MAPPING OF TOOLS AND STRATEGIES ON HUMAN RIGHTS AND HIV TESTING AND COUNSELING

A Bibliography

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# TABLE OF CONTENTS

Introduction .................................................................................................................. 3

Methods ......................................................................................................................... 3

Policy Guidance on PITC ............................................................................................... 5
  WHO guidance ............................................................................................................. 5
  Regional guidance ....................................................................................................... 6
  National guidance ....................................................................................................... 9

Arguments for PITC ...................................................................................................... 26

Human Rights Issues Related to PITC ....................................................................... 36

Barriers to Implementation of PITC ............................................................................ 48
  Consent ...................................................................................................................... 48
  Confidentiality and privacy ....................................................................................... 52
  Stigma and discrimination ....................................................................................... 52
  Acceptability of testing ............................................................................................ 56
  Provider attitudes ..................................................................................................... 65
  Counseling ................................................................................................................ 73
  Implications of a positive test result ......................................................................... 77
  Disclosure .................................................................................................................. 78

Impact on Vulnerable Groups ...................................................................................... 82
  Women ....................................................................................................................... 83
  Pregnant women ....................................................................................................... 86
  MSM ........................................................................................................................... 108
  IDUs .......................................................................................................................... 111
  Prisoners .................................................................................................................... 111
  Migrants .................................................................................................................... 112
  Children/Adolescents ............................................................................................... 113
  Indigenous populations ............................................................................................. 118
  Other groups ............................................................................................................. 118

Alternative Strategies for Scaling Up HTC ................................................................. 119
  Linking prevention and treatment: Scaling up VCT ................................................. 125
  Linking HIV testing and TB .................................................................................... 133
Introduction

This project is part of an initiative led by WHO, in collaboration with UNAIDS and the Open Society Institute (OSI), to create a strategy and tools for policy-makers and programmers to integrate human rights into HIV testing and counseling (HTC) scale-up. As a partner in this initiative, PIHHR aimed to:

1. Collect publicly available evidence, such as national policies, guidelines, training materials, professional commentaries and research studies on human rights and HIV testing and counseling in facilities;
2. Conduct content analysis of key documents reviewed and identify the extent to which human rights are addressed in policies, programs, and research discussed in the literature; and
3. Support the development of policy and program implications and recommendations on integrating a human rights approach in HIV testing and counseling services.

As part of this effort, PIHHR has compiled this bibliography to inform analysis of key findings and recommendations for such work going forward. A report based on the analysis and findings is currently in production.

Methods

Data Collection

A systematic literature review of national, regional and global policies, guidelines, professional commentaries and research studies was conducted in both the peer-reviewed and grey literature.

Databases specializing in public health, medicine and social sciences were used to collect peer-reviewed literature. Searches were conducted in Pubmed, PsycInfo, Policyfile, Cinahl, and Popline. Combinations of the following terms were used to capture a broad range of search results:

- HIV Infections/diagnosis or AIDS serodiagnosis
- Testing and counseling or mass screening
- Human rights
- Health facilities OR health services
- Guidelines (as a topic or publication type)

To retrieve policies, guidelines, and training materials from the grey literature, a Google search was conducted using combinations of the following terms:

- Provider-initiated HIV testing and counseling
- HIV testing and counseling in facilities
- Human rights
In addition, the websites of key UN agencies (e.g. UNAIDS, WHO, UNICEF, UNDP), bilateral and government agencies (e.g. US CDC, USAID, DfID) and international non-governmental organizations (OSI, PATH, FHI) were searched for published guidelines and tools on provider-initiated testing and counseling (PITC).

Finally, list-serves on HIV/AIDS generally and HIV testing specifically (HIV testing_policy; Kaiser list-serve; AIMNet; AIDSmap) were monitored during the project compilation period (July 2009 to September 2009) for discussions and publications shared on HIV testing and counseling guidelines.

**Time-Frame**
Only relevant documents published between 2006 and the present were included. 2006 was agreed to as a suitable cut-off date as it marks the time when guidance for PITC was released by US CDC and was being drafted by WHO/UNAIDS.

**Categories and Inclusion Criteria**
Search results are categorized as follows:
1. Policy guidance on PITC
2. Arguments for PITC
3. Human rights issues related to PITC
4. Barriers to implementation of PITC
5. Impact of PITC on vulnerable groups
6. Alternative strategies for scaling up HTC

Abstracts of publications were included if available; for publications without an abstract, the first paragraph was included if the full article was available. The categorization of each document was determined by PIHHR based on the key findings identified by the authors. For purposes of this analysis, documents relating to more than one category were only included in the category deemed most relevant.
Policy Guidance on PITC

WHO guidance

In May 2007, UNAIDS and the World Health Organization (WHO) issued Guidance on Provider-Initiated HIV Testing and Counselling in Health Facilities (the Guidelines). The Guidelines position health care provider-initiated testing and counselling (PITC) as a tool to increase the uptake of HIV testing and recommend an "opt-out" approach to PITC, where individuals must specifically decline the HIV test if they do not want it performed.

After a series of meetings, open internet-based reviews, and consultations over a year, WHO and UNAIDS recently released guidance on HIV testing and counselling initiated by health providers. Those not engaged in this exercise might not fully appreciate the evolution of thinking represented by this final document, nor the role played by active debate between constituencies with diverging views on key issues. Among these issues was whether HIV testing should be included in the panoply of routine tests given in health settings on the initiative of the clinician, unless the patient specifically opted-in by asking to be tested for HIV or opted-out by refusing the test, despite not having been prompted to consent to it. Many found the ideas confusing and questioned the underlying assumption of this approach—i.e., that patients who signed off on admission forms when consulting or being admitted to a care facility de-facto agree to any diagnostic test found necessary by the treating doctor. Concerns were raised that, unlike other tests, in view of prevailing stigma, discrimination, and risks of violence attached to an HIV-positive result in many settings, particularly for women, specific individual agreement to the test remained necessary.

This document responds to growing need at country level for basic operational guidance on provider-initiated HIV testing and counselling in health facilities. It is intended for a wide audience including policy-makers, HIV/AIDS programme planners and coordinators, health-care providers, non-governmental organizations providing HIV/AIDS services and civil society groups. The document recommends an “opt-out” approach to provider-initiated HIV testing and counselling in health facilities, including simplified pre-test information, consistent with WHO policy options developed in 2003 and with the 2004 UNAIDS/WHO Policy Statement on HIV Testing. With this approach, an HIV test is recommended 1) for all patients, irrespective of epidemic setting, whose clinical presentation might result from underlying HIV infection; 2) as a standard part of medical care for all patients attending health facilities in generalized HIV epidemics; and 3) more selectively in concentrated and low-level epidemics. Individuals must specifically decline the HIV test if they do not want it to be performed. Additional discussion of the right to decline HIV testing, of the risks and benefits of HIV testing and disclosure, and about social support available may be required.
for groups especially vulnerable to adverse consequences upon disclosure of an HIV test result. An "opt-in" approach to informed consent may merit consideration for highly vulnerable populations.


**Regional guidance**


With universal access to antiretroviral therapy (ART), people can access effective treatment but are only able to benefit from these advances if they are aware of their status and are effectively accessing testing services. Although it was anticipated in the mid-1990s that the availability of ART would lead to earlier testing, this trend has not been observed in practice, with stagnant or even increasing rates of late diagnosis in Europe. Ahead of a gathering of key European stakeholders in Brussels in November 2007, we reviewed definitions of late diagnosis and approaches to surveillance of late HIV diagnosis in Europe. We found that there is no common or consistent reporting of late diagnosis across Europe and that the multiplicity of definitions for late diagnosis is likely proving a hindrance to providing information on the magnitude of the problem, determining trends, and informing understanding of reasons for changes in trends. We also show that existing evidence points to high rates of late diagnosis across Europe - between 15 and 38% of all HIV cases - and concur that trends that are increasing or at best stagnant. We identify risk factors that are associated with individuals being more likely to present late and we explore the reasons for late presentation. We reflect on the need to review surveillance and testing policies, notably in relation for population groups that are heavily represented in late presenters and make recommendations for a coherent, cross-European approach to surveillance and monitoring in order to support improvements in service provision and, ultimately, public health.


The articles in this supplement were developed from a recent pan-European conference entitled 'HIV in Europe 2007: Working together for optimal testing and earlier care', which took place on 26-27 November in Brussels, Belgium. The conference, organized by a multidisciplinary group of experts representing advocacy, clinical and policy areas of the HIV field, was convened in an effort to gain a common understanding on the role of HIV testing and counselling in optimizing diagnosis and the need for earlier care. Key topics discussed at the conference and described in the following articles include: current barriers to HIV testing across Europe, trends in the epidemiology of HIV in the region, problems associated with undiagnosed infection and the psychosocial barriers impacting on testing. The supplement also provides a summary of the World Health Organization's recommendations for HIV testing in Europe and an outline of an indicator disease-guided approach to HIV testing proposed by a committee of experts from the European AIDS Clinical Society (EACS). We hope that consideration of the issues discussed in this
supplement will help to shift the HIV field closer towards our ultimate goal: provision of optimal HIV testing and earlier care across the whole of the European region.


Background: The increased prevalence of HIV infection in women is leading to a rising number of children born to HIV-infected mothers. As therapeutic possibilities for HIV/AIDS increase, the detection of undiagnosed HIV infections in pregnant women, followed by adequate management, is of crucial interest. Therapeutic protocols are being updated and increasingly applied in most European countries, but there is no structured information on policies and strategies with regard to antenatal HIV screening as such. Methods: In order to identify national policies with regard to antenatal HIV screening, a structured questionnaire was sent to key-informants within the ministries of health and national institutes for public health in each of the 25 EU Member States. Results: Information was obtained from all EU Member States with the exception of Cyprus and Luxembourg. Eighteen countries issued a national policy with regard to antenatal HIV screening, 16 opted for a system in which HIV testing is offered to all women attending antenatal services while only two opted for selective screening. None of the 18 countries with a national policy supports a mandatory screening strategy. The voluntary testing strategies are of two types: opting in versus opting out. In almost all EU countries with antenatal HIV screening policies, screening conditions are defined. Conclusion: Policies are in place in most EU countries. Nevertheless, there is a need for more integrated European policies and region-specific recommendations on the performance of antenatal HIV screening as an opportunity for comprehensive HIV/AIDS service delivery. This would enable the different aspects of prevention to be linked and also address both the needs of pregnant women and mothers as well as that of their infants.


The increasing rate of reported HIV cases in many European countries demonstrates that HIV is still an important public health issue in the World Health Organization (WHO) European Region. In 2006, Eastern European countries reported a rate of newly reported HIV cases that was nearly three times that reported in the West and over 20 times that reported in the Centre of Europe. While the incidence of AIDS has continued to decline in Western and Central Europe, it is increasing in Eastern Europe*. However, the above data concern only reported HIV cases; undiagnosed cases should also be taken into consideration when discussing the extent of the HIV/AIDS epidemic and related trends. In the European Union (EU), the overall level of undiagnosed cases is estimated at 30%, and in some places almost 60%, and in some non-EU countries half of all injecting drug users (IDUs) – a population that is a driving force of the epidemic there – were unaware of their status when they tested positive in prevalence studies.


With universal access to effective combination antiretroviral therapy (ART), people in need can gain effective treatment but are only able to benefit from these advances if they are aware of their serostatus and have effectively accessed testing services. Despite the expectation that ART would lead individuals to seek earlier testing, this trend has not been observed in practice, with stable or even increasing rates of late diagnosis in Europe being witnessed. Ahead of a gathering of key European stakeholders in Brussels in November
2007, we reviewed testing strategies across European countries. We show differences in policy and practices. Moreover, HIV testing strategies are changing, in line with new global guidelines issued by World Health Organization headquarters, and a number of countries are promoting an expansion of routine and opt-out testing. However, gaps in our understanding of effective testing strategies remain and, as a consequence, national policies across Europe remain incoherent and often lack an evidence base. This is likely to have serious public health implications.


Testing for HIV is one of the cornerstones in the combat against HIV infection. The 2008 European Guideline on HIV Testing provides advice on testing for HIV infection in individuals aged 16 years and older who have sought evaluation and treatment at sexually transmitted infection services for dermatovenerology clinics across Europe. Its aim is to provide practical guidance to clinicians in these settings who undertake HIV testing and suggest appropriate standards for the audit of service provision.


In today's *Lancet*, Kristin Dunkle and colleagues present a mathematical model of the expected proportion of new heterosexually transmitted HIV infections in urban Zambia and Rwanda that are acquired during marriage or cohabitation. Their model, which uses existing data from voluntary counseling and testing and population-based surveys for HIV, consistently estimates that most new HIV infections occur within marriage or cohabitation. They conclude that HIV-prevention efforts should expand beyond individuals to target couples.


In response to concerns over low coverage of HIV testing and counselling in the Asia Pacific region, a “Joint WHO/UNICEF/UNAIDS technical consultation on scaling up HIV testing and counselling in the Asia Pacific” was held in Phnom Penh, Cambodia from 4 to 6 June 2007. The aim of the meeting was to discuss how to scale up HIV testing and counselling services, discuss core public health approaches, ethical principles and human rights values to guide the expansion of HIV testing and counselling, and identify and agree on key actions for follow-up at the regional and country level for policy and programme implementation. Participants recognized and agreed that there is an urgent need to scale up access to HIV counselling and testing in countries of the region as a means of enhancing access to comprehensive HIV prevention, care and treatment. Existing models of voluntary counselling and testing (client-initiated HIV testing and counselling) need to be strengthened, scaled up and complemented by approaches that can best fit the local epidemiological and social context and build on the potential of health services to offer HIV counselling and testing (provider-initiated HIV testing and counselling). A set of key conclusions and recommendations was agreed on by the consultation participants.

WHO Western Pacific Region. (Jan. 2008). *Part A Update on prevention of HIV transmission: provider-initiated testing and counseling (PITC)*. *HIV Prevention and
Traditional Voluntary Counselling and Testing (VCT) is client initiated. This means the process is started by the client, who decides for whatever reason to take an HIV test. Coverage of client-initiated HIV testing and counselling service is inadequate in both high-income and resource constrained settings. It is estimated that worldwide only 12%–25% of people living with HIV/AIDS (PLHA) know their status. Approximately 72% of those who require antiretroviral therapy (ART) are not receiving it because they do not know that they are HIV positive. Coverage of all interventions for HIV prevention is low and the number of new infections remains high. Increased access to HIV testing and counselling is essential to promote earlier diagnosis of HIV infection and earlier treatment before HIV-related illnesses occur and to allow PLHA to receive information to prevent HIV transmission to others.

**National guidance**


Revision of the 1998 HIV Testing Policy was identified as an area for priority action in the fifth *National HIV/AIDS Strategy 2005-2008*. A Steering Group was formed to review the HIV Testing Policy. This was a joint group of the Ministerial Advisory Committee on AIDS, Sexual Health and Hepatitis (MACASHH) HIV/AIDS and Sexually Transmissible Infections (STIs) Subcommittee (HASTI) and the Intergovernmental Committee on AIDS, Hepatitis and Related Diseases (IGCAHRD).

The revised draft National HIV Testing Policy 2006 was widely disseminated for public consultation in July 2006. Relevant stakeholders included HIV community organisations; the medical, research and scientific sectors; and members of both ICGAHRD and HASTI. Comments on the draft National HIV Testing Policy 2006 were incorporated into a final draft and this document was endorsed by HASTI in November 2006. The HIV Testing Policy has been revised in accordance with the changing epidemiology, technology and social context of the HIV epidemic in Australia. This testing policy maintains and reinforces the guiding principles of successive National HIV/AIDS Strategies since 1989.


The USA and international recommendations no longer emphasize using risk factors to target groups for HIV-testing. Using a Guatemalan database of HIV tests, we developed a clinical prediction rule to guide decisions on HIV-testing. Prior to HIV-testing, data were collected on demographics, risk factors and prior testing. Based on a theoretical construct incorporating demographics, known HIV risk factors and symptoms, we developed a logistic regression model to predict HIV seropositivity. Between 2000 and 2005, 16,471 tests were performed, of which 19.8% were positive. The algorithm successfully predicted 1883 of 2489 HIV-positive tests (sensitivity 76%, likelihood ratio [LR]-positive 2.45) and 6282 of 9086 HIV-negative tests (specificity 69%, LR-negative 0.35). Although the model indices are robust, applying the model in a clinical setting would have little impact on improving selective testing practices. Our findings support current recommendations for universal HIV-testing, not selective testing based on risk factors. Before these
recommendations can be adopted widely in Guatemala, treatment access needs to be assured and protections put in place for people diagnosed with HIV infection.


BACKGROUND: The World Health Organization has proposed a public health approach to antiretroviral therapy (ART) to promote scaling up access to treatment in developing countries. Ethiopia has been implementing this approach for ART provision since 2005.

OBJECTIVE: To describe the Ethiopian experience in the scale-up of ART services using the public health approach. METHODS AND PATIENTS: This is a retrospective study of patients who were started on ART since 2005. We used data from the monthly HIV Care and ART Update reports of the Ethiopian AIDS Resource Center, analyzing the trend of ART service provision and site expansion from the second quarter of 2005 to the second quarter of 2007. Data were analyzed for 1) patients enrolled for chronic HIV/AIDS care, 2) patients started on ART and 3) facilities providing ART. RESULTS: The number of ART sites increased from 3 in early 2005 to 265 in early June 2007. During that time, the number of ART patients increased from 8,276 to 92,450 and of patients receiving chronic HIV/AIDS care from 13,773 to 156,729. The proportion of females and children on ART and of patients residing outside of Addis Ababa also sharply increased. CONCLUSION: The sharp increase in the number of sites providing ART service and patients started on ART is mainly due to the simplification and standardization of ART delivery models and employing nurses for ART provision. The public health approach is an innovative strategy to scale up ART service provision to poor and rural communities where it hasn't been possible to provide the service based on the traditional delivery model.


The annual number of AIDS deaths declined substantially in the USA following introduction of highly active antiretroviral therapy (HAART) in 1995, but has remained stable from 1999 to 2004.1 There are approximately 1.0 - 1.2 million persons estimated to be living with HIV, of whom 25% are unaware of their infection and likely to have transmitted their infection unknowingly.1,2 Despite considerable survival benefits if treatment is initiated early before symptoms develop, 40% of patients receive their HIV diagnosis less than 12 months before developing AIDS.1 Early HIV diagnosis may therefore be of both public health and individual survival benefit. On 22 September 2006 the United States National Center for HIV/AIDS published revised recommendations for HIV testing of adults, adolescents and pregnant women to facilitate HIV testing as a normal part of medical practice similar to screening for other treatable conditions.3 HIV screening for all patients in US health care settings is now recommended unless the patient declines (i.e. ‘opt-out’ screening). Separate written consent for HIV testing is no longer required and general consent for medical care will be considered sufficient to encompass consent for HIV testing. Prevention counselling will not be required with HIV diagnostic testing or as part of HIV screening programmes in health care settings. The objective of the revised policy is to increase HIV screening of patients and pregnant women in health care settings to foster earlier detection
of HIV infection, identify and counsel individuals with unrecognized HIV infection and link them to clinical and prevention services.


HIV is now a treatable medical condition and the majority of those living with the virus remain fit and well on treatment. Despite this a significant number of people in the United Kingdom are unaware of their HIV infection and remain at risk to their own health and of passing their virus unwittingly on to others. Late diagnosis is the most important factor associated with HIV-related morbidity and mortality in the UK. Patients should therefore be offered and encouraged to accept HIV testing in a wider range of settings than is currently the case. Patients with specific indicator conditions should be routinely recommended to have an HIV test. All doctors, nurses and midwives should be able to obtain informed consent for an HIV test in the same way that they currently do for any other medical investigation.


We agree with *The Lancet* that a “purposeful policy of HIV testing is needed” and that it is a matter of deep concern that so many individuals in the UK are unaware that they are HIV-infected—an estimated 21,000 at the end of 2007. We disagree with you, however, over whether all men and women aged 15–59 years should be tested. At present, prevalence is highly variable across the country. In most primary-care trusts in England, the prevalence of undiagnosed HIV infection in adults in this age-group is likely to be much less than the one in 1000 level at which HIV testing in industrialised countries is judged to be cost effective.


Over the past decade, China's response to HIV/AIDS has transformed from denial and inertia to pragmatic prevention and treatment programmes. Still, massive challenges remain for the country. On Feb 17, official state media reported that in 2008 HIV/AIDS was China's leading killer among infectious diseases for the first time. Under-reporting means that accurate figures on the country's epidemic are hard to come by. However, UNAIDS estimates that around 700,000 people are living with HIV/AIDS in China.


In the wake of a downward revision of the number of HIV-infected people, India is launching an ambitious US$2.5 billion, five-year HIV plan. Responding to new data on HIV prevalence and risk behavior, India has earmarked almost 70 percent of the budget for prevention; one-third focuses on prevention activities for those at highest risk of HIV, and the remainder addresses HIV testing expansion and services for pregnant women. About 20 percent of the total budget is for care and treatment. Although the size and scope of the proposed HIV response pose challenges, the world has much to learn from India's data-informed approach to policy and priority setting.

Acquired Immune Deficiency Syndromes, 45(1), 102-107.

Background: Botswana has high HIV prevalence among pregnant women (37.4% in 2003) and provides free services for prevention of mother-to-child transmission (PMTCT) of HIV. Nearly all pregnant women (> 95%) have antenatal care (ANC) and deliver in hospital. Uptake of antenatal HIV testing was low from 1999 through 2003. In 2004, Botswana’s President declared that HIV testing should be "routine but not compulsory" in medical settings. Methods: Health workers were trained to provide group education and recommend HIV testing as part of routine ANC services. Logbook data on ANC attendance, HIV testing, and uptake of PMTCT interventions were reviewed before and after routine testing training, and ANC clients were interviewed. Results: After routine testing started, the percentage of all HIV-infected women delivering in the regional hospital who knew their HIV status increased from 47% to 78% and the percentage receiving PMTCT interventions increased from 29% to 56%. ANC attendance and the percentage of HIV-positive women who disclosed their HIV status to others remained stable. Interviews indicated that ANC clients supported the policy. Conclusions: Routine HIV testing was more accepted than voluntary testing in this setting and led to substantial increases in the uptake of testing and PMTCT interventions without detectable adverse consequences. Routine testing in other settings may strengthen HIV care and prevention efforts.


The number of new diagnoses of HIV in the UK is increasing, with most new diagnoses reported in men who have sex with men (MSM) and black African heterosexuals the later of whom usually acquire their infection abroad. Around 31% of people infected with HIV in the UK are unaware of their diagnosis, and one in three are diagnosed for the first time with a CD4 count <200 cells/mm(3) or with AIDS. Late diagnosis is the most important factor that explains most HIV-related causes of death in the UK. Strategies to increase HIV-testing include universal approaches in antenatal and STD clinics (known as genitourinary [GU] medicine clinics), but other opportunities for prompt diagnosis are often missed during secondary and primary consultations - even when patients present with HIV-related illnesses. Furthermore, a significant proportion of people with undiagnosed HIV who attend GU medicine clinics leave without being offered an HIV test or a diagnosis of HIV. Universal offer (opt-out testing) policies seem to work well - such as in the successful antenatal testing programme - but local strategies to increase HIV-testing and prompt diagnosis, such as training courses and rapid HIV-testing initiatives have met with varied success. New national guidelines for the UK have been published and, if successfully implemented, should help to address some of these issues.


In January 2004, the government of Botswana introduced a policy of routine, non-compulsory human immunodeficiency virus (HIV) testing to increase testing and access to antiretroviral treatment (ART) for individuals presenting for medical treatment. Before a systematic implementation of the policy, we conducted a cross-sectional survey of tuberculosis (TB) record data from 46 clinics in 10 districts to assess baseline HIV testing rates among TB patients. Recorded HIV results from the facility TB register and TB treatment card were reviewed. Of the 1242 TB patients entered in the register, 47% had a recorded HIV result and 84% of these were co-infected with HIV. TB treatment cards were available for 862 (69%) registered patients. Among the 411 (47%) with test results recorded
on the treatment card, 341 (83%) were HIV-infected; of these, 12% were reported to be receiving ART.


In your May 30 Editorial, your rightly draw attention to the need for more widespread testing for HIV infection in the UK. This is important since 28% of individuals in the UK are unaware of their infection, and audits continue to show a similar proportion of patients presenting in late disease where the early mortality associated with treatment is greater.


On 1 December 2005, this past World AIDS Day, Lesotho embarked on the "Know Your Status" initiative to provide country-wide voluntary counselling and testing (VCT) for HIV/AIDS. In a country of two million people with a 29 percent HIV infection rate, the universal testing initiative may help prevent a humanitarian and economic crisis capable of destroying the country. However, the initiative raises human rights concerns.


We share The Lancet's deep concern about the lack of a credible strategy to diagnose and care for those living with, but unaware of, their HIV in the UK today.


Since 1995, the uptake of highly active antiretroviral therapy (HAART) in the United Kingdom (UK) has resulted in a two-thirds reduction of death from AIDS.1 Health-care workers can be increasingly confident when discussing with people whether to test for HIV infection, and the benefits from knowing the diagnosis. The main objective of these guidelines is to reduce the number of undiagnosed HIV infections in patients visiting genitourinary (GU) medicine clinics. This creates the opportunity for improvement in the health and wellbeing of individuals through access to medicines; improvement in the public health from the expected reduction in onward transmission; and patient empowerment in knowing their status.


TO THE EDITOR—Keruly and Moore [1], in their article, and Goicoechea and Smith [2], in their editorial commentary, outline the difficulties in early detection of human immunodeficiency virus (HIV) infection in the United States and favor the proposal of universal HIV testing in health care settings [3]. In Italy (and in other European countries), anonymous, voluntary HIV testing has long been offered free of charge in infectious diseases units in an effort to attract at-risk individuals and to diagnose the infection early. To determine whether voluntary testing is indeed sought by at-risk individuals, we reviewed and compared data on the use and results of voluntary HIV testing from January 2002 through September 2007 in 2 infectious diseases units, one (G.B. Rossi University
Hospital; Verona, Italy) located in northeastern Italy, in the Veneto region, and the other (Annunziata Hospital; Cosenza, Italy) located in southern Italy, in the Calabria region.


Sir: Since the first AIDS case in China was reported in 1985, the HIV/AIDS epidemic has entered a widespread phase.¹ In 2005, it was estimated that 650,000 people were living with HIV in China, including about 75,000 AIDS patients.² Till now there has been neither any vaccine to prevent AIDS nor any treatment to cure AIDS.


We agree with the statement in your May 30 leader on HIV testing¹ that the number of people with undiagnosed HIV infection in the UK is too high, not least because late diagnosis of HIV infection is associated with significant morbidity and mortality. We disagree, however, with the statements that there is no credible strategy to address this or that the recommendations from the Health Protection Agency (HPA) have been largely ignored.


In the face of an infectious disease epidemic, the primary responsibility of public health is to contain and control the epidemic in order to protect the uninfected. In the area of HIV/AIDS, we have not always remembered that principle. At the end of 2003, the United Nations and the Chinese Ministry of Health (MOH) estimated that the number of people infected with HIV in China was roughly 840,000, of whom 80,000 already had AIDS (1). Experts have expressed fear that these numbers may, in fact, be an underestimation and have warned that, left unchecked, China could have 10 million infected by 2010 (2). One of the main barriers to implementing effective prevention and control efforts in the country is that the majority of infected persons are not aware of their serostatus. At the end of 2005, Chinese authorities knew of only 141,241 confirmed HIV cases, 32,263 of whom had AIDS (3). It is important for people carrying HIV to know about their serostatus, both to prolong their own lives by accessing treatment and to prevent secondary transmission to others (4). Studies in the United States, Zambia, Kenya, Tanzania, Trinidad, Puerto Rico, and India have demonstrated that people who have learned that they are HIV-infected tend to reduce their risk behaviors and to adopt safer sex practices (5-11).

U.S. Guidance


The Centers for Disease Control and Prevention (CDC) has recommended human immunodeficiency virus (HIV) testing for all persons aged 13 to 64 years in all health care
settings. Signed consent would not be required and counseling with referral would be managed as it is for other serious conditions. The goal of the recommendations is to promote earlier entry into care to reduce unnecessary mortality and facilitate prevention by behavioral changes that accompany knowledge of serostatus. Concerns about the change include laws in some states that mandate signed consent and counseling, a perception that counseling is an effective prevention strategy, variability in payment coverage for the test, concerns about the stigma and discrimination that may accompany the HIV diagnosis, and the possibility that other testing policies would be more effective. Eleven of 16 states have changed legislation to reduce barriers to testing, 35 of 74 national professional societies have endorsed the new recommendations, and multiple demonstration projects have shown feasibility. Metrics to evaluate the health outcomes of the CDC's recommendations for HIV testing have been defined, but the data necessary to determine the effects on early entry into care, the actual reduction in disease incidence, and the unanticipated consequences are not yet available.


The purpose of this study was to examine reactions to the Centers for Disease Control and Prevention revised recommendations for HIV testing by women attending community health clinics. A total of 30 women attending three community clinics completed semistructured individual interviews containing three questions about the recommendations. Thematic content analysis of responses was conducted. Results were that all agreed with the recommendation for universal testing. Most viewed opt-out screening as an acceptable approach to HIV testing. Many emphasized the importance of provision of explicit verbal informed consent. The majority strongly opposed the elimination of the requirement for pretest prevention counseling and spontaneously talked about the ongoing importance of posttest counseling. The conclusion was that there was strong support for universal testing of all persons 13 to 64 years old but scant support for the elimination of pretest prevention counseling. In general, respondents believed that verbal informed consent for testing as well as provision of HIV-related information before and after testing were crucial.


The implementation of HIV testing in correctional settings is an important consideration in reducing the annual number of new HIV infections occurring in the United States. This document provides background statistics on HIV/AIDS in correctional facilities and covers issues relating to inmate privacy and confidentiality, opt-out HIV screening in correctional medical clinics, HIV testing procedures, and HIV/AIDS case reporting. The correctional system in the United States consists of a wide variety of correctional settings (e.g., State and Federal prisons, jails, juvenile facilities) and legal constraints (e.g., state laws). A single framework for HIV testing will not likely be effective or even possible in all correctional settings. The purpose of this document is to guide the implementation of opt-out HIV testing in the correctional setting by presenting many of the basic components and tenets of such a testing program as well as dealing with some of the obstacles that may be encountered in the process.

The more scientists and public health officials learn about HIV prevention, the more they realize that targeting specific cultural and demographic groups of people who are not infected is a costly and labor-intensive venture. With federal HIV prevention funding essentially flat-lined for seven years now, the CDC has shifted its focus to Prevention for Positives initiatives. And what better place to find positives and provide these prevention messages than the HIV clinic? This was the genesis of the CDC's Positive Steps intervention that was implemented in seven HIV clinics in six states from New York City, NY, to Denver, CO.


Tuberculosis (TB) is the second most common cause of death from infectious disease in the world after human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). Immunosuppressed HIV-infected persons are highly susceptible to TB disease, and countries in sub-Saharan Africa have the highest TB incidence rates, primarily because of the HIV epidemic. In Zambia, the TB rate increased during 1984-2005 from approximately 100 cases per 100,000 population to 580 cases per 100,000 population. Much of this increase has been attributed to the high rate of coinfection with HIV; currently, an estimated 50%-70% of TB patients are infected with HIV (N. Kapata, Ministry of Health, Zambia, personal communication, 2008). In 2007, the World Health Organization (WHO) recommended that countries with high coinfection rates develop TB/HIV collaborative activities, including routine provider-initiated HIV testing and counseling (PITC) of TB patients in TB clinical settings, using an "opt-out" approach. This report summarizes results from a PITC pilot study conducted by the Zambian Ministry of Health, with assistance from the CDC Global AIDS Program Zambia, during September 2004-December 2006 with TB patients at three clinics in the Livingstone District in the Southern Province of Zambia. The results indicated that, among 4,148 persons who had TB diagnosed, 2,072 (50%) were tested for HIV; of these, 1,497 (72%) tested positive. These findings demonstrate the practicality and acceptance of PITC and HIV rapid testing and support the need to expand this program to TB clinical settings in Zambia and other countries with high rates of TB and HIV.


