultants conducted training sessions for field personnel, including the principal researchers, in 2008. After principal researchers were instructed, they trained the field personnel at the various sites. The field manual was used during training sessions.

Principal researchers were trained to be key technical and administrative leaders. Their instruction covered quantitative and qualitative aspects of the study. They were trained to fully understand the study objectives, the collection of relevant information, the use of the data, and general project policy and ethical issues. There was also instruction about how field personnel should be recruited, working conditions, working on weekends, remuneration, and the organisation of work.

The principal researchers and postdoctoral fellows, along with consultants, trained the field staff on their roles in the implementation of the study. Much of the training involved preparation similar to that mentioned above, in addition to an item-by-item understanding of the questionnaire, how to select respondents, appropriate interviewing skills, and building rapport with respondents. Role playing was used for training on how to conduct interviews and code questionnaires. Finally, the field workers administered survey questionnaires to one another, and the entire workshop group evaluated the performances.
2.11 Ethical Considerations

REACH studies received ethical approval from the institutional review boards of the two collaborating institutions as well as from relevant HIV/AIDS agencies. Written clearance from community leaders and authorities in the targeted communities was also received.

All principal researchers participated in an ethical training course and received certification from Northwestern. As a result, they were able to train their field assistants on ethical issues in research. The assistants were taken through ethical issues ranging from procedures to risks involved, benefits accruable, confidentiality, financial information, the rights of research subjects, building rapport, and seeking respondents’ consent. Field assistants were given clear instructions to ensure that respondents signed the consent form or, in the case of nonliterate participants, used thumbprints.

2.12 Quality Assurance

REACH ensured that field supervisors were trained in their role as supervisors as an integral part of the training programmes prior to data collection. They were instructed to be the gatekeepers at the first level of field supervision to guarantee quality.

Supervisors regularly monitored the activities of interviewers to ensure that data were collected appropriately and that sampling procedures were strictly followed. They were on hand to answer questions of respondents before the respondents granted consent. They held daily briefing sessions with interviewers and reviewed completed questionnaires at the end of each workday. They often also assisted the interviewers in identifying selected households within site areas, especially when the households were difficult to find.

The second-level evaluation involved the postdoctoral fellows who conducted routine spot checks. This exercise involved random selection of completed survey instruments within an EA and cross-checking of relevant information with the household heads or respondents to ensure that the interviews had been conducted.

A monitoring and evaluation form was used to assess compliance of the various research teams across sites and locations. Its essential features included outputs from preliminary research activities — e.g., community entry mobilisation and awareness level, identification of household and numbering, household lists, household numbering on EA maps, list of observed activities in progress on site for each component of the research (e.g., survey, FGDs, and KIIs). The form also included a section for general comments on issues relating to adherence to the protocol, timeline and deliverables, general research administration and conduct, other issues raised with the principal and coprincipal researchers by the members of the community, and resolution of these issues.
2.13 Data Management and Analysis

2.13.1 Quantitative
Completed questionnaires were submitted daily to field supervisors to check for errors and omissions so that these would be resolved while the crew was still on site. Incomplete questionnaires were returned to be properly administered. Once an enumeration area was finished, the field supervisor forwarded the completed questionnaires to the REACH office in Ibadan. There REACH graduate research assistants (data managers) sorted them into household and individual categories and entered them in tracking sheets that had been prepared to ensure that all returned questionnaires were accounted for and entered without omissions or duplications. The questionnaires were shelved serially by study sites.

Data entry took place at two sites: the REACH central office and (for Ugep) at CRUTECH. Data were double-entered in EPIDATA, and the duplicate files were compared against the original questionnaires so that mistakes would be noticed. Validated data were exported from EPIDATA to STATA 10 and SPSS version 15, where further cleaning was carried out before analysis. Further analysis of the data was done by staff at the Biostatistics Collaboration Center at Northwestern University.

2.13.2 Qualitative
Interviews were recorded using audiorecorders. The observers noted nonverbal communication during discussions. Each audiorecording was appropriately labelled with the category of respondent (e.g., male youth, female adult, etc.), date of interview, type of interview (FGD, IDI, or KII), and location (e.g. Ugep, Olunloyo, or Badeku). The recorded interviews were sorted by FGD or KII and then arranged by site and category of respondent.

Each recorded interview was transcribed within a few days. Transcribers were trained to transcribe everything verbatim, but in some cases inexperienced transcribers did not do so. Copies of written transcripts were sent to the REACH main office at Ibadan for data analysis. The transcripts were analysed site by site and across sites and then manually by theme.
Chapter 3: Individual and Household Characteristics

This chapter describes demographic and socioeconomic characteristics to understand the representation of the respondents in both studies. Demographic attributes (sex, age, marital status) and socioeconomic characteristics (occupation, education, and religion) of respondents are important for understanding the attitudinal and behavioural factors that are critical to HIV prevention. The characteristics of the households are also described, with a breakdown of male- and female-headed households.

3.1 Household Characteristics

Information about demographic and socioeconomic characteristics of the households surveyed provides a useful background to the data findings from the surveys and qualitative interviews. See Table 3.1.

Of the 3,378 total households with reported information, 2,664 had male heads and 714 female heads. In the 25–39 age group, 37.4 percent of the heads of household were male and 29.1 percent female.

On the completed education data, 10.2 percent of men had no formal education, compared with 30.5 percent of women. There was a significant pattern of male heads of households having completed higher levels of education than female heads; 42.7 percent of male heads of households had completed secondary education, compared with 34.3 percent of women.

Figure 3.1 Proportion (%) of REACH household respondents by sociodemographic characteristics

The majority of the households surveyed lived in urban locations: 64.3 percent of male heads of household respondents and 68.4 percent of female heads of household respondents. The largest numbers of men (25.8 percent) were self-employed, compared with 9.6 percent of women. Male heads of household spent more on food/cooking (NGN6603.0) than did female heads (NGN5265.7). On the home ownership question, 51.9 percent of male respondents and 47.3 percent of female respondents said that they were owners.
Table 3.1: Proportion (%) of REACH household respondents by sociodemographic characteristics

<table>
<thead>
<tr>
<th>HoH age group (years)</th>
<th>Male Head of Household (HoH) (N = 2664)</th>
<th>Female Head of Household (HoH) (N = 714)</th>
<th>Comment P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25</td>
<td>6.0 (159)</td>
<td>6.7 (47)</td>
<td>0.0008</td>
</tr>
<tr>
<td>25-39</td>
<td>37.4 (992)</td>
<td>29.1 (206)</td>
<td></td>
</tr>
<tr>
<td>40-59</td>
<td>42.1 (1118)</td>
<td>47.5 (336)</td>
<td></td>
</tr>
<tr>
<td>&gt;60</td>
<td>14.5 (384)</td>
<td>16.7 (118)</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Unemployed</td>
<td>6.7</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>Farmer</td>
<td>19.0</td>
<td>20.3</td>
<td></td>
</tr>
<tr>
<td>Petty trading</td>
<td>7.8</td>
<td>43.6</td>
<td></td>
</tr>
<tr>
<td>Government worker</td>
<td>15.6</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Employed in private sector</td>
<td>9.8</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>Big business</td>
<td>4.8</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Self-employed professional</td>
<td>25.8</td>
<td>9.6</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>10.6</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
<td>0.0439</td>
</tr>
<tr>
<td>Urban</td>
<td>64.3</td>
<td>68.4</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>35.7</td>
<td>31.7</td>
<td></td>
</tr>
</tbody>
</table>

The difference in socioeconomic status between female and male household heads was significant, with a larger number of female-headed households in the poorest category. Seventeen percent of the households headed by males and 31.3 percent of the households headed by females were in the poorest quintile; 22.6 percent of male household heads and 10.6 percent of female household heads were in the least-poor quintile.

Figure 3.2: Socioeconomic status of heads of households
The difference in monthly average expenditure on food and cooking fuel was significantly different for male-headed households compared with female-headed households, with female-headed households spending less per month. For medical care, expenditure was relatively the same. More women rented their houses, while more men owned; there was no difference in the wall and roofing materials used to build the houses.

### Table 3.2: Proportion (%) of REACH household respondents by socioeconomic characteristics

<table>
<thead>
<tr>
<th></th>
<th>Male Head of Household (HoH) (N = 2664)</th>
<th>Female Head of Household (HoH) (N = 714)</th>
<th>Comment P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly average food/Cooking fuel expenditure (SD)</td>
<td>NGN6603.0 (9812.3)</td>
<td>NGN5265.7 (8437.9)</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Monthly average medical expenditure (SD)</td>
<td>NGN3,816.37 (13715.49)</td>
<td>NGN3,267.65 (7069.40)</td>
<td>0.229</td>
</tr>
<tr>
<td>Average number of people per sleeping room in home (SD)</td>
<td>2.0 (1.55)</td>
<td>2.0 (1.56)</td>
<td>0.6311</td>
</tr>
<tr>
<td>Status of home</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owned</td>
<td>51.9</td>
<td>47.3</td>
<td>0.0018</td>
</tr>
<tr>
<td>Rented</td>
<td>44.7</td>
<td>46.5</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>3.5</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>Have electricity at home</td>
<td>85.7</td>
<td>85.5</td>
<td>0.9044</td>
</tr>
<tr>
<td>Water supply source</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piped private</td>
<td>9.1</td>
<td>9.7</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Hand pump private</td>
<td>3.4</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Piped public</td>
<td>18.0</td>
<td>28.4</td>
<td></td>
</tr>
<tr>
<td>Hand pump public</td>
<td>6.1</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Well</td>
<td>47.6</td>
<td>37.9</td>
<td></td>
</tr>
<tr>
<td>Water tanker</td>
<td>4.2</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>River</td>
<td>5.8</td>
<td>4.9</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>5.7</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Toilet facility</td>
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<td>20.7</td>
<td>0.0038</td>
</tr>
<tr>
<td>Private</td>
<td>9.9</td>
<td>12.0</td>
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</tr>
<tr>
<td>Public</td>
<td>48.3</td>
<td>53.8</td>
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</tr>
<tr>
<td>Shared</td>
<td>17.1</td>
<td>13.5</td>
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<tr>
<td>Roofing material of residence</td>
<td></td>
<td></td>
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</tr>
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<td>Thatch</td>
<td>8.0</td>
<td>6.5</td>
<td>0.1735</td>
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<tr>
<td>Corrugated zinc</td>
<td>60.0</td>
<td>64.4</td>
<td>0.0318</td>
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<tr>
<td>Brick tiles</td>
<td>4.1</td>
<td>2.1</td>
<td>0.0137</td>
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<tr>
<td>Aluminium sheet</td>
<td>27.3</td>
<td>27.4</td>
<td>0.9823</td>
</tr>
<tr>
<td>Wall material of residence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mud</td>
<td>26.7</td>
<td>24.9</td>
<td>0.3423</td>
</tr>
<tr>
<td>Corrugated zinc</td>
<td>2.2</td>
<td>2.7</td>
<td>0.4782</td>
</tr>
<tr>
<td>Brick</td>
<td>16.2</td>
<td>16.4</td>
<td>0.8958</td>
</tr>
<tr>
<td>Concrete blocks</td>
<td>56.4</td>
<td>57.7</td>
<td>0.5390</td>
</tr>
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</table>
3.2 Background Characteristics of Individual Respondents from Cross-Sectional Study

This section describes the characteristics of respondents from the REACH cross-sectional study in nine communities across the three states of Oyo, Lagos, and Benue.

As shown in Table 3.3, the age of the respondents is distributed similarly across all three states, with the majority of respondents coming from the 25–39 age group. There is nearly the same number of men as women in the gender makeup of the respondents, with only 63 more men than women.

The majority of respondents (55.6 percent) received a secondary education, with less than 9 percent having no formal education. Men and women were about equally spread in terms of completed education at the primary and secondary levels. The proportions of those with no formal education (5.2 percent men, 12.9 percent women) and those with postsecondary education (23.5 percent men, 15.3 percent women) were similar to the household data.

Christianity was the dominant religion (71.3 percent of the respondents), but the religion makeup in each of the states was different. In Oyo, 57.8 percent were Christian and 41.7 percent Muslim. In Lagos, 48 percent were Christian and 51.3 percent Muslim. The variation between the two religions was the largest in Benue: 95.4 percent of respondents were Christian and 3.5 percent Muslim. Because the traditional religion sample size was too small, this was not accounted for in Table 3.3.

Forty-four percent of men and 59.8 percent of women were married or cohabitating, and 53.9 percent of men and 32.3 percent of women were single or never married. The majority of women and men (64.4 percent and 66.9 percent, respectively) lived in urban areas.

The spread of occupations varied from state to state and between women and men. A substantial percentage of respondents (19.8 percent) were unemployed at the time of the study. Of the three sites, Oyo had the lowest percentage of respondents who were unemployed (6.4 percent), compared with Lagos and Benue States (20.6 percent and 27.8 percent, respectively). Among both sexes, the smallest percentage of respondents (7.5 percent) worked in the private sector.
Table 3.3: Percent distribution of socioeconomic and demographic characteristics of REACH respondents by cross-sectional study states

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Study communities</th>
<th>Sex/Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oyo</td>
<td>Lagos</td>
<td>Benue</td>
</tr>
<tr>
<td>All respondents (N)</td>
<td>654</td>
<td>717</td>
<td>1082</td>
</tr>
<tr>
<td><strong>Age Group (Year)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>32.1</td>
<td>27.3</td>
<td>36.3</td>
</tr>
<tr>
<td>25-39</td>
<td>43.7</td>
<td>45.3</td>
<td>43.7</td>
</tr>
<tr>
<td>&gt;40</td>
<td>24.2</td>
<td>27.3</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Current Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single/Never married</td>
<td>37.9</td>
<td>39.9</td>
<td>48.9</td>
</tr>
<tr>
<td>Married/cohabitation</td>
<td>60.1</td>
<td>51.8</td>
<td>46.5</td>
</tr>
<tr>
<td>Separated/Divorced/Widowed</td>
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<td>8.2</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Completed Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>12.8</td>
<td>5.0</td>
<td>9.3</td>
</tr>
<tr>
<td>Primary</td>
<td>17.2</td>
<td>12.7</td>
<td>17.2</td>
</tr>
<tr>
<td>Secondary</td>
<td>47.2</td>
<td>62.4</td>
<td>56.3</td>
</tr>
<tr>
<td>Post secondary</td>
<td>22.9</td>
<td>19.8</td>
<td>17.2</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>57.8</td>
<td>48.0</td>
<td>95.4</td>
</tr>
<tr>
<td>Islam</td>
<td>41.7</td>
<td>51.3</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>6.4</td>
<td>20.6</td>
<td>27.8</td>
</tr>
<tr>
<td>Farmer</td>
<td>8.9</td>
<td>2.8</td>
<td>20.6</td>
</tr>
<tr>
<td>Petty trading</td>
<td>21.3</td>
<td>27.1</td>
<td>12.8</td>
</tr>
<tr>
<td>Government worker</td>
<td>7.4</td>
<td>7.7</td>
<td>9.5</td>
</tr>
<tr>
<td>Private sector employed</td>
<td>9.4</td>
<td>8.5</td>
<td>5.8</td>
</tr>
<tr>
<td>Self-employed professional</td>
<td>21.3</td>
<td>21.5</td>
<td>14.8</td>
</tr>
<tr>
<td>Other</td>
<td>25.4</td>
<td>11.8</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>Percentage in Urban location</strong></td>
<td>65.6</td>
<td>61.8</td>
<td>68.4</td>
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</table>
3.3 Background Characteristics of Individual Respondents from Semi-Longitudinal Study

This section describes the characteristics of respondents from the REACH semi-longitudinal study in three communities: Ugep, Olunloyo, and Badeku.