In the United States, an estimated 1.1 million persons were living with human immunodeficiency virus (HIV) infection in 2006, of whom an estimated 232,700 were undiagnosed and unaware they were HIV infected. Adolescents and young adults aged 13-24 years represented 4.4% of the total but disproportionately comprised an estimated 9.9% of the undiagnosed cases. Early diagnosis of HIV infection facilitates medical interventions and enables infected persons to reduce high-risk behavior and the likelihood of further HIV transmission. To determine the extent to which adolescents are being tested for HIV, data from the 2007 Youth Risk Behavior Survey (YRBS) (the most recent data available) were analyzed. The results indicated that nationwide, 12.9% of all high school students had ever been tested for HIV. The prevalence of HIV testing increased with increasing grade and decreased with increasing age at first sexual intercourse. Prevalence of HIV testing was...
higher among female students (14.8%) than male students (11.1%), higher among non-Hispanic black students (22.4%) than Hispanic (12.7%) and non-Hispanic white students (10.7%), was higher among students who had ever had sexual intercourse (22.3%) than those who had never had sexual intercourse (4.0%), and among students who had ever had sexual intercourse. To decrease the number of undiagnosed HIV infections among adolescents and promote HIV prevention, CDC recommends that health-care providers offer HIV screening as part of routine medical care. High schools can support those screening efforts by including information on obtaining HIV testing in their HIV curricula.

Cheever, L. W., Lubinski, C., Horberg, M., & Steinberg, J. L. (2007). Ensuring access to treatment for HIV infection. Clinical Infectious Diseases, 45(Suppl 4), S266-74. The recent recommendations of the Centers for Disease Control and Prevention for opt-out testing are intended to address the evolving human immunodeficiency virus (HIV) epidemic in the United States by bringing more HIV-infected individuals into medical care. This is an important step to better control the epidemic but brings with it the challenges of adequately caring for more individuals infected with HIV and of funding medications and medical care for these additional patients. With more patients being offered HIV testing, there will be a surge in the need for testing and counseling services, which must keep pace with patient demand. This article describes the current status of HIV screening and care from 4 perspectives: the Ryan White Program (previously known as the Ryan White Comprehensive AIDS Resources Emergency Act), Medicaid and Medicare reimbursement for HIV screening, a managed care organization, and community health centers. The mandate for routine HIV screening challenges each of these health care entities, but all will need to overcome these challenges if routine HIV screening is to become a reality.

Clark, J., Lampe, M. A., & Jamieson, D. J. (2008). Testing women for human immunodeficiency virus infection: Who, when, and how? Clinical Obstetrics and Gynecology, 51(3), 507-517. Obstetrician-gynecologists provide comprehensive primary and preventive care for women and are ideally suited to provide human immunodeficiency virus (HIV) screening for their patients. This paper provides a summary and rationale for the current recommendations for HIV testing among women in the United States, emphasizing recommendations from the Centers for Disease Control and Prevention and the American College of Obstetricians and Gynecologists [corrected] Who should receive HIV testing, when and how often testing should be conducted, and how testing should be offered are discussed. These recommendations are described separately for general populations (including nonpregnant women) and for pregnant women and their infants.

Cohan, D., Gomez, E., Dowling, T., Zetola, N., Kaplan, B., & Klausner, J. D. (2009). HIV testing attitudes and practices among clinicians in the era of updated centers for disease control and prevention recommendations. Journal of Acquired Immune Deficiency Syndromes, 50(1), 114-116. Over 1 million individuals are estimated to be infected with HIV living in the United States, approximately 25% of whom do not know their diagnosis.1 Moreover, approximately 40,000 individuals become infected with HIV annually in the United States. Furthermore, current data demonstrate an unacceptably high rate of delayed diagnosis of HIV in the United States.2-3 There have been enhanced local and national HIV testing efforts to address these related issues of delayed diagnosis and undiagnosed HIV. In May 2006, San Francisco General Hospital (SFGH), a public, university-affiliated hospital, enacted a policy of verbal-only consent for HIV testing of nonpregnant adults.4 In September 2006, the
Centers for Disease Control and Prevention (CDC) published its revised recommendations for HIV testing to include routine HIV testing of all 13- to 64- year olds.5 Few studies have evaluated provider testing practices in the current era of routine HIV testing. The primary objective of this study was to assess provider-level characteristics associated with the offering of routine HIV testing as per CDC recommendations. In addition, we sought to measure provider knowledge of local, state, and national policies, laws and recommendations, providers' attitudes towards HIV testing, and current provider practices related to HIV pretest counseling.

To the Editor: I endorse the CDC recommendations for opt-out HIV testing discussed in the Special Communication by Dr Bartlett and colleagues and believe that all available tools to identify and counsel HIV-infected individuals should be pursued. However, one important population of persons must be considered in any such policy: those who are participants in HIV vaccine trials. By 2008, more than 30,000 individuals worldwide had participated voluntarily in experimental HIV vaccine trials. The CDC recommendations pose some complex issues for these HIV vaccine trial participants, as many will test positive in many of the antibody-based screening assays. In the last 5 years, almost all HIV vaccines have elicited some reactivity in commercially based assays. All of these vaccine study participants are HIV-negative by RNA/DNA assays.


Department of Veterans Affairs. (2009). **Elimination of requirement for prior signature consent and pre-and post-test counseling for HIV testing. final rule.** *Federal Register*, 74(135), 34500-34503.
This document adopts, without change, the proposed rule published in the Federal Register on December 29, 2008, updating informed consent requirements related to testing for the Human Immunodeficiency Virus (HIV) for Veterans receiving health care from the Department of Veterans Affairs (VA). This final rule is in accordance with related provisions of the Veteran's Mental Health and Other Care Improvements Act of 2008. The final rule eliminates the regulatory requirement for written informed consent for HIV testing and specific pre- and post-test counseling of Veteran patients. VA will implement this rule through internal policy guidance specifying these requirements and how they apply to HIV testing.

**Do you have the time -- or the money -- to offer HIV screenings?** New CDC guidelines encourage all EDs to offer testing. (2006). *ED Management*, 18(6), 61-63.
New rapid testing can cut down on time constraints; be aware, however, that they are not 100% accurate.

In the world, the prevalence of HIV is stable, the number of deaths is decreasing, as is the number of infections in children. In Switzerland, the number of new positive tests is approximately 780 per year and increasing in the MSM population. The CDC recommends a new "opt-out" strategy for HIV testing which is still debated, as is the publication of the absence of risk of HIV transmission in patients with an undetectable viremia. This has
however relaunched the concept of treatment as an aid to prevention. New drugs have been commercialised in Switzerland enabling patients with virologic failure to receive an effective treatment. Vaccine trials have failed until now, but the discovery of new viral molecules capable of antagonising cellular defence mechanisms ("cellular restrictions") could become potential new therapeutic targets.


Objectives. In 2006, the Centers for Disease Control and Prevention (CDC) recommended routine human immunodeficiency virus (HIV) screening for people aged 13 to 64 years in all U.S. health-care settings. Earlier recommendations focused on those at high risk for HIV and included more extensive pretest counseling. HIV screening may also involve either rapid or conventional testing. The purpose of this research was to estimate the costs of these different testing procedures and the cost per HIV-infected patient correctly receiving test results in three health-care scenarios that illustrated these policy differences. Methods. The study estimated the costs of rapid and conventional HIV testing in the following scenarios: (1) sexually transmitted disease (STD) clinic counseling and testing (CT), (2) STD clinic screening, and (3) emergency department (ED) screening. Costs were estimated from the provider perspective in 2006 dollars. A decision analytic model was developed to estimate the cost per HIV-infected patient notified of test results using the two testing procedures in the three scenarios. Results. Although the complete rapid testing procedure was more expensive than conventional testing, the cost per HIV-infected patient receiving test results was lower for the rapid test compared with conventional testing in all scenarios. Per-patient costs of receiving results were lowest in the ED screening scenario and highest in the STD CT scenario. These costs were sensitive to changes in test costs, HIV prevalence, and return rates following conventional tests. Conclusion. HIV screening in general health-care settings is economically feasible, particularly with rapid tests that lower the cost of HIV-infected patients receiving their test results.


BACKGROUND: New Centers for Disease Control recommendations suggest that all persons with newly diagnosed HIV receive partner counseling and referral services (PCRS). METHODS: We evaluated the King County, WA, PCRS program using a new set of disposition codes that disaggregate the components of PCRS (notification, testing, and test results), distinguish verified and unverified outcomes, and differentiate outcomes that occur before and after cases receive PCRS. RESULTS: Between 2005 and 2007, 427 (65%) of 659 persons with newly diagnosed HIV received PCRS. The number of cases staff needed to interview to identify 1 new case of HIV varied from 12.2 to 47.4 depending on whether number needed to interview was defined to include both verified and unverified outcomes and whether it excluded partners diagnosed with HIV before cases' receipt of PCRS. Age <25, testing HIV negative within the last year, receipt of PCRS within 58 days of HIV diagnoses, and participation in a program to link persons with HIV to medical care were significantly associated notifying more partners. CONCLUSIONS: PCRS evaluations may overestimate success because of limitations inherent in Centers for Disease Control PCRS disposition codes. Efforts to promote frequent HIV testing, assure timely provision of PCRS, and integrate PCRS with programs that link patients to care may improve PCRS outcomes.
The CDC recommendations called for routinely incorporating HIV testing into regular medical care. In an effort to find the estimated 250,000 Americans with undiagnosed HIV, the CDC wants everybody to be tested, at emergency rooms, public clinics, doctors’ offices – wherever they interact with the medical system. One highly controversial break with the past involved expediting testing by dispensing with individual HIV prevention counseling as well as specific written informed consent. HIV testing, though dubbed “routine” by the CDC, was not supposed to be routinely repeated except in people who have high-risk behaviors. But how do you determine which HIV-negative persons are at “high risk” of contracting the virus if you omit individual counseling? That question remains unresolved.

BACKGROUND: The United States Centers for Disease Control and Prevention (CDC) recently recommended opt-out HIV testing (testing without the need for risk assessment and counseling) in all health care encounters in the US for persons 13-64 years old. However, the overall costs and consequences of these recommendations have not been estimated before. In this paper, I estimate the costs and public health impact of opt-out HIV testing relative to testing accompanied by client-centered counseling, and relative to a more targeted counseling and testing strategy. METHODS AND FINDINGS: Basic methods of scenario and cost-effectiveness analysis were used, from a payer’s perspective over a one-year time horizon. I found that for the same programmatic cost of US$864,207,288, targeted counseling and testing services (at a 1% HIV seropositivity rate) would be preferred to opt-out testing: targeted services would newly diagnose more HIV infections (188,170 versus 56,940), prevent more HIV infections (14,553 versus 3,644), and do so at a lower gross cost per infection averted (US$59,383 versus US$237,149). While the study is limited by uncertainty in some input parameter values, the findings were robust across a variety of assumptions about these parameter values (including the estimated HIV seropositivity rate in the targeted counseling and testing scenario). CONCLUSIONS: While opt-out testing may be able to newly diagnose over 56,000 persons living with HIV in one year, abandoning client-centered counseling has real public health consequences in terms of HIV infections that could have been averted. Further, my analyses indicate that even when HIV seropositivity rates are as low as 0.3%, targeted counseling and testing performs better than opt-out testing on several key outcome variables. These analytic findings should be kept in mind as HIV counseling and testing policies are debated in the US.

To the Editor: In their Special Communication, Dr Bartlett and colleagues noted that the benefits and harms of the Centers for Disease Control and Prevention (CDC) recommendations for opt-out testing for human immunodeficiency virus (HIV) in health care settings have yet to be systematically assessed. Although the authors listed some possible metrics, their suggestions did not emphasize several critical potential outcomes and effects of opt-out testing.

The recommendations for human immunodeficiency virus (HIV) testing in the United States were recently revised. An important goal of these revisions is to reduce the proportion of individuals infected with HIV who are unaware of their infection. In the new guidelines, screening is recommended for all individuals aged 13-64 years in any health care setting, provided that they are notified that testing will be performed and do not decline testing. It was further recommended that individuals at high risk for HIV infection be screened annually. Through wider screening, the identification of persons with unrecognized HIV is expected to facilitate treatment and allow better targeting of HIV prevention strategies.


In September 2006, the Centers for Disease Control and Prevention (CDC) released the "Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-care Settings" to improve screening and diagnosis. The CDC now recommends that all patients in all health care settings be offered opt-out HIV screening without separate written consent and prevention counseling. State law on HIV testing is widely assumed to be a barrier to implementing the recommendations. To help policymakers and providers better understand their own legal context and to correct possible misunderstandings about statutory compatibility, a state-by-state review (including Washington, DC) of all statutes pertaining to HIV testing was performed and the consistency of these laws with the new recommendations was systematically assessed. Criteria were developed for classifying state statutory frameworks as consistent, neutral, or inconsistent with the new recommendations, and the implications for implementation of the CDC recommendations in these various legal contexts were examined. The statutory frameworks of 34 states and Washington, DC, were found to be either consistent with or neutral to the new CDC recommendations, which would enable full implementation. Statutory frameworks of 16 states were inconsistent with the new CDC recommendations, which would preclude implementation of 1 or more of the novel provisions without legislative change. In the 2 years since release of the recommendations, 9 states have passed new legislation to move from being inconsistent to consistent with the guidelines. State statutory laws are evolving toward greater compliance with the CDC recommendations. Policymakers, provider groups, consumer advocates, and other stakeholders should ensure that HIV screening practices comply with existing state law and work to amend inconsistent laws if they are interested in implementing the CDC recommendations.


In November 2006, the United States Centers for Disease Control and Prevention updated their recommendations for HIV-testing in health-care settings in the USA. The new guidelines recommended routine HIV-testing not based on patient risk, opt-out testing, no separate consent for HIV-testing and no requirement for pretest counselling. Three cardinal points underlie the changes: risk-based testing has not identified all HIV-infected individuals in the USA, opportunities for diagnosis and management of HIV are being missed and routine HIV screening is cost-effective. Routine screening for HIV is desirable and should be achievable, but challenges still remain in introducing it in the USA. State-by-State changes in laws have had to be made, the impact on providers and payers must be considered and proactive screening programmes must be supported by faith and cultural
leaders in the highly affected communities. Furthermore, non-specialist clinicians must be trained to deal with all aspects of HIV-testing in an appropriate and professional manner. Despite fears that the public would not accept the new approach, many Americans believe that HIV-testing is an appropriate part of a medical check-up. With the public's support, newly diagnosed HIV-infected individuals will benefit from treatment, and society will benefit because of reduced HIV transmission.


OBJECTIVES: The Centers for Disease Control and Prevention (CDC) recommends offering human immunodeficiency virus (HIV) testing to all patients in all high HIV-prevalence clinical settings. We evaluated programmatic aspects of HIV testing across multiple clinical settings within a single medical center. METHODS: We analyzed programmatic data of HIV testing in the Urgent Care Center (UCC), inpatient floors, outpatient primary care, a non-clinical Drop-In Center, and Emergency Department (ED). HIV testing was by oral mucosal transudate, venous blood samples, or rapid testing fingersticks, with Western blot confirmation. We compared the sociodemographics and behavioral risks of individuals undergoing HIV testing across the five sites and estimated costs per person tested and per HIV-positive test result. RESULTS: From 2002 to 2004, 16,750 HIV tests were conducted, with 229 (1.4%) previously unreported HIV infections diagnosed among 16,696 valid test results. HIV-positive prevalence was 1.5% for the UCC, 1.5% at the Drop-In Center, 1.4% for primary care, 1.2% for inpatient, and 0.6% in the ED. Behavioral risks were most prevalent in the UCC and the Drop-In Center. The cost per test was lowest in the UCC and highest in the Drop-In Center. The cost per previously unreported HIV infection was lowest in the UCC ($1,980) and highest in the ED ($9,724). CONCLUSIONS: Although a significant number of HIV infections were identified, the number of tests performed represents < 10% of all clinical visits. Due to personnel and time constraints, offering HIV testing to patients hierarchically in some settings of a high-volume medical center merits evaluation.


Individuals vary by socioeconomic status, race, geographic location, access to health care, risk for exposure to human immunodeficiency virus (HIV), and other co-occurring conditions, making it difficult to reach those who are at high risk for HIV infection. At the state and local levels, health departments often struggle to provide HIV prevention and care services, because of inadequate funding, fragmented systems, and a host of federal and state regulations. State and local health departments, however, have become adept at providing a patchwork of services despite these challenges. This report discusses public health efforts to improve testing for, prevention of, and access to treatment of HIV infection and the various challenges to their success at the state and local levels.

When it comes to H.I.V. and AIDS -- the epidemic and its politics -- New York has always looked different from the rest of the country. It has the nation's highest rates of infection and illness, an unusual range of public and private services for those affected, and some of the biggest and best-organized advocacy groups. Yet New York closely mirrors the national epidemic in some distressing ways, including this: About one of every four new H.I.V. diognoses comes when the patient is found already to have AIDS. That means that in those cases, the infection went not only untreated, but undetected for a decade, on average.


An estimated 250,000 people in the United States are living with undiagnosed human immunodeficiency virus (HIV) infection. Those who are unaware they are HIV-infected miss opportunities for early treatment and may unknowingly infect others. Early identification of HIV-infected individuals benefits both the infected individuals and the health of the public. To decrease the number of individuals unaware that they are HIV-infected, the Centers for Disease Control and Prevention (CDC) recently revised its recommendations for HIV testing in health care settings. Changes in the CDC-recommended HIV testing protocol include expanding the population to be routinely tested and streamlining the testing and consent process. This article discusses the CDC recommendations, current Wisconsin laws regarding HIV testing, challenges associated with reconciling these laws with current CDC guidelines, and ethical concerns surrounding the guidelines. The authors conclude that Wisconsin health care professionals should adopt the CDC recommendations for HIV testing. However, to fully implement the revised CDC testing protocol, Wisconsin law will need to be amended. Adoption of these recommendations would increase the number of people in Wisconsin who are aware of their HIV-positive status and can then receive timely treatment and information about preventing HIV transmission.


In the absence of an effective HIV vaccine, case findings and treatments are the mainstay of HIV prevention. Effective treatments are available, but more than 25% of HIV-infected individuals in the United States may not know that they are infected (1). Perhaps as a result, the rate of HIV transmission in the United States seems to be holding steady (2, 3). Two years ago, the Centers for Disease Control and Prevention (CDC) responded by announcing a bold new strategy to curb HIV transmission: screening average-risk individuals in an attempt to bring more people with HIV infection into treatment and care. The new strategy proposed reaching beyond HIV voluntary counseling and testing sites (places where people who believe they are at risk for HIV can get tested) to screen for HIV in other medical settings. Additional key recommendations included simplifying requirements for obtaining written informed consent for HIV testing and increasing the use of rapid HIV tests, which would make it possible to test and deliver a preliminary positive result during a single brief visit. The vision guiding these policy recommendations was to make HIV screening a routine procedure in U.S. primary care clinics, urgent care centers, emergency departments, and hospital wards (2). In this issue, Walensky and colleagues (4) report one emergency department’s experience with implementing this type of screening. They show that these new waters can be treacherous. For their study of unselected HIV screening in a Boston, Massachusetts, emergency department, they recruited 849 study participants from a representative sample of adult emergency department patients and used an oral test approved by the U.S. Food and Drug Administration. Thirty-nine (4.6%)
patients had a reactive result for HIV antibodies and were offered confirmatory testing; 8 declined and received only this “preliminary positive” result. Of the 31 patients who agreed to confirmatory testing, only 5 (16%) were HIV infected. The remaining 26 patients with reactive oral tests were not HIV infected—although the Western blots for half of these patients had nonspecific HIV-indeterminate banding patterns.


DESCRIPTION: The American College of Physicians (ACP) developed this guidance statement to present the available evidence on screening for HIV in health care settings.

METHODS: This guidance statement is derived from an appraisal of available guidelines on screening for HIV. Authors searched the National Guideline Clearinghouse to identify guidelines on screening for HIV in the United States and used the AGREE (Appraisal of Guidelines Research and Evaluation) instrument to evaluate guidelines from the U.S. Preventive Services Task Force and the Centers for Disease Control and Prevention.

GUIDANCE STATEMENT 1: ACP recommends that clinicians adopt routine screening for HIV and encourage patients to be tested. GUIDANCE STATEMENT 2: ACP recommends that clinicians determine the need for repeat screening on an individual basis.


The Centers for Disease Control and Prevention (CDC) released new recommendations in 2006 for human immunodeficiency virus (HIV) testing. These far-reaching recommendations are a major revision from the CDC’s previous guidelines. They aim to reduce the number of people with undiagnosed HIV infection in the United States (estimated to be one fourth of the 1.0 to 1.2 million persons living with HIV, or 252,000 to 312,000 persons) and to reduce the stigma and barriers associated with testing. The guidelines represent a policy shift from testing only persons at high risk for HIV infection to universal testing for adolescents and adults. The CDC now recommends that all persons 13 to 64 years of age in all health care settings be tested for HIV after the patient is notified that testing will be performed unless he or she declines (i.e., opt-out screening).


The article cites a recommendation from the American College of Physicians (ACP) which focuses on the screening for HIV infection in health care settings. It is stated that HIV is a virus that causes AIDS and screening means testing people who feel well rather than waiting until symptoms develop. It was found out that early diagnosis and treatment of HIV infections extends life and decreases the spread of HIV infection to other people.


OBJECTIVES: We sought to provide a benchmark for human immunodeficiency virus (HIV) testing availability and practices in U.S. hospitals prior to the Centers for Disease Control and Prevention's (CDC's) 2006 revised recommendations. METHODS: We conducted a survey of nonfederal general hospitals in the U.S. in 2004. Chi-square tests detected significant associations with hospital characteristics. Questionnaires were completed electronically via a secure Internet site or on paper. Nonresponse analysis was conducted and data were weighted to adjust for nonresponse. RESULTS: HIV testing (on the basis of clinical symptoms or behavioral risk factors) was available in more than half of hospital inpatient units (62%), employee health departments (58%), and emergency departments (57%). Twenty-three percent offered routine screening (testing for people in a defined population regardless of clinical symptoms or behavioral risk), most commonly in labor and delivery. Teaching status, region, size, and type of metropolitan area were associated with the availability of HIV testing and routine screening (p<0.01). Hospitals used a variety of methods to link patients to care: referral to a hospital-based clinic (36%); on-site, same-day evaluation (35%); and referral to an unaffiliated HIV or community clinic (42%).

CONCLUSIONS: Hospitals offered HIV testing on the basis of clinical suspicion or risk, but were far from meeting CDC's current recommendation to routinely test all patients aged 13 to 64. Hospital size, teaching status, and geographic location were associated with HIV testing availability and testing practices. Our understanding of current practice identifies opportunities for public health action at the practitioner, organization, and systems levels.


Although United States health officials recommend routine HIV testing for Americans ages 13 to 64, testing goals are still not being met. The finding comes from the 2008 National Summit on HIV Diagnosis, Prevention and Access to Care, held November 19–21, 2008 in Arlington, VA and organized by the Forum for Collaborative HIV Research, an independent public-private partnership. The three-day conference pulled together some 300 leading HIV researchers, healthcare providers, and policymakers to look at the issue of early, routine HIV testing. Public health experts believe that HIV testing should be as routine as getting a flu shot. Prior to 2006, hospital emergency rooms tested patients for HIV at a rate of just 3.2 per 1,000 visits (0.32%). Two years later, there has been a slight improvement, with an estimated 50 to 100 out of 5,000 emergency rooms nationwide routinely testing for HIV.


In September 2006, the Centers for Disease Control and Prevention (CDC) recommended routine HIV testing for all Americans aged 13-64, which would eliminate requirements for written consent and pretest counseling as previously required. However, this approach may conflict with state requirements concerning pretest counseling and informed consent for HIV testing. Our survey of state HIV testing laws demonstrates that the majority of states have HIV testing requirements that are inconsistent with the CDC's recommendations. Moreover, states that have recently amended their laws have not eased the requirements for pretest counseling and informed consent. The reasons for the persistence of these legal requirements must be understood to effect policy changes to increase HIV testing.

The Centers for Disease Control and Prevention (CDC) recently recommended that HIV screening should become routine for all adults in the United States. Implicit in the CDC proposal is the notion that pre-test counseling would be more limited than at present, and that written informed consent to screening would no longer be required. If widely implemented, routine testing would mark a tremendous shift in the US HIV screening strategy. There are a number of considerations used to determine what screening tests should be routine, and HIV fits the bill in almost every regard. Yet the stigma associated with HIV infection remains, making the CDC’s recommendation highly controversial. Will minimizing requirements for pre-test counseling and special written informed consent lead to unexpected or unwanted HIV testing, or do these stringent counseling and consent requirements needlessly scare people away? Will widespread and routine testing be associated with declining stigmatization, or will it drive some patients away from seeking desperately needed health care? These are high stakes questions, and we’re about to find out the answers.

**Arguments for PITC**


**BACKGROUND:** Revised World Health Organization recommendations seek to increase HIV testing. We assessed the need for expanded testing in South Africa by examining current testing and treatment trends among a high prevalence population. **METHODS:** We determined the numbers of adults receiving HIV testing and antiretroviral treatment (ART) during 2001-2006 using testing registers linked to patient records from 2 health care facilities believed responsible for virtually all HIV services available to the population. We evaluated annual population testing rates using census population counts; proportions of clients testing seropositive (yield); CD4 counts and World Health Organization stage at diagnosis; and ART initiation rates. **RESULTS:** HIV testing rates rose from 4% in 2001 to 20% in 2006 (P < 0.001) and were highest among pregnant females receiving provider-initiated testing. Yield for first-time testers decreased from 47% in 2001 to 28% in 2006; annual incidence of seroconversion among initially HIV-negative retesters was 1.9%. Median CD4 counts and World Health Organization stage distributions for newly diagnosed clients remained stable. HIV-infected clients receiving ART within 6 months of eligibility increased from 0% in 2001 to 68% in 2006 (P < 0.001). **CONCLUSIONS:** Population testing and ART initiation rates rose dramatically during 2001-2006. Yet, yield remained high, and HIV-infected persons continued to receive late diagnoses. These findings highlight the continuing need for expanded testing and linkage to care.


Objectives: Laboratory, clinical and sequence-based data were combined to assess the differential uptake of voluntary confidential HIV testing (VCT) according to risk and explore
the occurrence of HIV transmission from individuals with recently acquired HIV infection, before the diagnostic opportunity. Methods: Between 1999 and 2002, nearly 30 000 anonymous tests for previously undiagnosed HIV infection were conducted among men who have sex with men (MSM) attending 15 sentinel sexually transmitted infection (STI) clinics in England, Wales and Northern Ireland. Using a serological testing algorithm, undiagnosed HIV-infected men were categorised into those with recent and non-recent infection. VCT uptake was compared between HIV-negative, recently HIV-infected and non-recently HIV-infected men. A phylogenetic analysis of HIV pol sequences from 127 recently HIV-infected MSM was conducted to identify instances in which transmission may have occurred before the diagnostic opportunity. Results: HIV-negative MSM were more likely to receive VCT at clinic visits compared with undiagnosed HIV-infected MSM (56% (14 020/24 938) vs 31% (335/1072); p<0.001). Recently HIV-infected MSM were more likely to receive VCT compared with those with non-recent infections (42% (97/229) vs 28% (238/844); p<0.001). 22% (95/425) of undiagnosed HIV-infected MSM with STI received VCT. Phylogenetic analysis revealed at least seven transmissions may have been generated by recently HIV-infected MSM: a group that attended STI clinics soon after seroconversion. Conclusions: The integration of clinical, laboratory and sequence-based data reveals the need for specific targeting of the recently HIV exposed, and those with STI, for VCT. VCT promotion alone may be limited in its ability to prevent HIV transmission.


Mother-to-child transmission (MTCT) of HIV represents a particularly dramatic aspect of the HIV epidemic with an estimated 600,000 newborns infected yearly, 90% of them living in sub-Saharan Africa. Since the beginning of the HIV epidemic, an estimated 5.1 million children worldwide have been infected with HIV. MTCT is responsible for 90% of these infections. Two-thirds of the MTCT are believed to occur during pregnancy and delivery, and about one-third through breastfeeding. As the number of women of child bearing age infected with HIV rises, so does the number of infected children. It is apparent that voluntary testing in Botswana has made some valuable inroads in decreasing perinatal HIV transmission, but the statistics showing the increased rate of HIV infection among women 15-24 years of age are not very promising. After reviewing all the pertinent scientific data it is clear that mandatory HIV testing of all pregnant women in conjunction with the implementation of a full package of interventions would save thousands of lives -- mothers, newborns and others who could be infected as a result of these women not being aware of their HIV status. If the protection and preservation of human life is a priority in Botswana, then it is time to allow for mandatory HIV testing of all pregnant women, before it is too late for those who are the most vulnerable. To do less would be medically inappropriate and ethically irresponsible.


BACKGROUND: Roughly 3 million people worldwide were receiving antiretroviral therapy (ART) at the end of 2007, but an estimated 6.7 million were still in need of treatment and a further 2.7 million became infected with HIV in 2007. Prevention efforts might reduce HIV incidence but are unlikely to eliminate this disease. We investigated a theoretical strategy of universal voluntary HIV testing and immediate treatment with ART, and examined the conditions under which the HIV epidemic could be driven towards elimination. METHODS:
We used mathematical models to explore the effect on the case reproduction number (stochastic model) and long-term dynamics of the HIV epidemic (deterministic transmission model) of testing all people in our test-case community (aged 15 years and older) for HIV every year and starting people on ART immediately after they are diagnosed HIV positive. We used data from South Africa as the test case for a generalised epidemic, and assumed that all HIV transmission was heterosexual. FINDINGS: The studied strategy could greatly accelerate the transition from the present endemic phase, in which most adults living with HIV are not receiving ART, to an elimination phase, in which most are on ART, within 5 years. It could reduce HIV incidence and mortality to less than one case per 1000 people per year by 2016, or within 10 years of full implementation of the strategy, and reduce the prevalence of HIV to less than 1% within 50 years. We estimate that in 2032, the yearly cost of the present strategy and the theoretical strategy would both be US$1.7 billion; however, after this time, the cost of the present strategy would continue to increase whereas that of the theoretical strategy would decrease. INTERPRETATION: Universal voluntary HIV testing and immediate ART, combined with present prevention approaches, could have a major effect on severe generalised HIV/AIDS epidemics. This approach merits further mathematical modelling, research, and broad consultation.


Australia is one of the few developed countries without routine antenatal HIV screening, despite having the resources to undertake such a screening program and the availability of antiretroviral therapy. National policy recommends that only women with identified risk factors should be offered testing; however, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists recommends that all pregnant women be offered HIV testing as part of their antenatal care. Knowledge of a woman's HIV status during pregnancy allows interventions to improve her health and reduce the risk of transmission of HIV to her child. A universal antenatal HIV screening program meets many of the Wilson and Jungner criteria for population-based screening programs. This should be considered in the current review of Australia's HIV testing policy.


OBJECTIVES: In January 2007, opt-out HIV testing replaced provider-initiated testing at the sexually transmitted infections (STI) outpatient clinic in Amsterdam, The Netherlands. The effect of the opt-out strategy on the uptake of HIV testing was studied and factors associated with refusal of HIV testing were identified. STUDY DESIGN: Data routinely collected at the STI clinic were analysed separately for men who have sex with men (MSM) and heterosexuals. Logistic regression analysis was used to identify factors associated with opting out. RESULTS: In 2007, 12% of MSM and 4% of heterosexuals with (presumed) negative or unknown HIV serostatus declined HIV testing. Refusals gradually decreased to 7% and 2% by the year end. In 2006, before the introduction of opt-out, 38% of MSM and 27% of heterosexuals declined testing. The proportion of HIV-positive results remained stable among MSM, 3.4% in 2007 versus 3.7% in 2006, and among heterosexuals, 0.2% in 2007 versus 0.3% in 2006. In both groups factors associated with opting out were: age >or=30 years, no previous HIV test, the presence of STI-related complaints and no risky anal/vaginal intercourse. Among heterosexuals, men and non-Dutch visitors refused more
often; among MSM, those warned of STI exposure by sexual partners and those diagnosed with gonorrhea or syphilis refused more often. CONCLUSIONS: An opt-out strategy increased the uptake of HIV testing. A sharp increase in testing preceeded a more gradual increase, suggesting time must pass to optimise the new strategy. A small group of visitors, especially MSM, still opt out. Counselling will focus on barriers such as fear and low risk perception among high-risk visitors considering opting out.


OBJECTIVE: The 2006 Centers for Disease Control and Prevention recommendations place increased emphasis on emergency departments (EDs) as one of the most important medical care settings for implementing routine HIV testing. No longitudinal estimates exist regarding national rates of HIV testing in EDs. We analyzed a nationally representative ED database to assess HIV testing rates and characterize patients who received HIV testing, prior to the release of the 2006 guidelines. DESIGN: A cross-sectional analysis of US ED visits (1993-2005) using the National Hospital Ambulatory Medical Care Survey was performed. METHODS: Patients aged 13-64 years were included for analysis. Diagnoses were grouped with Healthcare Cost and Utilization Project Clinical Classifications Software. Analyses were performed using procedures for multiple-stage survey data. RESULTS: HIV testing was performed in an estimated 2.8 million ED visits (95% confidence interval, 2.4-3.2) or a rate of 3.2 per 1000 ED visits (95% confidence interval, 2.8-3.7). Patients aged 20-39 years, African-American, and Hispanic had the highest testing rates. Among those tested, leading reasons for visit were abdominal pain (9%), puncture wound/needlestick (8%), rape victim (6%), and fever (5%). The leading medication class prescribed was antimicrobials (32%). The leading ED diagnosis was injury/poisoning (30%) followed by infectious diseases (18%). Of note, 6% of those tested were diagnosed with HIV infection during their ED visits. CONCLUSION: Prior to the release of the 2006 Centers for Disease Control and Prevention guidelines for routine HIV testing in all healthcare settings, baseline national HIV testing rates in EDs were extremely low and appeared to be driven by clinical presentation.


BACKGROUND: HIV testing is an important HIV prevention strategy, yet heterosexuals at high risk do not test as frequently as other groups. We examined the association of past year HIV testing and encounters with institutional settings where the Centers for Disease Control and Prevention recommends annual testing for high-risk heterosexuals.

METHODS: We recruited high-risk heterosexuals in New York City in 2006 to 2007 through respondent-driven sampling. Respondents were asked the date of their most recent HIV test and any potential encounters with 4 testing settings (homeless shelters, jails/prisons, drug treatment programs, and health care providers). Analyses were stratified by gender.

RESULTS: Of the 846 respondents, only 31% of men and 35% of women had a past year HIV test, but over 90% encountered at least one testing setting. HIV seroprevalence was 8%. In multiple logistic regression, recent HIV testing was significantly associated with recent encounters with homeless shelters and jails/prisons for men, and encounters with health care providers for both men and women. CONCLUSIONS: HIV testing was low
overall but higher for those with exposures to potential routine testing settings. Further expansion of testing in these settings would likely increase testing rates and may decrease new HIV infections among high-risk heterosexuals.


HIV testing and antiretroviral therapy (ART) has scaled up tremendously in Malawi in the last 5 years. We analyzed trends of HIV testing uptake in the course of ART scale-up in 25 government and mission hospitals, which were selected because they do not receive support from non-governmental organizations. Data on numbers of clients HIV tested and on cumulative ART registrations were collected from annual country-wide situational analyses and from quarterly ART supervisory visits from 2002 to 2007. In the period before ART scale up, the quarterly number of clients HIV tested increased from 2609 in 2002 to 8197 in 2004, equivalent to an average quarterly increase of 559 tests. During ART scale up, the quarterly number of clients HIV tested increased from 17977 in early 2005 to 35344 in the second quarter of 2007, equivalent to an average quarterly increase of 2171 tests. During this time, the cumulative number of patients started on ART increased from 2441 to 29756. There has been a rapid acceleration of HIV testing uptake and ART in government and mission hospitals. ART may facilitate the decision of clients to have an HIV test and therefore contribute in this way to HIV prevention efforts.


BACKGROUND: To assess the acceptability of intrapartum HIV testing and determine the prevalence of HIV among labouring women with unknown HIV status in Cameroon. METHOD: The study was conducted in four hospitals (two referral and two districts hospitals) in Cameroon. Labouring women with unknown HIV status were counselled and those who accepted were tested for HIV. RESULTS: A total of 2413 women were counselled and 2130 (88.3%) accepted to be tested for HIV. Of the 2130 women tested, 214 (10.1%) were HIV positive. Acceptability of HIV testing during labour was negatively associated with maternal age, parity and number of antenatal visits, but positively associated with level of education. HIV sero-status was positively associated with maternal age, parity, number of antenatal visits and level education. CONCLUSION: Acceptability of intrapartum HIV testing is high and the prevalence of HIV is also high among women with unknown HIV sero-status in Cameroon. We recommend an opt-out approach (where women are informed that HIV testing will be routine during labour if HIV status is unknown but each person may decline to be tested) for Cameroon and countries with similar social profiles.


OBJECTIVE: Early HIV diagnosis reduces transmission and improves health outcomes; screening in non-traditional settings is increasingly advocated. We compared test venues by the number of new diagnoses successfully linked to the regional HIV treatment center
and disease stage at diagnosis. METHODS: We conducted a retrospective cohort study using structured chart review of newly diagnosed HIV patients successfully referred to the region's only HIV treatment center from 1998 to 2003. Demographics, testing indication, risk profile, and initial CD4 count were recorded. RESULTS: There were 277 newly diagnosed patients meeting study criteria. Mean age was 33 years, 77% were male, and 46% were African-American. Median CD4 at diagnosis was 324. Diagnoses were earlier via partner testing at the HIV treatment center (N = 8, median CD4 648, p = 0.008) and with universal screening by the blood bank, military, and insurance companies (N = 13, median CD4 483, p = 0.05) than at other venues. Targeted testing by health care and public health entities based on patient request, risk profile, or patient condition lead to later diagnosis.

CONCLUSION: Test venues varied by the number of new diagnoses made and the stage of illness at diagnosis. To improve the rate of early diagnosis, scarce resources should be allocated to maximize the number of new diagnoses at screening venues where diagnoses are more likely to be early or alter testing strategies at test venues where diagnoses are traditionally made late. Efforts to improve early diagnosis should be coordinated longitudinally on a regional basis according to this conceptual paradigm.


BACKGROUND: In 2006, to increase opportunities for patients to become aware of their HIV status, the Centers for Disease Control and Prevention released updated guidelines for routine, opt-out HIV screening of adults, adolescents, and pregnant women in healthcare settings. To date, there are few documented applications of these recommendations.

OBJECTIVE: To measure the impact of application of the guidelines for routine screening in health centers serving communities disproportionately affected by HIV in the southeastern US. DESIGN: A multi-site program implementation study, describing patients tested and not tested and assessing changes in testing frequency before and after new guidelines were implemented. PARTICIPANTS: All patients aged 13 to 64 seen in participating health centers. INTERVENTIONS: Routine rapid HIV screening in accord with CDC guidelines. MEASUREMENTS: The frequency of testing before and after routine screening was in place and demographic differences in offering and receipt of testing.

MAIN RESULTS: Compared to approximately 3,000 patients in the year prior to implementation, 16,148 patients were offered testing with 10,769 tested. Of 39 rapid tests resulting in preliminary positives, 17 were newly detected infections. Among these patients, 12 of 14 receiving referrals were linked to HIV care. Nineteen were false positives. Younger patients, African Americans and Latinos were more likely to receive testing.

CONCLUSIONS: By integrating CDC-recommended guidelines and applying rapid test technology, health centers were able to provide new access to HIV testing. Variation across centers in offering and receiving tests may indicate that clinical training could enhance universal access.
routine screening in health centers serving communities disproportionately affected by HIV in the southeastern US. DESIGN: A multi-site program implementation study, describing patients tested and not tested and assessing changes in testing frequency before and after new guidelines were implemented. PARTICIPANTS: All patients aged 13 to 64 seen in participating health centers. INTERVENTIONS: Routine rapid HIV screening in accord with CDC guidelines. MEASUREMENTS: The frequency of testing before and after routine screening was in place and demographic differences in offering and receipt of testing. MAIN RESULTS: Compared to approximately 3,000 patients in the year prior to implementation, 16,148 patients were offered testing with 10,769 tested. Of 39 rapid tests resulting in preliminary positives, 17 were newly detected infections. Among these patients, 12 of 14 receiving referrals were linked to HIV care. Nineteen were false positives. Younger patients, African Americans and Latinos were more likely to receive testing. CONCLUSIONS: By integrating CDC-recommended guidelines and applying rapid test technology, health centers were able to provide new access to HIV testing. Variation across centers in offering and receiving tests may indicate that clinical training could enhance universal access.


Background: An extensive literature supports expanded HIV screening in the United States. However, the question of whom to test and how frequently remains controversial. Objective: To inform the design of HIV screening programs by identifying combinations of screening frequency and HIV prevalence and incidence at which screening is cost-effective. Design: Cost-effectiveness analysis linking simulation models of HIV screening to published reports of HIV transmission risk, with and without antiretroviral therapy. Data Sources: Published randomized trials, observational cohorts, national cost and service utilization surveys, the Red Book, and previous modeling results. Target Population: U.S. communities with low to moderate HIV prevalence (0.05% to 1.0%) and annual incidence (0.0084% to 0.12%). Time Horizon: Lifetime. Perspective: Societal. Interventions: One-time and increasingly frequent voluntary HIV screening of all adults using a same-day rapid test. Outcome Measures: HIV infections detected, secondary transmissions averted, quality-adjusted survival, lifetime medical costs, and societal cost-effectiveness, reported in discounted 2004 dollars per quality-adjusted life-year (QALY) gained. Results of Base-Case Analysis: Under moderately favorable assumptions regarding the effect of HIV patient care on secondary transmission, routine HIV screening in a population with HIV prevalence of 1.0% and annual incidence of 0.12% had incremental cost-effectiveness ratios of $30800/QALY (one-time screening), $32300/QALY (screening every 5 years), and $55500/QALY (screening every 3 years). In settings with HIV prevalence of 0.10% and annual incidence of 0.014%, one-time screening produced cost-effectiveness ratios of $60700/QALY. Results of Sensitivity Analysis: The cost-effectiveness of screening policies varied within a narrow range as assumptions about the effect of screening on secondary transmission varied from favorable to unfavorable. Assuming moderately favorable effects of antiretroviral therapy on transmission, cost-effectiveness ratios remained below $50000/QALY in settings with HIV prevalence as low as 0.20% for routine HIV screening on a one-time basis and at prevalences as low as 0.45% and annual incidences as low as 0.0075% for screening every 5 years. Limitations: This analysis does not address the difficulty of determining the prevalence and incidence of undetected HIV infection in a given patient population. Conclusions: Routine, rapid HIV testing is recommended for all adults.
except in settings where there is evidence that the prevalence of undiagnosed HIV infection is below 0.2%.


We audited the effect of introducing HIV opt-out in a genitourinary medicine clinic in central London, UK. We found that opt-out increased the rate at which HIV testing was offered to low-risk patients and that more tests were done.


HIV testing identifies HIV-positive persons, allowing for reduced future HIV transmission while simultaneously providing policy makers with surveillance data to inform policy planning. If current costs of HIV testing were reduced, these funds could be redirected to increase testing rates or to expand treatment. The cost of testing is lowered and impact increased if noninvasive (oral and urine), rapid-testing modalities are utilized, pretest counseling uses cost-efficient counseling methods (e.g., video, pamphlets, small group discussions), and opt-out consent strategies are implemented while posttest counseling is more narrowly targeted to HIV-positive persons. Rather than relying on one international standard, customizing HIV testing procedures to local environments may be more efficient and effective. In the United States, laboratories with substantial HIV testing revenues are likely to be most resistant to altering current practices. However, AIDS researchers, policy makers, and advocates may dramatically influence the epidemic’s course by encouraging flexibility and innovation in HIV-testing guidelines.


In September 2006, the US Centers for Disease Control and Prevention (CDC) released new guidelines calling for routine, voluntary human immunodeficiency virus (HIV) testing for all persons aged 13-64 years in health care settings. These guidelines were motivated, in part, by mounting evidence that the traditional approach of using risk factors to identify candidates for HIV testing is inadequate. Of the 1.0-1.2 million people in the United States thought to be infected with HIV, approximately 25% remain unaware of their infection, and nearly half of all infected patients develop acquired immunodeficiency syndrome < or = 1 year after testing positive for HIV. Also contributing to the change in testing guidelines was recent evidence that routine HIV testing is cost-effective. Cost-effectiveness analysis, a method of assessing health care interventions in terms of the value they confer, reports results in terms of the resources that are required for the intervention to produce an additional unit of change in health effectiveness; more economically efficient programs are those with lower cost-effectiveness ratios. This article reviews the methods and results of cost-effectiveness studies in the United States and articulates why routine, voluntary HIV testing is not only of crucial public health importance but also economically justified.

**Routine HIV screening could be key to finding the unknown infected. Counseling, separate informed consent no longer needed.** (2006). *AIDS Alert, 21*(11), 121-123.


Background: The Botswana government recently implemented a policy of routine or "opt-out" HIV testing in response to the high prevalence of HIV infection, estimated at 37% of adults. Methods and Findings: We conducted a cross-sectional, population-based study of 1,268 adults from five districts in Botswana to assess knowledge of and attitudes toward routine testing, correlates of HIV testing, and barriers and facilitators to testing, 11 months after the introduction of this policy. Most participants (81%) reported being extremely or very much in favor of routine testing. The majority believed that this policy would decrease barriers to testing (89%), HIV-related stigma (60%), and violence toward women (55%), and would increase access to antiretroviral treatment (93%). At the same time, 43% of participants believed that routine testing would lead people to avoid going to the doctor for fear of testing, and 14% believed that this policy could increase gender-based violence related to testing. The prevalence of self-reported HIV testing was 48%. Adjusted correlates of testing included female gender (AOR 1.5, 95% CI 1.1-1.9), higher education (AOR 2.0, 95% CI 1.5-2.7), more frequent healthcare visits (AOR 1.9, 95% CI 1.3-2.7), perceived access to HIV testing (AOR 1.6, 95% CI 1.1-2.5), and inconsistent condom use (AOR 1.6, 95% CI 1.2-2.1). Individuals with stigmatizing attitudes toward people living with HIV and AIDS were less likely to have been tested for HIV/AIDS (AOR 0.7, 95% CI 0.5-0.9) or to have heard of routine testing (AOR 0.59,95% CI 0.45-0.76). While experiences with voluntary and routine testing overall were positive, 68% felt that they could not refuse the HIV test. Key barriers to testing included fear of learning one's status (49%), lack of perceived HIV risk (43%), and fear of having to change sexual practices with a positive HIV test (33%). Conclusions: Routine testing appears to be widely supported and may reduce barriers to testing in Botswana. As routine testing is adopted elsewhere, measures should be implemented to assure true informed consent and human rights safeguards, including protection from HIV-related discrimination and protection of women against partner violence related to testing.


Objectives: Since 1999, HIV testing is routinely offered to all attendees of the sexually transmitted infections (STI) outpatient clinic in Amsterdam, the Netherlands. This study evaluates whether this more active HIV-testing policy increased uptake of HIV testing and awareness of an HIV-positive serostatus among heterosexual attendees. Methods: In addition to routine data collected at each STI consultation, data from half-yearly HIV surveys were used from 1994 to 2004. During each survey period, 1000 consecutive attendees are enrolled voluntary and anonymously for HIV testing and are interviewed on previous HIV testing and outcome. Trends in and predictors for uptake of HIV testing as offered during routine STI consultation were analysed by logistic regression. Trends in awareness of an HIV-positive serostatus as obtained from the anonymous HIV surveys were likewise analysed. Results: The percentage of heterosexual attendees opting for an HIV test during consultation increased from 13 in 1996 to 56 in 2004. However, the
proportion of individuals aware of their HIV infection did not change over time and only a minority (19) of the 108 attendees found HIV-positive in the anonymous surveys were aware of their HIV infection. Persons being or visiting a commercial sex worker, having a non-Dutch ethnicity, lacking health insurance and having an STI diagnosed were less likely to opt for an HIV test. Conclusions: Although heterosexual attendees increased their uptake of HIV testing during STI consultation over time, uptake of testing by attendees at risk for HIV infection, such as those infected with an STI, remained low. As a result, the percentage of persons aware of their HIV infection remained low, posing a risk for their individual health and for ongoing HIV transmission. Current testing strategies, therefore, misses the group that most needs testing. Based on these results, opt-out HIV testing is now the standard procedure at the Amsterdam STI clinic.
Human Rights Issues Related to PITC


We focused our research on five aspects of the country’s HIV counseling and testing campaign with direct relevance to international human rights principles and public health norms and standards. We examined: 1) informed consent and counseling; 2) confidentiality; 3) linkages between HIV testing and prevention, care and treatment services; 4) accountability mechanisms; and 5) the adequacy of the policy and legal framework for protecting the rights of people living with HIV.

Our research in Lesotho revealed both positive and negative aspects of the KYS campaign. On the positive side, we found no evidence of involuntary testing and heard only a few allegations of breaches of confidentiality. We also found that some efforts were made to ensure that testing was linked to HIV treatment and care services, and that there was a great commitment among counselors to bringing HIV counseling and testing to communities. On the negative side, we found a failure to ensure that the human rights safeguards included in the Operational Plan were properly implemented in practice, which resulted in the campaign failing to intervene when it became clear that many counselors in Mafeteng district were ill-equipped to conduct HIV counseling and testing. There was a clear disconnect between the planning on paper and the capacity to implement what was planned. All those involved in the planning of the campaign, the Lesotho government, and the WHO, bear responsibility for not recognizing this disconnect and responding to it from the outset. The KYS campaign’s implementation was fraught with problems, resulting in poor training and supervision of counselors; poor linkages, at times, to other services after testing; and insufficient mechanisms to ensure respect for human rights and the accountability of government efforts. In places where the campaign was conducted most intensively, human rights protections, as well as the integrity of the counseling and testing provided, seemed most endangered. Human rights protections should be an integral part of any testing campaign, not an optional element that can be added or left out depending on availability of resources.


Two years ago, in May 2007, UNAIDS and WHO issued new guidelines on HIV testing. Prepared to meet the demands of the AIDS pandemic and the prospects of extending the benefits of antiretroviral therapy to regions where such treatment had been all but out of reach, the new guidance was the product of an extended period of sometimes acrimonious controversy both within the two UN agencies and globally. Those pressing for change had argued that a paradigm of testing that had emerged at a time when little could be done for those infected with HIV was inappropriate to the current moment. Those who viewed with skepticism, if not hostility, the claims that current practice and stringent ethical standards had become an impediment to effectively confronting the challenge of AIDS saw in the proposed changes a threat to the bedrock ethical principles of informed consent. In the end, of course, decisions about HIV testing will be taken by nation - states, with the
recommendations of international organizations constituting but one element, however important, that will shape policy. Nevertheless, an examination of the history and the dynamics of the recent controversy and its outcome will provide a unique resource to those faced with policy choices; it will also provide a unique opportunity to lay bare the complex and politically charged relationships evolving between public health and human rights.


All over the world HIV has been stigmatised, making it difficult for people living with HIV to access testing, treatment, care and counselling or even to act on a diagnosis or get advice and treatment, for fear of being judged. Prejudice in society has also often been reflected and reproduced by health care providers. A human rights approach, which positively incorporates sexual and reproductive rights, rather than a restricted medical view, is therefore essential for the achievement of true partnerships between health care providers and service users. This paper is about the experiences of HIV positive women and men in sexual and reproductive health services and HIV testing. It provides guidance not only on how things could and should be done but also on how they should not be done. It outlines the sexual and reproductive rights positive people consider crucial and gives examples of how these are being violated. It presents perceptions and implications of HIV testing and how health services can support people after a positive diagnosis. It analyses the importance of confidentiality, continuity of care, knowledge and information, and the role of support groups and home-based care. It calls on sexual and reproductive health services to address issues of stigma and discrimination when offering and carrying out HIV testing and counselling, and in providing treatment, care and support.


This article summarizes some important arguments for and against instituting a routine testing regimen for HIV/AIDS in sub-Saharan Africa. After reviewing these competing positions and noting their areas of agreement and disagreement, the author recommends an alternative way to solve the main sticking point between them, that is, how to test a large majority of the population while still respecting their human rights to autonomy and freedom from unnecessary harm. This article argues that the proposed solution would respect the rights to autonomy of the individual to a sufficient degree and stands a greater chance of being both practicable and effective than the alternatives.


BACKGROUND: In 2007 WHO/UNAIDS issued new HIV testing guidelines recommending 'provider-initiated HIV testing and counselling' (PITC). In contrast to existing 'voluntary counselling and testing' guidelines (whereby individuals self refer for testing), the PITC guidance recommends that, in countries with generalised epidemics, all patients are routinely offered an HIV test during clinical encounters. In sub-Saharan Africa, PITC aims to dramatically increase HIV testing rates so that PITC becomes a vehicle to increase access to HIV prevention and care. Nurses in this region work on the frontlines of HIV testing but have been neglected in related policy development. AIM: To provide an overview of the PITC policy guidance and to critically consider its implications for the nursing profession in sub-Saharan Africa. METHODS: Policy documents and published and unpublished research were identified from organisational websites, electronic databases and conference proceedings. RESULTS: PITC has generated widespread debate about whether it is the right approach in a context of HIV-related stigma and lack of human/material resources. Key concerns are whether/how informed consent, privacy and confidentiality will be upheld in overstretched health care settings, and whether appropriate post-test counselling, treatment and support can be provided. Limited available evidence suggests that health systems factors and organisational/professional culture may create obstacles to effective PITC implementation. Specific findings are that: PITC greatly increases nurses' workload and work-related stress. Nurses are generally positive about PITC, but express the need for more training and managerial support. Health system constraints (lack of staff, lack of space) mean that nurses do not always have time to provide adequate counselling. A hierarchical and didactic nursing culture affects counselling quality and the boundaries between voluntary informed consent and coercion can become rather blurred. Nurses are particularly stressed by breaking bad news and handling ethical dilemmas. CONCLUSION: Three areas are identified in which the PITC implementation process needs to be strengthened: (i) research/audit (to explore nurse and patient experiences, to identify best practice and key obstacles), (ii) greater nurse participation in policy development, (iii) strengthening of nurse training and mentoring.


The goal of the 2007 John M. Lloyd AIDS Project Consultation on the Expansion of HIV Testing (hereafter, Consultation), convened at the Stony Point Conference Center in the state of New York (USA), was to devise a research agenda to determine whether all aspects of the Guidance on Provider Initiated Testing are being effectively implemented and build an advocacy strategy for the expansion of testing and counseling, which incorporates both human rights and public health principles and practices. It was a priority to ensure that a wide range of stakeholders was at the table, and to include policy makers from WHO and UNAIDS as well as human rights advocates, academics currently involved in research on this issue, activists from the community of people living with HIV, those implementing provider initiated testing programs, and donors with an interest in funding such work. We also sought to obtain a wide regional representation, with particular focus on sub-Saharan Africa where provider-initiated testing has made the most in-roads already.

In 1999, Médecins Sans Frontières (MSF) set out to explore and demonstrate the feasibility of preventing and treating HIV/AIDS in a so-called resource-poor, economically and socially disadvantaged setting. The first MSF mission to incorporate antiretroviral (ARV) treatment into its HIV/AIDS-oriented medical program was undertaken in Bangkok. The second project was launched in Khayelitsha where MSF has been providing ARV treatment for persons with HIV/AIDS since May 2001. Khayelitsha is an enclave of some 500,000 inhabitants, most of whom live in corrugated-iron shacks, without running water or electricity. Unemployment is extremely high; crime and violence (including robbery, domestic violence, rape, and murder) are rampant. The general prevalence of HIV/AIDS is 26%, measured among pregnant women. The tuberculosis incidence rate is one of the world's highest for open-space sites (1,380/100,000). Unsurprisingly, TB/HIV coinfection is very high too: 63% of those with TB are also infected with HIV.


The law is a frequently overlooked tool for addressing the complex practical and ethical issues that arise from the HIV/AIDS pandemic. The law intersects with reproductive and sexual health issues and HIV/AIDS in many ways. Well-written and rigorously applied laws could benefit persons living with (or at risk of contracting) HIV/AIDS, particularly concerning their reproductive and sexual health. Access to reproductive health services should be a legal right, and discrimination based on HIV status, which undermines access, should be prohibited. Laws against sexual violence and exploitation, which perpetuate the spread of HIV and its negative effects, should be enforced. Finally, a human rights framework should inform the drafting of laws to more effectively protect health.


Since the introduction of drugs to prevent vertical transmission of HIV, the purpose of and approach to HIV testing of pregnant women has increasingly become an area of major controversy. In recent years, many strategies to increase the uptake of HIV testing have focused on offering HIV tests to women in pregnancy-related services. New global guidance issued by the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) specifically notes these services as an entry point for provider-initiated HIV testing and counseling (PITC). The guidance constitutes a useful first step towards a framework within which PITC sensitive to health, human rights and ethical concerns can be provided to pregnant women in health facilities. However, a number of issues will require further attention as implementation moves forward. It is incumbent on all those involved in the scale up of PITC to ensure that it promotes long-term connection with relevant health services and does not result simply in increased testing with no concrete benefits being accrued by the women being tested. Within health services, this will require significant attention to informed consent, pre- and post-test counseling, patient confidentiality, referrals and access to appropriate services, as well as reduction of stigma and discrimination. Beyond health services, efforts will be needed to address larger societal, legal, policy and contextual issues. The health and human rights of pregnant women...
women must be a primary consideration in how HIV testing is implemented; they can benefit greatly from PITC but only if it is carried out appropriately.


The aim of this article is to critically discuss routine HIV testing policy in the United States by locating its origins within health promotion efforts to govern masses and the neoliberal construction of the individual as free, autonomous, responsible, and empowered. Basing our approach on the work of the late French philosopher Michel Foucault, we describe routine HIV testing as a bio-political intervention that redefines the norms and social practices pertaining to HIV testing with the goal of regulating the population's health. From a neoliberalist perspective, routine HIV testing is also introduced as a practice of self-care that should be undertaken by any rational person who performs good health practices around HIV/AIDS. The objective of this article is to situate routine HIV testing policy in relation to nursing practice and, most important, to demonstrate how this policy should not be considered in isolation from the political context in which it was created.


HIV prevention is easy in theory—the practice is hard. In models, HIV can be eliminated if risk behaviours or viral transmissibility are reduced substantially. Unfortunately, in many places, achievement of these reductions has not been possible and HIV incidence has remained high. In *The Lancet* today, Reuben Granich and colleagues use mathematical models to show that annual screening of most adults for HIV, with immediate commencement of antiretroviral therapy (ART) for all those infected, would dramatically reduce HIV incidence.1 This strategy would be a bold move away from the current approach of treatment on the basis of clinical need, in which the hoped-for synergies between treatment and prevention will remain limited because testing and counselling focus on individuals who have probably already transmitted infection.2


On September 22, 2006, the Centers for Disease Control and Prevention (CDC) issued a sweeping revision of its guidelines for human immunodeficiency virus (HIV) screening in health care settings1 that reversed a decade-old approach to AIDS policy. Previous guidelines recommended HIV testing only for persons at high risk or in health care settings with high HIV prevalence,2 which reflected a civil liberties approach that constrained testing with costly, cumbersome procedures for pretest counseling and written informed consent. Health care professionals often did not perform HIV screening due to financial or administrative burdens or because conducting risk assessments or discovering HIV prevalence in their facilities was impractical.


The article summarizes the debate on opt-out routine HIV testing and discusses the potential pitfalls of such an approach. The current push for routine testing raises a number
of human rights and public health concerns, like routine testing may dispense with informed consent and pre-test counseling. It has been concluded that the content of pre-test counseling has to change so that HIV testing is seen as a positive step for an individual to take.

New guidelines from the Centers for Disease Control and Prevention recommend that opt-out screening for human immunodeficiency virus (HIV) without written patient consent be part of routine clinical care and imply that state HIV-associated laws in conflict with this approach should be amended. However, HIV testing and treatment issues are governed by a range of federal and state laws, common law principles, constitutional provisions, and various codes of ethics. Patient testing protocols should satisfy the legal definition of informed consent, to reduce risk of liability for providers (i.e., health care professionals and facilities). Rigid application of the new guidelines may trigger legal claims, especially if there is no link to care for persons with a positive test result, no proof of informed consent, or inadequate counseling. Ensuring confidentiality, better test training for providers, and provider collaboration with HIV service organizations can reduce the risk of patient claims, but state and federal laws, codes of ethics, and concerns about provider liability should temper reflexive wholesale adoption of guidelines that recommend opt-out screening.

The article presents the author's comments on the requirements of HIV pre-test counselling and testing. The author states that one should target people at risk of acquiring HIV infection and the people at risk of transmitting HIV. According to the author, HIV pre-test counselling is not a luxury. It is very important to help people who are suffering with a life-threatening HIV virus.

For many years, the intersection between HIV/AIDS and sexual and reproductive rights focused on the prevention of the epidemic. The violations to reproductive rights that HIV positive women face were not visible. However, this has begun to change. In this article, which is based on her presentation in the Human Rights Networking Zone at the conference, Ximena Andion Ibanez describes six areas where women's reproductive rights have been violated. The author advocates the use of litigation as a tool for advancing these rights.

Two days after the World Health Organization (WHO) and UNAIDS released the final version of their Guidance on Provider-initiated Testing and Counselling in Health Facilities ("the Guidelines"), OSI's Public Health Program issued an updated version of its paper on Increasing Access to HIV Testing and Counseling While Respecting Human Rights. Since then, as Ralf Jurgens reports, the paper has served as the basis for a statement and recommendations on scaling up HIV testing and counselling issued by the UNAIDS
DRAFT: NOT FOR CITATION OR QUOTATION

Reference Group on HIV and Human Rights. In addition, it has helped inform guidance currently being developed by WHO and the U.N. Office on Drugs and Crime (UNODC) on HIV testing for prisoners and for people who use drugs.


The Centers for Disease Control and Prevention estimates that of the approximately 1.2 million people with human immunodeficiency virus (HIV) infection or acquired immunodeficiency syndrome in the United States, approximately 500,000 are not receiving care for their disease, including approximately 250,000 who do not know they are HIV positive. Although little is known about these 2 subgroups of HIV-infected people, they are likely to be reflective of the larger population of people with HIV infection; that is, they are predominantly racial minorities, more likely to be unemployed and/or poor, and much more likely to be uninsured or dependent on public insurance programs such as Medicaid, compared with the US population overall. In addition, many persons receive a diagnosis of HIV infection late during the course of the disease, and those who are difficult to reach are less likely to receive standard-of-care antiretroviral therapy. New testing initiatives attempting to diagnose infection in persons who do not know their HIV infection status have raised important questions about the funding and program capacity of the current system to handle new patients. Given these challenges and questions, measuring the success of new testing initiatives will be critical but difficult.