The total number of respondents for the semi-longitudinal study was 1,033, with 481 men and 552 women. The majority of all respondents were in the 25–39 age group (48.2 percent men and 50.5 percent women). The demographics for current marital status were different from site to site and between men and women. In Ugep, 52.7 percent of the respondents were married/cohabitating, with 43 percent single/never married. In Olunloyo, 75.6 percent of the respondents were married/cohabitating. It was similar in Badeku, where 80 percent of the respondents were married/cohabitating. However, about 21.2 percent of respondents in Olunloyo were single/never married, while only 9.7 percent of the respondents in Badeku were. In Badeku about 76.1 percent of women were married/cohabitating, compared with 56.5 percent of men.

Education status varied between the urban/semi-urban (Ugep and Olunloyo) and rural (Badeku) study communities. In Ugep, 56.2 percent of respondents had completed secondary education; in Olunloyo, 48.2 percent had. There was a large difference between Ugep (4.4 percent) and Badeku (36.6 percent) in the proportion of those who had no formal education.

Religion of the respondents differed between study communities. In Ugep, the majority of respondents (98 percent) were Christian, and less than 1 percent (0.7 percent) were Muslim. In Olunloyo, 68.7 percent of respondents were Muslim and 28.7 percent were Christian. In Badeku, 65.1 percent were Muslim and 22.6 percent Christian.

A large number of respondents were unemployed in Ugep (34.9 percent). Most Badeku respondents were farmers (40.4 percent); none were government workers. The numbers of women and men unemployed were not very different — 20.8 percent for women and 25.8 percent for men — but more women were petty traders and more men worked as self-employed professionals and government workers (Table 3.4).
Table 3.4: Percent distribution of socioeconomic and demographic characteristics of REACH respondents by semi-longitudinal study sites

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Study communities</th>
<th>Sex/Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Ugep</td>
<td>Olunloyo</td>
<td>Badeku</td>
</tr>
<tr>
<td>Location</td>
<td>Urban</td>
<td>Rural</td>
<td></td>
</tr>
<tr>
<td>All respondents</td>
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<td>448</td>
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<tr>
<td>Age Group (Year)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>31.0</td>
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<td>15.8</td>
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<tr>
<td>25-39</td>
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<tr>
<td>&gt;40</td>
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<td></td>
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<td>3.2</td>
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</tr>
<tr>
<td>Completed Education</td>
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<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>4.4</td>
<td>10.1</td>
<td>36.6</td>
</tr>
<tr>
<td>Primary</td>
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<td>33.0</td>
<td>35.9</td>
</tr>
<tr>
<td>Secondary</td>
<td>56.2</td>
<td>48.2</td>
<td>22.8</td>
</tr>
<tr>
<td>Post secondary</td>
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<td>7.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td>98.0</td>
<td>28.7</td>
<td>22.6</td>
</tr>
<tr>
<td>Islam</td>
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<td>65.1</td>
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<td>Occupation</td>
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<tr>
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<td>40.4</td>
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<tr>
<td>Petty trading</td>
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<td>36.2</td>
<td>32.2</td>
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<tr>
<td>Government worker</td>
<td>14.8</td>
<td>5.6</td>
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<td>Private sector employed</td>
<td>5.9</td>
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<td>Self-employed professional</td>
<td>14.8</td>
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<td>Other</td>
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<td>2.1</td>
</tr>
<tr>
<td>Percentage in Urban location</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Monthly Income</td>
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<tr>
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<td>₦10,001 – ₦19,999</td>
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</tr>
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<td>≥₦20,000</td>
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<td>16.4</td>
<td>4.9</td>
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</table>
Chapter 4: Summary Of Qualitative Findings

Quantitative community-based studies in largely oral societies often expose nuances and issues that are essential to the formulation of proactive public health policy and effective programmatic interventions. An awareness of this process led REACH to collect qualitative data that provide a clearer picture of social processes and behaviour patterns. Qualitative data garnered through techniques like focus group discussion, in-depth interviews, key-informant interviews, and participatory/observational techniques are useful and complementary, as they shed further light on ‘the real story behind the story’. These are the factors in community-based studies that cannot be easily discerned if analysis is confined to quantitative data. The qualitative data therefore enrich and provide in-depth meaning to the quantitative data.

One of the overarching goals of this study was to describe HIV-related risk perceptions and behaviours in low- and high-prevalence Nigerian communities, as well as to explore factors that influence the use of VCT centres among respondents. The factors affecting HIV risks and related behaviours and/or VCT use include

- Transactional sex
- Age of sexual debut and lack of parental oversight
- Misconceptions about HIV and AIDS
- Sexual partnerships beyond spouses and primary partners
- Mismatched sexual desire
- Fatalism
- Low condom use
- Alcohol use
- The AIDS denial ‘syndrome’
- Stigma against HIV-infected people and fear of testing positive for HIV
- Cost of VCT use
- Access to VCT centres
- Attitudes of health-care providers
- Confidentiality concerns
- Errors in test results

4.1 Transactional Sex

Transactional sex is believed to be widespread, despite a reasonable level of awareness about HIV/ AIDS and its sociomedical consequences. Financial greed, the prospect of being offered a job, promotion, and/or tangible gifts are motivations for transactional sex, according to participants. Here are a few excerpts from REACH interview sessions:

Some children love money. They are never satisfied with whatever money their parents are giving them. They will be telling their parents that they want to buy what someone else bought, and the parents keep telling them to be patient, and they refuse. This also encourages this [transactional sex] act.
Another difference is that some girls love money, and despite the fact that their parents are taking care of them at home, they never listen to their mother and go on their ways. If they see men giving them money [they will follow them], and men these days believe that girls that collect money or gift from them, they must have sex with such a person.

Just as you said when you are in need of maybe employment, there is nothing you can do than to give yourself. At times you want to buy favour in the office with your boss; if he is a male, there is nothing you can do so that when promotion comes you can be promoted.

Transactional sex was mentioned repeatedly in focus group discussions and in-depth interviews at the various sites. In difficult economic circumstances, where families lack the wherewithal to support all members and cannot afford to live in decent accommodations, people look for other ways to obtain shelter.

For instance, some [children] when they offend their parents, their parents drive them out and say go, don’t come back to my house. By doing that they [especially the girls] don’t know what to do or where to go. They go and meet anybody and because they don’t know where to sleep, they can sleep anywhere.

It comes from parents. If they don’t take care of their [daughters] or [are] too harsh on them, the child can be going after men and be having sex with men hence she derives pleasure in doing it and she can continue — if parents do not give food to their children. Such a child can because of this start having sex with men.

The pervasiveness of transactional sex in Nigeria today is due not only to poverty but also to the weakening or obliteration of time-honoured values of candour, integrity, and transparency (S. Johnson, 1976). Values that were embraced in the past have been supplanted with decadent ones. Nigeria is known to be among the most corrupt countries in the world (Transparency International, 2009). Malaise has undermined mores, institutions, and interpersonal and gender relations.

Closely related is the ‘sugar daddy and sugar mummy’ phenomenon. This is a practice where young boys have a sexual relationship with older women, or young girls with older men, not necessarily because of love but for financial gain, to improve their lifestyles, meet their basic needs, and overcome harsh economic conditions. The older and richer partner doles out money and gifts to the younger lover in exchange for company and sex. These lovers may at the same time be involved in other sexual relationships with their peers.

Some boys don’t have something doing; they want to have a [relationship with a] rich lady that will give them money for them to [dress fashionably] like their friends. You see some of them saying ‘I have a sugar mummy and she is giving me money, she will be there for me in every respect’.

There is this other woman I know, her husband is a tailor, but this woman is not satisfied with what her husband was giving her. So she was going out with other men until her husband died. She came to Ugep and still continued going out. She now started going out with a [young Igbo] boy. The woman became pregnant by the boy and she gave birth. She already has six children.
4.2 Age of Sexual Debut and Lack of Parental Oversight

There is evidence that sexual debut is occurring earlier than generally believed for both boys and girls — for girls, from 10 to 12 years, and for boys, 15. Some respondents seemed to think that the eagerness for sex among girl- and boy-children is being influenced by pornographic films, which are freely available in stores, marketplaces, Internet cafés, and homes.

Some do not reach 18 years now before they start having sex. Some start having sex at the age of 13 years. I have seen it in this community. As the world is now, it is not compulsory that the child should be matured unless [for] those ones who have the fear of God in their heart. There are some who reach 20 years before they start having sex because of the way they are [raised].

Some are doing it [sex] and others are not doing it, [but] a little boy of 8 or 9 knows everything about sex.

That is what civilisation brought. Among themselves or peers they will be asking one another, ‘Have you had sex with girls before?’ They count it as what you can be doing [recklessly] and be proud of. They do not [see] it as a big issue. Most of the boys do watch [porn] films, and having watched these films they will be practicing [what they see].

Also, cramped living conditions in many homes often expose children to sex at an early age.

Parents must be able to take care of themselves [sexually] at home. There are some children who are 15 years old living with their parents in their single room; husband and wife, many want to have sex, and these children may be seeing them, therefore trying to do the same.

One of the unintended consequences of the pressure to support families in difficult circumstances is parents’ failure to supervise their children. Working parents leave children unattended at formative stages of their lives. Such children run the risk of being sexually assaulted by older and more experienced adults.

To some extent that there are some parents who handle their children with strong hands but having left the house to [go to] their places of work, they don’t know what these boys are doing after school hours. Some of [the boys] use to follow their friends to their girlfriends’ houses and from there they too will start doing this thing.

4.3 Misconceptions about HIV/AIDS

Years of HIV/AIDS control programmes have not eliminated misconceptions about the virus or the disease. Many people still harbour erroneous ideas about HIV, which in turn encourages them to indulge in risky behaviour patterns.

How do we in our language call the disease? . . . a prominent chief referred to it as Akalang-pen [literarily, white-man’s diseases that destroys us]. . . . (Ugep)
These erroneous ideas include misconceptions about transmission, including that the disease cannot be transmitted through anal sex. These are prevalent especially among the illiterate segment of the population, although similar views are held by some better-educated people.

The people in the community who never [attended] schools used to say that people can suddenly have it [HIV], that they do not contact it. They still hold the opinion that we should not be using the same plates at home to eat with them. . . . (Badeku)

Because most of them feel that [if] they do those things they are [not at risk of contracting] HIV and AIDS because [for] a man to man the blood is not really coming in contact with the other [man's] blood, but it is not true...homosexuals say they do it through the anus so there is no blood coming out from there, so they will not [contract] HIV and AIDS or STD through homosexual [behaviour].

Misconceptions encourage Nigerians to believe in the preventive efficacy of traditional herbs before or after sexual intercourse.

There are beliefs that there are local herbs and traditional medicine that as soon as they are rubbed on the private parts, they [protect them from contracting] HIV. (Ibadan)

There is another way they are using to protect against HIV/AIDS. This can be done by using herbs. Most men who do not go to school have sex with women, take these local herbs immediately they finish sex, all the things they might have [contacted] from the woman, they urinate it, having taken the medicine. These people are using this means. The only way we know is that some people know that there is a kind of local herb they can take after having sex to protect them from contacting HIV/AIDS.

I had a discussion with one of the top men in our local government on HIV. He was telling me that he’s a Muslim. He said there are some medicines they use on their private part and don’t need to use a condom. They can have sex with anybody flesh to flesh but not contact HIV. That is his own belief and I keep on enlightening him, telling him that he should use condoms that he might contact it, that those herbs do not work.

Such misconceptions deter many from seeing the disease as a serious public health problem and from considering voluntary counselling and testing. They often reason that they do not need to be tested for a disease that does not exist. Or, ‘Why can’t we use our traditional herbs, as our forefathers did, to prevent any sexually transmitted diseases and get on with our lives?’

4.4 Sexual Partnerships beyond Spouses and Primary Partners

The phenomenon of sexual partners is expressed in different ways. There is the practice of polygamy, which is still accepted in many Nigerian communities, especially among Muslims and rural and inner-city dwellers. Multiple sexual partnerships are also motivated by the desire to explore or, to put it in the local parlance of men, ‘sample many women’ partners.

One day I was sitting beside my neighbour’s shop, I was listening to some men discussing about how they [sexually use] women. Some of them will say, ‘Onen jang konana oji’ (meaning nobody eats only
one type of soup). So that is the thing that encourages them to do what they are doing. I think some of them will say [it may be] a curse or something from the family. Some men will say other girl’s thing is like water while one is thick. So they are tasting to see whether the other one has water or not (cuts in) in the process of tasting, they forget AIDS is real. They will say that they are always protecting themselves. The funny thing is that after all [this] they will go and look for a decent girl to marry.

There is also male homosexuality and the perception that Western films play a role in encouraging homosexuality among young people in Nigeria:

*The way I heard men having sex with men was very fearful to me that I saw it as something that is difficult and not possible. They said that the reason why it happened was that they used to watch it in the films and from there, they too started practicing it, whether it has meaning or not."

### 4.5 Mismatched Sexual Desire

A mismatch of sexual desire is also a factor among both married and unmarried people. Sometimes the partners are unable for whatever reason to meet each other’s sexual needs and demands.

*Some women if they say they are not in the mood, then the men say, well, if you are not in the mood, let me go and look for somebody [outside the relationship] that is in the mood.*

*Some men leave their wives when they refuse sex. Even some women, you will hear a woman saying that her husband doesn’t [sexually] satisfy [her].*

*Especially married men! They are the people who are spoiling the situation. Married men, they dump their wives at home and they will be moving around down there where I am living. You will see them driving up and down the road, some girls will just come [out to] the filling station and stand there; before you know it, cars will be picking them like that, and [the drivers] are married men.*

### 4.6 Fatalism

Despite efforts to educate the public about HIV/AIDS and make information freely available, some are inclined to dismiss the disease as pure fabrication or a scare tactic to stop people from having a good time. People assure themselves that the disease does not really exist, and they also proclaim loudly before kin, colleagues, and significant others not to bother to embrace messages of condom use, abstinence, etc. There is a deep fatalism in the community, which encourages people to take risks or to fail to take action to prevent the disease.