HIV screening is recommended by Centers for Disease Control and Prevention (CDC) for all patients between 13 and 64 years of age in all healthcare settings [including emergency departments (EDs)] after the patient is notified that testing will be carried out, unless the patient declines (opt-out screening) [1,2]. In France, anonymous counseling and testing is provided in dedicated sites [Anonymous and Free Testing Centers, called Centres de dépistage anonymes et gratuits, (CDAG)] or by general practitioners. However, around 40% of cases identified are in people with advanced infection, and belong mostly to groups not focused on by the current testing policy [3]. As primary healthcare settings reach 14 million patients annually [4], EDs could be sites for improvement in testing policy. Despite the recommendations of the CDC, it remains unclear how best to approach the identification of undiagnosed HIV infection in the ED from the bare-minimum approach (diagnostic testing) to universal testing as an integrated part of routine health-care services in EDs, regardless of risk or clinical presentation [5,6].


The current moves to provide access to antiretroviral therapy (ART) to all in need has led to a push to HIV test. In particular, there have been policy moves endorsed by the World Heath Organization and UNAIDS to introduce routine ‘opt out’ HIV testing in countries with high prevalence. A number of claims have been made with regard to the benefits of increasing the numbers of people on antiretroviral therapy. Two of these claims are disputed here. Treatment roll-out and the associated push for routine testing raise questions of concern to public health and human rights. While it is claimed that treatment
roll-out will reduce stigma and discrimination, there is little evidence to support the claim. It is also claimed that treatment uptake will reduce the likelihood of HIV transmission and that thus treatments themselves have a preventive effect. This direct effect of treatment uptake on prevention is augmented, it is claimed, if use is made of the voluntary counselling and testing (VCT) encounter and people counselled to act safely. Again there is little evidence to support the claims made. In addressing the evidence for these two claims, the paper cautions against the large scale adoption of routine 'opt out' or, as it is sometimes called, 'provider-initiated' testing.

Lohman, D., & Amon, J. J. (2008). HIV testing and human rights. Lancet, 371(9612), 557-558. Ruth Dixon-Mueller and Adrienne Germain (Dec 1, p 1808) argue that the rights of those tested for HIV or offered a test have dominated debate about the ethics of scaling up HIV testing to the exclusion of rights of individuals' sexual partners to protect themselves from HIV. There is a reason why this has generally been the case: the rights to privacy, informed consent, and autonomy are well established by medical ethics and human rights standards. By contrast, partner disclosure is enormously complex because of the diversity of types of relationships and varying levels of intimacy, power, and trust.

Maman, S., & King, E. (2008). Changes in HIV testing policies and the implications for women. Journal of Midwifery & Women's Health, 53(3), 195-201. The US Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) together with the Joint United Nations Programme on HIV/AIDS (UNAIDS) recently released new guidelines for HIV testing in health care settings. Both sets of guidelines recommend eliminating individual informed consent in favor of an opt-out approach that requires clients to actively decline the HIV test after a pretest information session. The revised guidelines also recommend reducing the amount of counseling that accompanies the HIV test. Women are more likely than men to be affected by efforts to expand access to HIV testing in health care settings because of women's increased vulnerability to HIV and greater contact with the health care system. Women may also be more susceptible to changes to the consent and counseling process for HIV testing because of their marginalized social status in many settings. More research is needed to document women's experiences with provider-initiated, opt-out HIV testing. Understanding women's experiences will help to formulate feasible and effective strategies to support women and ensure they gain access to HIV treatment services.

Myint, T., & Mash, B. (2008). Coping strategies and social support after receiving HIV-positive results at a South African district hospital. South African Medical Journal, 98(4), 276-278. To the Editor: Little is known in South Africa about patients’ coping strategies when they hear that they are HIV-positive. Some are devastated, others seem hardly to react, and health workers also frequently report that their clients are in denial. Insight into how patients cope with such drastic news may help health workers to appreciate the different responses and be more supportive of patients’ coping strategies… We measured perceptions of social support and the degree to which recognised coping strategies were utilised by patients after receiving an HIV-positive result, at Montebello District Hospital in rural KwaZulu-Natal.

London: Screening for HIV should be automatically offered to new patients aged 15-59 in general practice and hospitals in parts of the United Kingdom with a high prevalence of the infection to try to reduce the rising number of new cases, says the Health Protection Agency. An estimated 77 400 people had HIV in the UK in 2007, with 28% unaware of their infection, the agency’s annual reports on HIV and other sexually transmitted diseases among gay men, has found.

Judge Edwin Cameron has suggested that because of the high level of ignorance about people’s HIV status and the stigma attached to it, and as HIV infection can now be controlled through the use of antiretroviral drugs, the time has come to review the present ‘opt in’ approach to HIV testing and counselling. He suggests that an ‘opt out’ approach should be adopted whereby people receiving medical treatment should have their blood automatically tested for HIV unless they specifically opt out from doing so. He argues that this can be done provided three conditions are satisfied: (i) antiretroviral treatment must be made available for offer to the patient; (ii) there must be assurance that the consequences of diagnosis will not be discrimination and ostracism; and (iii) the patient must be secure in the confidentiality of the testing procedure and its outcome.

London: Fewer than 75 000 people in Lesotho were screened for HIV out of a target of 1.3 million, a study of the country’s universal HIV counselling and testing campaign has found. It concludes that for people to come forward for testing, international guidelines are needed to create sufficient confidence that the rights will be respected. Lesotho’s Know Your Status campaign aimed to test all citizens aged 12 or older and ran from 2005 until December 2007. Yet the drive fell far short of its goals, "both in carrying out the programme and in safeguarding the rights of those tested," according to a joint report by Human Rights Watch and the AIDS and Rights Alliance for Southern Africa.


The toll of death and human suffering caused by HIV/AIDS during the past 25 years is made all the more tragic by the fact that lifesaving antiretroviral therapies remain available to only a fraction of those who need them worldwide. In the United States—the richest and most powerful nation on Earth—lack of access to treatment for HIV infection seems inexplicable. Yet 500,000 Americans living with HIV infection—approximately half of all HIV-infected people in the United States—do not receive the ongoing medical care they so desperately need [1]. This assessment includes the staggering estimate that 1 in 4 individuals are believed to be unaware they are infected with HIV [2].

Discusses various reports published within the issue including articles by Sande Garcia Jones, one on HIV and AIDS, and another on the contribution of nurses in fighting the battle against HIV and AIDS.


In January 2004, the Botswana Government introduced HIV testing into health facilities as a part of routine medical care in an effort to increase enrollment in the ARV treatment program by overcoming some of the significant barriers causing individuals to delay testing or avoid it altogether. Survey questions on “routine testing” were based on the best available information at the time describing this opt-out policy. Given that a minority of the survey sample had direct experience of this type of testing (91 out of 609 individuals reporting testing for HIV), 93 percent of participants were expressing their views of this policy in theory, based on the description provided by field researchers. For the 15 percent of tested community survey respondents reported having been tested by “routine testing,” their experiences, as compared with testing at a VCT site, differed in two respects: 6 percent of those tested by routine testing reported poor treatment (from any source) related to testing compared with 2 percent of those tested by VCT; and 93 percent routinely tested received pre-test counseling versus 97 percent for VCT.


Since the beginning of the AIDS epidemic, public health and human rights experts have debated whether individual rights to informed consent, confidentiality of HIV test results, and pre- and post-test counseling ought to be relaxed in order to maximize the number of people tested for HIV. This debate reached its apex in 2002, when prominent health experts began calling for a move away from the traditional client-initiated voluntary counselling and testing (VCT) model toward an approach that makes testing more routine within health facilities. Anticipating objections from human rights groups, some commentators went as far as to suggest that human rights-based approaches to HIV testing might have reduced the role of public health and social justice in HIV policy. This paper, however, shows that HIV testing can and should be expanded without disregard for human rights.


A growing number of countries are implementing either opt-out provider-initiated testing for pregnant women or mandatory premarital testing without assessing the impact of these policies on women’s health or their human rights implications. This fact sheet provides basic information on how this testing is being carried out.


The Policy Forum “Reassessing HIV prevention” (M. Potts et al., 9 May, p. 749) summarizes current approaches to control of HIV infections. Although these strategies
have shown some reduction in prevalence of HIV infections, they are not fully effective. Clearly, new approaches should be considered.

This article describes the ethical, legal and public health implications of routine HIV testing – that is, testing such that individuals receive a routine offer of an HIV test whenever they come into contact with the health care system. In recent months, the consensus in favor of voluntary testing has yielded to a debate over whether efforts to curb the spread of HIV and to treat individual patients themselves would benefit from health care providers initiating testing. This Article first describes the history of HIV testing policy in the United States and internationally. It outlines the arguments in favor of routine provider-initiated testing and responds to objections that have been raised in the literature. Finally, it describes a proposal for an ethical routine testing regime that is consistent with human rights principles as well as U.S. and international statutes and case law on testing. This Article also proposes model legislation that addresses the issues of counseling, confidentiality, and informed consent in the context of routine-offer HIV testing.

The human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) pandemic, and responses to it, have exposed clear political, social and economic inequities between and within nations. The most striking manifestations of this inequity is access to AIDS treatment. In affluent nations, antiretroviral treatment is becoming the standard of care for those with AIDS, while the same treatment is currently only available for a privileged few in most resource-poor countries. Patients without sufficient financial and social capital - i.e., most people with AIDS - die each day by the thousands. Recent AIDS treatment initiatives such as the UNAIDS and WHO "3 by 5" programme aim to rectify this symptom of global injustice. However, the success of these initiatives depends on the identification of people in need of treatment through a rapid and massive scale-up of HIV testing. In this paper, we briefly explore key ethical challenges raised by the acceleration of HIV testing in resource-poor countries, focusing on the 2004 policy of routine ("opt-out") HIV testing recommended by UNAIDS and WHO. We suggest that in settings marked by poverty, weak health-care and civil society infrastructures, gender inequalities, and persistent stigmatization of people with HIV/AIDS, opt out HIV-testing policies may become disconnected from the human rights ideals that first motivated calls for universal access to AIDS treatment. We leave open the ethical question of whether opt-out policies should be implemented, but we recommend that whenever routine HIV-testing policies are introduced in resource-poor countries, that their effect on individuals and communities should be the subject of empirical research, human-rights monitoring and ethical scrutiny.

Despite decades of prevention efforts, millions of persons worldwide continue to become infected by the human immunodeficiency virus (HIV) every year. This urgent problem of global epidemic control has recently lead to significant changes in HIV testing policies. Provider-initiated approaches to HIV testing have been embraced by the Centers for Disease Control and Prevention and the World Health Organization, such as those that
routinely inform persons that they will be tested for HIV unless they explicitly refuse ('opt out'). While these policies appear to increase uptake of testing, they raise a number of ethical concerns that have been debated in journals and at international AIDS conferences. However, one special form of 'provider-initiated' testing is being practiced and promoted in various parts of the world, and has advocates within international health agencies, but has received little attention in the bioethical literature: mandatory premarital HIV testing. This article analyses some of the key ethical issues related to mandatory premarital HIV testing in resource-poor settings with generalized HIV epidemics. We will first briefly mention some mandatory HIV premarital testing proposals, policies and practices worldwide, and offer a number of conceptual and factual distinctions to help distinguish different types of mandatory testing policies. Using premarital testing in Goma (Democratic Republic of Congo) as a point of departure, we will use influential public health ethics principles to evaluate different forms of mandatory testing. We conclude by making concrete recommendations concerning the place of mandatory premarital testing in the struggle against HIV/AIDS.


1. It is widely recognised – by policy makers, health practitioners, and human rights advocates alike – that the low uptake of HIV testing and counselling is a major challenge in the response to the epidemic that needs to be urgently addressed. It has also been observed that many people who present symptoms of HIV infection and those who might otherwise benefit from knowing their HIV status through contact with health facilities are often not offered an HIV test. Based on these concerns, WHO and UNAIDS has developed draft guidance on “Provider-Initiated Testing and Counselling in Health Facilities” in order to improve HIV-related diagnosis, treatment and care and to expand the availability and uptake of HIV testing and counselling in clinical settings. Once finalized, the guidance is intended to expand upon the 2004 UNAIDS/WHO Statement on HIV Testing.


The statement is addressed to WHO and UNAIDS, national governments, donors, health care providers, NGOs and others involved or interested in efforts to expand access to HIV
testing and counselling as part of global efforts to achieve universal access to HIV prevention, treatment, care and support by 2010. The Reference Group welcomes the new WHO/UNAIDS Guidance and calls for rapid action to scale up access to HIV testing and counselling, with full funding and programmatic attention to the protections to patients provided in the Guidance. In this spirit, the Reference Group raises the following concerns, makes a series of recommendations, and urges WHO, UNAIDS, national governments, donors, and others concerned to move quickly to address them. Efforts to increase access to HIV testing and counselling are not occurring in a vacuum. Rather, they take place in an environment in which evidence-informed and human rights-based policies and responses to HIV are being widely undermined…


HIV counseling and testing is broadly considered a critical component of HIV transmission-prevention and treatment efforts. Given the severity of the AIDS pandemic in sub-Saharan Africa, the potential societal benefit of testing is invoked to call for its massive expansion and to justify a shift from voluntary to routine testing. Surprisingly little evidence has demonstrated, however, that such a shift will result in the intended benefits to communities, particularly that of reducing the horizontal transmission of HIV. This analysis addresses and critiques the assumptions underlying a serostatus-based approach to behavior change and discusses the ethical consequences of transferring control of the decision to be tested from the individual to the provider. It concludes with a discussion of the implications for HIV counseling and testing policies and proposes alternatives to routine testing that have the potential to be effective while preserving the right to know one's HIV status.

**Barriers to Implementation of PITC**

**Consent**


This paper considers the ethics of routine antenatal HIV testing and the role of informed consent within such a policy in order to decide how we should proceed in this area—a decision that ultimately rests on the relative importance we give to public health goals on the one hand and respect for individual autonomy on the other.


BACKGROUND: Almost 1 million Americans are infected with HIV, yet it is estimated that as many as 250,000 of them do not know their serostatus. This study examined whether people residing in states with statutes requiring written informed consent prior to HIV testing were less likely to report a recent HIV test. METHODS: The study is based on survey data from the 2004 Behavioral Risk Factor Surveillance System. Logistic regression was used to assess the association between residence in a state with a pre-test written informed-consent requirement and individual self-report of recent HIV testing. The
regression analyses controlled for potential state- and individual-level confounders. RESULTS: Almost 17% of respondents reported that they had been tested for HIV in the prior 12 months. Ten states had statutes requiring written informed consent prior to routine HIV testing; nine of those were analyzed in this study. After adjusting for other state- and individual-level factors, people who resided in these nine states were less likely to report a recent history of HIV testing (OR=0.85; 95% CI=0.80, 0.90). The average marginal effect was -0.02 (p<0.001, 95% CI=-0.03, -0.01); thus, written informed-consent statutes are associated with a 12% reduction in HIV testing from the baseline testing level of 17%. The association between a consent requirement and lack of testing was greatest among respondents who denied HIV risk factors, were non-Hispanic whites, or who had higher levels of education. CONCLUSIONS: This study's findings suggest that the removal of written informed-consent requirements might promote the non-risk-based routine-testing approach that the Centers for Disease Control and Prevention (CDC) advocates in its new testing guidelines.


Background: Human immunodeficiency virus (HIV) testing can improve care for many critically ill patients, but state laws and institutional policies may impede such testing when patients cannot provide consent. Methods: We electronically surveyed all US academic intensivists in 2006 to determine how state laws influence intensivists’ decisions to perform nonconsented HIV testing and to assess intensivists’ reliance on surrogate markers of HIV infection when unable to obtain HIV tests. We used multivariate logistic regression, clustered by state, to identify factors associated with intensivists’ decisions to pursue nonconsented HIV testing. Results: Of 1026 responding intensivists, 765 (74.6%) had encountered decisionally incapacitated patients for whom HIV testing was wanted. Of these intensivists, 168 pursued testing without consent and 476 first obtained surrogate consent to testing. Intensivists who believed nonconsented HIV testing was ethical (odds ratio, 3.8; 95% confidence interval, 2.2-6.5) and those who believed their states allowed nonconsented testing when medically necessary (odds ratio, 2.3; 95% confidence interval, 1.6-3.4) were more likely to pursue nonconsented HIV tests; actual state laws were unrelated to testing practices. Of the intensivists, 72.7% had ordered tests for perceived surrogate markers of HIV infection in lieu of HIV tests; more than 90% believed these tests were sufficiently valid to base clinical decisions on. Conclusions: Most US intensivists have encountered decisionally incapacitated patients for whom HIV testing may improve care. Intensivists' decisions to pursue nonconsented testing are associated with their personal ethics and often erroneous perceptions of state laws, but not with the laws themselves. Uniform standards enabling nonconsented HIV testing may minimize inappropriate influences on intensivists' decisions and reduce intensivists’ reliance on perceived surrogate markers of immunodeficiency.


Obi, S. N., & Ifebunandu, N. A. (2006). Consequences of HIV testing without consent. International Journal of STD & AIDS, 17(2), 93-96. The objective of this study is to explore the HIV-infected individuals' experience with HIV testing, counselling, disclosure of diagnosis and subsequent life events following diagnosis. The method used is a questionnaire survey of 340 consecutive HIV-positive victims, seen in two health institutions in southeast Nigeria within a one-year-period, November 2003 to October 2004. Three hundred and twenty respondents answered the questionnaire, 121 were men and 199 women, with 79% in the age range 20-39 years. Most respondents had known their HIV status for 3.2 (+/-1.1) years and the majority are in the lower social class. About 80% reported that their consent for HIV test was not asked for, resulting in feelings of fear, disbelief, shock and embarrassment on learning about their HIV status. Despite the initial reaction to the diagnosis, majority (81.9%) expressed satisfaction with the pattern of disclosure of diagnosis. There was some reluctance to inform spouse/partner of the diagnosis especially among asymptomatic, unmarried, childless or divorced victims. A serodiscordant couple resulted in mistrust and increased incidence of abandonment. Apart from spouse/partner the respondents are more likely to inform their siblings of the diagnosis than parents, children or friends. Despite being supportive, the respondents are more likely to suffer more neglect from siblings than their spouse (P<0.05) but the risk of being abandoned was more with the spouse than with siblings (P<0.05). Only 32.6% of the 129 respondents on antiretroviral therapy are regular with it mainly because of cost and non-availability of drugs. Default in treatment was more evident among the unmarried, those with low educational status and treatment with antiretroviral drugs for more than two years. Proper pre- and post-test counselling, promotion of behavioural change among the society about HIV/AIDS and provision of support and cost-effective care for HIV victims is advocated.


AIDS is a clinical picture related to Human Immunodeficiency Virus (HIV) infection. In the last 20 years this infection has spread progressively, with approximately 2.4 million children under 15 years old now infected. The HIV antibody test is generally used to reveal the infection. In most European countries the test is voluntary; in Italy, implementation of the test is now regulated by Law 135/90. Art. 5 of the law states that the test is voluntary while informed consent is obligatory. However, nothing is stated concerning the child's consent. By contrast, other Italian laws (e.g., Law 194/78, Law 194/96 and DPR 309/90) establish that the physician should only accept the wishes of minors after first appraising the maturity of the child and his/her age. Physicians must inform the minor about testing risks, about the meaning of its result, and about the most important aspects of sexual education.. They may then decide to inform the parents if they feel that the child would be unable to take future decisions in the event of a positive HIV antibody test.

Objectives. I evaluated the effects of written informed consent requirements on HIV testing rates in New York State to determine whether such consent creates barriers that discourage HIV testing. Methods. New York streamlined its HIV testing consent procedures on June 1, 2005. If written informed consent creates barriers to HIV testing, then New York's streamlining exercise should have reduced such barriers and increased HIV testing rates. I used logistic regression to estimate the effects of New York's policy change. Results. New York's streamlined consent procedures led to a 31.4% (95% confidence interval [CI]=20.9%, 41.9%) increase in the state's HIV testing rate. In absolute terms, 7% of the state's population had been tested for HIV in the preceding 6 months under the streamlined procedures, whereas only 5.3% would have been tested under the original procedures. These estimates imply that the streamlined consent procedures accounted for approximately 328000 additional HIV tests in the 6 months after the policy change. Conclusions. Written informed consent requirements are a substantial barrier to HIV testing in the United States. There may be a trade-off between efforts to increase HIV testing rates and efforts to improve patient awareness.


BACKGROUND: Populations at highest risk for HIV infection face multiple barriers to HIV testing. To facilitate HIV testing procedures, the San Francisco General Hospital Medical Center eliminated required written patient consent for HIV testing in its medical settings in May 2006. To describe the change in HIV testing rates in different hospital settings and populations after the change in HIV testing policy in the SFDH medical center, we performed an observational study using interrupted time series analysis. METHODS: Data from all patients aged 18 years and older seen from January 2003 through June 2007 at the San Francisco Department of Public Health (SFDPH) medical care system were included in the analysis. The monthly HIV testing rate per 1000 had patient-visits was calculated for the overall population and stratified by hospital setting, age, sex, race/ethnicity, homelessness status, insurance status and primary language. RESULTS: By June 2007, the average monthly rate of HIV tests per 1000 patient-visits increased 4.38 (CI, 2.17-6.60, p<0.001) over the number predicted if the policy change had not occurred (representing a 44% increase). The monthly average number of new positive HIV tests increased from 8.9 (CI, 6.3-11.5) to 14.9 (CI, 10.6-19.2, p<0.001), representing a 67% increase. Although increases in HIV testing were seen in all populations, populations at highest risk for HIV infection, particularly men, the homeless, and the uninsured experienced the highest increases in monthly HIV testing rates after the policy change. CONCLUSIONS: The elimination of the requirement for written consent in May 2006 was associated with a significant and sustained increase in HIV testing rates and HIV case detection in the SFDPH medical center. Populations facing the higher barriers to HIV testing had the highest increases in HIV testing rates and case detection in response to the policy change.
Confidentiality and privacy


Stigma and discrimination

de Wit, J. B., & Adam, P. C. (2008). To test or not to test: Psychosocial barriers to HIV testing in high-income countries. HIV Medicine, 9 Suppl 2, 20-22.

To contribute to the evidence-based understanding of the psychosocial factors that influence individuals' uptake of testing for HIV, we assessed and synthesized the pertinent published literature in the fields of public health, behavioural medicine, and (health) psychology. Although the evidence base appears too limited to allow firm conclusions and definition on psychological barriers to HIV testing in high-income countries, we identified convergent themes from the available studies. Testing for HIV seems to be more likely when individuals perceive that they have been at risk, though this association is not perfectly observed. Fear of the consequences of testing positive -mainly worries related to discrimination and rejection - also hinders HIV testing. Finally, individuals appear more likely to test for HIV when they perceive more benefits from testing. The perspective of targeted individuals, in particular the social connotations and consequences of HIV diagnoses, is crucial to understand testing decisions.


OBJECTIVES: More than one quarter of HIV-infected people are undiagnosed and therefore unaware of their HIV-positive status. Blacks are disproportionately infected. Although perceived racism influences their attitudes toward HIV prevention, how racism influences their behaviors is unknown. We sought to determine whether perceiving everyday racism and racial segregation influence Black HIV testing behavior. METHODS: This was a clinic-based, multilevel study in a North Carolina city. Eligibility was limited to Blacks (N = 373) seeking sexually transmitted disease diagnosis or screening. We collected survey data, block group characteristics, and lab-confirmed HIV testing behavior. We estimated associations using logistic regression with generalized estimating equations. RESULTS: More than 90% of the sample perceived racism, which was associated with higher odds of HIV testing (odds ratio = 1.64; 95% confidence interval = 1.07, 2.52), after control for residential segregation, and other covariates. Neither patient satisfaction nor mechanisms for coping with stress explained the association. CONCLUSIONS: Perceiving everyday racism is not inherently detrimental. Perceived racism may improve odds of early
detection of HIV infection in this high-risk population. How segregation influences HIV testing behavior warrants further research.

Hutchinson, P. L., & Mahlalela, X. (2006). Utilization of voluntary counseling and testing services in the Eastern Cape, South Africa. AIDS Care, 18(5), 446-455. This analysis uses data from a population-based household survey and a government clinic survey in the Eastern Cape Province of South Africa to examine attitudes towards voluntary counseling and testing (VCT) services, patterns of utilization of VCT services and the relationships between HIV/AIDS-related stigma, VCT service availability and quality and the use of VCT. The household survey data are linked with clinic-level data to assess the impact of expanded VCT services and access to rapid testing on the likelihood of being tested in rural areas and on HIV/AIDS stigma. Our analysis finds that while overall use of VCT services is low, utilization of VCT services is positively associated with age, education, socioeconomic status, proximity to clinics, availability of rapid testing and outreach services and lower levels of HIV/AIDS stigma. Importantly, the effects of stigma appear considerably stronger for females, while men are more heavily influenced by the characteristics of the VCT services themselves.


Lapinski, M. K., & Nwulu, P. (2008). Can a short film impact HIV-related risk and stigma perceptions? Results from an experiment in Abuja, Nigeria. Health Communication, 23(5), 403-412. HIV/AIDS-related stigma is believed to result in negative social consequences for people with the disease and to be a deterrent to HIV serostatus testing. The ability of communicators to change people's stigma perceptions and subsequently impact decisions to test, however, is not well understood. Based on the entertainment-education approach, this article presents the results of a field experiment conducted in Abuja, Nigeria, testing a mediated intervention designed to reduce HIV-related stigma and risk perceptions. The results indicate that the intervention was effective relative to a control in impacting perceptions of the severity of HIV and some stigma-related attitudes, particularly for male participants; and that for this sample, risk and stigma perceptions significantly impact intentions to test for HIV. It also showed that severity perceptions mediated the relationship between viewing the film and testing intent.

Liu, H. J., Hu, Z., Li, X. M., Stanton, B., Naar-King, S., & Yang, H. M. (2006). Understanding interrelationships among HIV-related stigma, concern about HIV infection, and intent to disclose HIV serostatus: A pretest-posttest study in a rural area of eastern China. AIDS Patient Care and STDs, 20(2), 133-142. The objective of the study was to examine the interrelationships among HIV-related public and felt stigma, worry of HIV infection, HIV/AIDS knowledge and intention to disclose HIV testing results in a rural area of China, where HIV spread among former commercial blood donors. A one-group pretest-posttest study was conducted among 605 marriage license applicants. The following relationships showed statistical significance in path analysis: (1) HIV/AIDS knowledge -> worry [beta (Standardized coefficient) = -0.39]; (2) worry -> public stigma (beta = 0.27); (3) public stigma -> felt stigma (beta = 0.22); and (4) felt stigma -> intention to disclosure (beta = -0.20). Separate path analyses for males and females generated similar association patterns. HIV counseling reduced perceived worry but
exerted little impact on HIV-related stigma and the intention. The pathway from a lack of HIV/AIDS knowledge to increased stigma and to decreased intention to disclose one's serostatus is particularly policy relevant as decreased intention to disclosure may be related to continuing practice of HIV risk behaviors. The findings demonstrate interventions aiming at the reduction of stigma should be targeted at both the individual and community levels.


AIDS-related stigma and discrimination remain pervasive problems in health care institutions worldwide. This paper reports on stigma-related baseline findings from a study in New Delhi, India to evaluate the impact of a stigma-reduction intervention in three large hospitals. Data were collected via in-depth interviews with hospital staff and HIV-infected patients, surveys with hospital workers (884 doctors, nurses and ward staff) and observations of hospital practices. Interview findings highlighted drivers and manifestations of stigma that are important to address, and that are likely to have wider relevance for other developing country health care settings. These clustered around attitudes towards hospital practices, such as informing family members of a patient's HIV status without his/her consent, burning the linen of HIV-infected patients, charging HIV-infected patients for the cost of infection control supplies, and the use of gloves only with HIV-infected patients. These findings informed the development and evaluation of a culturally appropriate index to measure stigma in this setting. Baseline findings indicate that the stigma index is sufficiently reliable (alpha = 0.74). Higher scores on the stigma index—which focuses on attitudes towards HIV-infected persons—were associated with incorrect knowledge about HIV transmission and discriminatory practices. Stigma scores also varied by type of health care providers—physicians reported the least stigmatising attitudes as compared to nursing and ward staff in the hospitals. The study findings highlight issues particular to the health care sector in limited-resource settings. To be successful, stigma-reduction interventions, and the measures used to assess changes, need to take into account the sociocultural and economic context within which stigma occurs.


Against the background of debates about expanding HIV testing and counseling, we summarize the evidence on the social and behavioral dimension of testing and its implications for programs. The discrepancy between acceptance of testing and returning for results and the difficulties of disclosure are examined in light of research on risk perceptions and the influence of gender and stigma. We also summarize the evidence on the provision of testing and counseling, the implementation of practices regarding confidentiality and consent, and the results of interventions. We demonstrate that social factors have a considerable impact on testing, show that the services linked to testing are key determinants of utilization, and consider the implications of these findings for HIV testing programs.


Although policies and programs exist to promote safe motherhood in sub-Saharan Africa, maternal health has not improved and may be deteriorating in some countries. Part of the explanation may be the adverse effects of HIV/AIDS on maternity care. We conducted a study in Kisumu, Kenya to explore how fears related to HIV/AIDS affect women's uptake and health workers' provision of labor and delivery services. In-depth qualitative interviews with 17 maternity workers, 14 pregnant or postpartum women, four male partners and two traditional birth attendants; as well as structured observations of 22 births; were conducted at four health facilities. Participants reported that fears of HIV testing; fears of involuntary disclosure of HIV status to others, including spouses; and HIV/AIDS stigma are among the reasons that women avoid delivering in health facilities. Maternity workers now have to take into account the HIV status of the women they serve (as well as their own fears of becoming infected and stigmatized) but do not seem to be adequately prepared to handle issues related to consent, confidentiality and disclosure. Importantly, it appeared that women of unknown HIV status during labor and delivery were likely to be targets of stigma and discriminatory practices and that these women were not receiving needed counseling services. The findings suggest that increasing infection control precautions will not be enough to address the challenges faced by maternity care providers in caring for women in high-HIV-prevalence settings. Maternity workers need enhanced culturally sensitive training regarding consent, confidentiality and disclosure. Furthermore, this study points to the necessity of paying more attention to the care of women of unknown HIV-serostatus during labor and delivery. Such interventions may improve the quality of maternity care, increase utilization and contribute to overall improvements in maternal health, while also enhancing prevention of mother-to-child-transmission and HIV care.


Botswana, with its estimated HIV prevalence of 37%, instituted a policy of universal access to antiretroviral therapy (ART) in 2002. Initial enrolment lagged behind expectations, with a shortfall in voluntary testing that observers have attributed to HIV-related stigma - although there are no published data on stigma among HIV-positive individuals in Botswana. We interviewed 112 patients receiving ART in 2000, finding evidence of pervasive stigma in patterns of disclosure, social sequelae, and delays in HIV testing. Ninety-four percent of patients reported keeping their HIV status secret from their community, while 69% withheld this information even from their family. Twenty-seven percent of patients said that they feared loss of employment as a result of their HIV status. Forty percent of patients reported that they delayed getting tested for HIV; of these, 51% cited fear of a positive test result as the primary reason for delay in seeking treatment, which was often due to HIV-related stigma. These findings suggest that success of large-scale national ART programmes will require initiatives targeting stigma and its social, economic and political correlates.
Acceptability of testing

Allison, W. E., Iobuna, V., Kalebe, V., Kiromat, M., Vince, J., Schaefer, M., et al. (2008). Attitudes to HIV testing among carers of children admitted to Port Moresby general hospital, Papua New Guinea. Journal of Paediatrics and Child Health, 44(11), 618-621. AIM: To assess the acceptability of voluntary counselling and testing among the carers of children admitted to hospital in Papua New Guinea. METHODS: Forty semistructured interviews were carried out between February and April 2007. RESULTS: All the carers interviewed were women, mostly from Port Moresby. Virtually all of them attended primary school. About half of them attended secondary school but none completed it. Half of them knew an adult or child with HIV. Three quarters of the women interviewed would consent to having a child in their care tested for HIV, and over half of those who had never been tested would agree to be tested themselves. Correct answers to more than half the HIV knowledge questions posed were significantly related to agreement to an HIV test. CONCLUSIONS: This study supports the need for further evaluation of knowledge about HIV/AIDS and opportunities for health promotion in this group of women, particularly in view of the implication for voluntary counselling and testing and prevention of mother-to-child HIV transmission programmes in Papua New Guinea.

Brown, J., Kuo, I., Bellows, J., Barry, R., Bui, P., Wohlgemuth, J., et al. (2008). Patient perceptions and acceptance of routine emergency department HIV testing. Public Health Reports, 123 Suppl 3, 21-26. OBJECTIVES: We report on the rates of patient acceptance and their perceptions of routine emergency department (ED) human immunodeficiency virus (HIV) testing in a high-prevalence area. METHODS: We analyzed the race/ethnicity of patients who either accepted or declined a routine HIV test that was offered to all patients in the ED of a large academic center. We also distributed a patient perception survey about ED HIV testing. RESULTS: During the study period, an HIV screening test was offered to 9,826 patients. Of these, 5,232 patients (53%) accepted the test. The acceptance rate of HIV testing was highest among African American patients (55%), followed by 52% for white, 50% for Hispanic, and 42% for Asian patients. A total of 1,519 completed surveys were returned for analysis. The most common reasons for declining a test were that patients did not perceive themselves to be at risk for HIV (49%) or they had recently been tested for HIV (18%). Overall, 84% of patients stated they would recommend to a friend to get an HIV test in the ED. When analyzed by ethnicity, 89% of African American patients stated they would recommend to a friend to get an HIV test if the friend went to the ED, but only 74% of white patients would do so. CONCLUSIONS: The Centers for Disease Control and Prevention's 2006 recommendations on HIV screening are well accepted by the target populations. Further work at explaining the risk of HIV infection to ED patients should be undertaken and may boost the acceptance rate of ED HIV screening.

Cunningham, C. O., Doran, B., Deluca, J., Dyksterhouse, R., Asgary, R., & Sacajiu, G. (2009). Routine opt-out HIV testing in an urban community health center. AIDS Patient Care and STDs. 23(8):619-23 Abstract Undiagnosed HIV infection remains a significant public health problem. To address this, the Centers for Disease Control and Prevention revised testing recommendations, calling for routine opt-out HIV screening among adults in health care settings. However, these recommendations have not been widely implemented in primary care settings. We examined acceptability of opt-out HIV testing in an urban community
health center and factors associated with accepting testing. From July 2007 to March 2008, physicians or a designated HIV tester approached patients presenting for primary care visits during 52 clinical sessions at an urban community health center. Patients were told they "would be tested for HIV unless they declined testing." Enzyme-linked immunosorbent assays, which required venipuncture, were used to test for HIV infection. We extracted demographic, clinical, and visit characteristics from medical records and examined associations between these characteristics and accepting HIV testing using logistic regression. Of 300 patients, 35% agreed to HIV testing, with no new HIV infections detected. Common reasons for declining testing were perceived low risk (54.4%) and self-reported HIV testing previously (45.1%). Younger age (adjusted odds ratio [AOR] = 0.97, 95% confidence interval [CI] = 0.96-0.99), Hispanic ethnicity (AOR = 1.78, 95% CI = 1.01-3.14), and having another blood test during the visit (AOR = 6.36, 95% CI = 3.58-11.28) were independently associated with accepting HIV testing. This study questions whether expanding HIV testing by conducting routine opt-out HIV testing in primary care settings is an acceptable strategy. It is important to understand how various testing strategies may affect HIV testing rates. In addition, further exploration of patients' reasons for declining HIV testing in these settings is warranted.


A problem commonly encountered in programs for prevention of mother-to-child-transmission (PMTCT) of HIV in sub-Saharan Africa is low rates of HIV test acceptance among pregnant women. In this study, we examined risk factors and reasons for HIV test refusal among 432 women attending three antenatal care clinics offering PMTCT in urban and semi-urban parts of the Mbarara district, Uganda. Structured interviews were performed following pre-test counselling. Three-hundred-eighty women were included in the study, 323 (85%) of whom accepted HIV testing. In multivariate analysis, testing site (Site A: OR = 1.0; Site B: OR = 3.08; 95%CI: 1.12-8.46; Site C: OR = 5.93; 95%CI: 2.94-11.98), age between 30 and 34 years (<20 years: OR = 1.0; 20-24 years: OR = 1.81; 95%CI: 0.58-5.67; 25-29 years: OR = 2.15; 95%CI: 0.66-6.97; 30-34 years: OR = 3.88; 95%CI: 1.21-13.41), mistrust in reliability of the HIV test (OR = 20.60; 95%CI: 3.24-131.0) and not having been tested for HIV previously (OR = 2.15; 95%CI: 1.02-4.54) were associated with test refusal. Testing sites operating for longer durations had higher rates of acceptance. The most common reasons claimed for test refusal were: lack of access to antiretroviral therapy (ART) for HIV-infected women (88%; n=57), a need to discuss with partner before decision (82%; n=57) and fear of partner's reaction (54%; n=57). Comparison with previous periods showed that the acceptance rate increased with the duration of the program. Our study identified risk factors for HIV test refusal among pregnant women in Uganda and common reasons for not accepting testing. These findings may suggest modifications and improvements in the performance of HIV testing in this and similar populations.


This research study aimed to investigate the acceptability, knowledge and perceptions of pregnant women toward HIV testing in pregnancy in Ilembe District. An exploratory research design guided the study. A systematic random sampling was used to select pregnant women who were attending the ante-natal clinic for the first time in their current
pregnancy. Self-administered questionnaires with close-ended questions were used in the collection of data. The questions included the women's demographic details, their views of HIV testing, knowledge and as well as their acceptability of HIV testing. Forty questionnaires were distributed and they were all returned. A quantitative method was used to analyse the data. The findings of the study revealed that 45 % of the women in the sample were relatively young (18-25 years) and most of them (90%) were unmarried .The majority of women (92.5%) said testing was a good idea and 85% said it was necessary. However only 52.5% said they would opt for HIV testing. The uptake of HIV testing was found to be low. Eighty-seven and a half percent (87.5%) of the women in the sample were of the opinion that HIV testing in pregnancy was of benefit to the mother and her baby. Women in the study were generally found to have a good understanding and good perceptions towards HIV testing in pregnancy, but this was not consistent with their behaviour.

Haukoos, J. S., Hopkins, E., Byyny, R. L., & Denver Emergency Department HIV Testing Study Group. (2008). Patient acceptance of rapid HIV testing practices in an urban emergency department: Assessment of the 2006 CDC recommendations for HIV screening in health care settings. Annals of Emergency Medicine, 51(3), 303-9, 309.e1. STUDY OBJECTIVE: The Centers for Disease Control and Prevention (CDC) recently released revised recommendations for HIV testing in health care settings, calling for the performance of nontargeted opt-out HIV screening, the integration of informed consent for HIV testing into the general consent for medical care, and the uncoupling of prevention counseling and testing. It is unclear, however, whether patients will understand opt-out screening or be satisfied with integration of the consent for HIV testing into the general medical consent or the uncoupling of counseling from testing. The objective of this study is to evaluate patients' acceptance of the CDC's revised recommendations in an urban emergency department (ED). METHODS: This was a cross-sectional survey study performed in the ED of an urban, public safety net hospital. The approximate annual ED census is 55,000 patients, and an approximate undiagnosed HIV seroprevalence ranges from 0.7% to 2.2%. A standardized survey instrument was developed and piloted and was then implemented with trained research assistants. Adult patients who were awake, alert, and agreed to participate in the study were included. RESULTS: During the 3-month study period, 529 patients were enrolled. The median age was 38 years (interquartile range 27 to 49 years; range 18 to 87 years), 57% were men, 48% were white, 28% were Hispanic, 18% were black, and 6% represented another race or ethnicity. When patients were asked whether they would have been tested had opt-out methodology been used, 81% (95% confidence interval [CI] 77% to 84%) would have agreed to be tested. When asked whether they would have been tested had opt-in methodology been used, there was no difference (absolute difference 0%; 95% CI -5% to 4%). However, explanation of opt-out screening was required for 11% (95% CI 8% to 14%), whereas explanation of opt-in screening was required for only 2% (95% CI 1% to 4%) (absolute difference 9%; 95% CI 5% to 11%). When asked whether the patient's physician recommended an HIV test during the ED visit, 93% (95% CI 91% to 95%) would have agreed to be tested. When asked whether consent for HIV testing should be separate from consent for general emergency medical care, 50% (95% CI 46% to 54%) agreed. When asked whether counseling was necessary before performing an HIV test, 34% (95% CI 30% to 38%) agreed, and when asked whether counseling was necessary after receiving a negative HIV test result, 35% (95% CI 31% to 40%) agreed. CONCLUSION: A large proportion of ED patients appear willing to be screened for HIV infection in accordance with the CDC's revised recommendations for HIV testing in health care settings. Similar proportions were willing to be tested when opt-out or
opt-in screening strategies were used; however, a significantly greater proportion required explanation of opt-out screening.

Jain, C. L., Jue, J. S., MacKay, R., Wallach, F., Factor, S. H., & Wyatt, C. M. (2008). Acceptance of rapid HIV testing among medical inpatients in New York City. AIDS Patient Care and STDs, 22(8), 657-662. Early diagnosis of HIV infection is important for both individual and public health. This study examined patient acceptability of routine, voluntary HIV testing in a New York City hospital serving East Harlem, a diverse community with an HIV seroprevalence of 2.6%. Consecutive admissions to the general medicine service were screened for enrollment between October 27 and November 22, 2005, and March 13 and May 9, 2006. Participants completed a self-administered printed survey and underwent rapid HIV testing. Of the 420 patients approached, 100 patients participated. The most common reason for declining participation was, "I feel too sick to participate." Participants were more likely to be men (odds ratio [OR] 1.71, 95% confidence interval [CI] 1.05, 2.77) and to be in a younger age group (20-49 years; OR 2.70, 95% CI 1.64, 4.45). Participants who reported one or more HIV risk factors were not more likely to answer "Yes" when responding to the statement, "I have risk factors for HIV" compared to patients who did not report any specific clinical or behavioral HIV risk factors (OR = 1.16, 95% CI 0.38,3.53). In addition, patients who reported one or more specific clinical and/or behavioral HIV risk factors were not more likely to have received prior HIV testing (OR = 1.58, 95% CI 0.58, 4.32). Three individuals were newly diagnosed with HIV/AIDS. Risk-based testing may be inadequate, as patients do not accurately assess risk and do not seek or accept testing based on risk. Routine, voluntary HIV testing is able to identify patients missed in the risk-based model of HIV testing, expanding the opportunities for timely diagnosis and intervention. In order to fully implement the new Centers for Disease Control and Prevention (CDC) recommendations for routine, voluntary testing, the optimal timing to offer HIV testing to acutely ill inpatients warrants further investigation.

Kranzer, K., McGrath, N., Saul, J., Crampin, A. C., Jahn, A., Malema, S., et al. (2008). Individual, household and community factors associated with HIV test refusal in rural Malawi. Tropical Medicine & International Health, 13(11), 1341-1350. OBJECTIVE: To investigate individual, household and community factors associated with HIV test refusal in a counselling and testing programme offered at population level in rural Malawi. METHODS: HIV counselling and testing was offered to individuals aged 18-59 at their homes. Individual variables were collected by interviews and physical examinations. Household variables were determined as part of a previous census. Multivariate models allowing for household and community clustering were used to assess associations between HIV test refusal and explanatory variables. RESULTS: Of 2303 eligible adults, 2129 were found and 1443 agreed to HIV testing. Test refusal was less likely by those who were never married [adjusted odds ratio (aOR) 0.50 for men (95% CI 0.32; 0.80) and 0.44 (0.21; 0.91) for women] and by farmers [aOR 0.70 (0.52; 0.96) for men and 0.59 (0.40; 0.87) for women]. A 10% increase in cluster refusal rates increased the odds of refusal by 1.48 (1.32; 1.66) in men and 1.68 (1.32; 2.12) in women. Women counsellors increased the odds of refusal by 1.39 (1.00; 1.92) in men. Predictors of HIV test refusal in women were refusal of the husband as head of household [aOR 15.08 (9.39; 24.21)] and living close to the main road [aOR 6.07 (1.76; 20.98)]. Common reasons for refusal were fear of testing positive, previous HIV test, knowledge of HIV serostatus and the need for more time to think. CONCLUSION: Successful VCT strategies need to encourage couples counselling and should involve participation of men and communities.

Efforts to increase HIV case identification through routine, voluntary HIV testing are hindered by high refusal rates. Our objective was to identify patients most likely to refuse routine HIV testing. We developed a new HIV testing program at four Massachusetts urgent care centers. Patients were asked if they were interested in routine HIV testing. We performed analyses to assess differences in characteristics between those who refused testing and those who accepted it. Data were available for 9129/10,354 (88%) patients offered routine HIV testing from January to December 2002. Of these 9129 patients, 67% refused testing. In the crude analysis, HIV test refusal was associated with female gender, white race, older age, and higher educational level. In multivariate analysis, non-English-speaking patients who were Hispanic, Haitian, and other race were more likely to refuse testing than their English-speaking counterparts. Among all patients, "not at risk" and "already tested" were the most common reasons for test refusal. Two thirds of patients refused routine HIV testing when it was offered in a statewide urgent care-based program. If routine HIV testing programs are to be successful, strategies must be developed to increase HIV test acceptance among patients most likely to refrain from testing.


OBJECTIVES: To find and compare the levels of acceptance of and barriers to voluntary counselling and testing (VCT) among adults in two different counties of Guizhou province, China, one in which the China CARES project was operating and the other in which it was not. DESIGN: A longitudinal design with two-stage cluster sampling was employed. METHODS: A total of 1012 participants were recruited in the two counties. All participants were interviewed, then given a coupon for free VCT after the interview. Participants were paid for returning the coupon within 2 months, whether tested or not. The uptake of VCT was measured within 2 months after the interview. RESULTS: The study found that the levels of HIV/AIDS knowledge and acceptability of VCT among the adults in both counties were low. Although 459 participants (43.5%) expressed an intent to use the VCT services, only 193 (16.5%) actually visited the VCT facilities, and only 42 (3.7%) actually took an HIV test within 2 months after the interview. The use of VCT was related to occupation, age, transportation difficulties, health status, ethnicity, and high-risk behaviors. The main barriers to HIV testing included perceiving oneself as low risk, fear of unsolicited disclosure, and fear of stigma and discrimination that would result from taking the test. CONCLUSION: Education about HIV/AIDS and VCT needs to be improved, and levels of stigma and discrimination reduced, in order to enhance the uptake of VCT services, an essential step for the initiation of treatment.


Bacterial sexually transmitted infections (STIs) may be markers of high-risk sexual activity. Counselling for these infections provides an opportunity for promoting HIV testing. The aim of the present study was to compare the uptake of HIV testing between patients with gonorrhoea or chlamydial infections and those without a bacterial STI. A study on patients
screened for chlamydial or gonococcal infections in the Department of Genitourinary (GU) Medicine, Edinburgh between 1 July 2002 and 30 June 2003. The overall uptake of HIV testing among patients screened for chlamydial and gonococcal infections was 2263 (37%) of 6184 and 2012 (44%) of 4583, respectively (P < 0.0002). Uptake of HIV testing was significantly higher among uninfected patients: for chlamydial infection, 17% of 1857 infected patients versus 45% of 4327 uninfected patients (P < 0.0002); and for gonococcal infection, 24% of 256 infected patients versus 45% of 4327 uninfected patients (P < 0.0002). The policy of pre-test counselling needs to be redesigned in order to improve the uptake of HIV testing among patients with high-risk sexual activity.


OBJECTIVES: We assessed emergency department (ED) patient acceptance of opt-in, rapid human immunodeficiency virus (HIV) screening and identified demographic characteristics and HIV testing-history factors associated with acceptance of screening. METHODS: A random sample of 18- to 55-year-old ED patients was offered rapid HIV screening. Patient acceptance or decline of screening and the reasons for acceptance or decline were analyzed with multivariable regression models. Odds ratios (ORs) with 95% confidence intervals (CIs) were estimated for the logistic regression models. RESULTS: Of the 2,099 participants, 39.3% accepted HIV screening. In a multinomial regression model, participants who were never married/not partnered, did not have private health insurance, and had 12 or fewer years of education were more likely to be screened due to concern about a possible HIV exposure. In a multivariable logistic regression model, the odds of accepting screening were greater among those who were younger than 40-years-old (OR=1.61, 95% CI 1.32, 2.00), nonwhite (OR=1.28, 95% CI 1.04, 1.58), not married (OR=1.82, 95% CI 1.44, 2.28), lacking private health insurance (OR=1.40, 95% CI 1.13, 1.74), and who had 12 or fewer years of education (OR=1.43, 95% CI 1.16, 1.75). Despite use of a standardized protocol, patient acceptance of screening varied by which research assistant asked them to be screened. Patients not previously tested for HIV who were white, married, and 45 years or older and who had private health insurance were more likely to decline HIV screening. CONCLUSIONS: In an opt-in, universal, ED HIV screening program, patient acceptance of screening varied by demography, which indicates that the impact of such screening programs will not be universal. Future research will need to determine methods of increasing uptake of ED HIV screening that transcend patient demographic characteristics, HIV testing history, and motivation for testing.


BACKGROUND: Patient's satisfaction with both private and public laboratory services is important for the improvement of the health care delivery in any country. METHODS: A cross-sectional survey was conducted in 24 randomly selected health facilities with laboratories that are conducting HIV related testing, in Mainland Tanzania. The study assessed patient's satisfaction with the laboratory services where by a total of 295 patients were interviewed. RESULTS: Of data analyzed for a varying totals from 224 to 294 patients, the percentage of dissatisfaction with both public and private laboratory services, ranged from 4.3% to 34.8%, with most of variables being more than 15%. Patients who sought private laboratory services were less dissatisfied with the cleanliness (3/72, 4.2%) and the privacy (10/72, 13.9%) than those sought public laboratory service for the same
services of cleanness (41/222, 18.5%) and privacy (61/222, 27.5%), and proportional differences were statistically significant (X² = 8.7, p = 0.003 and X² = 5.5, p = 0.01, respectively). Patients with higher education were more likely to be dissatisfied with privacy (OR = 1.8, 95% CI: 1.1-3.1) and waiting time (OR = 2.5, 95% CI: 1.5 - 4.2) in both private and public facilities. Patients with secondary education were more likely to be dissatisfied with the waiting time (OR = 5.2; 95%CI: 2.2-12.2) and result notification (OR = 5.1 95%CI (2.2-12.2) than those with lower education. CONCLUSION: About 15.0% to 34.8% of patients were not satisfied with waiting time, privacy, results notification cleanness and timely instructions. Patients visited private facilities were less dissatisfied with cleanness and privacy of laboratory services than those visited public facilities. Patients with higher education were more likely to be dissatisfied with privacy and waiting time in both private and public facilities.


In this era of antiretroviral therapy (ART) a limited number of population-based studies have investigated the extent of voluntary counseling and testing acceptance and completion in Africa. The aim of this study was to assess the prevalence and predictors of failure to return for HIV post-test counseling (PTC) among adults in rural Kilimanjaro, Tanzania. Following a cross-sectional survey, people aged 15-44 years living in Oria village were interviewed and offered individual HIV-1 pre-test counseling. They were asked to return for PTC two weeks after blood sample collection. HIV-1 testing was accepted by 1491 (97.6%) of participants with 98.9% expressing desire to know their results. The proportion of individuals who did not return for PTC was 50.9%. These proportions did not differ by sex. Seropositive HIV result (AOR: 2.2; 95%CI: 1.3-4.3 for women and AOR: 2.1, 95%CI: 1.2-5.7 for men), low HIV/AIDS-transmission and ART availability knowledge, perceived low risk of HIV infection, not accepting to share results (men only) and inability to self-prevent HIV infection (women only) predicted failure to return for PTC. Additionally, participants were more likely not to return for PTC if they had no-formal education or reported recent sexual-risk behaviors, for both sexes. Age, prior HIV testing or AIDS-related clinical symptoms were not associated with return for PTC in this population. These findings suggest that low returns for PTC, especially for HIV-seropositive individuals, result in a substantial missed opportunity for prevention and care. Knowledge of ART accessibility is necessary but not sufficient to promote adequate return for PTC. The high attendance for pre-test counseling should be utilized to identify potential individuals who may not return for PTC and to promote risk reduction and care.


African-American men bear a disproportionate burden of HIV infection in the United States. HIV testing is essential to ensure that HIV-infected persons are aware of their HIV-positive serostatus, can benefit from early initiation of antiretroviral therapy, and can reduce their risk of transmitting the virus to sex partners. This cross-sectional study assessed HIV testing history and healthcare utilization among 352 young African-American men recruited in urban neighborhoods in a Midwestern city. The self-administered survey measured sexual risk behaviors, factors associated with HIV testing, and barriers to testing. The acceptability of community venues for HIV testing was also assessed. Of the respondents,
76% had been tested for HIV at some time in their lives, 52% during the prior 12 months. Of the participants, 70% had unprotected intercourse during the prior 12 months, 26% with two or more partners. Nearly three-quarters (72%) of participants had seen a healthcare provider during the prior year. In univariate analyses, those who had at least one healthcare provider visit during the prior 12 months and those who had a primary doctor were more likely to have been tested in the prior 12 months. In multivariate analyses, having a regular doctor who recommended HIV testing was the strongest predictor of having been tested [OR=7.38 (3.55, 15.34)]. Having been diagnosed or treated for a sexually transmitted disease also was associated with HIV testing [OR=1.83 (1.04, 3.21)]. The most commonly preferred testing locations were medical settings. However, community venues were acceptable alternatives. Having a primary doctor recommend testing was strongly associated with HIV testing and most HIV testing occurred at doctors’ offices. But, a substantial proportion of persons were not tested for HIV, even if seen by a doctor. These results suggest that HIV testing could be increased within the healthcare system by increasing the number of recommendations made by physicians to patients. The use of community venues for HIV testing sites could further increase the number of persons tested for HIV.


This study evaluates associations between internalized homonegativity and demographic factors, drug use behaviors, sexual risk behaviors, and HIV status among men who have sex with men (MSM) and with men and women (MSM/W). Participants were recruited in Los Angeles County using respondent-driven sampling (RDS) and completed the Internalized Homonegativity Inventory (IHNI) and questionnaires on demographic and behavioral factors. Biological samples were tested for HIV and for recent cocaine, methamphetamine, and heroin use. The 722 MSM and MSM/W participants were predominantly African American (44%) and Hispanic (28%), unemployed (82%), homeless (50%), and HIV positive (48%) who used drugs in the past 6 months (79.5%). Total and Personal Homonegativity, Gay Affirmation, and Morality of Homosexuality IHNI scores were significantly higher for African American men than for other ethnicities, for MSM/W than for MSM, for recent cocaine users than for recent methamphetamine users, and for HIV-seronegative men than for HIV-seropositive men. Linear regression showed the Gay Affirmation scale significantly and inversely correlated with the number of sexual partners when controlling for effects of ethnicity/race and sexual identification, particularly for men who self-identified as straight. Highest IHNI scores were observed in a small group of MSM/W (n = 62) who never tested for HIV. Of these, 26% tested HIV positive. Findings describe ways in which internalized homophobia is a barrier to HIV testing and associated HIV infection and signal distinctions among participants in this sample that can inform targeted HIV prevention efforts aimed at increasing HIV testing.


Rapid HIV testing allows same-day results, increasing the number of persons who learn their HIV status. Understanding how clients in different settings perceive rapid testing may increase acceptance of this technology. From June 1999 to August 2001 we interviewed
256 clients at a publicly funded urban sexually transmitted disease (STD) clinic and 1201 clients at a community-based HIV counseling, testing, and referral center (Los Angeles Gay and Lesbian Center; LAGLC) about their posttest satisfaction with rapid HIV testing. HIV prevalence was 3.9% at the STD clinic and 5.3% at the LAGLC. In multivariate analysis, adjusting for age, sexual orientation, race/ethnicity, history of STDs, self-perceived HIV risk, prior HIV test and HIV testing results, clients at the STD clinics (versus LAGLC) were more likely to find testing stressful (adjusted odds ratio [AOR]: 1.75, 95% confidence limits [CL]: 1.27, 2.42) and feel that they received their results too quickly (AOR: 2.05, 95% CL: 1.39, 3.03). Latinos (versus whites) were more likely to report that they received their results too quickly (AOR: 4.99, 95% CL: 3.48, 7.14) and that it would be better to wait a week for HIV test results (AOR: 2.48, 95% CL: 1.51, 4.09). Further research may elucidate the reasons why some groups prefer to wait for results, and enable policymakers to better design strategies to reach high-risk groups with rapid HIV testing.

Subramanian, T., Gupte, M. D., Mathai, A. K., Boopathi, K., & Dorairaj, V. S. (2008). Perception of HIV testing among attendees at an STD clinic in India. AIDS Care, 20(1), 26-34. This study reports perception of STD clinic attendees of Government General hospital, Chennai, India towards free HIV testing. All STD clinic attendees who were eligible for the study (511), from January to April 2001 formed the study subjects. In all, 362 (71%) subjects responded to the question on perception of risk in getting HIV/AIDS. Among them 36% perceived that they were at risk of getting infected with HIV. There was a significant difference (P=0.01) between the genders, as more males perceived risk of getting HIV than females and, with the increase in number of sexual partners in a lifetime there was an increasing trend (p<0.0001) in the perception of risk. There were 244 (55%) subjects willing for HIV testing. A significant difference between the genders (p<0.0001) was observed, as more females were willing to accept free HIV testing than males. When adjusting the effect of co-variates such as gender, age, marital status and perception of risk in getting HIV, persons having two or more sexual partners in their life time were four times more willing to be HIV tested than persons with one sexual partner (OR=4; p=0.001). The findings in this study will help optimize HIV testing in at risk patient populations in India.

Weis, K. E., Liese, A. D., Hussey, J., Coleman, J., Powell, P., Gibson, J. J., et al. (2009). A routine HIV screening program in a South Carolina community health center in an area of low HIV prevalence. AIDS Patient Care and STDs, 23(4), 251-258. In 2006, the Centers for Disease Control and Prevention published guidelines for routine HIV screening in healthcare settings. Feasibility studies have demonstrated that screening is effective in high-volume, urban settings, but there are no data for smaller, more rural settings. The main objective of this study was to describe a routine HIV screening program at a community health center in South Carolina serving both urban and rural populations. Margaret J. Weston Community Health Center implemented routine HIV screening using rapid tests at its three locations on December 1, 2006. All individuals utilizing this center over the age of 13 years were screened for HIV unless they opted out. Nurses completed a survey about their experiences with the program. chi(2) tests and logistic regression models were used to analyze the data. In the first 8 months, among 985 eligible visits, 574 (58%) resulted in the patient being screened. The most common reason for refusal was "doesn't think s/he is at risk." Acceptance rates differed significantly by location (p = 0.01), from 62% in the urban site to 47% in the rural site. Other significant predictors of accepting HIV testing were race/ethnicity, age, and method of payment. Three hundred twenty-four (58%) individuals who were tested reported no history of being previously tested for HIV infection. Participation in the screening program was perceived favorably by nurses. This
pilot project in a South Carolina community health center demonstrates that implementation of routine HIV screening is acceptable in small healthcare settings and in smaller cities and rural communities in the South.

**Provider attitudes**


Bashyr Aziz explains why he believes that nursing and medical students should not have to be tested for HIV or hepatitis C.


Strengthening national health laboratory systems in resource-poor countries is critical to meeting the United Nations Millennium Development Goals. Despite strong commitment from the international community to fight major infectious diseases, weak laboratory infrastructure remains a huge rate-limiting step. Some major challenges facing laboratory systems in resource-poor settings include dilapidated infrastructure; lack of human capacity, laboratory policies, and strategic plans; and limited synergies between clinical and research laboratories. Together, these factors compromise the quality of test results and impact patient management. With increased funding, the target of laboratory strengthening efforts in resource-poor countries should be the integrating of laboratory services across major diseases to leverage resources with respect to physical infrastructure; types of assays; supply chain management of reagents and equipment; and maintenance of equipment.


Objective: In its 2006 HIV testing guidelines, the Centers for Disease Control and Prevention (CDC) recommended routine testing in all US medical settings. Given that many physicians do not routinely test for HIV, the objective of this study was to summarize our current understanding of why US physicians do not offer HIV testing.

Design: A comprehensive review of the published and unpublished literature on HIV testing barriers was conducted.

Methods: A literature search was conducted in Pubmed using defined search terms. Other sources included Google, recent conference abstracts, and experts in the field. Studies were divided into three categories: prenatal; emergency department; and other medical settings. These categories were chosen because of differences in physician training, practice environment, and patient populations. Barriers identified in these sources were summarized separately for the three practice settings and compared.

Results: Forty-one barriers were identified from 17 reports. Twenty-four barriers were named in the prenatal setting, 20 in the emergency department setting, and 23 in other medical settings. Eight barriers were identified in all three categories: insufficient time; burdensome consent process; lack of knowledge/training; lack of patient acceptance; pretest counselling requirements; competing priorities; and inadequate reimbursement.

Conclusion: US physicians experience many policy-based, logistical, and educational barriers to HIV testing. Although some barriers are exclusive to the practice setting studied, substantial overlap was found across practice
settings. Some or all of these barriers must be addressed before the CDC recommendation for routine HIV testing can be realized in all US medical settings. (c) 2007 Lippincott

This survey of obstetricians' knowledge and practices in two districts in Kerala, India, finds a number of unethical practices: most providers are unaware of the value of the rapid screening test for HIV, they do not give pregnant women the option to refuse testing; testing is done without counselling, private doctors refer pregnant women who test positive to government hospitals, and some health services have separate facilities for pregnant women who test positive.

Unlike any other disease so far, the 'exceptional' nature of HIV/AIDS has prompted debate about the necessity, but also the challenges, of regulating practitioner-patient communication around HIV testing. In India, the National AIDS Control Organization (NACO) has adopted the guidelines of the World Health Organization with regard to HIV testing and counselling, yet the extent to which these guidelines are fully understood or followed by the vast private medical sector is unknown. This paper examines the gaps between policy and practice in communications around HIV testing in the private sector and aims to inform a bottom-up approach to policy development that is grounded in actual processes of health care provision. Drawing on 27 in-depth interviews conducted with private medical practitioners managing HIV patients in the city of Pune, we looked specifically at practitioners' reported communications with patients prior to an HIV test, during and following disclosure of the test result. Among these practitioners, informed consent is rare and pre-test communication is prescriptive rather than shared. Confidentiality of the patient is often breached during disclosure, as family members are drawn into the process without consulting the patient. While non-adherence to guidelines is a matter of concern, practitioners' communication practices in this setting must be understood in the given social and legal context of the patient-practitioner relationship in India. Communication with their patients is strongly influenced by practitioners' perceptions of their own roles and relationships with patients, perceived characteristics of the patient population, limitations in knowledge and skills, moral values as well as perceptions of legal guidelines and patient rights. We suggest that policy guidelines around patient-practitioner communication need to take sufficient cognizance of existing practices, cultures and the realities of care provision in the private sector. Patients themselves need to be empowered in order to grasp the importance and implications of HIV testing and counselling.