*I’d like to add that many people are still in denial. Many of them simply do not agree [that the disease exists]. Some of them say ‘Aji aji nabede’ [whether you ate or not, you will still die].*

*Many of them will not believe that AIDS exists in this community. Some of the young boys use to say in Lokurr dialect that ‘Lope ipo daja’ [something must kill a man].*
Anyway, anyhow, you die. It’s the way that God has destined you to die.

The feeling of ‘what will be, will be’ pervaded the discussions and reactions about nonuse of VCT centres. Learning about the consequences of HIV has always aroused some despondency to the point of fatalism about the ability to become infected.

There is denial for some people in Otukpo. Here there is a belief that if your child is infected with the virus, he or she is a wayward child; but youths believe that death is death, no matter the cause. (Benue)

People believe that knowing their status will bring an end to their lives. (Lagos)

4.7 Low Condom Use

Many respondents were aware of the disease and had some knowledge on how to prevent it. There is a risk in having the final decision to use — or not use — a condom lie solely with the man, especially if he engages in multiple partnerships, a polygamous relationship, and/or transactional sex.

On the issue of using condom, as far as I am concerned, I have used it before; there is nothing there in terms of enjoyment for the husband. We accept that this thing prevents infection from man to woman. It is the man that is supposed [to decide] whether to use it or not. (Badeku)

4.8 Alcohol Use

Alcohol, a catalyst for risky sexual behaviour, is widely consumed in Nigeria. Some participants argued that alcohol use in small quantity for beginners, or large quantity for habitual drinkers, could cloud the judgment needed to minimise HIV risks associated with sex.

The use of alcohol usually causes [first intercourse] many times.

In addition, quite a number of traditional medicinal concoctions that are freely sold in marketplaces and/or villages and towns by mobile vendors have substantial alcohol bases. The vendors, who are skilled marketers, often use loudspeakers to attract customers. One cannot underestimate the role of alcohol and/or alcohol-based medicinal concoctions in the spread of HIV/AIDS.

4.9 Denial of AIDS ‘Syndrome’

The tendency for youth in the high-prevalence site (Ugep) to regard HIV/AIDS as a figment of the imagination is driving the disease. This denial syndrome encourages young people to indulge in unprotected sex and/or to see no danger in having multiple sexual partners.

Some people do not agree that the disease exists in the world because the disease is not visible to the naked eye. It is not something that can be seen as such but is something that works in the blood. This is why some people are in denial. (Ugep)
The youths do not believe that the disease exists. If you tell them anything about the virus, they will tell you that it does not exist. They used to say that as long as the sexual organs exist among humans, the virus cannot stop. (Otukpo)

4.10 Stigma against HIV-Infected People and Fear of Testing Positive for HIV

A focus group discussion among female Badeku traders highlights stigma about HIV/AIDS in their community.

Our opinion about the test is that when someone has tested positive for HIV/AIDS, such people should not be discharged from hospital or the testing centre, but they should create a special place for them. They should not be allowed to mix with people again in order not to spread it among the people. As we have been hearing that such victims should be expecting the date of their death.

There will be stigma because they will not want to keep those that have been infected with HIV/AIDS with those that have not been infected.

In a social environment that for a long time was controlled by strong norms of female chastity and socially sanctioned heterosexual intercourse, the association of the epidemic with ‘outcast’ groups helped transfer some of the stigma reserved for these groups to the disease. It was a short step from compassionate communalism to the view that each man or woman is responsible for his/her reproductive fate. Hence, the ‘mockery’ described by migrant workers in Badeku in an FGD session:

The community will mock the person if we have such a person in this community. Such a person will not like himself because of mockery. What I think is that the person will not be sent out of the community but will be deserted by the community. Everybody will desert him even eating together will be difficult. People can be making jest of him.

In a community held together by quotidian norms of association, fractured fellowship at any level may prove unbearable. Mockery is a negative sanction that could lead to personal depression, ostracism, and even exile. Stigma adds to AIDS, with opportunistic infections of a social and psychological kind adding to the urgent need for action.

Efforts that have been made in Nigeria over the years to reduce the stigma through advocacy have not paid off.

There is high stigmatisation once they know someone has it. I know three people, two ladies and a man, but one is dead now. The stigmatisation is high, such that people don’t even want to shake hands with them. They greet them from afar. People try to keep a distance from them and would not want the saliva from their mouth to make contact with them. (Epe)

The stigma is so strong with victims may be praying for death to come. Even I myself, I have an attitude toward them. Though I am informed, but I am not comfortable when I am with an infected person. Stigmatisation is not limited to the victim only. Family members of such a person are also viewed with suspicion similar to what happens to the Osu (i.e., an outcast) in Igbo land.
The VCT centres are most often located in general or teaching hospitals and sometimes have prominent signposts advertising them. Some exist as distinct centres within the communities. The perceived lack of privacy, including the knowledge of the services provided, could contribute to stigma toward people seen visiting testing centres. Participants repeatedly observed that anyone seen to be walking voluntarily into them to check his/her status would readily be branded as a sufferer and stigmatised by members of the community.

*Location of test centres is also an issue. So when people see a person entering the test centre for the purpose of testing, they assume that such an individual is likely to be HIV positive.* (Benue)

*The greatest barrier to HIV testing in my community is the attitude and belief of people toward individuals infected with the HIV virus.* (Epe)

*The main problem is the stigma associated to being HIV positive. When an individual goes for the test and is found positive, the stigma attached to it is very great, hence people shun the test. Even if it is made free, people may not really come out for the test.* (Oyo)

Quantitative research also identified fear as impeding the use of VCT centres. The participants argued that many were afraid to know their status because of the possible consequences, fearing that HIV/AIDS leads to sudden and/or painful death. It is therefore better not to know one’s status than to undergo a test that is likely to bring unpleasant news of imminent death.

*As of now, the level of acceptability (to go to HIV testing centre to get tested) is not there. The willingness is not very encouraging because very few will come without being forced by higher authority to come and do it. Majority of people who come here are being forced by high authority. Most of them want one thing or the other when they know that such authority will not attend to them until they see the health/HIV status. Hence because of that they now see it as must come and get tested.* (Oyo)

*The greatest barrier to HIV testing is fear. Condemnation by society when the result is positive is another barrier. The fear of loss of employment, neglect, rejection and loss of respect are other reasons.* (Benue)

There is also a mixture of fear and stigma.

*People are afraid, they believe once they have the disease, people will look at them with disgust, they will discriminate and stigmatisate them as such are embarrassed to go for the test. The only place they can be tested is general hospital. It is not costly, it is free of charge, but it is because of stigmatisation for instance they think, if people get to know I am positive what would they think about me, so that is just it.* (Epe)

*The only thing is that they are usually apprehensive about information they have that for now it is not curable. So when they are coming they are apprehensive, they are not settled, like someone who is going to court and a judge is going to pass judgement. They are usually like that. Once the test is positive, that means I am dead, those that have such feelings are those that are not enlightened, the educated ones feel more relaxed and by the time you counsel them, they understand being positive is not the end of life.* (Lagos/Ikeja)
4.11 Cost as a Determinant of VCT Use

Although Nigeria is a relatively wealthy country its citizens are still among the poorest in the world. Nearly two-thirds still live on $1–2 USD a day. The result is that vast numbers of Nigerians cannot afford health-care services and often resort to self-treatment or the use of herbal medicines and traditional healers. The respondents identified cost as a critical factor determining the use of VCT centres.

The cost [for HIV testing] is too expensive. (Otukpo)

It costs 700 naira. In [the] case [that] you don’t have anybody to pay for you, you can’t afford it. HIV testing costs a lot of money. Money is a barrier to HIV testing.

4.12 Access to VCT Centres

Some centres are located within hospital premises, while others stand alone. The reports, including the comments following the dissemination of outcomes of the study in the various communities, reveal the perception that VCT centres are few and far between, and it turned out that designated testing centres were indeed miles away. Quite a number of those who attended the dissemination workshops asked about location of HIV test centres near their homes. In urban as well as rural communities (Badeku and Epe), participants were not aware of the location of the centres.

4.13 Attitudes of Health-Care Providers

While the literate members of the population are generally more at home in modern health-care facilities, the nonliterate who form the majority in the population are not. They experience alienation in a hospital environment. The registration procedures in government health-care facilities intimidate them. They also generally find health personnel in public facilities unable to relate to them in a warm and friendly way. It is therefore not surprising that a barrier to use of VCT centres is the attitudes and behaviours of health workers.

4.14 Confidentiality Concerns

Closely related to the previous concern is fear that health-care personnel will disclose a positive result to third parties.

People don’t feel like going for the test because they don’t want others to know about it. (Lagos)

The greatest barrier to HIV testing is the issue of confidentiality. (Oyo)

The attitudes of health-care workers make people not to get tested because they talk too much. (Benue)
4.15 Errors in Test Results

Finally, consumers are likely to be wary if they suspect that results of a test for life-threatening diseases like AIDS might not be correct due to poor handling, lack of equipment to carry out the test properly, or competence of testers. The unhelpful attitudes of health workers might also arouse suspicion about their dedication to duty and cause confidence in their therapeutic skills to decrease.

Some health workers give people fake results.

Structural factor is a problem in where it [VCT] exists in rural areas, epileptic power supply is a barrier, preserving the tools [and] materials. (Ikeja, Lagos)

4.16 Conclusion

Results from the qualitative interviews give better insight into the reasons for reduced progress in HIV and AIDS prevention in Nigeria. Transactional sex continues to be a factor in many part of Nigeria, as evidenced in the quotes from the different study communities. Women especially often find themselves in situations where they feel their body is their sole negotiating power. There is also evidence that sexual debut is occurring earlier than generally believed among both boys and girls. With parents paying less attention to their children due to busy schedules, as well as peer influence, children were found to be becoming sexually active very early. Related to this issue, sexual encounters outside of the marital home still occur, and in some cases are even accepted practice, especially for men.

Years of HIV/AIDS control programmes have not totally eliminated misconceptions about the virus or disease. Many people still harbour erroneous ideas about HIV that in turn encourage them to indulge in risky behaviour patterns. Additionally, fatalism, inconsistent and improper condom use, and alcohol also contribute to the continued spread of HIV. Respondents gave several reasons for the low testing rates in Nigeria, identifying poor attitudes of health workers, stigma related to testing positive, cost of testing, access to testing centres, and confidentiality of results as key factors. For the HIV epidemic to be curtailed in Nigeria, these issues will need to be addressed within the context of more comprehensive efforts designed to overcome these barriers.
REACH principal investigator Richard Joseph (left) and NACA director-general John Idoko
Chapter 5: HIV-Related Knowledge, Awareness, Risk Perception, and Behaviour

This chapter presents information on HIV- and AIDS-related risk perception and behaviour of the sample respondents. The way in which people assess a situation has implications for their behaviour and thus their risk of becoming infected with HIV. Information on this subject is important in a semi-longitudinal investigation because perception is at the heart of most attitudes and behaviour and is, in consequence, a primary target for policy analysis and programme development.

5.1 HIV/AIDS Knowledge and Awareness

Of the 1,033 people interviewed in Ugep, Olunloyo and Badeku, 1,027 reported that they had heard of HIV and/or AIDS. Those who had heard of HIV/AIDS were asked about ways people could protect themselves from becoming infected with HIV. The responses showed mixed awareness, with a majority mentioning the ABCs of prevention (sexual abstinence, staying faithful to partner, and condom use). Fewer than half mentioned avoiding sex with commercial sex workers, intercourse with many partners, blood transfusions with untested blood, and use of unsterilised needles. With reference to needle use, almost 40 percent reported receiving one or more injections in the 12 months preceding the survey. Research from 2009 found that use of recycled/dirty needles contributes to the spread of disease, with one of the studies showing patients who contracted HIV at a hospital in Nigeria as being significantly more likely to have had blood tests, vaccinations, blood transfusions, or surgical procedures. Half of the patients at the hospital who received tetanus vaccinations reported seeing needles being reused (Peters et al., 2009).

A majority of respondents reported their source of HIV and AIDS information on HIV and AIDS to be the radio (92.6 percent), followed by television (59.4 percent). See Table 5.1. Further analysis determined the source of information for HIV and AIDS and respondents’ answers to knowledge questions such as ‘Can a person infected with HIV look healthy?’ Although a majority of respondents got their information about HIV and AIDS from radio and television, those who had the most correct information accessed HIV/AIDS information from printed material such as handbills, billboards, newspapers, and magazines. Those with no formal education were less likely to have sources other than radio or television for HIV and AIDS information. Thus, it can be inferred that although most people hear about HIV and AIDS from the radio, in-depth knowledge of the disease was more accurately sourced from handbills, billboards, newspapers, and magazines, giving educated persons an advantage of gaining better knowledge of HIV and AIDS. Use of health workers as a source of HIV information also increased with educational attainment.
Table 5.1: Proportion (%) of REACH respondents who use various sources of HIV/AIDS information, by selected characteristics

<table>
<thead>
<tr>
<th>Characteristic and (N)</th>
<th>Radio or TV</th>
<th>Printed media(^1)</th>
<th>Spouse</th>
<th>Other sex partner</th>
<th>Other relative</th>
<th>Health workers</th>
<th>Infected person</th>
<th>Friend or acquaintance</th>
<th>Community leader/meeting</th>
<th>School</th>
<th>Church or mosque</th>
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<td>All respondents (N)</td>
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<td>181</td>
<td>548</td>
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<td>59.8***</td>
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<td>58.1</td>
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<td>&gt;40 (250)</td>
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<td>16.8</td>
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<td>2.8</td>
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</table>

\(^1\)Traditional religion was too small to analyze
\(^2\)Indicates newspapers, magazines, billboards, and/or handbills,
***Significant at p<0.001; **Significant at p<0.01; *Significant at p<0.05;
Regarding knowledge about mother-to-child transmission, 64.9 percent correctly identified ‘through breast milk’ as a mode of HIV transmission, but only about a third of the respondents reported ‘yes’ for the categories ‘during pregnancy’ and ‘during labour/delivery’ (38 and 30.3 percent, respectively). The radio was the major source of HIV information for most of those who responded ‘no’ to transmission during pregnancy (88.2 percent) and delivery (93.1 percent).

When respondents were asked about specific ways of protecting themselves from becoming infected with HIV, a number of respondents gave answers that did not fit in the predetermined categories, such as ‘God’s protection/move closer to God’, ‘avoid sharing clothes’, and ‘avoid sharing toilets’.

5.2 HIV/AIDS Risk Perception

Even though the perception of AIDS as a white person’s disease — whether in terms of the presumed vulnerability of Caucasians or the idea that the disease originated with them — does not stand up to empirical scrutiny of global prevalence rates, the view is still persistent. REACH findings strongly indicate the need for strategies to counter this fallacy. A sensitisation programme organised around a discussion of global rates of infection is a reasonable approach.

In Ugep, HIV and AIDS are referred to as ‘Akaling-pen [literally, white-man’s disease] that has come to destroy us’. It is a short step from such perception to outright denial and the triumph of fatalistic attitudes.

Higher levels of anxiety about HIV/AIDS were reported in rural Badeku (76.7 percent) relative to urbanised Ugep (31 percent) and Olunloyo (12.1 percent) (Figure 5.1). Asked about their worry that they may already be infected, fewer people expressed worried in Ugep (58.5 percent) and Olunloyo (73.4 percent) than in rural Badeku (12.3 percent). This could reflect increasing levels of desensitisation as more information on risk factors of HIV becomes available to urban and semi-urban communities.

*Figure 5.1: Proportion of respondents by current worry that they may already be infected with HIV/AIDS*
This finding contrasts with assumptions that rural dwellers were inherently more fatalistic than urbanites and calls for more nuanced psychosocial contextual understanding of the factors influencing disparate community-level responses to the HIV epidemic.

### 5.3 HIV/AIDS-Related Risk Behaviour

This section presents information on HIV-related risk behaviour among the study population, presented by site. Trends across the sites suggest strongly that sexual debut is occurring at lower ages than previously thought. Poverty and the absence of parental supervision rank high among the reported reasons for this trend. Poverty combines with an absence of institutional development and the lower status of women in Ugep society to promote high-risk sexual behaviour. Strengthening weak institutional structures must be addressed concomitantly to mitigate the associated risk behaviours.

Although most of the men and women respondents had their first sexual intercourse at age 13–17 years, the bell-shaped distribution of these broad proportions is fairly consistent with demographic expectations. However, the low age of sex debut signals changes in the moral fabric of society and traditional sexual mores. Data on prevailing age at first intercourse show that women appear to have earlier sexual debut, with 43.3 percent of women and 30.9 percent of men perceived to experience first sex at 8–12 years.

#### Table 5.2: Proportion (%) of respondents by perceived age at first intercourse in the communities

<table>
<thead>
<tr>
<th>Community</th>
<th>Age young men are perceived to begin sexual intercourse in this community</th>
<th>Age young women are perceived to begin sexual intercourse in this community</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-12</td>
<td>13-17</td>
</tr>
<tr>
<td>Ugep</td>
<td>34.6</td>
<td>53.1</td>
</tr>
<tr>
<td>Olunloyo</td>
<td>15.2</td>
<td>63.4</td>
</tr>
<tr>
<td>Badeku</td>
<td>67.8</td>
<td>26.7</td>
</tr>
<tr>
<td>Total</td>
<td>30.9</td>
<td>53.8</td>
</tr>
</tbody>
</table>

The perceived proportions of male and females in rural Badeku who have first intercourse at ages 8–12 years are largely comparable, 69.2 percent for women to 67.8 percent for men. This contrasts sharply with the numbers in Olunloyo (15.2 percent and 36.4 percent, respectively) and Ugep (34.6 percent and 41.7 percent, respectively).

Beyond the unexpected similarity between the perceived proportions of males and females having first intercourse at 8-12 years in Badeku, the intersite comparisons of ages are consistent. More than half of the respondents thought that by age 15, 28.9 percent of the male population in Ugep and 39.4 percent in Olunloyo has had first intercourse. By contrast, 81 percent of the respondents thought that the male population in Badeku has had first intercourse before age 13.
The ages the respondents believed first sexual intercourse occurred for current adolescents are consistently older than those shown in the studies. On the one hand, these disparities could be related to heightened public concern over imagined changes in sexual behaviours, or they could be linked to social desirability bias, in which respondents typically portray or present themselves as community members who conform to its norms (i.e., who ‘behaved well’).

A distribution of the data by single years shows disparities between the ‘normal age’ at which people had intercourse (14.3 years for males and 12.2 years for females) and the figures that the respondents reported for themselves (19.2 years for men, 19.9 years for women). Nearly 75 percent of all respondents, and 77.3 percent of men, had had intercourse by age 20.

Figure 5.2 shows that for all sites, more men than women ages 12 to 17 had had first intercourse. A fluctuation occurs at age 18, but the trend is restored at age 19. After age 20 more women than men have their sexual debut.

*Figure 5.2: Proportion of respondents by age at first intercourse*

As many as 4.8 percent of female respondents in Ugep had had first intercourse by age 13, compared with 0.4 percent in Olunloyo and 2.4 percent in Badeku. By age 20, more than 60 percent of the female respondents in Badeku and Olunloyo had had first intercourse.

For all sites, women were consistently more likely to think their male partners had other sexual partners than the other way around: 28.8 percent of women in Olunloyo, 14.1 percent in Ugep, and 10.5 in Badeku thought so. However, the proportions of respondents who ‘don’t know’ the sexual habits of their spouses or regular sexual partners was fairly high: 25.4 percent in Ugep, 20.8 percent in Olunloyo, and 18.4 percent in Badeku.
The figures for men who thought that their spouses or regular sexual partners were seeing other people were uniformly low (6.8 percent in Ugep, 7 percent in Badeku, and 8.8 in Olunloyo), although men also reported fairly high levels of uncertainty (11.6 percent in Badeku, 25.9 percent in Ugep, and 26.3 percent in Olunloyo).

Table 5.3: Proportion (%) of REACH respondents who think that their spouse or regular sex partner has other sexual partners, by study site and other characteristics

<table>
<thead>
<tr>
<th>SELECTED CHARACTERISTICS OF RESPONDENT</th>
<th>UGEP</th>
<th>OLUNLOYO</th>
<th>BADEKU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think your spouse/regular sexual partner has other sexual partners?</td>
<td>Yes</td>
<td>Total</td>
<td>Yes</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6.8</td>
<td>205</td>
<td>8.8</td>
</tr>
<tr>
<td>Female</td>
<td>14.1</td>
<td>142</td>
<td>28.8</td>
</tr>
<tr>
<td>Age (years) Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-24</td>
<td>12.9</td>
<td>85</td>
<td>13.9</td>
</tr>
<tr>
<td>25-39</td>
<td>9.0</td>
<td>189</td>
<td>22.1</td>
</tr>
<tr>
<td>&gt;40</td>
<td>8.2</td>
<td>73</td>
<td>26.2</td>
</tr>
<tr>
<td>Completed Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>8.3</td>
<td>12</td>
<td>36.1</td>
</tr>
<tr>
<td>Primary</td>
<td>14.5</td>
<td>76</td>
<td>22.8</td>
</tr>
<tr>
<td>Secondary</td>
<td>9.7</td>
<td>186</td>
<td>19.7</td>
</tr>
<tr>
<td>Post-secondary</td>
<td>5.6</td>
<td>71</td>
<td>10.0</td>
</tr>
<tr>
<td>Current Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single/Never married</td>
<td>16.1</td>
<td>143</td>
<td>17.2</td>
</tr>
<tr>
<td>Married/Cohabitating</td>
<td>5.6</td>
<td>197</td>
<td>21.9</td>
</tr>
<tr>
<td>Separated/Divorced/Widowed</td>
<td>0.0</td>
<td>7</td>
<td>50.0</td>
</tr>
</tbody>
</table>

People in Ugep who thought that their partners or spouses were having affairs made up 12.9 percent of respondents ages 15–24 years, compared with 9 percent of persons ages 25–39 years and 8.2 percent of those above 40. Viewed in terms of previously documented rates of marital stability, these ratios could indicate that spousal and partner trust increases with length of the relationship.

The trend is reversed in Olunloyo, where the proportions of respondents who think their partners or spouses are seeing someone else increases with age: 13.9 percent of people ages 15–24 years, 22.1 percent of people ages 25–39 years, and 26.2 percent of people above 40.

More women than men in all three states thought that their male partners had other partners: 28.8 percent versus 8.8 percent in Olunloyo, 14.1 percent versus 6.8 percent in Ugep, and 10.5 percent versus 7 percent in Badeku.

REACH data found that men are four times more likely to have sexual partners outside their marriage or regular sexual relationships than women. The Ugep pattern of fewer men (23.6 percent) than women (27.5 percent) having sexual partners outside a regular relationship is consistent with normal
ethnographic and social demographic expectations. The patterns in Olunloyo and Badeku for the same data are fairly unexpected. Across the three sites, however, the aged 25–39 population is more likely to have more than one sexual partner outside a regular relationship.

Corresponding information shows that sexual networking subsists on the basis of a system of transactional sex. Table 5.4 shows that obtaining or exchanging money or gifts for sex occurs in the study communities.

Table 5.4: Practice of women in the study communities exchanging sex for money, gifts, or other favours, by selected characteristics

<table>
<thead>
<tr>
<th>Selected characteristics</th>
<th>Ugep</th>
<th>Olunloyo</th>
<th>Badeku</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is it common practice in this community to have sex for money, gift or other favours</td>
<td>Yes</td>
<td>DK</td>
<td>Total</td>
</tr>
<tr>
<td>Sex:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>86.7</td>
<td>4.8</td>
<td>248</td>
</tr>
<tr>
<td>Female</td>
<td>91.4</td>
<td>2.1</td>
<td>187</td>
</tr>
<tr>
<td>Age:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young (15-24)</td>
<td>87.3</td>
<td>5.2</td>
<td>134</td>
</tr>
<tr>
<td>Middle (25-39)</td>
<td>87.9</td>
<td>3.7</td>
<td>214</td>
</tr>
<tr>
<td>Old (&gt;40)</td>
<td>93.1</td>
<td>1.1</td>
<td>87</td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal school</td>
<td>78.9</td>
<td>5.3</td>
<td>19</td>
</tr>
<tr>
<td>Primary</td>
<td>91.4</td>
<td>3.2</td>
<td>93</td>
</tr>
<tr>
<td>Secondary</td>
<td>88.1</td>
<td>3.7</td>
<td>243</td>
</tr>
<tr>
<td>Post-secondary/Others</td>
<td>90.9</td>
<td>2.6</td>
<td>77</td>
</tr>
<tr>
<td>Marital Status:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>85.8</td>
<td>4.2</td>
<td>212</td>
</tr>
<tr>
<td>Married/Cohabit</td>
<td>90.8</td>
<td>3.4</td>
<td>206</td>
</tr>
<tr>
<td>Separated/Divorced/Widowed</td>
<td>100.0</td>
<td>0.0</td>
<td>17</td>
</tr>
</tbody>
</table>

5.4 HIV and Sexual Violence

Table 5.5 shows the distribution of respondents across sites and locations based on whether they had been forced to have sex or had been physically abused. Four out of 5 respondents in Ugep (79 percent) and about 9 out of 10 in Olunloyo (89.7 percent) and Badeku (93.2 percent) indicated they had not been sexually abused or forced to have sex in the previous 12 months. The pattern was observed across urban (84.4 percent) and rural (93.2 percent) locations. Most respondents in Ugep (78.1 percent), Olunloyo (84.8 percent), and Badeku (88.4 percent) stated that they had not been physically abused. Respondents in Ugep and Olunloyo both reported higher physical abuse compared with Badeku, possibly a function of their urban status. Sexual abuse in Ugep was reported more than twice as much as in Olunloyo and three times as much as in Badeku.
Table 5.5: Distribution of whether REACH respondents had ever been forced to have sexual intercourse or been physically abused by a sexual partner, according to community of study and location

<table>
<thead>
<tr>
<th>Study sites</th>
<th>Has your sexual partner ever forced you to have sex</th>
<th>Ever been physically abused</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Community:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ugep</td>
<td>13.4</td>
<td>79.0</td>
<td>11.6</td>
</tr>
<tr>
<td>Olunloyo</td>
<td>6.0</td>
<td>89.7</td>
<td>11.4</td>
</tr>
<tr>
<td>Badeku</td>
<td>4.8</td>
<td>93.2</td>
<td>8.9</td>
</tr>
<tr>
<td>Location:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>9.7</td>
<td>84.4</td>
<td>11.5</td>
</tr>
<tr>
<td>Rural</td>
<td>4.8</td>
<td>93.2</td>
<td>8.9</td>
</tr>
<tr>
<td>Total</td>
<td>9.0</td>
<td>85.7</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Table 5.6: Distribution of whether REACH respondents had ever been forced to have sexual intercourse or been physically abused by a sexual partner, by study site and gender

<table>
<thead>
<tr>
<th>Study sites</th>
<th>Has your sexual partner ever forced you to have sex</th>
<th>Has your partner ever physically abused you</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td>Gender</td>
</tr>
<tr>
<td>Community:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ugep</td>
<td>Male</td>
<td>55.9</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>44.1</td>
</tr>
<tr>
<td>Olunloyo</td>
<td>Male</td>
<td>40.7</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>59.3</td>
</tr>
<tr>
<td>Badeku</td>
<td>Male</td>
<td>71.4</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>28.5</td>
</tr>
</tbody>
</table>

5.5 HIV Prevention and Antenatal Care

The 2003 National HIV and AIDS Policy requires that women undergo voluntary antenatal HIV testing to prevent mother-to-child transmission. As noted later in this report, about 41 percent of the women in the total sample had given birth in the prior three years, with the range from 48.5 percent in Olunloyo to 34.6 percent in Ugep to 29.1 percent in Badeku (see Table 6.14). While 90.2 percent of the women received antenatal care, 9.8 percent did not. The proportion of those who had received antenatal care was highest in Olunloyo (93 percent) and lowest in Ugep (85.2 percent).
Figure 5.3: Number of women who had been pregnant, received antenatal care, had been tested and counselled for HIV, and received their test results in two study sites

Figure 5.3 shows a decline of the number of women who had given birth in the last three years and the number in that group who had tested for HIV and received their test results. Although antenatal HIV testing and counselling (ANC) are not mandatory, it is supposed to be offered to all pregnant women who attend antenatal clinics. In Site 1, of the 129 who reported they had given birth in the previous three years, 121 had received ANC, but only 45 were tested for HIV and 36 went back to receive their results. The discrepancy was similar in Site 2.

Does education have an impact on the extent to which women seek ANC? All of the women with postsecondary education had received antenatal care before giving birth, while only 89.3 percent with secondary education and 91 percent with primary education had. The smallest proportion (86.7 percent) was observed for those with no formal education. Results also indicate that the proportion of women who received ANC increased with the level of education.
The results also demonstrate the impact of education on following up on results of HIV testing and counselling. As educational attainment declined, the proportion of those who went back to the clinics to receive the results of HIV tests progressively decreased. Almost all the respondents with tertiary education followed up their test results, while two-thirds of those with secondary education and half of those with primary education did. Only 12.5 percent of those with no formal education went back for the results. In general, these findings indicate that educational level may have implications for the targeting of HIV prevention programmes.