This study evaluates the association between the degree of fear of human immunodeficiency virus (HIV) infection and support for different HIV testing policies. A strong fear of acquiring HIV infection at work was widespread among a sample of 601 Polish surgical and emergency nurses. Most favored inappropriate HIV testing of all surgical patients and inpatients. Previous training about HIV and acquired immunodeficiency syndrome (AIDS) and experience caring for HIV-positive patients had a
significant impact on reducing support for testing of all inpatients but not for testing of surgical patients.


The purpose of this study was to determine the effective use of the 2001 Centers for Disease Control and Prevention (CDC) HIV testing recommendations in emergency department settings. A postal questionnaire was distributed to health care providers in emergency departments across the United States to evaluate the rate HIV tests are routinely offered to individuals presenting to emergency departments for care. A total of 223 emergency department providers responded. Results indicated that health care providers generally were not aware that their institutions were located in areas with high HIV seroprevalence rates. Only 3% of the health care providers surveyed claimed they routinely offered an HIV test to everyone who sought care in their emergency department regardless of patients’ presentation to care. The conclusion was that, in 2004, testing for HIV in emergency departments was not a priority for those providing care. In general, despite the fact that the CDC 2001 HIV testing guidelines were less universal than the 2006 recommendations, many had not implemented routine HIV testing programs in their emergency departments. The number of patients who use emergency departments for routine care is on the rise, and missed opportunities for offering HIV tests have detrimental effects for the individual as well as for the public health.


Introduction: Health facilities provide an opportunity for early diagnosis of HIV and access to services. The traditional approach has relied on client-initiated testing and counselling often with low uptake and late diagnosis of HIV. The low uptake of HIV testing and counselling is a major challenge in the response to the HIV epidemic. Surveys in sub-Saharan Africa have shown that a median of 12% of men and 10% of women had been tested for HIV. Recent recommendations have shifted to a proactive approach where the health care provider initiates the HIV testing and counselling. While nurses should strongly support the continued scale up of client-initiated HIV testing and counselling, they must also recognize the need for additional approaches to ensure opportunities to diagnose and counsel individuals at health facilities through PITC.


In 2006, the Centers for Disease Control and Prevention (CDC) endorsed routine voluntary HIV testing in health care settings to identify the many HIV-infected but undiagnosed persons. Realizing this goal will require primary care providers including internal medicine physicians to order HIV tests routinely. In particular, urban internal medicine trainees who work in high HIV prevalence settings need to adopt this approach. We therefore examined the practice of routine HIV testing and to identify factors that correlate with offering HIV testing to this group. We conducted a self-administered electronic cross-sectional survey of New York City’s (NYC) internal medicine residents on HIV testing-related knowledge,
attitudes, and behaviors with 29 close-ended questions. Fifteen of 42 NYC internal medicine residency programs participated in early 2007. Of 1175 residents, 450 (38.3%) responded. Most (64.1%) ordered 10 or less HIV tests in the past 6 months; 32.6% were aware of the 2006 guidelines; 35.8% utilized a routine testing approach. Respondents aware of current guidelines were more likely to practice routine testing (odds ratio [OR] 3.7, 95% confidence interval [CI]: 2.4-5.6). Two common barriers to testing were procedural: time-consuming consent process (27.1%); difficulty locating consent forms (19.3%). Most (68.4%) respondents indicated that oral consent would facilitate more testing. Most NYC internal medicine residents are not routinely offering HIV tests as advised by the 2006 CDC HIV testing guidelines and continue to test patients according to perceived patient HIV risk. This is likely contributing to their low testing rates. Most identified institutional and policy barriers to routine testing. Efforts should be made to improve dissemination.


Background. Stigma and discrimination, particularly in access to healthcare, remains a major problem for people infected with HIV in most parts of India. Methods. We did a multicentre study (n = 10) with a cross-sectional survey design using a standardized, interviewer administered questionnaire. Results. A total of 2200 healthcare providers participated. The knowledge, attitude and practice (KAP) related to HIV service delivery were very poor with a mean overall KAP score of only 49.7% (CI: 49.1-50.3). Only 5%, 5% and 1% of the participants scored more than 75% separately for the dimensions of knowledge, attitude and practice, respectively. Only 24.4% and 36.7% of responders knew that HIV screening was not recommended prior to surgery and pre-employment check-up. Many doctors (19.4%) had refused treatment to people living with HIV/AIDS (PLHA) at least some of the time and nearly half (47.2%) identified and labelled them; 23.9% isolated them in separate care areas and 13.3% postponed or changed treatment based on the patient’s HIV status. Screening for HIV prior to elective surgery was done by 67% of providers. While 64.7% of responders were aware of the existence of national guidelines on and recommendations for HIV testing, only 38.4% had read the policy document. Conclusion. There is a growing need to provide care, support and treatment to a large number of PLHA. The capacity of healthcare providers must be urgently built up so as to improve their knowledge of and attitude to HIV to enable them to deliver evidence-based and compassionate care to PLHA in various healthcare settings.


Populations at risk for HIV and other sexually transmitted infections (STIs) include those living in rural areas. The authors describe a statewide training program that targeted rural-based health professionals. This program focused on HIV, STIs, and viral hepatitis and was designed to (a) enhance participants’ ability to conduct sexual histories and risk assessments, (b) educate clients about risk reduction and prevention, (c) screen for and diagnose these infections, (d) clinically manage clients with positive screening test results,
(e) access prevention and other educational materials, and (f) conduct other clinical and public health activities. A total of 122 participants reflecting a wide variety of practice settings attended training at five sites throughout Minnesota; 74% of participants were nurses and 81% characterized employment settings as rural. Nurses and other health professionals in rural settings are an important training priority and can play an important role in education, prevention, screening, and clinical care for HIV and other STIs.


The rapid scale-up of the care and treatment programs in Tanzania during the preceding 4 years has greatly increased the demand for quality laboratory services for diagnosis of HIV and monitoring patients during antiretroviral therapy. Laboratory services were not in a position to cope with this demand owing to poor infrastructure, lack of human resources, erratic and/or lack of reagent supply and commodities, and slow manual technologies. With the limited human resources in the laboratory and the need for scaling up the care and treatment program, it became necessary to install automated equipment and train personnel for the increased volume of testing and new tests across all laboratory levels. With the numerous partners procuring equipment, the possibility of a multitude of equipment platforms with attendant challenges for procurement of reagents, maintenance of equipment, and quality assurance arose. Tanzania, therefore, had to harmonize laboratory tests and standardize laboratory equipment at different levels of the laboratory network. The process of harmonization of tests and standardization of equipment included assessment of laboratories, review of guidelines, development of a national laboratory operational plan, and stakeholder advocacy. This document outlines this process.


BACKGROUND: A comprehensive care and treatment program requires a well functioning laboratory services. We assessed satisfaction of medical personnel to the laboratory services to guide process of quality improvement of the services. METHODOLOGY: A cross-sectional survey in 24 randomly selected health facilities in Mainland Tanzania was conducted to assess the satisfaction of the medical personnel with the laboratory services. RESULTS: Of 235 medical personnel interviewed, 196 were valid for analysis and about one quarter were dissatisfied with the laboratory services. Personnel dissatisfied with the services were 38.3% in timely test result, 24.5% in correct and accurate results and 22.4% in clear complete results. The personnel in public laboratories were more dissatisfied with timely test results (OR = 3.6, 95% CI 1.8, 7.3), correct results (OR = 4.1, 95% CI 1.6, 10.8) and clear complete results (OR = 5.0 95% CI 1.6, 15.2). Personnel dissatisfied with the services in 15 laboratories sending specimens to referral laboratories, varied from 13% in availability of equipment to 57% in timely results feedback from the referral laboratories. Personnel dissatisfied with the services in 14 referral laboratories, varied from 28.6% in properly identified specimen to 42.9% in clear, accurate test request and communication.
CONCLUSION: About one quarter of medical personnel in sending or receiving laboratories were dissatisfied with the services. Comparing the personnel in public and private, the personnel in public laboratories were 4 times more dissatisfied with the timely test and correct results; and 5 times more dissatisfied with clear and complete test results.

Swaziland is among the countries in the sub-Saharan Africa with high rates of HIV infection. The Swazi Government established Voluntary Counseling and Testing Services (VCT) as part of its response to the epidemic. This study describes the day-to-day experiences of nurses working in VCT services in Swaziland in order to answer the question, "What is it like to work at VCT services." Data were obtained through in-depth interviews. The sample consisted of 6 nurses who were purposively selected from the 4 geographical regions of Swaziland. Data were analyzed through the steps suggested by Tesch (1990). Findings from the analysis revealed that nurses working in VCT services experienced constant stress. The stress was attributed to the complexity of HIV, staff shortages, lack of social support, lack of supportive practice environments, and constant exhaustion. The experience of constant stress lead these nurses to feel disempowered. Data suggest that nurses working in VCT services in Swaziland need programs to support their efforts and to empower them in their testing activities.

In this study, the authors explored HIV test counselors' perceptions of and experiences working with "difficult" and "good" clients in alternative HIV testing sites. Trained interviewers made field observations and conducted sixteen 60-minute, semistructured interviews with counselors. Counselors reported 7 main characteristics of difficult clients: (1) uncooperative, (2) mean, (3) inebriated, (4) threatening, (5) "crazy," (6) sexually inappropriate, and (7) aesthetically unappealing/overly appealing. They also identified 3 main characteristics of good clients: (1) communicative, (2) responsive, and (3) vulnerable. In addition, HIV test counselors used 4 strategies to deal with difficult clients: (1) received help from other counselors, (2) refused to test or threatened to refuse to test, (3) verbally confronted clients, and (4) "followed the forms" (i.e., asked the necessary questions on the standard risk assessment forms). Results highlight the combined importance of patient characteristics, HIV test counselor characteristics, and the testing environment in contributing to difficult and good encounters in alternative HIV testing sites and point to the need for better training and support services in this area.

OBJECTIVE: To explore the accounts and perspectives of junior doctors who were offered an HIV test by their employing National Health Service (NHS) trust and discuss ethical issues posed by this new policy. DESIGN: Qualitative in-depth interview study. SETTING: 4 NHS hospital trusts. PARTICIPANTS: 24 junior doctors who had been offered an HIV test as part of their pre-employment occupational health checks. RESULTS: The manner in which HIV tests were offered to junior doctors varied both between and within the NHS trusts. Overall, the doctors were highly critical of the way the HIV test was offered.
Recurrent themes surrounding a lack of discussion and information regarding the indications for the test and implications of a positive result influenced the doctors' perception of their experiences. As a consequence of the shortcomings of how the test was offered, most of the doctors held the misperception that HIV testing was mandatory and many felt unable to decline the test. The majority of doctors referred to patient protection as adequate justification for being offered an HIV test. CONCLUSIONS: Junior doctors offered an HIV test under new Department of Health occupational health guidance were disparaging about how the test was offered. The findings of this study affect thousands of junior doctors in the UK, and the impact of these results is extensive. Participants' suggestions regarding how the process of offering an HIV test can be improved are discussed and ethical issues regarding the new Department of Health policy are highlighted.


This article presents a unique approach to HIV/AIDS training in resource-poor settings that incorporates the use of standardized patients (SPs). Integrated Management of Adolescent and Adult Illness (IMAI) is a World Health Organization health systems strengthening initiative with a strong emphasis on training health workers in the management of common diseases and conditions. In IMAI, SPs are called Expert Patient-Trainers (EPTs) to emphasize their role in the training of health workers. EPTs were first used in IMAI training in Uganda in 2004. Since then, the method has been adopted by a number of other countries in Africa, Latin America, and Asia. EPTs are usually recruited from groups of people living with HIV/AIDS. In the classroom, EPTs discuss living with HIV and help participants understand HIV as it affects patients. Course participants spend approximately two hours per day in "skill stations," multiple-station assessments consisting of one-on-one encounters with EPTs. In each encounter, the health worker interacts with an EPT portraying a standardized case. Instructions on how to portray each case provide only broad outlines of the major clinical and counseling points; the EPT is expected to use his or her own life experiences to fill in emotional details. Course facilitators noted that health workers were often initially skeptical about EPTs, but this generally turned to enthusiasm after participating in the skill stations. EPTs benefited from the sense of being part of the training team, the satisfaction of improving the skills of health workers, and learning more about their illness.


Currently, any dentist in the UK who is HIV-seropositive must stop treating patients. This is despite the fact that hepatitis B-infected dentists with a low viral load can continue to practise, and the fact that HIV is 100 times less infectious than hepatitis B. Dentists are obliged to treat HIV-positive patients, but are obliged not to treat any patients if they themselves are HIV-positive. Furthermore, prospective dental students are now screened for hepatitis B and C and HIV, and are not allowed to enroll on Bachelor of Dental Surgery degrees if they are infectious carriers of these diseases. This paper will argue that: (i) the current restriction on HIV-positive dentists is unethical, and unfair; (ii) dentists are more likely to contract HIV from patients than vice versa, and this is not reflected by the current system; (iii) the screening of dental students for HIV is also unethical; (iv) the fact that dentists can continue to practise despite hepatitis B infection, but infected prospective students are denied matriculation, is unethical; and (v) that the current Department of
Health protocols, as well as being intrinsically unfair, have further unethical effects, such as the waste of valuable resources on 'lookback' exercises and the even more damaging loss of present and future dentists. Regulation in this area seems to have been driven by institutional fear of public fear of infection, rather than any scientific evidence or ethical reasoning.

Sheikh, K., & Porter, J. D. (2009). "It's 100% for me": Hospital practitioners' perspectives on mandatory HIV testing. *Indian Journal of Medical Ethics, 6*(3), 132-137. This article explores the thinking of medical practitioners working in nine hospitals spread across five cities in India, on a contested subject--mandatory HIV testing of patients prior to surgery. We used in-depth interviews with practitioners and an interpretive analytical approach to understand their decisions to conduct mandatory tests. While many in the public health community see mandatory testing as an unacceptable violation of patient autonomy, the practitioners widely regarded it as a valuable cost-saving innovation for obviating transmission of infection during surgery. These conceptions are rooted in the day-to-day logic of practice which defines practitioners' actions--imperative of personal security, investment in core occupational roles and the importance of harmonious relations with co-workers. The experiences of hospitals with contrasting policies on mandatory HIV testing shows how an approach that balances patients' needs with an appreciation of practitioners' perspectives may result in more workable solutions for field-level ethical dilemmas.

Szabo, C. P., Dhai, A., Veller, M., & Kleinsmidt, A. (2009). Surgeons and HIV: South African attitudes. *South African Medical Journal, 99*(2), 110-113. OBJECTIVES: The HIV status of surgeons, in the context of the informed consent obtained from their patients, is a contentious matter. We surveyed the views of practising surgeons in South Africa regarding aspects of HIV and its impact on surgeons. DESIGN: A cross-sectional survey of surgeons who were members of the Association of Surgeons of South Africa, regarding their attitudes to the preceding issues. RESULTS: The salient findings included the view that a patient-centered approach requiring HIV status disclosure to patients would be discriminatory to surgeons and provide no clear benefit to patients, and that HIV-positive surgeons should determine their own scope of practice. CONCLUSION: Patient-centered approaches and restrictive policies, related to this issue, do not accord with clinician sentiment. In the absence of comparable local or international data, this study provides clinicians' views with implications for the development of locally relevant policies and guidelines.

Thomas, G. (2009). Mandatory HIV testing: Rights of patients vs rights of health workers? *Indian Journal of Medical Ethics, 6*(3), 157. This article is about the mandatory testing of patients for HIV before surgery in India.

Weaver, M. R., Myaya, M., Disasi, K., Regoeng, M., Matumo, H. N., Madisa, M., et al. (2008). Routine HIV testing in the context of syndromic management of sexually transmitted infections: Outcomes of the first phase of a training programme in Botswana. *Sexually Transmitted Infections, 84*(4), 259-264. OBJECTIVE: In 2004, the Ministry of Health adopted revised protocols for the syndromic management of sexually transmitted infections (STI) that included routine HIV testing. A training programme for providers was developed on the revised protocols that featured interactive case studies and training videos. An objective of the first phase of the training programme was to test its effect on four measures of clinical practice: (1) routine HIV
testing; (2) performance of physical examination; (3) risk-reduction counselling and (4) patient education. METHODS: Clinical practice in a district where providers were trained was compared with a district without training. The measures of clinical practice were reported by 185 patients of providers who had been trained and compared with reports by 124 patients at comparison clinics. RESULTS: Relative to patients at comparison clinics, a higher percentage of patients of trainees reported that the provider: (1) offered an HIV test (87% versus 29%; p<0.001); (2) conducted a physical examination (98% versus 64%; p<0.001); (3) helped them to make a plan to avoid future STI acquisition (95% versus 76%; p<0.001) and (4) provided patient-specific information about HIV risk (65% versus 32%; p<0.001). Among patients offered HIV testing, the percentage who accepted did not differ between groups (38% of 161 patients of trainees versus 50% of 36 comparison patients; p = 0.260). Overall, 33% of patients of trainees and 14% of comparison patients were tested (p<0.001). CONCLUSION: A multifaceted training programme was associated with higher rates of HIV testing, physical examination, risk-reduction counselling and better HIV risk education.


BACKGROUND: The high HIV/AIDS-related mortality among young adults is devastating countries in sub-Saharan Africa. The implementing capacity of the health systems is the main limiting factor of antiretroviral treatment (ART) scaling-up; (1) this capacity depends mainly on the health workforce. Tackling the issue of human resources for health is thus of paramount importance to achieve universal access to ART and for the survival of health systems in time of AIDS. To support such a process, the World Health Organization stresses the importance of task shifting(2) from medical doctors to nurses and from nurses to community health workers. Such task shifting is not easy to achieve but undoubtedly needed. STUDY OBJECTIVE: This paper raises issues about the involvement of new actors(3) without precise redefinitions of roles and task-shifting procedures. We take the example of a 'Centre de Prevention et de Depistage Volontaire du VIH/sida'(4) in one major town of the Far-North province of Cameroon (Central Africa). METHODOLOGY: The study was qualitative. Observations were carried out in the service and in-depth interviews conducted with health workers and actors of Cameroon’s National AIDS Control Committee. These interviews were recorded and transcribed. The material was analysed using keywords. KEY RESULT: The involvement of new actors in a context of human resources for health shortage and health system crisis creates confusion and role conflicts, which lead to frustration. It favours the appearance of chinks within which these new actors slip and 'find their way' in the system; it finally raises problems related to their legitimacy and position within the existing hierarchy. KEY POLICY MESSAGE: It is necessary, when involving new staff members (particularly when they do not belong to internationally recognized health professionals such as nurses, doctors and pharmacists), to redefine roles and build precise task-shifting procedures so that everyone may still have a place in the whole system and feel useful.

**Counseling**

Transmitted Diseases, 34(12), 1025-1029.

OBJECTIVE: To test a model designed to increase willingness of patients presenting to the emergency department off hours to be tested for human immunodeficiency virus (HIV) by using a pretest counseling video as a substitute for face-to-face counseling. METHODS: We conducted a randomized controlled trial comparing the rate of testing in patients randomized to receive video counseling with immediate testing (video group) versus standard care, which was referral to counseling and testing the next day (standard referral group). RESULTS: Fifty percent of 805 eligible patients consented to participate in the study, indicating willingness to be tested. The HIV testing rate was higher in the video group 92.6% (187 of 202) than in the standard referral group 4.5% (9 of 202) (difference = 88.1%, 95% confidence interval: 83.5%-92.7%). Thirty percent of 187 patients in the video group who were tested returned for their results; 8 of 9 patients in standard care returned to be tested and to get their results. CONCLUSION: Half of the patients who were solicited for HIV testing agreed to be tested. When testing was immediate the patient was more likely to have the test completed.


HIV counselling and testing has traditionally been performed by highly trained professionals in clinical settings. With HIV rapid testing, a reliable and easy to use diagnostic tool, paraprofessionals can be trained to administer on-site HIV testing in a variety of non-traditional settings, broadening the HIV detection rates. Our objective was to create a robust and sustainable paraprofessional training module to facilitate off-site HIV rapid testing in non-clinical settings. Trainees attended a series of training sessions involving HIV education, rapid test instructions and communication techniques. After these sessions, trainees competently carried out HIV rapid testing in homeless shelters throughout the Los Angeles county. Agencies motivated to expand HIV screening programmes may use trained paraprofessionals to administer a full range of services (recruitment, pretest counselling, test administration, interpretation of results, post-test counselling and documentation) through this training model and enabling more highly trained healthcare providers to focus efforts on patients identified as HIV-positive.


HIV counselors play a vital role in treatment adherence and disease management for HIV positive individuals. Tasks include encouraging treatment adherence, offering counseling for complex issues, and providing information resources. An initial needs assessment suggests that a gap exists in the training needs of HIV counselors to promote the effective implementation of evidence-based practices. The HIV TIPS, a web-based decision support system, is being further developed to meet these needs.

Kukafka, R., Millery, M., Chan, C., LaRock, W., & Bakken, S. (2009). Assessing the need for an online decision-support tool to promote evidence-based practices of psychosocial counseling in HIV care. AIDS Care, 21(1), 103-108.

Psychosocial counselors have a vital and challenging role in supporting persons living with HIV/AIDS (PLWH/A) to better manage their disease. However, gaps in training, education, and skills limit the effectiveness of counselors’ efforts. We propose that the use of a decision-support tool for counselors at the point of care can support them in their work as well as help alleviate many training and practice gaps. Decision-support tools aimed at
reducing knowledge and practice gaps are used extensively to assist clinical providers at the point of care; however, there is a need for decision-support tools designed specifically for HIV/AIDS counselors. To identify requirements for such a tool, we conducted a needs assessment through interviews of 19 HIV/AIDS clinic counselors who provide 20 or more hours per week of psychosocial support to PLWH/A. The assessment explored their education and training backgrounds, the extent to which evidence-based practices are implemented, and how a decision-support tool can support counselor work practices. Qualitative analysis was organized around seven main categories: counselor characteristics, patient characteristics, barriers, definitions of key concepts, use of guidelines, client assessments, and resources. The resulting coding schemes revealed knowledge and practice gaps among the interviewees, as well as barriers and challenges of counseling. When asked to define five key concepts related to HIV counseling, 26-47% of respondents were unable to articulate an adequate definition. Less than half of the interviewees recalled sources of guidelines used in their work and specific models of care introduced during trainings. Interviews identified environmental barriers, language and literacy, patient education, and patient communication as the most prominent challenges to counseling work. The results from this study inform the need for and development of a decision-support tool to support the training and practices of HIV/AIDS counselors.

Merchant, R. C., Clark, M. A., Mayer, K. H., Seage Iii, G. R., DeGruttola, V. G., & Becker, B. M. (2009). Video as an effective method to deliver pretest information for rapid human immunodeficiency testing. Academic Emergency Medicine, 16(2), 124-135. OBJECTIVES: Video-based delivery of human immunodeficiency virus (HIV) pretest information might assist in streamlining HIV screening and testing efforts in the emergency department (ED). The objectives of this study were to determine if the video "Do you know about rapid HIV testing?" is an acceptable alternative to an in-person information session on rapid HIV pretest information, in regard to comprehension of rapid HIV pretest fundamentals, and to identify patients who might have difficulties in comprehending pretest information. METHODS: This was a noninferiority trial of 574 participants in an ED opt-in rapid HIV screening program who were randomly assigned to receive identical pretest information from either an animated and live-action 9.5-minute video or an in-person information session. Pretest information comprehension was assessed using a questionnaire. The video would be accepted as not inferior to the in-person information session if the 95% confidence interval (CI) of the difference (Delta) in mean scores on the questionnaire between the two information groups was less than a 10% decrease in the in-person information session arm's mean score. Linear regression models were constructed to identify patients with lower mean scores based upon study arm assignment, demographic characteristics, and history of prior HIV testing. RESULTS: The questionnaire mean scores were 20.1 (95% CI = 19.7 to 20.5) for the video arm and 20.8 (95% CI = 20.4 to 21.2) for the in-person information session arm. The difference in mean scores compared to the mean score for the in-person information session met the noninferiority criterion for this investigation (Delta = 0.68; 95% CI = 0.18 to 1.26). In a multivariable linear regression model, Blacks/African Americans, Hispanics, and those with Medicare and Medicaid insurance exhibited slightly lower mean scores, regardless of the pretest information delivery format. There was a strong relationship between fewer years of formal education and lower mean scores on the questionnaire. Age, gender, type of insurance, partner/marital status, and history of prior HIV testing were not predictive of scores on the questionnaire. CONCLUSIONS: In terms of patient comprehension of rapid HIV pretest information fundamentals, the video was an acceptable substitute to pretest information.
delivered by an HIV test counselor. Both the video and the in-person information session were less effective in providing pretest information for patients with fewer years of formal education.


CARE+ is a tablet PC-based computer counseling tool designed to support medication adherence and secondary HIV prevention for people living with HIV. Thirty HIV+ men and women participated in our user study to assess usability and attitudes towards CARE+. We observed them using CARE+ for the first time and conducted a semi-structured interview afterwards. Our findings suggest computer counseling may reduce social bias and encourage participants to answer questions honestly. Participants felt that discussing sensitive subjects with a computer instead of a person reduced feelings of embarrassment and being judged, and promoted privacy. Results also confirm that potential users think computers can provide helpful counseling, and that many also want human counseling interaction. Our study also revealed that tablet PC-based applications are usable by our population of mixed experience computer users. Computer counseling holds great potential for providing assessment and health promotion to individuals with chronic conditions such as HIV.

Access to care and treatment


Despite rhetorical attention there is little programmatic guidance as to how best to ensure that women and men living with HIV have access to sexual and reproductive health services that help them realise their reproductive goals, while ensuring their human rights. A dynamic relationship exists between the manner in which health services and programmes are delivered, and the individuals who seek these services. A review of the literature shows clear gaps and highlights areas of concern not yet sufficiently addressed. The delivery and use of health services and programmes is shaped by the underlying determinants of people's access to and use of these services, the health systems in place at community and country level, and the legal and policy environment these systems operate in. Few governments can provide the full range of services that might be required by their populations. In most places, people access health services from a variety of formal and informal providers, and health-related behaviour is influenced from many directions. The synergistic roles of health systems, law and policy and underlying social determinants in helping or hindering the development and delivery of adequate programmes and services for HIV positive people must be addressed.


It is estimated that up to one-third of persons with known human immunodeficiency virus (HIV) infection in the United States are not engaged in care. We evaluated factors associated with patients' failure to establish outpatient HIV care at our clinic and found that
females, racial minorities, and patients lacking private health insurance were more likely to be "no shows." At the clinic level, longer waiting time from the call to schedule a new patient visit to the appointment date was associated with failure to establish care. Because increased numbers of patients will be in need of outpatient HIV care as a result of recent Centers for Disease Control and Prevention guidelines advocating routine HIV testing, it is imperative that strategies to improve access are developed to overcome the "no show" phenomenon.

**Implications of a positive test result**

Bhattacharya, R., Barton, S., & Catalan, J. (2008). *When good news is bad news: Psychological impact of false positive diagnosis of HIV*. *AIDS Care, 20*(5), 560-564. HIV testing is known to be stressful, however the impact of false positive HIV results on individuals is not well documented. This is a series of four case who developed psychological difficulties and psychiatric morbidities after being informed they had been misdiagnosed with HIV-positive status. We look into documented cases of misdiagnosis and potential risks of misdiagnosis. The case series highlights the implications a false diagnosis HIV-positive status can have, even when the diagnosis is rectified. Impacts of misdiagnosis of HIV can lead to psychosocial difficulties and psychiatric morbidity, have public health and epidemiological implications and can lead to medico-legal conflict. This further reiterates the importance of HIV testing carried out ethically and sensitively, and in line with guidelines, respecting confidentiality and consent, and offering counselling pre-test and post-test, being mindful of the reality of erroneous and false positive HIV test results. The implications of misdiagnosis are for the individual, their partners and social contacts, as well as for the community.


Hult, J. R., Maurer, S. A., & Moskowitz, J. T. (2009). "I'm sorry, you're positive": A qualitative study of individual experiences of testing positive for HIV. *AIDS Care, 21*(2), 185-188. New CDC guidelines for HIV testing as well as the introduction of rapid tests may increase the number of HIV tests conducted in the USA and make testing a more routine part of medical care. However, little is currently known about the experience of those receiving positive results. In this study, face-to-face interviews were conducted with 50 participants who had recently learned they were HIV positive in the San Francisco Bay Area. Ninety-two percent were male, 36% were persons of color. Participants were asked to tell their story of testing positive for HIV. Interviews were transcribed for team-based narrative qualitative analysis. The majority of participants were tested at either a hospital or an HIV test site. While some suspected they might have HIV, most were tested while seeking care for another health concern or for routine testing. Fifty-eight percent had a rapid test. Test results were typically given by medical staff or HIV test counselors. The manner in which the test was delivered affected an individual's testing experience. For seven (14%) of the participants, the provider giving the results was so upset or agitated that it added to the participant's distress over the diagnosis. Responses to the news varied greatly from being too shocked to comprehend what they were being told to immediately accepting the news and feeling ready for action. The patient/provider interaction plays a pivotal role in both
follow-up care and prevention decisions. Therefore, HIV service providers need to be cognizant of the way in which their role in the testing process, including delivery of the news and post-test counseling impacts the individual's experience of testing positive.

Disclosure


BACKGROUND: In Africa, women tested for HIV during antenatal care are counselled to share with their partner their HIV test result and to encourage partners to undertake HIV testing. We investigate, among women tested for HIV within a prevention of mother-to-child transmission of HIV (PMTCT) programme, the key moments for disclosure of their own HIV status to their partner and the impact on partner HIV testing. METHODS AND FINDINGS: Within the Ditrame Plus PMTCT project in Abidjan, 546 HIV-positive and 393 HIV-negative women were tested during pregnancy and followed-up for two years after delivery. Circumstances, frequency, and determinants of disclosure to the male partner were estimated according to HIV status. The determinants of partner HIV testing were identified according to women's HIV status. During the two-year follow-up, disclosure to the partner was reported by 96.7% of the HIV-negative women, compared to 46.2% of HIV-positive women (chi(2) = 265.2, degrees of freedom [df] = 1, p < 0.001). Among HIV-infected women, privileged circumstances for disclosure were just before delivery, during early weaning (at 4 mo to prevent HIV postnatal transmission), or upon resumption of sexual activity. Formula feeding by HIV-infected women increased the probability of disclosure (adjusted odds ratio 1.54, 95% confidence interval 1.04-2.27, Wald test = 4.649, df = 1, p = 0.031), whereas household factors such as having a co-spouse or living with family reduced the probability of disclosure. The proportion of male partners tested for HIV was 23.1% among HIV-positive women and 14.8% among HIV-negative women (chi(2) = 10.04, df = 1, p = 0.002). Partners of HIV-positive women who were informed of their wife's HIV status were more likely to undertake HIV testing than those not informed (37.7% versus 10.5%, chi(2) = 56.36, df = 1, p < 0.001). CONCLUSIONS: In PMTCT programmes, specific psychosocial counselling and support should be provided to women during the key moments of disclosure of HIV status to their partners (end of pregnancy, weaning, and resumption of sexual activity). This support could contribute to improving women's adherence to the advice given to prevent postnatal and sexual HIV transmission.