### 5.6 Awareness and Access to HIV Prevention Services

More than 70 percent of respondents in Ugep were aware of HIV prevention programmes of federal (76.5 percent), state (77.7 percent), and local (74.5 percent) authorities. In Olunloyo 50.9 percent were aware of the programmes conducted by federal agencies, and 55.4 percent were aware of state agency programmes. Lesser proportions (3 out of 10) in Badeku were aware. Contact with HIV prevention programmes was low across the sites.
Table 5.7: Proportion (%) of REACH respondents who are aware of HIV prevention programmes at the federal, state, and local levels and who have had direct contact with any of the programmes

<table>
<thead>
<tr>
<th>Survey site and number of respondents</th>
<th>Aware of HIV prevention program</th>
<th>Ever had direct contact with these programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At Federal level</td>
<td>At State level</td>
</tr>
<tr>
<td>Study site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ugep (439)</td>
<td>76.5</td>
<td>77.7</td>
</tr>
<tr>
<td>Olunloyo (448)</td>
<td>50.9</td>
<td>55.4</td>
</tr>
<tr>
<td>Badeku (146)</td>
<td>32.9</td>
<td>32.9</td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban (887)</td>
<td>63.6</td>
<td>66.4</td>
</tr>
<tr>
<td>Rural (146)</td>
<td>32.9</td>
<td>32.9</td>
</tr>
<tr>
<td>Total (1033)</td>
<td>59.2</td>
<td>61.7</td>
</tr>
</tbody>
</table>

Respondents were asked whether they had ever participated in a stakeholders’ meeting, workshop, or conference on HIV and AIDS. Gender differences were observed, with twice as many males (27 percent) as females (12.1 percent) involved in such meetings (Table 5.8).

Table 5.8: Proportion (%) of REACH respondents who had participated in HIV- and AIDS-related stakeholders meetings, workshops, or conferences, by gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Participated in meetings</th>
<th>Did not participate in meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>28.0 (130)</td>
<td>72.0 (334)</td>
</tr>
<tr>
<td>Female</td>
<td>12.6 (67)</td>
<td>87.4 (465)</td>
</tr>
</tbody>
</table>
Chapter 6: Summary of Findings, Discussions, and Policy Recommendations

This chapter summarises the results from the semi-longitudinal data, including some not included in the interim report, and derives policy recommendations and conclusions from them. The recommendations are outlined in a section following the summary of results.

6.1 Knowledge and Awareness of HIV and AIDS

The results of the assessment of HIV and AIDS-related knowledge are summarised as follows:

- Men had more knowledge of HIV and AIDS than women.
- Unmarried respondents tended to be more knowledgeable about HIV and AIDS than ever-married respondents.
- Knowledge of HIV prevention increases with educational attainment.

High levels of awareness do not correspond with high levels of knowledge — and correspond even less with preventive behaviour. Awareness and knowledge do not mean the same thing, and they are accessed differently. Unmarried persons tend to exhibit higher condom use than married respondents and may be recipients of corollary communication about the nonfertility-related advantages of condom use. In addition to the effects of greater social experimentation, this might account for higher knowledge rates among unmarried persons than among married ones.

It is recommended that HIV-related information be customised for different segments of the population through instruments and channels that are friendly, available, accessible, affordable, and acceptable.

Radio and television were the sources of information most frequently identified by respondents across the socioeconomic categories. This is expected, since irrespective of educational level, most people listen to the radio or watch television when these are available. However, the information provided on the radio and television is less in-depth than that from printed sources, as shown by comparison with the level of knowledge of HIV and AIDS reported by participants who had printed sources. It is recommended that in-depth information about HIV and AIDS be provided through the radio and television to help increase knowledge among the majority of Nigerians. The age grade system and its leadership could also serve as a source of in-depth information.

6.2 HIV Testing and Antiretroviral Drugs

The results on HIV testing and antiretroviral therapy are summarised as follows:

- More respondents in urban than rural locations had heard of VCT.
- Higher proportions of respondents who had heard of VCT in Ugep had undergone HIV testing compared with those in Olunloyo and Badeku.
- A majority across study sites who did not have an HIV test felt they were not at risk of infection.
- More males than females had heard about VCT and antiretroviral therapy.
- An equal proportion of male and female respondents who had heard of the HIV test had undergone the test.
• More middle-aged respondents tend to go for HIV testing than respondents in youthful and old categories.
• Knowledge about all issues around HIV testing and antiretroviral therapy increases with level of education.
• There is a generally poor disposition toward HIV testing across educational levels, but more respondents with higher education had undergone HIV testing than respondents with primary and secondary educations.
• More single respondents had heard of VCT than married and widowed respondents.
• More married respondents had actually undergone HIV testing compared with singles.

Again, the results are expected: There are residential, class, educational, and gender imbalances and contradictions in awareness of HIV testing and antiretroviral therapy. While more never-married respondents relative to ever-married persons had heard of VCT, the latter were more likely to have actually taken an HIV test. This is the expected pattern because condom uptake among single women is higher, lessening their exposure to the risk of pregnancy. In addition, coital frequency is higher among married women than unmarried women. Protective sex within marriage, or the use of barrier methods, compromises the goal for which the marriage might have been contracted in the first place — namely, to produce offspring. It is also crucial to note that pregnant women are routinely screened for HIV in many Nigerian antenatal facilities.

It is recommended that HIV screening be adopted as part of strategic life behaviour, rather than as an event tied principally to pregnancy. The current approach excludes the bulk of single persons, even if they are married, because of the stigma attached to premarital or nonmarital pregnancy, and it certainly excludes most of the male population.

6.3 HIV/AIDS Risk Perception

On HIV and AIDS risk perception, the study found low levels of worry among urban and urbanizing communities (represented by Ugep and Olunloyo, respectively). This could be a function of higher levels of education and information in those communities, although it does not explain why fatalism is still strong in the most urban community.

6.4 HIV/AIDS-Related Risk Behaviour

The key finding in HIV/AIDS-related risk behaviour is that poverty combines with an absence of institutional development and the diminution of female status to facilitate high-risk behaviour. Objects such as clothes, food, and money are the material nexuses for transactional sex in the three communities, with the differences being of emphasis rather than substance. Other findings are that

• In the community perception of age at first sex, females have earlier sexual debut, with more females than males in the 8–12 years old category.
• Both males and females are between ages 8 and 12 at first intercourse.
• Earlier sexual debut reflects difficulties in sustaining parental supervision, a feature of industrializing societies. Traditional moral codes give way to lifestyles that are perceived to be more progressive or enlightened, or even more licentious.
It is recommended that health messages be customised to address the aspirations of different segments of the population that could be frustrated if behaviour does not change.

6.5 HIV and Sexual Violence

The survey of sexual violence shows that there is higher physical violence against women and in urban areas.

6.6 HIV Prevention and Antenatal Care

The survey of HIV prevention and antenatal care facilities shows that as educational attainment decreased, there was a progressive decrease in the proportion of those who went back to the clinic to receive the results of the HIV test. In general, the findings indicate that educational level may have implications for the targeting of HIV prevention programmes.

6.7 Awareness and Access to HIV Prevention Services

The findings on awareness and access to HIV prevention services are summarised as follows:

- Seven out of 10 persons in Ugep were aware of HIV prevention programmes of federal, state, and local authorities, compared with 5 out of 10 in Olunloyo and 3 out of 10 in Badeku.
- One-third of the respondents had had direct contact with these government programmes.
- Twice as many males as females in the total sample had been involved in stakeholders’ meetings or workshops on HIV and AIDS.

The findings indicate a need to develop monitoring systems to determine the real uptake of the service among the people for whom they are intended. The disparity between Ugep and the other two sites (Badeku and Olunloyo) reflects the fact that Ugep is home to numerous HIV and AIDS education programmes, but few appear from the results to be designed or executed to encourage participation.

6.8 Attitudes Related to HIV Prevention

The results of the survey of attitudes to HIV prevention are summarised as follows:

- One-fifth of the total sample expressed favourable HIV prevention attitudes.
- A higher proportion of respondents expressed favourable attitudes toward fidelity and condom use than toward screened blood and the avoidance of contaminated sharp objects.
- More males than females expressed favourable attitudes to condom use, fidelity, and HIV prevention overall.
- A higher proportion of older respondents expressed favourable prevention attitudes.
- Favourable attitudinal disposition increases with education; respondents with a tertiary-level education were the highest proportion with overall preventive attitudes.
6.9 HIV-Related Stigma and Discrimination

The results on HIV-related stigma and discrimination are summarised as follows:

- The qualitative results, however, show that stigma is pronounced across the sites, irrespective of level of urbanisation or economic development. However, stigma is reported to be less serious in Ugep, where seroprevalence is presumably highest compared with Badeku and Olunloyo.
- More than half of respondents in rural Badeku thought persons infected with HIV were promiscuous. Fewer people in the urban locations in Ugep and Olunloyo answered this way.
- Uniformly high proportions of respondents in the three sites reported that they would feel ashamed if they were infected with HIV.

The idea of ‘a masquerade in the body’, as reported by a focus group participant (trader in Ugep), is evocative because within the sociopsychological systems of most sub-Saharan African societies, the masquerade is a kind of spirit. Whether benevolent (in that it is ancestral) or malevolent (in its projection of the unpredictable and dangerous elements of the communal psyche), the masquerade is no one’s friend. It is something you run away from. Early on, primary socialisation prepares members of society to keep their distance from masquerades. They are taboo and represent something abominable.

Against the background of such strong stigmatisation of HIV and AIDS and its interface with what we have described as a cultural template for stigma, it is recommended that advocacy on stigma be made context specific and relevant to the cultural factors that breed hysteria and fear. Stigma is a byproduct of group anxiety.

6.10 Recommendations

- As a result of the multidimensional systemic impacts of HIV and AIDS, mainstream state-level response to the AIDS epidemic as a priority of development policy.
- Because AIDS distorts established social patterns such as the universality of marriage and kin-based care for orphans and elders, direct attention to providing social services and ramping up the social security programme in Nigeria.
- Expand and intensify public-private partnerships in the area of health-care provision, and empower nongovernmental organisations in their care for persons living with HIV and AIDS.
- Strengthen family and household-level capacity for managing the crisis, because the family is the ultimate port of call for terminal cases.
- Promote broad-based partnerships and coordination among groups with field interests in HIV and AIDS, such as the consortium responsible for executing the 2010 Integrated Biological and Behavioural Surveillance Survey. These links will enhance the impact of findings obtained at a social science and behavioural level.
- Develop community-based systems of communication for use in communities where public electric power supply is a challenge. The age grade system and its leadership could, for instance, serve this purpose as a channel of information.
- **Customise HIV-related information** for different segments of the population through friendly, available, accessible, affordable, and acceptable instruments and channels.
- **Develop and expand advocacy for voluntary HIV testing as part of strategic life behaviour**, rather than as an event tied principally to pregnancy or the Mother-to-Child Health programme.
- **Build a participatory dimension into community-level HIV programmes** and a system for monitoring community-level participation and its results.
- **Ensure that advocacy is context-specific and addresses the cultural factors that are behind hysteria and group anxiety.**
- **Customise health messages to address aspirations** of different segments of the population that could be frustrated if behaviour is not changed.
- **Expand educational opportunities as part of a comprehensive strategy** for promoting and sustaining behaviour that prevents HIV transmission.
Chapter 7: Increasing HCT Uptake in Nigeria

7.1 Introduction and Background

A population-based programme of HIV counselling and testing (HCT) can provide information to both reduce the spread of HIV and lead to more effective AIDS treatment. Research on HIV prevention indicates that HIV-infected people who are not receiving antiretroviral (ARV) medicine are less likely to transmit HIV to sex partners if they know they are infected. A major obstacle to effective treatment is that many HIV-infected people seek testing and care only after they have developed late-stage AIDS symptoms, at a time when ARV medicines are far less effective. Therefore there are clear benefits to increasing the number of people in a given population who know whether they are or are not infected with HIV.

UNAIDS/WHO currently recommends that sexually active people in countries with generalised HIV infection patterns such as Nigeria’s should be tested at least annually\(^1\) (UNAIDS, 2007). However, population uptake of HCT in Nigeria has traditionally been low, rising very slowly over the years. Twenty-seven years after the identification of AIDS, Nigeria’s 2008 Demographic and Health Survey found that only 6.6 percent of women and 6.4 percent of men had received the results of an HIV test in the previous 12 months (NPC and Macro, 2009).

The explicit goal of Nigeria’s current HCT policy is to increase HCT uptake through ‘the establishment and support of a network of HIV testing and counselling . . . that will provide universal access to . . . affordable and accessible quality services’ (NACA, 2009).

7.1.1 Creating an Optimal HIV Testing and Counselling Scenario

In countries with generalised HIV pandemics, an optimal HCT scenario exists when a very large proportion of the sexually active general population (and other ‘at risk’ subpopulations) has recently — i.e., within the prior 12 months — received HIV test results, posttest counselling, and any necessary referrals for care. Progress toward this optimal scenario involves addressing the HCT-related challenges and requirements for health systems, health facilities, and individuals to responsibly expand HCT uptake. (See Box 1.)

7.1.2 Relevant HCT-Related Findings from REACH

REACH data have been examined with the intent of supporting Nigeria’s national goals of increasing uptake of HCT by helping NACA and other government and nongovernmental organisations to characterise and frame interventions for known or potential obstacles to recommended HCT practices. An optimal HCT scenario for Nigeria was defined as compatible with the UNAIDS recommendation that at-risk individuals receive complete HCT services at least once every 12 months. The analysis was focused on known or potential obstacles to greater HCT uptake. Many of the results are presented in terms of people who did not have recent HCT, since they are the real target for any possible policy changes.

Responses and sociodemographic data from the survey were examined to identify population subgroups whose HCT uptake might benefit from changes in HCT policy or programmes, such as expansion of population coverage of HCT sites, enhanced public education about HCT, wider implementation of provider-initiated testing and counselling, etc.
Box 1. Requirements for an optimal HIV testing and counselling scenario in countries with generalised HIV/AIDS epidemics

Government health systems and other health providers and facilities should ensure that

- HCT services are widely known and easily accessible to the population through traditional client-initiated HCT programmes; integration of HTC services into other health services (e.g., antenatal care, TB treatment); provider-initiated testing and counselling offered in an ‘opt-out’ manner at the time of any patient contact with the health system.

- Even the poorest individuals and families can access HCT services and not be deterred by costs (including travel costs), geographic availability, stigma, etc.

- The treatment of clients at the HCT site encourages their return for test results and posttest counselling.

- HIV-related stigma among health workers at HCT sites is identified and addressed.

- After posttest counselling HCT clients can request and receive HCT programme support to help disclose their HIV status to family members and sexual partner(s).

- When HIV testing of specimens from identifiable persons is conducted in any setting, it is always followed by disclosure of results to, and adequate posttest counselling of, the persons being tested.

- Population coverage data on HCT are regularly collected and analysed to ensure high coverage rates on local, state, regional, and national bases; to identify and address common obstacles to individuals’ being tested (e.g., misperception of need, confidentiality concerns, fear of being infected, fear of stigmatisation; etc.); to identify significant HTC coverage gaps among various sociodemographic groups (including highly stigmatised groups); and to adjust HTC policies to address those obstacles and gaps.

Individual members of the public who are sexually active or are at other behavioural risk should

- Be aware that HIV/AIDS is a serious health concern.

- Be aware of the risk factors and behaviours associated with HIV transmission.

- Be aware that individuals can be tested for HIV infection and know the benefits of HCT.

- Know a place within a reasonable time and distance from their home or workplace where HCT services can be obtained.

- Provide consent and have a specimen taken at an HCT site.

- Return to receive test results, posttest counselling and, if indicated, referral for care.

- Subsequently be retested and counselled for HIV/AIDS at regular intervals.

- Be supported, where feasible, to disclose HIV test results to intimate (sexual and drug-using) partners.
While the current analysis of REACH’s HCT data is by no means complete, we were able to draw some preliminary conclusions and to identify a number of additional research questions about obstacles to HCT in Nigeria that should be pursued. Some of these next-level questions can be addressed by a more in-depth analysis of the existing REACH data set, while others can best be addressed through focused collection and analysis of new information on population behaviours and HCT processes.

### 7.1.3 Current HIV Counselling and Testing Status among REACH Respondents

Overall, about 20 percent of REACH respondents had recently completed HCT, i.e., they had been tested for HIV within the prior 12 months and had received their HIV test results (Table 7.1). Recent HCT rates were similar among females (21.2 percent) and males (19.4 percent).

**Table 7.1: Most recent HIV testing and counselling (HCT) encounter of REACH respondents, by timing and completion of HCT and by gender**

<table>
<thead>
<tr>
<th>Most Recent Completed HCT</th>
<th>All REACH Respondents</th>
<th>Among Males</th>
<th>among Females</th>
<th>Male vs. Female difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. HCT within prior 12 months</td>
<td>495 (20.3%)</td>
<td>252 (21.2%)</td>
<td>243 (19.4%)</td>
<td>NS*</td>
</tr>
<tr>
<td>B. HCT 1-5 years before</td>
<td>291 (11.9%)</td>
<td>153 (12.9%)</td>
<td>138 (11.0%)</td>
<td>NS*</td>
</tr>
<tr>
<td>C. HCT &gt; 5 years before</td>
<td>29 (1.2%)</td>
<td>14 (1.2%)</td>
<td>15 (1.2%)</td>
<td>NS*</td>
</tr>
<tr>
<td>D. HIV-tested but did not return for results and post-test counselling</td>
<td>30 (1.2%)</td>
<td>18 (1.5%)</td>
<td>12 (0.9%)</td>
<td>NS*</td>
</tr>
<tr>
<td>E. Never HIV tested</td>
<td>1582 (64.8%)</td>
<td>738 (62.2%)</td>
<td>844 (67.3%)</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>ALL Groups (A.–E.)</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>---</td>
</tr>
</tbody>
</table>

*NS indicates no statistically significant difference between proportions of males and females within each group A–D.*

The nearly 80 percent of all REACH respondents without recent HCT fell into one of four groups (Table 7.1): groups B (11.9 percent), who had been tested one to five years before; group C (1.2 percent), who had been tested more than five years before; group D (1.2 percent), who had been tested but had never returned for test results (or posttest counselling); and group E (64.8 percent), who had never been tested. Significantly more females (67.3 percent) than males (62.2 percent) had never been tested (p<0.01).

### 7.1.4 Sociodemographic Factors Influencing Recent HIV Counselling and Testing

Recent HCT rates varied strongly with level of education, with a nearly threefold difference between the 32.1 percent rate of all respondents with postsecondary education and the 10.7 percent rate of those who had not completed primary education (Figure 7.1). The education-related finding was similar for males and females.
The frequency of recent HCT varied by household socioeconomic status among both males and females, although the relationship was stronger among females (Figure 7.2).

Compared with older age groups, far fewer 15–17-year-old respondents (3.5 percent) had recently completed HCT (Table 7.2). This significant age difference remained when data from males and females were examined separately.

The 12 percent recent HCT rate among Muslim survey respondents was significantly lower than the 23.4 percent rate among Christian respondents (p<0.0001). HCT rates by gender were similar among Christian respondents, while the Muslim female respondents’ 15.5 percent HCT rate was significantly higher than Muslim males’ 7.3 percent rate (p<0.001).

Only 6.3 percent of ‘separated/divorced/widowed’ respondents had recent HCT, a rate significantly lower than among other marital status groups (p<0.01). The recent HCT rate among married or cohabitating respondents (23.7 percent) was greater than that among those who were never married (17.3 percent) (p<0.0001).
Urban respondents had an overall higher recent HCT rate (21.6 percent) than rural respondents (17.7 percent), a difference due entirely to the large HCT rate differential between urban and rural females (24.3 percent and 15.4 percent, respectively). Urban and rural male groups had similar 19.3 percent HCT rates.

Finally, recent HCT rates were far higher among respondents in Benue (28.5 percent) than in Oyo (13.5 percent) and Lagos (13.7 percent).

### 7.1.5 Knowledge of HCT Services Available at Nearby Sites

More than 30 percent of all REACH respondents lacked awareness of HCT sites that they could reach within a day’s travel from their homes (Table 7.3). Notably, more women (34.2 percent) than men (26.2 percent) lacked such awareness (p<0.01), especially among 15–24-year-old respondents (40.7 percent females versus 29.7 percent males not aware, p<.01).

Christian REACH respondents were more likely than Muslim respondents to be aware of accessible HCT sites, a difference due almost solely to a higher awareness rate (76.2 percent) among Christian males; awareness among Christian females was similar to awareness among both Muslim females and males, ranging from 65.8 to 66.2 percent.

Awareness rates varied strongly with education. Respondents who had not completed primary education were more than three times as likely (61.2 percent) to be unaware of an accessible HCT site as were respondents with a postsecondary education (17.7 percent, p<0.0001). These education-related findings were similar among men and women.
Separated/divorced/widowed REACH respondents were far more likely (37.7 percent) than married and/or cohabitating respondents (28.3 percent) to be unaware of accessible HCT sites. Never-married respondents had an intermediate rate of awareness.

**Table 7.2: Selected sociodemographic characteristics of REACH respondents with HCT in the prior 12 months**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Proportion of REACH respondents with recent* HCT among</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All (N=2506)</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Age Group (years)</td>
<td>(N)</td>
</tr>
<tr>
<td>15 - 17</td>
<td>(227)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.05 for 15-17 vs. 18-24 yr.</td>
</tr>
<tr>
<td>18 - 24</td>
<td>(583)</td>
</tr>
<tr>
<td>25 - 39</td>
<td>(1104)</td>
</tr>
<tr>
<td>40+</td>
<td>(592)</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>(1777)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.0001 for Christians vs. Muslims among “All,” M &amp; F</td>
</tr>
<tr>
<td>Muslim</td>
<td>(701)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.001 for Muslim M vs. F</td>
</tr>
<tr>
<td>Current Marital Status</td>
<td></td>
</tr>
<tr>
<td>Married/Cohabitating</td>
<td>(1302)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.0001 for married vs. never married groups</td>
</tr>
<tr>
<td>Never married</td>
<td>(1074)</td>
</tr>
<tr>
<td>Separated/divorced/widowed</td>
<td>(128)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.001 for single vs. separated/divorced/widowed</td>
</tr>
<tr>
<td>Rural-Urban Location</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>(1628)</td>
</tr>
<tr>
<td></td>
<td>p=0.01 for urban M vs. F</td>
</tr>
<tr>
<td>Rural</td>
<td>(878)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.01 for “All” U v. “All” R</td>
</tr>
<tr>
<td>State (HIV prevalence)</td>
<td></td>
</tr>
<tr>
<td>Oyo</td>
<td>(2.2%)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.0001 for M vs. F in Oyo</td>
</tr>
<tr>
<td>Lagos</td>
<td>(5.1%)</td>
</tr>
<tr>
<td></td>
<td>p&lt;0.0001 for Benue v. other states, among “All”</td>
</tr>
<tr>
<td>Benue</td>
<td>(10.6%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>recent</em> indicates completed HIV testing and counselling within the prior 12 months</td>
</tr>
</tbody>
</table>

7.1.6 Affordability of HCT Services

More than 28 percent of all respondents had an impression that they could not afford to pay for HIV testing and counselling services, with little difference between men (73.3 percent) and women (70.9 percent) (Table 7.3). Not surprisingly, presumed affordability rates varied directly with education among both men and women respondents, with about 37 percent of men and 38 percent of women in the lowest educational categories responding that they would not be able to afford HCT. Even more striking, nearly 45 percent of ‘separated/divorced/widowed’ women felt that they would not be able to afford HCT. The corresponding rate for that group of males was about 35 percent.

About 24 percent of urban and 31 percent of rural respondents thought that they would not be able to afford HCT services (p<0.001). Presumed affordability rates were similar for Christian and Muslim respondents.
7.1.7 Possible Incentives for HCT Uptake

Acceptability of HCT outside of traditional settings
More than 86 percent of REACH respondents expressed approval of the idea of home testing (Table 7.4). Although the REACH question was framed only in terms of testing ‘in your house’, presumably the response would apply to HCT in various other settings outside of traditional medical facilities (e.g., mobile clinics). The high favourability rates were similar in all sociodemographic categories.

Acceptability of couples HCT for sexual partners
Large majorities of REACH respondents in nearly every sociodemographic category felt that having a special HCT programme for couples would increase the probability of their being tested and counselled (Table 7.4).

Acceptability of routine offers of HIV testing (and posttest counselling) during clinic/hospital visits
Large majorities of REACH respondents in nearly every sociodemographic category felt that clinic and hospital staff should routinely offer HCT to all patients, including those coming to facilities for reasons unrelated to HIV or AIDS3 (Table 7.4).

Table 7.3: Some obstacles to HIV counselling and testing uptake among REACH respondents

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Frequency of potential obstacle among</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all respondents</td>
</tr>
<tr>
<td>...did NOT know of nearby HCT site (all ages)</td>
<td>30.1%</td>
</tr>
<tr>
<td>...did NOT know of nearby HCT site (&lt;25 yrs)</td>
<td></td>
</tr>
<tr>
<td>...presumed they could NOT afford HIV test</td>
<td>28.4%</td>
</tr>
<tr>
<td>...thought HIV diagnosis meant they would die soon (stated as reason for not testing)</td>
<td>25.6%</td>
</tr>
<tr>
<td>...strong concern about stigma (stated as reason for not testing)</td>
<td>80.6%</td>
</tr>
<tr>
<td>...did NOT get HIV test results during most recent pregnancy (in prior three years)</td>
<td>74.7%</td>
</tr>
</tbody>
</table>

Table 7.4: Some incentives for HIV counselling and testing uptake among REACH respondents

<table>
<thead>
<tr>
<th>Incentive</th>
<th>Frequency of supportive response to incentive among</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all respondents</td>
</tr>
<tr>
<td>...availability of (mobile) HCT, away from health facility</td>
<td>86.8%</td>
</tr>
<tr>
<td>...availability of HCT for couples together</td>
<td>76.9%</td>
</tr>
<tr>
<td>...routine offer of HCT to all patients coming to hospitals/clinics</td>
<td>86.6%</td>
</tr>
</tbody>
</table>
7.1.8 Sites Where HCT Was Performed
REACH respondents who had recent HCT said that testing had been done in hospital outpatient settings (49.7 percent), hospital inpatient (16 percent), dedicated HCT clinics (6.1 percent), antenatal/family planning clinics (4.3 percent), and mobile clinics (1.2 percent) (Figure 7.3).

Figure 7.3: Distribution (%) of office/clinic types for each REACH respondent’s most recent HCT

7.1.9 Reasons for Not Having HCT
Of the 1,682 REACH respondents who had never had an HIV test, 51.8 percent did not do so because they thought they were not likely to be infected with the HIV virus, with 57.5 percent of untested men and 45.4 percent of untested women falling into this category (p<0.01). An additional 24.1 percent (20.7 percent of men and 27.9 percent of women) had never been tested because they ‘preferred not to think about HIV/AIDS’ and/or were ‘afraid to be tested’. Eight percent of ‘never-tested’ respondents indicated that did not know where to be tested.

7.2 Discussion
This preliminary case study of REACH HCT data is by no means exhaustive; the focused REACH surveys were not intended to collect all possible variables related to HCT uptake, and complete analysis of REACH’s data will require additional time and resources. However, the several potential obstacles to HCT already identified may be useful for considering HCT-related policy changes in the short term and suggesting additional data analyses over the longer term.

This analysis has focused heavily on identifying and characterizing those sociodemographic groups and characteristics associated with the lowest levels of HCT within the year prior to the interview. Those groups and characteristics should be the major focus of policy efforts to increase HCT uptake.
REACH was never intended as a representative HCT survey, and the overall recent HCT rate it found (about 20 percent) was significantly higher than that in the 2008 DHS results (6.4 percent recent). State-specific HCT rate differences (not shown) between REACH and DHS were also noted. These large differences probably reflect, in part, some real HCT increases that occurred in the 12+ months between DHS and REACH data collection activities. However, it is also highly likely that differences reflect geographic variations in the surveyed populations — REACH’s highly localised sample selection versus DHS’s nationally and regionally representative data.

Even with the relatively high recent HCT rates found in REACH, however, it is notable that nearly 65 percent of all REACH respondents (and 67.3 percent of all female respondents) had never been tested for HIV, and that more than one-third of the 35 percent who had been tested had not received their results (or counselling) or had not been tested within the recommended 6–12 month interval. Some of the never-tested respondents had perhaps not needed testing because they were not sexually active (e.g., the youngest and oldest respondents) or because they already knew that they were HIV infected, but many other untested respondents should have been tested recently but had not been. In addition, a small but important number of respondents, especially among pregnant women, had been tested but did not return for results and posttest counselling. Exploring the reasons for such a gap would be an important early priority for the next phase of operational research on HCT.

The association between completed education level and recent HCT (Figure 7.1) is striking, as is the association between household socioeconomic status and recent HCT (Figure 7.2), especially among female respondents. Since there is usually a strong association between poverty and educational status, the relative contribution of each of these variables to recent HCT status awaits a more detailed multivariate analysis of REACH data. The data examined thus far, however, are strong enough to conclude that poorer and less educated people, especially females, should be a particular focus of efforts to increase HCT uptake.