Dixon-Mueller, R. (2007). *The sexual ethics of HIV testing and the rights and responsibilities of partners*. *Studies in Family Planning, 38*(4), 284-296. The discourse of much of the international AIDS community champions the rights of individuals in low-income countries to "just say no" to routine HIV testing in health-care settings and, if tested and found positive, not to inform their sexual partner(s) if such disclosure could result in substantial personal harm. This study contends that the right of individuals to refuse testing ignores the right of their sexual partners-male or female, regular or casual-to be informed of the health risks to which they may be exposed on entering or continuing a sexual relationship or engaging in particular sexual acts. If, as the
UN has declared, all persons have the right to decide freely and responsibly on matters relating to their sexuality, including their sexual and reproductive health, free from coercion, discrimination, and violence, then all persons have the right and the responsibility to know their own and their partner's serostatus and to protect themselves and their partner(s) from sexually transmitted infections (STIs). Support by AIDS activists for policies of routine STI/HIV testing, counseling, and disclosure between both partners in a sexual relationship would help to promote an ethic of equal rights and shared responsibility for sexual behavior and its consequences.


Over the past ten years, the advances that have turned HIV into a chronic illness have also highlighted the importance of integrating prevention and care in the fight against the epidemic. This integration involves not only the creation of new programs, but also a reexamination of the process through which services and supports are provided. In this article, HIV partner notification is used as a case example; the discussion includes: the shifting time frame within which partner notification occurs; the expanding role of HIV-positive individuals in effecting both disease management and prevention goals; the connection between partner-notification and behaviorally-based risk reduction; and the ethical implications of advances on the partner notification process. The authors argue that partner notification services must be located in the context of overall treatment for infected individuals, and demonstrate how a redefinition of the partner notification process can serve as a spring-board for ongoing prevention counseling and support.


1. Unsafe anal intercourse (bareback sex) is on the rise within the gay community. 2. Barebacking constitutes a sexual practice with strong HIV-related legal implications. Nurses need to be aware of public health laws to be able to protect clients from undue legal prosecution. 3. Nurses need to be aware of the components of HIV pretest counseling. 4. Adopting a nonjudgmental, matter-of-fact approach is essential in establishing effective therapeutic relationships with clients who engage in bareback sex.


BACKGROUND: Partner notification (PN) is an effective strategy to identify undiagnosed human immunodeficiency virus (HIV) infections and to likely reduce HIV transmission. Whereas published literature has documented the benefits of provider referral for HIV PN, determination of the optimal provider--health department staff or community clinician--has not been previously studied. This study examined whether PN conducted by New York City (NYC) Disease Intervention Specialists (DIS) is more successful than PN conducted by community clinicians. METHODS: PN results overall and by index case-patient
characteristics were compared for new HIV cases diagnosed in public sexually transmitted disease (STD) clinics versus those diagnosed in non-STD facilities. RESULTS: In NYC in 2004, 206 new HIV cases were diagnosed in STD clinics and 3460 in non-STD facilities. STD DIS personnel elicited 4 times as many partners per case diagnosed (0.87 vs. 0.22, P <0.01). Index case-patient characteristics differed between STD clinics and non-STD facilities, but STD DIS elicited more partners within all demographic and risk subgroups. Excluding partners previously HIV+, the proportion of partners notified was 70.9% for partners elicited by STD DIS and 48.3% for partners elicited by community clinicians (P <0.01). Among tested partners with previously unknown or negative status, the proportion of new HIV diagnoses was similar between those elicited by DIS and community clinicians (27.0% vs. 22.2%, P = 0.56). CONCLUSIONS: NYC STD DIS appear to be more effective than community clinicians at both partner elicitation and notification. NYC has stationed DIS at large healthcare facilities to assist community clinicians with the PN process.

Manavi, K., Bhaduri, S., Tariq, A., & West Midlands British Association of Sexual Health Audit Group. (2008). Audit on the success of partner notification for sexually transmitted infections in the West Midlands. International Journal of STD & AIDS, 19(12), 856-858. SUMMARY: The aim of this study is to investigate the success of partner notification (PN) among 13 genitourinary medicine centres in West Midlands. The West Midlands Audit Group conducted a regional audit between June and August 2007. Information on screening and management of patients with chlamydia, gonorrhoea, early syphilis and HIV were collected separately. Participating centres were asked to provide PN details for 10 index patients with each of chlamydia, gonorrhoea, early syphilis and HIV infections. For each index patient with chlamydia or gonorrhoea, 0.54 and 0.44 partners were screened, respectively. Among partners of patients with syphilis and HIV, 24% and 35% were screened, respectively. Only 9% of 311 screened partners were involved in casual partnerships with index patients. Acquisition of more robust targets for PN, better documentation, improved communication between genitourinary (GU) medicine centres, and provider referral may improve the performance of PN for Sexually transmitted infections.

Mimiaga, M. J., Reisner, S. L., Tetu, A. M., Bonafide, K. E., Cranston, K., Bertrand, T., et al. (2009). Partner notification after STD and HIV exposures and infections: Knowledge, attitudes, and experiences of Massachusetts men who have sex with men. Public Health Reports, 124(1), 111-119. OBJECTIVES: We assessed Boston-area men who have sex with men (MSM) in terms of their knowledge of partner notification (PN)/partner counseling and referral services (PCRS) and intentions to use such services if exposed to/infected with a sexually transmitted disease (STD) or human immunodeficiency virus (HIV) in the future. METHODS: The study used a convenience sample of STD clinic patients (n=48) and a modified respondent-driven sampling method (n=70) to reach a diverse sample of MSM (total sample n=118) in Massachusetts. Participants completed a one-on-one, open-ended, semistructured qualitative interview and quantitative survey. RESULTS: Overall, white, HIV-infected MSM had the highest level of knowledge about PN activities. MSM who were unfamiliar with PN were disproportionately nonwhite and HIV-uninfected. Participants were more likely to notify past partners of HIV exposure than STD exposure. The preferred method of PN for the majority of MSM was direct person-to-person notification. Notably, nonwhite participants were more likely to endorse Massachusetts Department of Public Health PN services than white MSM, who preferred involvement of primary care providers. CONCLUSIONS: PN is an important public health strategy for treating and preventing
STDs and HIV among at-risk populations, especially MSM who engage in sexual behavior with anonymous or otherwise non-notifiable sexual partners. Although many MSM had an understanding of the ethical desirability of informing exposed partners and recognized the value of preventative behaviors, they require further education to overcome barriers to PN as well as to gain knowledge of the various methods of both traditional and nontraditional notification, such as Internet PN.

OBJECTIVE: The objective of this study was to assess measurement of full HIV serostatus disclosure (before sex), delayed disclosure (after sex), and no disclosure to both current and recent past (in the last year) sex partners. GOAL: The goal of this study was to propose a refined measure of HIV disclosure. STUDY DESIGN: This study consisted of a cross-sectional study using audio computer-assisted survey interviews with 63 persons with HIV/AIDS who reported on 145 sex partnerships. RESULTS: Considering all sex partners in the past year, full disclosure occurred in 54%, delayed disclosure in 22%, and no disclosure occurred in 24%. Delayed/no disclosure among all partners in the past year was substantially higher than standard measures of no disclosure among current partners only, 46% (95% confidence interval [CI], 36-54%) versus 12% (95% CI, 5-19%). No disclosure was more common in past partnerships than current partnerships (40% vs. 12%, P < 0.01). Predictors of disclosure included partnership characteristics of having an HIV-positive partner and being in a primary, heterosexual relationship. CONCLUSIONS: Standard measures may underestimate nondisclosure. Counseling and interventions that promote disclosure should include strategies for disclosure in ongoing relationships, assistance in notifying past partners, and a focus on partnership characteristics and dynamics.

Despite the current emphasis in the US on HIV testing and serostatus disclosure as HIV-prevention strategies, little is known about men who have sex with men's (MSM) perceptions of serostatus disclosure by sexual partners. This study used conversation analysis to examine recordings of HIV-test counseling sessions in order to understand how counselors and clients conceptualize and discuss sex partners' disclosure of HIV status. Of 50 test sessions audio-recorded in four publicly funded sites in Northern California, 47 sessions included a discussion about sexual partners' serostatus disclosure, in the vast majority of these (91.5%), counselors and clients avoided directly asserting their knowledge of partners' serostatus. Throughout the discussions, counselors and clients co-constructed the sense of distrust, uncertainty and unknowability of partners' serostatus. The implications of our findings for evaluating the effectiveness of HIV status disclosure as a prevention strategy are discussed.

BACKGROUND: HIV has been associated with elevated suicidal ideation. Although new treatments have changed prognosis, they also bring new challenges. This study measured suicidal ideation in HIV clinic attenders in the United Kingdom (London/Southeast) and explored associated factors. METHOD: All 1006 attenders at five HIV clinics were approached, of which 903 met inclusion criteria and 778 participated (86% response). Participants provided detailed information on suicidal ideation, demographics, treatment,
adherence, symptoms (psychological and physical on Memorial Symptom Assessment Schedule), quality of life (EuroQol) information, HIV disclosure, clinical variables, sexual risk behaviour and treatment optimism. RESULTS: There was a 31% prevalence of suicidal ideation. Factors associated with suicidal ideation were being a heterosexual man, black ethnicity, unemployment, lack of disclosure of HIV status, having stopped antiretroviral treatment (compared to treatment or treatment naive), physical symptoms, psychological symptoms and poorer quality of life. There was no association with sexual risk behaviour. Sex/sexuality and ethnicity were independently associated with suicidal ideation: the odds of suicidal ideation increased almost two-fold for heterosexual men compared with gay men or women and for black respondents compared with White or Asian respondents. Lack of disclosure was independently associated with a two-fold increase in odds of suicidal ideation. Elevated physical and psychological symptoms were strong independent predictors of suicidal ideation. Independent predictors of suicidal ideation were very similar among the subgroup of 492 patients on antiretroviral treatment. CONCLUSION: Despite advances in treatment, suicidal ideation rates among HIV-positive clinic attenders are high. Emotional support and attention to mental health provision and social context are strongly endorsed.

This study examines organizational, provider, client, and test-event level predictors of HIV partner notification (PN) discussion and agreements based on providers' most recent HIV-positive post-test counseling session. Staff (n = 621) were sampled from for-profit, nonprofit, and county government HIV testing organizations (N = 159) in Los Angeles County from 2003 to 2007. Among providers who conducted an HIV-positive post-test counseling session (n = 204), 65% discussed PN but only 10% had confirmed agreement to provider-involved PN (PIPN). In multi-level regression analyses PN discussion was predicted by provider HIV-test training and knowledge, and patients requesting a test while presenting HIV/AIDS symptoms. The strongest predictor of PIPN agreement was public health HIV testing settings followed by counseling by program managers or infectious disease specialists across settings. None of the injecting drug users or patients presenting with AIDS, but not requesting a test, agreed to PIPN. Organizational and provider-level interventions on PN will be needed to realize cost-effective benefits of expanded HIV testing and counseling.


**Impact on Vulnerable Groups**


Factors such as stigma and discrimination, poverty, criminalization of drug use, sex work and homosexuality, limited antiretroviral therapy (ART) service facilities and lack of trained
healthcare professionals on HIV treatment have all been cited as barriers to HIV treatment access for people living with HIV (PLHIV). Although studies have also provided the frameworks for understanding and addressing how gender and sexuality, employment and drug use-based social status have impeded our goal of delivering treatment, care and support to the marginalized communities; progress in achieving equitable access on essential HIV healthcare services remains disappointingly slow.

**Women**


From 2002 to 2005, two literature reviews identified a number of reproductive health issues that appeared to be relatively neglected in relation to HIV/AIDS: contraceptive information tailored to the needs of HIV-positive people; voluntary HIV counselling and testing during antenatal care, labour, and delivery; parenting options for HIV-positive people besides pregnancy through unprotected intercourse (i.e. assisted conception and legal adoption or foster care); unwanted pregnancy; and abortion-related care. An additional finding was that stigma and discrimination were frequently cited as barriers to enjoyment of reproductive rights by HIV-positive women. Subsequently, a pilot project was initiated in which non-governmental organizations (NGOs) in developing countries used benchmarks to ascertain whether these neglected issues were addressed in local programmes and interventions serving women affected by HIV and AIDS. The benchmarks also assessed whether policies and programmes paid attention to the human and reproductive rights of HIV-positive women. This paper describes the main findings from the two exercises in relation to contraception for women living with HIV or AIDS, abortion-related care, legal adoption by HIV-positive parents, and reproductive rights. It concludes with a number of recommendations on topics to be incorporated into the international research agenda, policies, and programmes in the field of HIV/AIDS.


To the Editor: With the use of highly active antiretroviral therapy among pregnant women, the risk of mother to child transmission of HIV is <1 percent. Nonetheless, an estimated 115 infants were born with HIV in the United States in 2006, including a large proportion born to women with unknown HIV status until after delivery. Therefore, numerous federal agencies and national organizations have called for routine, universal prenatal HIV testing. Given federal recommendations to streamline HIV counseling and testing, alternative protocols of prenatal HIV testing warrant evaluation. San Francisco General Hospital (SFGH) is the public hospital of the city and county of San Francisco and a teaching hospital affiliated with the University of California San Francisco (UCSF). In June 2005, SFGH's publicly funded HIV test counselor service was dissolved, and prenatal nurses were trained to offer HIV testing and obtain written consent from women during the initial prenatal care intakes. The purpose of this study was to evaluate temporal trends in HIV testing uptake among pregnant patients in care with this testing protocol change.

This study provides descriptive statistics on prevalence of testing, testing sites, and reasons for testing among lesbian women in the United States. It also provides qualitative data about the social meanings and specific circumstances of their HIV testing experiences. Analysis draws on a sample of lesbian women living in a single large southeastern city. An especially diverse snowball and chain-referral sample of 162 lesbian women was given a questionnaire, and qualitative data were gathered from 24 women participating in three focus groups and from 67 women participating in depth-interviews. A large majority of women in the survey sample (80%) reported at least one test, and more than one in four women were tested five or more times. More than one in ten were tested during drug treatment or while incarcerated. The most common testing sites were clinics and hospitals, and the most common reason women gave was because they "thought they were at risk." Most tests were voluntary rather than mandatory occupational or institutional requirements. The subjective meanings associated with HIV testing, as well as the women's counseling needs before, during, and after testing are analyzed. The implications for a better understanding of lesbian women's sexual health are discussed.


HIV testing and counseling expends considerable HIV prevention resources and offers great opportunities for HIV risk reduction. Individuals who are at risk for HIV and have not been HIV tested are the focus of current targeted testing campaigns and yet persons who are repeatedly tested for HIV often continue engaging in high-risk practices. This study examined HIV testing, risk behaviors, and other medical diagnostic testing practices of men (N = 231) and women (N = 86) attending an inner-city sexually transmitted infections (STI) clinic. Results showed that 75 (23%) participants had not yet been tested for HIV, 45 (14%) had been tested once, and 197 (63%) had been tested two or more times. Patients that had not been tested and those who were repeatedly tested were similar in their risk behaviors; both demonstrated significantly greater risks for HIV than persons tested just once, although repeat testers were more likely to have had a past STI. HIV testing history was minimally associated with other medical testing and health protective practices, such as testicular self-examination, mammography, and having had PAP tests. Results support targeting high-risk untested persons for HIV testing and suggest an urgent need for interventions to reduce risk behaviors among STI clinic patients who repeatedly test for HIV.


PROBLEM: Although international guidelines specify the central role of the health sector in providing comprehensive care, including HIV post-exposure prophylaxis (PEP), after sexual assault, in both industrialised and developing countries there are many challenges to providing timely and comprehensive services. DESIGN: A nurse driven model of post-rape care was integrated into existing hospital services; the before and after study design
evaluated impacts on quality of care, reviewing 334 hospital charts and conducting interviews with 16 service providers and 109 patients. SETTING: 450 bed district hospital in rural South Africa. KEY MEASURES FOR IMPROVEMENT: Quality of care after rape (forensic history and examination, provision of emergency contraception, prophylaxis for sexually transmitted infections, referrals); provision of HIV counselling and testing and provision and completion of full 28 day course of PEP; and service utilisation (number of service providers seen on first visit and number of rape cases presenting to hospital per month). STRATEGIES FOR CHANGE: After completing baseline research, we introduced a five part intervention model, consisting of a sexual violence advisory committee, hospital rape management policy, training workshop for service providers, designated examining room, and community awareness campaigns. Effect of change Existing services were fragmented and of poor quality. After the intervention, there were considerable improvements in clinical history and examination, pregnancy testing, emergency contraception, prophylaxis for sexually transmitted infections; HIV counselling and testing, PEP, trauma counselling, and referrals. Completion of the 28 day course of PEP drugs increased from 20% to 58%. LESSONS LEARNT: It is possible to improve the quality of care after sexual assault, including HIV prophylaxis, within a rural South African hospital at modest cost, using existing staff. With additional training, nurses can become the primary providers of this care.


Interventions to prevent intimate partner violence (IPV), including among those at risk for or living with HIV/AIDS, are needed. In 2001, screening persons who test positive for HIV for risk of IPV was required in New York State, launching the first large-scale program to screen for IPV risk in conjunction with HIV counseling and testing (HCT). Written surveys of counselors, physicians, and agency supervisors explored attitudes, practices, knowledge, and training needs surrounding screening for risk of IPV during HCT. Most HCT providers were aware of screening requirements, but practice varied. Counselors were more likely to screen than were physicians and asked more screening questions. Despite guidelines, screening was generally not standardized and sporadic. IPV screening in conjunction with HCT is possible. Building capacity and commitment of local HCT providers through provision of training and by fostering partnerships with public health partner services staff can help overcome identified barriers to preventing IPV in a high-risk population.


The emergence of HIV in rural India has the potential to heighten gender inequity in a context where women already suffer significant health disparities. Recent Indian health policies provide new opportunities to identify and implement gender-equitable rural HIV services. In this review, we adapt Mosley and Chens conceptual framework of health to outline determinants for HIV health services utilization and outcomes. Examining the framework through a gender lens, we conduct a comprehensive literature review for gender-related gaps in HIV clinical services in rural India, focusing on patient access and outcomes, provider practices, and institutional partnerships. Contextualizing findings from rural India in the broader international literature, we describe potential strategies for gender-equitable HIV services in rural India, as responses to the following three questions: (1) What gender-specific patient needs should be addressed for gender-equitable HIV
testing and care (2) What do health care providers need to deliver HIV services with gender equity (3) How should institutions enforce and sustain gender-equitable HIV services Data at this early stage indicate substantial gender-related differences in HIV services in rural India, reflecting prevailing gender norms. Strategies including gender-specific HIV testing and care services would directly address current gender-specific patient needs. Rural care providers urgently need training in gender sensitivity and HIV-related communication and clinical skills. To enforce and sustain gender equity, multi-sectoral institutions must establish gender-equitable medical workplaces, interdisciplinary HIV services partnerships, and oversight methods, including analysis of gender-disaggregated data. A gender-equitable approach to rural India’s rapidly evolving HIV services programmes could serve as a foundation for gender equity in the overall health care system.


We report a study of women 15-49 years aimed at assessing correlates of HIV testing and having received test results in a nationally representative survey of women in Malawi. A total of 26 259 women were recruited into the study, of whom 3712 (14.1%) had ever been tested for HIV infection and received their results. We found that age and education were not significantly associated with HIV testing but marital status, wealth, region were. Contrary to our expectations that women who had delivered a child were more likely to have been ever tested when accessing prenatal and intra-partum care, we found that women who had delivered a child in the 2 years before the survey were less likely to have ever been tested. We suggest that by 2006 when the survey was conducted, prenatal and intra-partum care were not important avenues for HIV testing in Malawi.


Many cases of HIV infection in women in the United States are diagnosed very late in the course of their illness. HIV testing should be routinely recommended if a woman presents with certain gynecologic conditions or sexually transmitted diseases. Lack of awareness of HIV status leads to the majority of new sexually transmitted HIV infections. In the United States, most AIDS cases diagnosed among females in 2004 were attributable to high-risk heterosexual contact, disproportionately affecting black and Hispanic women. Depending on the racial/ethnic community being served, obstacles to access to care, including poverty, transportation issues, and cultural and language barriers, must be overcome. The full implications of gender differences in viral load and CD4 count in the treatment of women with HIV are not yet known. Clinical trial data on HIV therapies in women are limited, and most studies that have included women have not been powered to detect gender differences in virologic and immunologic success rates. Timing and choice of treatment are affected by the pharmacokinetics of antiretroviral drugs and the long-term complications of treatment, both of which may be different for men and women with HIV infection.

Pregnant women

OBJECTIVE: To assess the acceptability of measures aimed at preventing mother-to-child transmission of HIV among counseled and yet-to-be-counseled antenatal women in a federal medical center in Nigeria.

METHODS: A valid and reliable questionnaire was interviewer administered to newly booking antenatal women who were yet to be counseled about HIV/AIDS and women on an antenatal follow-up visit who had already been counseled about HIV/AIDS.

RESULTS: A total of 108 newly booked women and 116 women on follow-up visit responded to the questionnaire. The proportion of the counseled women who accepted HIV screening (98%) was significantly higher than the proportion of the yet-to-be-counseled women who would want to be screened (88%). Also, the proportions of the counseled women who accepted HIV screening so as to benefit from interventions like prevention of mother-to-child transmission, antiretroviral therapy and prevention of transmission to partner were significantly higher than the proportions among the yet-to-be-counseled women. The majority of the women in the study would accept antiretroviral drugs and avoidance of breastfeeding to prevent mother-to-child transmission, while only 29 (14%) respondents would accept cesarean section to prevent mother-to-child transmission. There was no statistically significant difference in the proportion of the counseled women (15%) who would accept cesarean section to prevent mother to child transmission when compared to the proportion among the yet-to-be-counseled women (11%).

CONCLUSION: Antenatal HIV screening is acceptable to most pregnant women attending our hospital, and while many would accept antiretroviral drugs and avoidance of breastfeeding to prevent mother-to-child transmission of HIV, there is low acceptability of elective cesarean section.


Provider-initiated, ‘routine’ HIV testing of pregnant women seeking antenatal care—wherein women are tested unless they explicitly refuse— is promoted by international organizations as an effort to curb mother-to-child transmission. Utilizing qualitative data from Malawi, we offer an account of the perceptions that surround—and surely impact—a pregnant woman’s decision to take an HIV test. We argue that idealized social relations, characterized by equality, rationality, and non-coercion between clients and providers, are presumed to be disseminated with routine testing programs. We find, however, that these stylized relations do not fit neatly in Malawi, and consequently, may lead to paradoxical outcomes for public health. We show that rural Malawians do not perceive HIV testing as a choice, but rather as compulsory and the only way by which to receive antenatal care. This study illustrates considerable dissonance between global expectations and local realities of the delivery of routine testing programs.


Despite recent advances in ways to prevent transmission of HIV from a mother to her child during pregnancy, infants continue to be born and become infected with HIV, particularly in southern Africa where HIV prevalence is the highest in the world. In this region, emphasis has shifted from voluntary HIV counselling and testing to routine testing of women during pregnancy. There have also been proposals for mandatory testing. Could mandatory testing ever be an option, even in high-prevalence settings? Many previous examinations of mandatory testing have dealt with it in the context of low HIV prevalence and a well-resourced health care system. In this discussion, different assumptions are made. Within this context, where mandatory testing may be a strategy of last resort, the objections to it...
are reviewed. Special attention is paid in the discussion to the entrenched vulnerability of women in much of southern Africa and how this contributes to both HIV prevalence and ongoing challenges for preventing HIV transmission during pregnancy. While mandatory testing is ethically plausible, particularly when coupled with guaranteed access to treatment and care, the discussion argues that the moment to employ this strategy has not yet come. Many barriers remain for pregnant women in terms of access to testing, treatment and care, most acutely in the southern African setting, despite the presence of national and international human rights instrument


Prevention of mother-to-child human immunodeficiency virus (HIV) transmission (PMTCT) programs have nearly eliminated mother-to-child transmission of HIV in developed countries, but progress in resource-limited countries has been slow. A key factor limiting the scale-up of PMTCT programs is lack of knowledge of HIV serostatus. Increasing the availability and acceptability of HIV testing and counseling services will encourage more women to learn their status, providing a gateway to PMTCT interventions. Key factors contributing to the scale-up of testing and counseling include a policy of provider-initiated testing and counseling with right to refuse (opt-out); group pretest counseling; rapid HIV testing; innovative staffing strategies; and community and male involvement. Integration of testing and counseling within the community and all maternal and child health settings are critical for scaling-up and for linking women and their families to care and treatment services. This paper will review best practices needed for expansion of testing and counseling in PMTCT settings in resource-limited countries.


Objective To assess the impact of routine antenatal HIV testing for preventing mother-to-child transmission of HIV (PMTCT) in urban Zimbabwe. Methods Community counsellors were trained in routine HIV testing policy using a specific training module from June 2005 through November 2005. Key outcomes during the first 6 months of routine testing were compared with the prior 6-month "opt-in" period, and clients were interviewed. Findings Of the 4551 women presenting for antenatal care during the first 6 months of routine HIV testing, 4547 (99.9%) were tested for HIV compared with 3058 (65%) of 4700 women during the last 6 months of the opt-in testing (P < 0.001), with a corresponding increase in the numbers of HIV-infected women identified antenatally (926 compared with 513, P < 0.001). During routine testing, more HIV-infected women collected results compared to the opt-in testing (908 compared with 487, P < 0.001) resulting in a significant increase in deliveries by HIV-infected women (256 compared with 186, P = 0.001); more mother/infant pairs received antiretroviral prophylaxis (n = 256) compared to the opt-in testing (n = 185); and more mother/infant pairs followed up at clinics (105 compared with 49, P = 0.002). Women were satisfied with counselling services and most (89%) stated that offering routine
testing is helpful. HIV-infected women reported low levels of spousal abuse and other adverse social consequences. Conclusion Routine antenatal HIV testing should be implemented at all sites in Zimbabwe to maximize the public health impact of PMTCT.


A paediatrician is called to the nursery ward of a government hospital to see a male infant born 8 hours previously. The infant's mother is 33 years old, wasted and has oral thrush. This is her second child, the first having died in infancy after a short illness with a history typical of pneumonia. The mother was not offered an HIV test during pregnancy as the clinic she attended did not have such services. A nurse calls the paediatrician as her offer of HIV testing to the mother has been declined. She requests the paediatrician to convince the woman to test, given the benefits that such knowledge gives the woman, as well as to enable the provision of postexposure prophylaxis for the newborn and of infant feeding counselling. The paediatrician examines the newborn, who is vigorous, fully grown for age and has no signs of HIV infection. She then carefully counsels the patient, explaining the potential harm of testing, and the benefits of HIV testing, for the woman and her infant. The woman still declines. The paediatrician is aware of the efficacy of antiretroviral (ARV) prophylaxis given to HIV-exposed newborns whose mothers did not receive ARVs.(1-3) The former's conscience and medical duty to act in the best interests of her patient (the child) have to be balanced against hospital and international policies which state that newborns cannot be tested for HIV exposure and be given prophylaxis without their mothers' consent. She thinks of many other colleagues--such as the previous medical superintendent of the East London Hospital Complex(4) who in similar situations acted from their conscience, even if such actions were contrary to prevailing policies and protocol. The paediatrician then tests the infant, whose antibody rapid tests show he is HIV-exposed. The doctor provides ARV prophylaxis to the infant, counsels the woman about her own HIV status and enrolls her in an HIV clinic which provides antiretroviral treatment (ART). Questions for discussion 1. Was the paediatrician correct to test the infant without the mother's consent? What is the optimal balance between a woman's right to autonomy and choice, and her infant's access to health care services? 2. Was the paediatrician correct to provide ARV prophylaxis to the infant without consulting the mother? Should the paediatrician have informed her that she had given the infant ARV prophylaxis?


OBJECTIVE: To determine if women with undocumented HIV status in late pregnancy or at labor and delivery who are rapidly tested and identified as HIV infected have high-risk behaviors and psychosocial obstacles hindering postpartum follow-up. METHODS: Consenting participants (women with undocumented HIV status and > or =24 weeks gestational age (GA) and imminent delivery or > or =34 weeks GA) in 6 cities were rapidly tested and interviewed. HIV-positive women were offered follow-up. RESULTS: From 2001-2005, 54 HIV-infected women were identified: median age 26 years; 91% African American; 11 (20%) lost custody of their infants; 30 (56%) knew they or their partner were HIV-infected, but had no antenatal HIV care; 25 met criteria for starting antiretroviral therapy. Comparison between 48 HIV-infected and 130 HIV-negative women, tested and interviewed at the same hospitals, showed HIV-infected women more likely to be African American (P < .01) and report no prenatal care (P < .001), use street drugs (P < .01), have unstable residency (P < .05), not live with the father of their infant (P < .001), and have
children in foster care (P < .01). Sixteen women (30%) and 17 (31%) infants did not remain in follow-up study due to relocation, child protective custody, and psychosocial issues including frequent substance use. CONCLUSION: Over half of HIV-infected women knew they or their partner were infected with HIV, but did not initially disclose their status. Increased support services and substance abuse treatment are critical to facilitate better continuity of care for these socially marginalized women.


This qualitative cross-sectional survey, undertaken in the antenatal booking clinics of a hospital in central London, explores pregnant women's responses to routine HIV testing, examines their reasons for declining or accepting the test, and assesses how far their responses fulfil standard criteria for informed consent. Of the 32 women interviewed, only 10 participants were prepared for HIV testing at their booking interview. None of the women viewed themselves as being particularly at risk for HIV infection. The minority (n = 6) of the participants who declined testing differed from those who accepted, by interpreting test acceptance as risky behaviour, privileging the negative outcomes of HIV positivity and expressing an inability to cope with these, should they occur. Troublingly, only a minority of women (n = 9) had a broad understanding of the rationale for the test, and none fulfilled the standard criteria for informed consent. This study suggests that, although routine screening combined with professional recommendation may be successful in increasing uptake, this may be at the cost of eroding informed consent. Protecting third parties (notably fetuses) from a preventable disease may outweigh the moral duty of respecting autonomy, enshrined in Western bioethical tradition. Nevertheless, such a policy should be made transparent, debated in the public domain and negotiated with women seeking antenatal care.


Despite the use of antiretroviral medications during the antenatal/perinatal period, 280 to 370 human immunodeficiency virus (HIV)-infected infants are born each year in the United States. Women who might transmit the virus to their infants are (1) those not offered antenatal testing due to perceived low risk; (2) those who are noncompliant with their antiretroviral regimen; (3) those with prophylaxis failures despite good compliance; and (4) those who present late to delivery without prenatal care. The Centers for Disease Control and Prevention sponsored MIRIAD (mother-infant rapid intervention at delivery) to study rapid testing of women who present late in pregnancy and/or to labor and delivery with unknown HIV status. MIRIAD was implemented in 18 hospitals in 6 American cities. In Atlanta, GA, the 2 participating hospitals had institutional differences that created different models of implementation. Hospital 1 is large and publicly funded, practicing team nursing and utilizing laboratory-based testing. Hospital 2 is a medium-sized nonprofit, whose primary nursing model allowed for specially trained staff to do point-of-care (POC) testing. Regardless of hospital type, nursing care paradigms, or testing model, facilities interested in successfully implementing a similar protocol must formulate policies for testing, notification, and treatment as well as consider dedicating a staff member to the program.

The aim of this study was to assess the attitudes of Turkish pregnant women and antenatal health care providers towards prenatal HIV testing. A self-administered questionnaire was used. The relationships between the different groups' knowledge and attitudes were analysed by using the chi-squared statistic. A total of 494 pregnant women and 181 care providers participated. Forty-four per cent of the pregnant women thought that prenatal HIV testing should be mandatory, and 84% of the health care providers thought it should be performed routinely or be mandatory. The majority of the pregnant women (74%) and half of the care providers agreed that the test results should be disclosed first to the pregnant woman. The study results also revealed that most of the prenatal care providers would not protect pregnant women's autonomy and privacy, contrary to the pregnant women's own preferences. It is essential to establish national prenatal HIV testing policies in order to prevent unethical practices and ensure satisfaction for pregnant women and health care providers.