The markedly lower HCT rates among 15–17-year-olds in REACH may be an important observation. In part, it may reflect a greater proportion of respondents who had not initiated sexual activity (a possibility that could be examined in subsequent REACH analyses). However, as has been noted in other countries, it is possible that persons below the age of consent are discouraged from being tested by lack of experience with the health system and/or by health clinic staff who may be requiring parental consent for HCT testing of young clients. Although the 2008 DHS did not look specifically at persons below the age of consent, the recent HCT rates found in DHS among 15–19-year-olds were markedly lower than in older age groups. This age discrepancy needs to be further examined using both REACH data (to look at lack of sexual initiation as a factor) and other operational research to examine the realistic ability of those less than 18 years old to obtain HCT.

The proportion of people in various sociodemographic groups who thought that they could not afford HTC represents a large potential obstacle to an optimal HCT situation, especially if perceived unaffordability prevents people from even trying to access HCT services. Further exploration of user-fee and transport-cost aspects of HCT is indicated.

The relatively small contributions to recent HCT coming from dedicated HCT, antenatal, and mobile clinics suggests that programmes at these sites might be scaled up relatively easily in the near future, better integrating HIV/AIDS programmes into health services in general.
The low rate of pregnant women receiving HIV test results and posttest counselling (Table 7.3, Figure 5.3) is particularly disappointing, since specific efforts to provide HCT services to this group have been under way for some time.

Finally, several caveats must be kept in mind regarding this preliminary data analysis. As noted earlier, the REACH survey was not intended to be representative of the larger national population in its findings of HCT rates or of the prevalence of various characteristics. In addition, REACH has no information on the quantity or quality of posttest counselling that accompanied HIV testing.

### 7.3 Preliminary Thoughts about Increasing HIV Testing and Counselling Uptake in Nigeria

Many of the policy changes that will be most helpful for increasing HCT uptake in Nigeria are already included in the recommendations of the National HIV/AIDS Strategic Plan 2010–15 (2010, page 14). Suggestions for further improvement fall into three broad categories: clarification of current HCT policies and practices; further analyses of existing REACH data; and additional operational research on HCT to characterise obstacles to uptake. Examples of each category are provided below.

#### 7.3.1 An Example of Clarification of Current HCT Policies and Practices

Clarification of HCT policies and practices could help ensure that persons under 18 years old are optimally tested and counselled whenever they are concerned about their HIV risk or their HIV status needs to be confirmed. Clarification of policies may be needed for both the public and health workers providing HCT services.

#### 7.3.2 Further Analyses of the Existing REACH Data Set

The existing REACH data set offers a number of rich opportunities to better characterise existing HCT obstacles. Integration of data from the two REACH surveys and of REACH’s qualitative and quantitative results can increase understanding of the population’s view of HIV prevention in general and of HCT in particular. Over the longer term, multivariate analyses of REACH data should help separate the relative contributions of various sociodemographic characteristics to the currently low HCT uptake in specific population subgroups. Even in the shorter term, additional univariate and bivariate analyses, similar to those already done, can help to understand obstacles to HCT uptake and identify specific subgroup targets. The current data set could be used, for instance, to

- Better understand the perception among many survey respondents that they could not afford HCT services. It would be worth knowing, for example, how much of the low HCT rate among poorer respondents was due to poverty itself (i.e., inability to pay for the HCT process) rather than lack of awareness of nearby HCT sites.
- Help clarify how much of the low HCT uptake among younger REACH respondents is due to their not yet being at risk of sexual exposure to HIV.
- Clarify whether the low HCT rates of divorced/widowed/separated persons are due to less recent sexual exposure or to their (perceived) inability to afford HCT services.
- Sort out the question of whether low HCT rates among rural respondents was due to their greater (perceived) inability to pay for services or to a relative lack of HCT sites within a reasonable travel time or distance.
• Examine the relative impact on HCT uptake of living in female-headed households versus male-headed households.
• Examine whether lower HCT uptake rates among Muslims reflect a lower level of sexual risk.
• Better understand the reasons for pregnant women’s low rates of receiving HIV test results and posttest counselling.

7.3.3 Additional Operational Research on HCT
Even the limited analysis of REACH data to date offers a number of clues for future operational research focused on providing HCT services in Nigeria. Some examples include:

• How experiences in the HCT process could affect returning for results and posttest counselling. Client satisfaction surveys could also suggest recommendations for ongoing HCT services for those who remain at risk. Such surveys should perhaps be targeted at the groups using each type of HCT venue (e.g., antenatal clinics, STI clinics, hospital clinics, PITC service, mobile clinics, etc.).
• How much the emerging availability of rapid HIV tests, which could allow the entire testing and posttest counselling process to be completed in one visit, might help increase HCT uptake.
• How much HCT uptake might be increased through a wider use of mobile clinics and/or visits by door-to-door HCT teams.
• Whether persons whose only HIV risk factor is frequent medical injections should be included among HCT target groups.
• Whether orphans and vulnerable children need to have specific additional HCT services.
• How aware members of the general population are of their need to be retested (and recounselling) at frequent intervals.
• What approach works best for provider-initiated testing and counselling, and, as PITC availability increases, the opt-out rates and the major reasons for opting out of HCT.
• What the rates of referral for care are of people found to be HIV infected, including proportions receiving a specific referral, as well as the proportions actually enrolled in care and treatment programmes.
Chapter 8: Out Of Reach?
Ending Nigeria’s Aids Pandemic

In December 2004 an international seminar was convened by the Faculty of the Social Sciences of the University of Ibadan, Nigeria, in association with Northwestern University, Evanston, Illinois, entitled ‘HIV and AIDS Prevention in Nigerian Communities: Strengthening Institutional Responses’. Ideas advanced during that meeting informed the design of the REACH.4 At the seminar’s conclusion, Richard Joseph of Northwestern summarised the main concerns that should drive this programme: creating transparent operating procedures and designing an explicit and shared agenda; increasing the number and skills of researchers working on HIV/AIDS in Nigeria; treating the community as a research partner; and building and maintaining bridges with policy makers. A final commitment regarding the initiative that became REACH would seek to mobilise ‘local, state, and national officials, the media, and other influential actors behind the findings and recommendations’.

8.1 Unremitting Increase in New Infections

The issuance of REACH data and recommendations could not have been better timed. On April 24, 2010, the government of South Africa, where there is the largest number of HIV-infected persons in the world, announced a dramatic advance in its national AIDS programme that will seek to cut in half the 1,500 new daily HIV infections. On May 10, 2010, the New York Times published a three-part series by Donald G. McNeil entitled ‘At Front Lines, AIDS War Is Falling Apart’. McNeil detailed how the provision of antiretroviral drugs, notably in sub-Saharan Africa, is not matching the unremitting increase in the number of persons infected. Globally, of every two persons started on drug treatment today, five become infected.

The relevant statistics in Nigeria can be contrasted with those McNeil gives for Uganda:

<table>
<thead>
<tr>
<th></th>
<th>Uganda</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons needing antiretroviral treatment (ART)</td>
<td>500,000</td>
<td>1,500,000*</td>
</tr>
<tr>
<td>Patients now on ART</td>
<td>200,000</td>
<td>350,000</td>
</tr>
<tr>
<td>Estimated annual infections</td>
<td>110,000</td>
<td>370,000</td>
</tr>
<tr>
<td>Estimated daily infections</td>
<td>300</td>
<td>1,000</td>
</tr>
<tr>
<td>U.S. share of ART costs</td>
<td>88 percent</td>
<td>86 percent</td>
</tr>
</tbody>
</table>

*Based on WHO and UNAID guidelines for starting treatment.

In the absence of a vaccine, and considering the limited impact of a host of prevention efforts, McNeil summarises the consensus of world experts: ‘Without a change in approach, a major epidemic will be with us in 2031’ — i.e., a half-century after the disease was first identified. Today, some health centres that are recipients of U.S. funds from the PEPFAR programme, such as in Mozambique and Uganda, have been told not to enrol new patients. Even if those instructions are changed, the unlikelihood of matching the increasing need for AIDS drugs with an ever-expanding pool of donor funds is now apparent.
8.2 Soaring Costs of Treatment

At the Fifth National Conference on HIV/AIDS in Abuja, Nigeria, on May 4, 2010, Professor Robert Murphy, director of the Center for Global Health at Northwestern University, stated that a dual system now operates globally. Patients in poor countries receive antiretroviral therapy when their immune system has been impaired to a CD-4 cell count of 200 or lower; patients in developed countries start receiving ART at a CD-4 count of 350. The cost of bringing treatment to this higher standard in countries such as Nigeria would be astronomical. Nigerian authorities recognise that they cannot simply rely on external donors to absorb these escalating costs, especially when the challenge of providing drugs to meet current needs has not been met. With regard to providing high-quality care, it should be noted that it requires regular monitoring to detect drug resistance, and that putting the approximately 15 percent of patients who are resistant on more expensive second-line drug regimens usually increases treatments costs by about 250 percent.

The official goal of the Nigerian government is ‘universal access’ to care and treatment for HIV-infected people. If measured by the numbers of HIV-infected people in Nigeria needing treatment who are not getting it, the prospect of reaching this goal is dwindling. Heroic efforts will be required to narrow the gap. As McNeil states, the funding gap ‘between what is needed and what is collected is enormous, and growing’. External donors will be hard-pressed to maintain or increase their current contributions for HIV/AIDS programmes while they struggle with recession-impacted budgets. Moreover, poor countries will be obliged to devote a larger share of their national budgets to control this single disease, which is just one of a number of endemic diseases and major health problems.

8.3 Advancing Prevention in an Age of Treatment

As pointed out in the introduction to this report, Richard Joseph conveyed to colleagues in the Centers for Disease Control and Prevention over a decade ago that, given the nature of African societies, and Africa’s weak governance and eroded infrastructures, a generalised epidemic would be very difficult, if not impossible, to reverse using current methodologies and techniques. As REACH was being designed, the Bill & Melinda Gates Foundation decided to encourage prevention ‘in an age of treatment’. The 2004 international seminar at the University of Ibadan revealed a wealth of insights about the cultural, social, and economic factors that rendered many Nigerians vulnerable to infection. Stigma and other attitudinal barriers were felt to contribute to reluctance to pursue HIV testing and counselling. As compelling as those insights were, there were no research data to back them up at the time. With financial and institutional support from the Gates Foundation and two universities, REACH was able to design community-based quantitative and qualitative studies to obtain the information.

At Nigeria’s Fifth National Conference on HIV/AIDS in May 2010, chair John Idoko, director general of Nigeria’s National Agency for the Control of AIDS (NACA), emphasised the need to focus efforts on enhancing prevention. He boldly declared, ‘Our goal is zero transmission’. The challenge of preventing new HIV infections must now be tackled with the same energy, urgency, and commitment that was invested in establishing antiretroviral drug treatment programmes. Compared with putting everyone infected on complex and expensive drugs for life, the investment in prevention would pay off in less illness, fewer deaths, and reduced HIV transmission in the long run.
8.4 Enhanced HIV Prevention Strategies in Nigeria

In announcing its May 25, 2010, dissemination event for the REACH interim report, the Chicago Council on Global Affairs pointed out: ‘Today, Nigeria is home to an estimated 2.7 to 3 million people living with the HIV virus, making Nigeria second only to South Africa in terms of infected persons worldwide. In light of these figures, and the failure to curb the AIDS pandemic in Africa after 25 years, can Nigeria achieve a breakthrough? If so, how?’ With generous donors during the past decade, Nigeria has seen a significant increase in efforts by government and nongovernmental organisations to enhance the national AIDS response. The provision of antiretroviral drugs has prolonged the lives of many HIV-infected Nigerians. In view of the limited progress to date in slowing transmission, a ‘paradigm shift’ in HIV prevention and AIDS treatment and care is now imperative.

The features of our proposed Enhanced HIV Prevention Strategies (EHPS), outlined below, should be read as a contribution to the efforts made by the National Agency for the Control of AIDS and other organisations to respond to this urgent challenge. They dovetail with NACA’s National Action Plan for Scale-Up of HIV Counselling and Testing.

- **Rapidly increase the number of persons tested.** REACH data shows that only 35 percent of Nigerian adults in our study sites had ever had an HIV test. Only about 20 percent had taken the test and been counselled within the 12 months preceding the surveys — the test interval recommended by UNAIDS and WHO for countries with HIV/AIDS patterns like Nigeria’s. Persons who know their HIV status are less likely to transmit the disease to others. EHPS would aim to have at least 65 percent of Nigerian adults tested and counselled by 2015. For sexually active persons who are not in a strictly monogamous relationship, the proportion of those who have taken an HIV test within the preceding 12 months should be even higher.

- **Provide treatment earlier to HIV-infected persons.** Earlier administration of ART to infected persons not only increases the likelihood of successful treatment but also reduces transmission of the virus. The WHO and UNAIDS recommendation of early and frequent HIV testing to allow for adequate care and treatment is not yet possible in most of Africa. These agencies emphasise the significant individual and public health benefits of starting treatment early. However, current donor funding for ART will be increasingly difficult to sustain and unlikely to be increased to levels necessary for providing ART to large numbers of newly infected persons. Nigeria has the financial resources to partially self-fund an aggressive national strategy. A proportion of windfall earnings from high petroleum revenues, for example, could be designated for such a purpose. External partners could then be asked to match the enhanced financial commitments from the government.

- **Design policies to target the gaps in HCT coverage shown by REACH data.** REACH data provide important insights into the reasons more Nigerians are not being tested and counselled for HIV. This data is disaggregated according to socioeconomic characteristics: age, gender, education, income, residence, religion, etc. They demonstrate the relative significance of such factors as stigma, fear of the results, proximity of testing centres, misinformation about HIV transmission, distrust of health professionals, assumed cost of the test, and others. Better information about these barriers makes it possible to design targeted
policies to achieve a scaling up of testing. Significantly, 86 percent of REACH respondents express a willingness to take an HIV test if it could be administered outside of traditional health facilities. Rapid testing methods and the increasing use of mobile clinics and home visits could make such programmes feasible.

- **Engage Nigerian communities in collective preventative action.** REACH teams would never have been able to conduct in-depth studies of 12 communities in four Nigerian states without the active support of local leaders — religious, customary, governmental, and civic. This leadership resource, which includes a multiplicity of local institutions and leaders, should be more effectively mobilised for HIV prevention. EHPS would promote a broad engagement of Nigerian business, government, and civic institutions to complement community mobilisation and empowerment efforts. Efforts should be conducted in line with specific national policy initiatives that include testing and counselling, reducing mother-to-child transmission, wider condom distribution, increasing male circumcision, and other proven prevention techniques.

- **Devise creative use of material incentives.** No major public policy initiative can succeed without appropriate incentives. To date, funding for HIV/AIDS action has usually involved the provision of money in a top-down fashion to implement programmes designed by professionals. Although this approach cannot be avoided, it does not have to be exclusive and can be complemented by more horizontal and bottom-up initiatives. Material and other incentives could be provided to reward groups and communities for increasing and sustaining HIV testing and counselling rates, as well as better adherence to treatment regimens. Educational institutions, businesses, cultural associations, religious groups, urban districts, and villages can be challenged to achieve high counselling and testing levels among their members through the provision of suitable incentives.

- **Reduce ignorance about AIDS and combat stigma more effectively.** The greatest ally of the AIDS virus as it moves from person-to-person in Nigeria is ignorance. And the greatest weapon available to Nigerians to block its path is knowledge. EHPS can take advantage of one of the great resources of this age: information technologies. The proposed programme would involve a ‘paradigm shift’ in popular attitudes toward HIV/AIDS as a disease that *anyone* can contract through a variety of means including sexual relations, use of unsterilised needles and scarification instruments, tainted blood supply, and infected mother’s breast milk and during passage of the foetus through the vaginal canal. Since all people are theoretically vulnerable to infection and to dying from the disease, the goal should be to reduce individual vulnerability. Nigeria can call upon its vast information dissemination networks, up to and including its vibrant Nollywood video industry, to implement enhanced prevention strategies based on knowledge of the specific barriers to prevention identified by REACH and other studies.

The proposed follow-up to REACH studies, which we provisionally call REACH Plus, might consist of the following elements:

- **An Optimal HIV Testing and Counselling Scenario (OHS).** OHS will carry forward the official goals of Nigeria’s national AIDS response (to achieve accessibility, affordability, awareness, and quality in the treatment and care of persons infected with HIV). OHS is fully
discussed in the complete REACH report, and its requirements are clearly outlined. The important public health benefits from increasing the number of people who know they are or are not infected include preventing new HIV infections and extending the lives of those already infected. In countries such as Nigeria with a generalised HIV pandemic, an optimal HCT scenario would exist when a very large proportion of the sexually active population has recently received HIV test results, posttest counselling, and necessary referrals for care.

- **KYS: Know Your Status.** Knowledge of HIV infection is a prerequisite for life-prolonging treatment as well as a means of reducing transmission. All sexually active Nigerians should update their knowledge of their HIV status annually. REACH showed, however, that only 38 percent of pregnant women received HIV testing and counselling during pregnancy, and 28 percent of those did not return to retrieve their results. These data are disturbing in light the success in preventing HIV transmission to babies with a timely provision of drugs to HIV-infected pregnant women. Those testing negative might also be motivated to stay free of the disease. REACH data show high rates of denial among sexually active youths and adults regarding their HIV risks. A nation of such high creativity can make the challenge of knowing one’s HIV status an act of personal and social affirmation.

- **RUN-HTC: Routinise, Universalise, and Normalise HIV Testing and Counselling**
  - **Routinise:** Along with maintaining and expanding the number and coverage of dedicated HIV testing and counselling sites, testing for HIV should become an increasingly routine health-care procedure alongside screenings for high blood pressure and cholesterol, anaemia, diabetes, and other ailments. HIV has long spread beyond clearly identifiable most-at-risk-populations in Nigeria (e.g., injecting drug users, commercial sex workers, and long-distance lorry drivers, groups that will continue to require special attention). When Botswana became the first African country to introduce a policy change to routinise HCT, it initially encountered many hurdles, but today the programme is widely credited with significantly raising that country’s testing and counselling rates. In view of Nigeria’s weak health infrastructures, routinizing HIV testing in its medical systems will be difficult but not impossible to achieve. As has been found in other African countries, Nigeria cannot simply rely on stand-alone AIDS centres. In fact, these can reinforce stigma and stereotyping for persons seen using them. Mainstreaming HCT can also have corollary benefits for the health-care system in general.
  - **Universalise:** An important component of the new national strategy framework should be to bring HIV testing to all contact points in the public and private health-care systems. Individuals in any context who are found to be infected could be referred to specialised units for further treatment and counselling. All persons administering HIV tests must be trained and monitored to ensure their understanding of and rigorous adherence to appropriate protocols.
  - **Normalise:** A massive sustained and transparent public effort should be conducted to shift perceptions among Nigerians from HCT’s being an exceptional activity to its becoming a normal dimension of the public health system. Since HIV, like malaria and other infections, is unlikely to be eradicated from Nigeria for many years, preventing transmission and treating infected persons must be seen as an integral component of contemporary health care in most developing countries as well as in certain disadvantaged communities in developed countries.
• **Community EHPS.** Community action programmes can be designed for the attitudinal and behavioural profiles of specific localities, using already-developed REACH community profiles as a framework. Nigerian communities can be encouraged and supported to develop their own appropriate action programmes based on such information. REACH received warm responses from the community to its research efforts and its direct reporting of the results. Local government officials, traditional rulers, and religious and civic leaders strongly responded to the challenge of helping REACH obtain correct and reliable data and attentively responded to what was reported back to them. What became clear was how readily those same authority figures could be mobilised to implement KYS and RUN-HTC projects in their communities. By learning and overcoming the attitudinal and behavioural barriers among specific subgroups of their members, and providing sufficient access to HCT, communities could be empowered to combat HIV transmission in more effective and sustainable ways.

• **HIV Prevention for Vulnerable Children.** Among the results from the REACH studies was the low estimated age of sexual debut, especially among girls. Although national data from the 2008 DHS were somewhat reassuring, it is likely that early sexual debut is a significant problem in many communities. The vulnerability of girls in Nigeria to HIV has led us to coin the expression ‘No Safe Place’ to describe their situation. Many girls are not safe from sexual inducement and sexual predation in overcrowded housing complexes, at school, as hawkers on the streets, in the lorry-parks, and in many other contexts. They are usually ill-informed about the health risks and thus highly vulnerable to HIV infection. REACH data showed only 3.5 percent of 15–17–year–old respondents had recently completed HCT. The establishment of HIV prevention services and access to HCT should become a major and dynamic component of the national AIDS response by Nigeria’s federal, state, and local governments in collaboration with nongovernmental health-care providers.

• **REACH Plus.** Further in-depth epidemiologic analyses of the REACH data set should be conducted, along with new surveys to fill existing gaps. Additional community-based studies can be shaped by the Optimal HCT Scenario. Social science researchers in various institutions have already expressed an interest in conducting REACH surveys in their localities. Ideally, an existing Nigerian institution should take on the responsibility of implementing REACH Plus. Alternatively, a new entity could be created to carry out or oversee these activities. In either case, the REACH data set will be made available to the public in early 2011.

  o The choice of communities studied by REACH was determined by the University of Ibadan researchers based on their experiences and capacity to obtain access to respondents.

  o REACH Plus should have the financial and operational resources to select study sites on the basis of a wider set of priorities and to involve more researchers from other Nigerian institutions. It can involve seasoned Nigerian researchers to consult on the design of studies for additional communities. One of those researchers, Gbenga Sunmola, a UI professor, has already joined NACA as research coordinator and would play a key role in this transition.
With a clearer idea of the information needed and how best to achieve it, survey research results can become available more quickly.

The creation of a REACH manual on procedures and best practices is under consideration, as is an institute to provide periodic training of researchers, graduate and field assistants, and others.

8.5 EHPS and the U.S. Global Health Initiative

When U.S. Secretary of State Hillary Rodham Clinton approved the framework for a United States–Nigeria Binational Commission on April 6, 2010, she stated that the commission would ‘strengthen and deepen the partnership between our two nations’ and ‘help us work together on issues of common concern and shared responsibility’. Although public health was not one of the priority areas identified for this commission, it is already one of the areas in which American-Nigerian collaboration is at a significant level. Six out of seven Nigerians on ART (approximately 300,000 people) receive ART with U.S. PEPFAR support. It is apparent, however, that the United States and other external donors cannot keep increasing their ART funding to match an unceasing expansion of the pool of infected persons in Nigeria and elsewhere in Africa. Responsibility will increasingly fall to Nigeria and other countries to take charge of meeting the health-care needs of more of their HIV-infected citizens.

In April 2010, the Washington, D.C.-based Kaiser Family Foundation issued a policy brief on the U.S. Global Health Initiative (GHI), first announced by President Obama in May 2009.11 This initiative is scheduled to spend $63 billion from 2009 to 2014 to implement a comprehensive U.S. global health strategy. Although EHPS was not designed in response to the GHI, it is striking to note how much of an overlap there is between their central tenets and concerns. Of the nine GHI target areas, HIV/AIDS is listed first. Its seven core principles and four implementation components are consonant with those suggested for EHPS:

GHI’s Seven Core Principles
1. Center on women and girls
2. Coordinate and integrate strategically
3. Leverage other multilaterals and partners
4. Promote country ownership
5. Strengthen health systems
6. Improve metrics, monitoring, and evaluation
7. Promote research and innovation

GHI’s Four Implementation Components
1. Emphasize proven approaches
2. Build on and expand existing platforms
3. Innovate for results
4. Collaborate for impact and country ownership

What is particularly noteworthy in this policy brief is that 70 percent of the cumulative GHI funding will be devoted to HIV/AIDS. In each of fiscal years 2009 and 2010, $5.5 billion were allocated by the U.S. government to HIV/AIDS programmes globally, in addition to much of the $1 billion given annually to the Global Fund to Fight AIDS, Tuberculosis, and Malaria. Generic drugs have produced
cost containment, but the bulk of these expenditures is still devoted to paying for ART. And cost 
containment gains are threatened as major producers of generic medicines (for example in India) are 
forced into compliance with strict World Trade Organisations patent rules. As mentioned earlier, the 
growing number of African patients needing to be put on different combinations of drugs as a result 
of drug resistance sharply increases their treatment cost. It is understandable that devoting 70 percent 
of all U.S. contributions to global health to treatment for one disease would be challenged.12

8.6 Nigerian Leadership in Combating HIV and AIDS

Africa bears two-thirds of the world AIDS burden. South Africa, the country with the largest number 
of HIV-infected persons, has decided that the time has come to routinise, universalise, and normalise 
HIV testing and counselling. Thousands of nurses are being trained to provide HCT in the country’s 
public clinics. As Botswana in 2005, South Africa will now offer HIV tests to all persons who enter 
the public health system rather than waiting for tests to be requested. Chains of retail pharmacies have 
also committed to providing HIV tests free of charge using kits provided by the government.13 South 
Africa’s bold actions will continue to generate prominent media coverage.14

Nigeria, with the second-largest number of HIV-infected persons in the world, should soon join 
South Africa and Botswana in this major policy advance. It can draw on its resources, capacities, 
and a vast universe of public and private institutions to meet the challenge. The global community 
has risen to the momentous challenge of helping keep millions of infected Africans alive, but long-
time leaders in the Nigerian AIDS effort — such as Professor Oni Idigbe, president of the Network 
for HIV/Aids Research in Nigeria — acknowledge the undesirability and unsustainability of having 
treatment and care in Nigeria so highly dependent on donor financing.15 Stopping and then reversing 
the upward curve of HIV infections will only be accomplished through bold and enlightened national 
leadership. Nigerian leadership could have major continental and global implications for vigorously 
reducing HIV infections. The gains in human welfare and society from such an enterprise would be 
momentous.

8.7 Conclusion

A crossroads has been reached in a journey that began when the AIDS virus infected the first 
Africans decades ago. The path to be taken in Nigeria today is clear. Its people and its institutions 
must be massively mobilised to reduce transmission of a virus that, despite the investment of billions 
of dollars and the research of thousands of scientists, still has no vaccine to stop it — and none 
foreseen for years to come. Until that day arrives, transmission can only be prevented by adjusting 
behaviour and more rigorously using condoms, circumcision, and the sterilizing of medical and other 
instruments that penetrate human tissues.

A massive mobilisation effort must be made now similar to the ones conducted to liberate Africa from 
colonial rule and to defeat apartheid. We propose convening a ‘Freedom from AIDS’ conference to 
discuss the ideas proposed in this chapter and insights provided throughout this report, together with 
those of other organisations working on the front lines of the AIDS war.
Research on HIV, and tests devised to detect its presence and measure its impact, are biomedical marvels. But the most important advance is yet to be made in much of Africa — namely, helping people avoid becoming infected in the first place. What we have learned from REACH confirms and extends what researchers in other countries are discovering. Having an HIV test and counselling is one of the most important tools we possess. Not only is HCT a step toward treating those already infected (including recently infected persons, who are most contagious), it can also bolster the determination of those not infected to stay free of the disease. The message can be conveyed in every village, school, workplace, religious gathering, and army barracks in Nigeria and other African countries, and those who receive it can be mobilised to take appropriate action.

We have come to the end of one phase of a journey started several years ago that was inspired by the recognition that rigorous social science research was needed to combat an intrepid foe more effectively. Until science learns how to defeat this unrelenting and implacable virus, we must work assiduously to design prevention strategies that can keep more at-risk persons free of infection.
Endnotes

[1] In generalised HIV pandemics such as Nigeria’s, UNAIDS recommends HCT every 6–12 months (UNAIDS, 2007, p. 12).

[2] It should be noted that respondents answered this survey question without being provided in the survey with actual or estimated HCT costs.

[3] As is standard for PITC (provider-initiated testing and counselling) in other countries, patients would be allowed to refuse (‘opt out’ of) testing.


[5] The 2008 national Demographic and Health Survey (DHS) indicates that less than 7 percent of Nigerian adults have been tested in the previous 12 months and less than 10 percent have ever been tested.


[7] To implement the major changes announced by the South African government, with the ambitious goal of administering millions of HIV tests by June 2011, it has proposed committing $1 billion of its own funds to this effort.

[8] The analyses conducted by Phillip Nieburg and Nkem Dike benefitted from significant input from Northwestern’s Biostatistics Collaboration Center.

[9] Here again the 2008 DHS shows even more distressing statistics of 86 percent of pregnant women not having received HCT. The great majority of HIV-infected pregnant women did not benefit from perhaps the most effective drug treatment available: preventing transmission of the virus to newborns. These statistics relate to a broader problem in Nigeria — namely, woeful maternal health care.

[10] Professor Labode Popoola, dean of the School of Postgraduate Studies of the University of Ibadan, initiated at the REACH dissemination session on May 7, 2010, the chant ‘DO YOU KYS?’ , meaning ‘Do you know your HIV Status?’ It should become part of pre-mating behavior.


[16] William Haseltine, a pioneering HIV/AIDS researcher, wrote that ‘our best hope now lies in universal detection and universal treatment of all those currently HIV positive’. Although we agree with this assertion, nowhere in his article does he acknowledge that the social, cultural, institutional, and political barriers to these two goals in countries such as Nigeria are as great, if not greater, than the scientific hurdles he and his colleagues overcame in deciphering the virus and developing effective treatments. See ‘An Early End to the HIV/AIDS Pandemic?’ in *The Atlantic*, February 2009.

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