British HIV Association guidelines recommend that all HIV-positive pregnant women should be encouraged to disclose their HIV infection to their partner and that this should be viewed as a process rather than an event. The aim of this study was to describe local practice of partner notification (PN) and patterns of disclosure in a group of HIV-positive women in an antenatal setting. A retrospective case note and local pregnancy database review was undertaken. Women who had accessed specialist HIV antenatal care at one of three east London hospitals with an expected delivery date between 1 March 2004 and 30 June 2006 were identified. In total, 145 women were identified. HIV status had not been disclosed to a partner in 19% (n=27) of case notes reviewed. There was no documented discussion about PN in 18% (n=26) of case notes. Forty-three per cent (n=62) of case notes documented that the male partner had accessed HIV testing after PN was discussed. All HIV-positive pregnant women should have a documented discussion about PN. Concurrent HIV testing offered to both partners may improve HIV testing uptake in male partners and should be explored further. Care plans should include screening for intimate partner violence and housing problems; referral pathways should be established clearly when involving other agencies.


Mother-to-child transmission is the main mode of HIV infection among children in developing countries. In 2003, as a result of government policy, a prevention-of-mother-to-child-transmission (PMTCT) programme was introduced at Aminu Kano Teaching Hospital in Nigeria. The aim of this study was to determine the pattern of voluntary counselling and testing (VCT) uptake and HIV seroprevalence among pregnant women using the service. VCT has become part of routine antenatal care at the hospital; in addition, antiretroviral prophylaxis/treatment, modification of obstetric practices, and counselling on infant feeding options are provided for HIV-positive pregnant women. Data on clients' socio-demographic characteristics, VCT uptake, and HIV seropositivity for a three-year period (from January 2004 to December 2006) were taken from nationally prepared PMTCT registers kept at the...
hospital, and prospectively entered into a database. During the period, 6,887 women newly accessed antenatal care (i.e., repeat pregnancies were excluded). All the women were group counselled, and 6,702 (97.3%) agreed to undergo HIV testing. Overall HIV prevalence among these pregnant women for the study period was 5.9% (95% CI 5.2-6.3%). The data have shown a statistically significant trend of rising HIV prevalence in this group: at 4.5%, prevalence was lowest in 2004; rose to 4.9% in 2005; and peaked at 7.6% in 2006 (chi²(trend) = 21.9; p < 0.001). Overall HIV seroprevalence was 3.5% among 15- to 19-year-old women, 7% among 25- to 29-year-old women, and 4.5% among women over age 40. There was an inverse relationship between parity (number of children borne) and HIV seroprevalence such that women of low parity had high HIV prevalence, and vice versa (chi²(trend) = 13.1; p < 0.01). Respectively, 11.4%, 5.7%, and 5.5% of the pregnant women first using VCT in the first, second, and third trimesters of their pregnancy were found to be HIV-positive. All women testing HIV-positive were informed of their serostatus and the modes of preventing mother-to-child transmission of HIV. There is a relatively high uptake of VCT for PMTCT at this tertiary hospital, while an increasingly higher proportion of HIV-positive pregnant women are being identified and provided with opportunities to prevent HIV transmission to their babies. PMTCT should be universally accessible to women in developing countries.


BACKGROUND: Ukraine has the highest rate of HIV infection in Europe, with an estimated adult prevalence of 1.6 percent. The epidemic in Ukraine remains largely driven by injection drug use, and women of reproductive age are being increasingly affected. Prior research has highlighted the need to improve the quality of services for prevention of mother-to-child transmission (PMTCT) and to address other issues related to HIV counseling, testing, and care, especially in the context of antenatal and obstetric services. METHODS: From 2004 to 2007, PATH led a collaborative effort to improve the quality of PMTCT services in Ukraine. Initial assessments included focus groups with Ukrainian women and review of existing educational materials. Interventions focused on training providers to improve skills in communication and referral to community-based support; they also addressed the underlying issue of stigma. RESULTS: Observational data demonstrated that providers who participated in the training intervention delivered PMTCT counseling of a consistently higher quality than did providers who did not undergo training. Exit interviews with clients confirmed these findings. CONCLUSIONS: An intervention focused on strengthening voluntary counseling and testing for HIV, forging partnerships with local organizations, and undoing HIV-related stigma can help to improve access to and quality of PMTCT services in antenatal care clinics.


Purpose of review To review recent publications in the area of HIV and pregnancy regarding screening and management. Recent findings There has recently been a renewed interest in mandatory antenatal HIV testing in pregnancy. There is emerging data that the risk of HIV transmission from mother to child is associated with late initiation of therapy during pregnancy and a diminishing importance of intrapartum zidovudine in women with an undetectable viral load at delivery. Publications, predominantly from cohort studies,
continue to demonstrate no difference in HIV transmission rates in women with undetectable viral loads according to the mode of delivery but do confirm an increase in morbidity associated with caesarean section. New studies of continuation of antiretroviral prophylaxis to infants with ongoing exposure to HIV-infected breast milk are encouraging although may be associated with increased toxicity and resistance. Summary With over 420 000 children newly diagnosed with HIV in 2007, there is an urgent need to continue research to better understand optimal antenatal screening policy, optimal antiretroviral therapy within available resources, preferred mode of delivery considering morbidity and HIV transmission and finally, new methods to protect breastfed children from infection.


OBJECTIVE: All Canadian jurisdictions have human immunodeficiency virus (HIV) testing programs requiring that clinicians discuss HIV testing with all pregnant women and seek their consent to be tested. Our goal was to evaluate how the informed consent process was being carried out in Ontario. METHODS: Between November 2002 and February 2004, women in postpartum wards in three Toronto teaching hospitals were invited to participate in the study. A structured questionnaire was administered on the ward, medical records were reviewed, and data from the Central Public Health Laboratory were examined to verify whether or not the women had been tested. RESULTS: Of 446 women invited, 299 (67%) participated. All except one participant had at least one prenatal visit, and 92% had more than five visits. Seventy-four percent of participants recalled a clinician talking to them about testing, and 70% of these felt that they were given the option to refuse the test. Twenty-one women overall (7%) believed that they were not tested during pregnancy or were not certain whether they had been tested. Women who felt that their care provider did not have an opinion about whether they should undergo testing were more likely to decline. Eighty-six percent were completely satisfied with the testing experience. CONCLUSION: Informed consent for prenatal HIV testing is generally being obtained in a manner consistent with provincial guidelines. Our findings raise concern, however, that a significant number of women are not offered testing or in some cases are tested without their consent. Increases in testing rates could be achieved by offering the test to all women and emphasizing that carrying out testing is a recommended part of medical care.


OBJECTIVES: To estimate the effect of receiving HIV-positive test results on intentions to have future children and on contraceptive use and to assess the association between pregnancy intentions and pregnancy incidence among HIV-positive women in Malawi. METHODS: Women of unknown HIV status completed a questionnaire about pregnancy intentions and contraceptive use and then received HIV voluntary counseling and testing (VCT). Women who were HIV-positive and not pregnant were enrolled and followed for 1 year while receiving HIV care and access to family planning (FP) services. RESULTS: Before receiving their HIV test results, 33% of women reported a desire to have future children; this declined to 15% 1 week later (P < 0.0001) and remained constant throughout follow-up. Contraceptive use increased from 38% before HIV testing to 52% 1 week later (P
< 0.0001) and then decreased to 46% by 12 months. The pregnancy incidence among women not reporting a desire to have future children after VCT was less than half of the incidence among women reporting this desire. CONCLUSIONS: With knowledge of their HIV-positive status, women were less likely to desire future pregnancies. Pregnancy incidence was lower among women not desiring future children. Integration of VCT, FP, and HIV care could prevent mother-to-child HIV transmission.


OBJECTIVE: To investigate whether mother-to-child transmission (MTCT) management and rate differed between African immigrants and French-born women delivering in France.

METHODS: MTCT strategies were studied among human immunodeficiency virus type 1-infected women delivering between 1984 and 2007 in the multicenter French Perinatal Cohort, according to geographical origin. RESULTS: Among 9245 pregnancies (in 7090 women), the proportion of African mothers increased from 12% in 1984-1986 to 64% in 2003-2004. African women had later access to care than French women, even in recent years (1997-2004). They more often discovered their HIV infection during pregnancy (40.6 vs. 11.5%, \( P < 0.001 \)), started prenatal care in the third trimester (14.1 vs. 9.8%, \( P < 0.001 \)) and started antiretroviral therapy after 32 weeks gestation (7.6 vs. 4.1%, \( P < 0.001 \)). The association with late treatment initiation disappeared when adjusted for late HIV diagnosis and prenatal care (adjusted odds ratio 1.0, 95% confidence interval 0.7-1.4). African and French women did not differ in terms of access to highly active antiretroviral therapy, nor for substandard management such as vaginal delivery with uncontrolled viral load, lack of intrapartum and postpartum treatment or breastfeeding. The MTCT rate was higher for African than for French women receiving antiretroviral therapy (1.8 vs. 0.8%, \( P = 0.02 \)), but the difference was no longer significant after adjustment for main transmission risk factors (adjusted odds ratio = 1.7, 95% confidence interval 0.8-3.7, \( P = 0.17 \)). MTCT did not differ among 2110 term deliveries with maternal viral load less than 400 copies/ml, (0.8 vs. 0.6%, \( P = 0.5 \)). CONCLUSION: African immigrants more often had late HIV screening in pregnancy than French-born women, but had similar access to MTCT prevention, once the infection was diagnosed.


OBJECTIVES: To describe the trends in human immunodeficiency virus (HIV) testing during pregnancy from 1997 through 2006, and the demographic, clinical, and health system correlates of being tested in a diverse insured population. METHODS: Health plan members who had one or more births at \( > or = 20 \) weeks gestation from January 1, 1997 through December 31, 2006 in Kaiser Permanente Southern California hospitals were included in this retrospective analysis. Data were obtained from the infants' birth certificate,
and administrative and laboratory databases. Multiple log binomial regression analyses were used to generate adjusted prevalence ratios (PR) and 95% confidence interval (CI) for each characteristic. RESULTS: Of the 240,575 women with 302,246 pregnancies, the proportion tested for HIV during pregnancy increased from 77.6% in 1997 to 91.0% in 2006 (P (trend) /=30, having more than a high school education, and residing in census blocks with the highest income tertile. Additionally, women were less likely to be tested after their first birth, if enrolling in prenatal care in the third trimester, or if they had a gap in insurance during their pregnancy. Of the 53,566 women with two sequential pregnancies, 78.5% were tested during both pregnancies. CONCLUSION: In an insured racially/ethnically patient population, the testing rate exceeded 90% in 2006. Achieving and sustaining these high testing levels has public health implications.


Preliminary to the development a new program supporting perinatal HIV prevention, this assessment was conducted to evaluate Vietnams national prevention of mother-to-child HIV transmission (PMTCT) program by estimating HIV prevalence among prenatal women and analyzing the healthcare system capacity to deliver services. In 2002-03, a technical team reviewed existing national and local surveillance and program data and conducted on-site interviews and observations at maternal-child health (MCH) programs in the seven provinces with highest HIV rates. The team found that despite high (85%) prenatal service utilization and widespread availability of HIV testing and dissemination of prevention protocols, few HIV-infected mothers were identified in time to allow effective perinatal HIV prevention. Program deficits clustered around the general areas of provider misunderstanding of occupational HIV risk and MTCT, impractical PMTCT policies, and practices hampering effective use of prevention and treatment protocols. Existing problems were significant but modifiable, and will require implementation of practical and appropriate guidelines, enhanced clinical and laboratory capacity, and continued program management and monitoring.


OBJECTIVE: China has, in recent years, seen an increase in the number of HIV-positive children due to the increase in number of HIV-positive women. The purpose of this study was to investigate the awareness and knowledge of mother-to-child transmission of HIV and its prevention among pregnant women attending the antenatal clinics in South Central China. METHODS: The study was carried out in three antenatal clinics of three hospitals from February 2005 to March 2006, and it was based on personal interviews and questionnaires designed to assess the pregnant women's awareness about HIV/AIDS, evaluate their knowledge of possible routes of transmission, particularly mother-to-child transmission, and determine their familiarity with measures that prevent vertical transmission from mother to child. Two thousand three hundred and ninety pregnant women were included in the study. RESULTS: All individuals were aware of HIV/AIDS. The majority (91%) of those women were aware that HIV/AIDS can coexist with pregnancy but only 64% had heard about mother-to-child transmission. Transplacental route, vaginal delivery and breastfeeding were identified as routes of transmission from mother to child by 85%, 60% and 20% of respondents, respectively. Cesarean section was believed to be a
route of transmission by 55% of respondents, but no one identified cesarean section as a method of prevention of mother-to-child transmission. CONCLUSIONS: The level of awareness and knowledge of HIV/AIDS among pregnant women attending our antenatal clinics seems to be superficial; more education and knowledge about mother-to-child transmission are needed in China.


OBJECTIVE: The study was conducted to assess clients' satisfaction with PMTCT services on privacy, waiting time and counselling in PMTCT of HIV/AIDS in Dodoma Rural district.

METHODS: A cross sectional study was conducted to 208 women assessing Reproductive Child Health (RCH) and PMTCT of HIV services. Data collection method involved both client exit interviews and focus group discussions (FGD) with women attending RCH services. Systematic random sampling technique was used to obtain the required sample of 208 clients for the exit interviews. A total of five FGDs were conducted each with eight to ten people. The data obtained were analysed using Epi Info.

SETTINGS: Dodoma Rural district, central Tanzania

RESULTS: Of 113 clients' who accessed PMTCT services, 75.2% were satisfied with the counselling provided. A significant difference (P = 0.02) was observed between clients with no formal education as compared to those with primary level of education and above. Nearly a quarter of the clients who accessed PMTCT of HIV services were not satisfied with the privacy in the settings providing the service. It was also found that 71.7% of clients accessing PMTCT of HIV service was satisfied with the waiting time spent for the service; however a difference was observed (P = 0.001) between clients who accessed services at health centre (77.6%) and hospital (33.3%).

CONCLUSION: A quarter of the clients were not satisfied either with the counselling they received on PMTCT of HIV, privacy or waiting time they spent while accessing services. Some of the reasons contributing to dissatisfaction included inadequacy in individual counselling, inadequate on site test supplies and equipment and cost incurred when travelling to seek for PMTCT service from a referral or satellite health facility.


Identification of HIV-infected women is a prerequisite in HIV perinatal prevention programs. The aim of this study was to determine the predictors of failure to return for HIV posttest results among pregnant women (N=2654) receiving antenatal care at primary health clinics in Moshi urban district, Tanzania. Consenting pregnant women, who were in the third trimester of pregnancy, received individual pretest counseling, followed by interview and screening for HIV. Posttest counseling and results were given after 1 week. A total of 182 (7%) failed to return for their HIV test results. Women were less likely to return for test results if their partners did not come for testing (adjusted odds ratio [AOR], 12.6; 95% CI, 3.1-51.4), if their partners consumed alcohol (AOR, 1.8; 95% CI, 1.3-2.7), and if they had never discussed reproductive health matters with their partners (AOR, 1.7; 95% CI, 1.1-2.7). Additionally, the site of recruitment, age, alcohol consumption, and advanced gestation age predicted failure to return for HIV test results. These results indicate that male partner factors were important in determining whether women returned for results. We therefore recommend promotion of antenatal couple counseling and strengthening of community awareness of the availability of perinatal interventions, with special efforts.
targeting men. Furthermore, the predictors for failure to collect test-results need to be addressed during pretest counseling.


This study aimed to describe the prevalence and predictors for male partner participation in HIV voluntary counselling and testing (VCT) at two primary healthcare clinics in Moshi urban, Tanzania as well as the effect of partner participation on uptake of HIV perinatal interventions. Pregnant women (n = 2654) in their third trimester, participating in a prevention of mother to child transmission (PMTCT) program between June 2002 and March 2004 were encouraged to inform and invite their partners for HIV-VCT. Trained nurses conducted pre-test counselling, interviews, clinical examinations and blood sampling from the participating women and their partners. Test results were presented and post-test counselling was conducted individually or in couples, depending on the wishes of the participants. Three-hundred-and-thirty-two male partners (12.5%) came for HIV-VCT. A high proportion (131; 40%) came after the woman had delivered. HIV-seropositive women whose partners attended were three times more likely to use Nevirapine prophylaxis, four times more likely to avoid breastfeeding and six times more likely to adhere to the infant feeding method selected than those whose partners didn't attend. Women were more likely to bring their partner for VCT if they collected their own test results, were living with their partner, had a high monthly income and had expressed at enrolment the intention to share HIV results with their partner. Although PMTCT programs are presumably a good entry point for male involvement in prevention of sexual and perinatal HIV transmission, this traditional clinic-based approach reaches few men. Given the positive influence male participation has on the acceptance of perinatal interventions, a different approach for promoting male participation in VCT is urgently required. Within PMTCT programs, counseling should emphasize the advantages of partner participation to encourage women to inform and convince male partners to come for VCT. Also, promotion of couple VCT outside antenatal settings in male friendly and accessible settings should be given priority.


The objective of this study is to assess the understanding of routine offer of HIV testing among women using antenatal care (ANC) services in a rural African district. A descriptive cross-sectional survey was conducted in Murewa district, Zimbabwe, among women consecutively enrolled during their first ANC visit in 10 health centres offering prevention of mother-to-child transmission (PMTCT) of HIV services including routine offer of HIV testing. Ninety-three (64%) of the 146 respondents had received some form of education on the importance of HIV testing before visiting the health centre on the day of their interview. Almost all respondents (n=139; 95%) felt that the information provided during the group education was sufficient to make a decision on whether or not they should have an HIV test. HIV testing uptake was high with 136 (93%) women being tested for HIV on the day of the interview. Of these, 128 (94%) were aware that they had been tested for HIV when interviewed before the time of receiving results. Fifty percent (n=67) of the women who accepted HIV testing directly after group education as part of their routine ANC blood tests were not aware, however, of the possibility of opting for individual pre-test counseling. The study found that in Zimbabwe, implementation of routine offer of HIV testing allowed
women using ANC services to make an informed conscious decision to undertake an HIV test as part of the PMTCT package of services. There is a need to emphasize the availability of further individual pre-test counseling if necessary since a selected subgroup of women may still benefit from it.


OBJECTIVE: To assess the awareness, attitude and practice of HIV testing among antenatal clients in Benin-city.

METHODOLOGY: A cross-sectional, descriptive study was carried out among 200 pregnant women. Respondents were selected at the weekly booking clinic using systematic sampling technique. Pre-tested, semi-structured and researcher-administered questionnaire was tool for data collection.

RESULTS: All the respondents were aware of HIV testing. Majority (85.5%) supported antenatal HIV testing with a higher proportion supporting mandatory testing (51.0%). About 25.0% of the respondents had undergone HIV testing and only 27.5% of them were counseled. Previous HIV testing was associated with higher educational status ($p = 0.0443$) and a higher parity ($p = 0.0191$). About 59.1% of those who had not been tested were willing to undergo the test. Predictors of willingness to test were a positive reaction to a positive test result ($p = 0.0015$) and support for mandatory testing ($p = 0.0021$). Age, educational status and parity were not associated with willingness to test ($p > 0.05$)

CONCLUSION: The practice of HIV testing was low and indicates the need to increase public enlightenment programmes on voluntary HIV testing and its benefits.


Which approach does CDC recommend? In the 2006 Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings, CDC recommended the opt-out approach to testing for all adult and adolescent patients in health-care settings, including pregnant women. These recommendations emphasize: Universal “opt-out” HIV testing for all pregnant women early in every pregnancy; A second test in the third trimester in certain geographic areas or for women who are known to be at high risk of becoming infected (e.g., injection-drug users and their sex partners, women who exchange sex for money or drugs, women who are sex partners of HIV-infected persons, and women who have had a new or more than one sex partner during this pregnancy); Rapid HIV testing at labor and delivery for women without a prenatal test result; and Exploration of reasons that women decline testing. Studies show that the opt-out approach can: Increase testing rates among pregnant women; thereby, increasing the number of pregnant women who know their HIV status; Increase the number of HIV-infected women who are offered treatment; and Reduce HIV transmission to their babies.


HIV testing is an essential component of PMTCT. It can be offered to pregnant women through different testing models, ranging from voluntary counseling and testing (VCT) to routine and mandatory testing. This study was conducted in Hanoi, Vietnam, where HIV-prevalence is low among the general population, but high among young, urban, sexually
active, male intravenous drug users. Women who want to deliver in a state hospital are routinely tested for HIV in the absence of well-defined opt-out procedures. In-depth interviews with a convenience sample of 38 seropositive pregnant women and mothers and 53 health workers explored the acceptability of routine testing. Patients and healthcare workers appeared to accept routine ‘blood’ tests (including HIV tests) because they feel uncomfortable discussing issues specific to HIV/AIDS. To avoid having to inform women directly about their HIV status, health workers at routine testing sites rely on the official notification system, shifting the responsibility from the hospitals to district and commune health staff. The notification system in Hanoi informs these local officials about the HIV status of people living in their catchment area without patients’ consent. Our study shows that this non-confidential process can have serious social, economic and health consequences for the HIV-positive women and their children.


BACKGROUND: Testing pregnant women for HIV at the time of labor and delivery is the last opportunity for prevention of mother-to-child HIV transmission (PMTCT) measures, particularly in settings where women do not receive adequate antenatal care. However, HIV testing and counseling of pregnant women in labor is a challenge, especially in resource-constrained settings. In India, many rural women present for delivery without any prior antenatal care. Those who do get antenatal care are not always tested for HIV, because of deficiencies in the provision of HIV testing and counseling services. In this context, we investigated the impact of introducing round-the-clock, rapid, point-of-care HIV testing and counseling in a busy labor ward at a tertiary care hospital in rural India. METHODS AND FINDINGS: After they provided written informed consent, women admitted to the labor ward of a rural teaching hospital in India were offered two rapid tests on oral fluid and finger-stick specimens (OraQuick Rapid HIV-1/HIV-2 tests, OraSure Technologies). Simultaneously, venous blood was drawn for conventional HIV ELISA testing. Western blot tests were performed for confirmatory testing if women were positive by both rapid tests and dual ELISA, or where test results were discordant. Round-the-clock (24 h, 7 d/wk) abbreviated prepartum and extended postpartum counseling sessions were offered as part of the testing strategy. HIV-positive women were administered PMTCT interventions. Of 1,252 eligible women (age range 18 y to 38 y) approached for consent over a 9 mo period in 2006, 1,222 (98%) accepted HIV testing in the labor ward. Of these, 1,003 (82%) women presented with either no reports or incomplete reports of prior HIV testing results at the time of admission to the labor ward. Of 1,222 women, 15 were diagnosed as HIV-positive (on the basis of two rapid tests, dual ELISA and Western blot), yielding a seroprevalence of 1.23% (95% confidence interval [CI] 0.61%-1.8%). Of the 15 HIV test-positive women, four (27%) had presented with reported HIV status, and 11 (73%) new cases of HIV infection were detected due to rapid testing in the labor room. Thus, 11 HIV-positive women received PMTCT interventions on account of round-the-clock rapid HIV testing and counseling in the labor room. While both OraQuick tests (oral and finger-stick) were 100% specific, one false-negative result was documented (with both oral fluid and finger-stick specimens). Of the 15 HIV-infected women who delivered, 13 infants were HIV seronegative at birth and at 1 and 4 mo after delivery; two HIV-positive infants died within a
month of delivery. CONCLUSIONS: In a busy rural labor ward setting in India, we demonstrated that it is feasible to introduce a program of round-the-clock rapid HIV testing, including prepartum and extended postpartum counseling sessions. Our data suggest that the availability of round-the-clock rapid HIV testing resulted in successful documentation of HIV serostatus in a large proportion (82%) of rural women who were unaware of their HIV status when admitted to the labor room. In addition, 11 (73%) of a total of 15 HIV-positive women received PMTCT interventions because of round-the-clock rapid testing in the labor ward. These findings are relevant for PMTCT programs in developing countries.


Worldwide, approximately 2.5 million children (95% CI: 2.2-2.6) are living with HIV infection. In 2007 alone, approximately 420,000 children (95% CI: 350,000-540,000) were newly infected with HIV - a vast majority of these infections were acquired through maternal-fetal transmission. Many of these infections could have been reduced by timely diagnosis and the delivery of interventions aimed at preventing mother-to-child HIV transmission. This perspective examines the attitudes preventing women from accessing HIV testing early on during pregnancy and the issues and challenges that remain in the institutionalization of interventions to prevent mother-to-child HIV transmission at labor and delivery. Socio-cultural and economic factors prevent women from accessing testing at an opportune time during pregnancy. In addition, a lack of adequate infrastructure often prevents timely delivery of interventions to those who access testing at the last minute (i.e., during labor and delivery). In the wake of a pediatric HIV epidemic and the need for lifelong provision of antiretroviral therapy to infected children, a simple strategy for provision of round-the-clock rapid testing and counseling services in the labor rooms may be cost saving to the healthcare systems worldwide.


OBJECTIVE: To evaluate women's acceptance of and satisfaction with rapid human immunodeficiency virus (HIV) testing in a labor and delivery (L&D) setting. METHODS: We conducted a cross-sectional survey of pregnant women who underwent counseling for rapid HIV testing in an L&D unit at a university-affiliated urban hospital from April 1, 2005, to July 15, 2006. Medical chart abstractions were performed for all 158 eligible women, and a convenience sample of 46 women also completed a survey evaluating their satisfaction using a validated decisional conflict scale. RESULTS: Uptake of rapid HIV testing was 98.1% (155 of 158). Overall, 89.1% of the 46 surveyed women reported feeling satisfied with their testing experience, and 82.6% of women reported no decisional conflict in making decisions for rapid testing; 9% of women reported decisional conflict. The median decisional conflict score on a scale of 0-100 was 5 (mean 11.6, SD 16). In addition, most women reported feeling certain about their decision to test (87.0%), feeling informed about testing (76.1%), having high levels of clarity about their values regarding testing (76.1%), and feeling supported in their decision-making process (76.1%). CONCLUSIONS: In this study population, there was a high level of acceptance and satisfaction with rapid HIV
testing in the L&D setting. Rapid HIV testing is a vital component of perinatal HIV transmission prevention, as well as being an opportunity for women, some of whom have little contact with the healthcare system, to learn their HIV status.


OBJECTIVE: To determine pregnant women's reasons for accepting or declining the HIV test in Leon, Mexico. DESIGN: A cross-sectional study using a face-to-face questionnaire. SETTING: The antenatal clinic at a tertiary-care referral hospital in Leon, Mexico. PARTICIPANTS: 1184 pregnant women. DATA COLLECTION: Reasons for accepting or declining the HIV antibodies test, socio-economic characteristics and risk factors for HIV were recorded. Blood samples were obtained from women who accepted to be tested, and positive serologies to HIV on duplicate enzyme-linked immunosorbent assay testing were confirmed by Western Blot assay. FINDINGS: 1009 (85.2%) women accepted the HIV antibodies test. The main reason for accepting it was that women felt the test could be beneficial to their babies (45.1%). The two main reasons for rejecting the HIV antibodies test were that women felt the test was unnecessary because their husbands did not have sexual intercourse with other women (32.6%), and because they did not have permission from their husbands for accepting the test (23.5%). None of the women tested positive for HIV antibodies (0 per 1009). KEY CONCLUSIONS: The reasons for accepting the HIV test were similar to those reported in developed countries. One important reason for declining the test was that women did not have their husband’s permission. IMPLICATIONS FOR PRACTICE: The acceptance rate for HIV testing in pregnant women could be improved by counselling men on the value of their wives being tested in pregnancy.


The objective of this study was to explore the meaning of pregnancy after diagnosis with HIV. Study design was a qualitative analysis of individual informant interviews conducted in two academic health centers in metropolitan New York. Participants were a purposive sampling of 9 women, 34 to 53 years old, who had been diagnosed with HIV and were currently pregnant or who had become mothers post-diagnosis. The result of the study included themes of extreme emotional distress after HIV diagnosis, feeling stigmatized, emotions related to the pregnancy and baby, experiences with health care providers, and motherhood for women with a diagnosis of HIV. The author concluded that the experience of pregnancy for a woman with HIV is one fraught with isolation, anxiety, and distrust, but it is also one of hope for the normalcy that motherhood may bring. Further research is needed to determine best practice for care delivery as women with HIV enter the health care system, especially for perinatal services.


We analyzed the ethical and policy issues surrounding mandatory HIV testing of pregnant
women in areas with high HIV prevalence rates. Through this analysis, we seek to demonstrate that a mandatory approach to testing and treatment has the potential to significantly reduce perinatal transmission of HIV and defend the view that mandatory testing is morally required if a number of conditions can be met. If such programs are to be introduced, continuing medical care, including highly active antiretroviral therapy, must be provided and pregnant women must have reasonable alternatives to compulsory testing and treatment. We propose that a liberal regime entailing abortion rights up to the point of fetal viability would satisfy these requirements. Pilot studies in the high-prevalence region of southern African countries should investigate the feasibility of this approach.


Maternal mortality is greatest in poor countries and it is in exactly these countries that the human immunodeficiency virus (HIV) poses an added challenge in attaining the Millennium Development Goals. The prevalence of HIV infection in many poor countries continues to rise. South Africa is an example of how some of the challenges can be addressed. Recommendations by the South African National Committee on the Confidential Enquiry into Maternal Deaths stressed the importance of addressing the antenatal, intrapartum and postpartum care of women, laying emphasis on the need for societal support, including nutritional and emotional support, reproductive health services including contraception, provider-initiated counselling and testing (PICT) and prevention. Antenatal care needs to be targeted for support and early intervention when abnormalities are detected, including the initiation of highly active antiretroviral therapy when necessary. Intrapartum care needs to be conducted in a hygienic environment with access to operative delivery. More attention needs to be paid to postpartum care because most women tend to succumb to puerperal sepsis. Ethical principles must be upheld when managing women with HIV infection.


A retrospective survey was conducted during August to December 2007 in 19 medical colleges of India to examine the functioning of the PPTCT service delivery. Data was extracted from records of the PPTCT centers for the year 2005-2006. HIV prevalence was higher than 2005 NACO figures in 11 out of 19 (57.8%) centers. There was wide variation in the proportion of women counseled & tested for HIV in different centers. Antenatal prophylaxis was practiced in 7 out of 19 (36.8%) centers. Overall intra-natal ART was provided to 52.8% of HIV positive women. Early newborn testing was available at 3 out of 19 (15.7%) centers. Improved counseling services are required for better case detection.


Introduction: Sixty percent of India’s HIV cases occur in rural residents. Despite government policy to expand antenatal HIV screening and prevention of maternal-to-child transmission (PMTCT), little is known about HIV testing among rural women during pregnancy. Methods: Between January and March 2006, a cross-sectional sample of 400 recently pregnant women from rural Maharashtra was administered a questionnaire
regarding HIV awareness, risk, and history of antenatal HIV testing. Results: Thirteen women (3.3%) reported receiving antenatal HIV testing. Neither antenatal care utilization nor history of sexually transmitted infection (STI) symptoms influenced odds of receiving HIV testing. Women who did not receive HIV testing, compared with women who did, were 95% less likely to have received antenatal HIV counseling (odds ratio = 0.05, 95% confidence interval: 0.02 to 0.17) and 80% less aware of an existing HIV testing facility (odds ratio 0.19, 95% confidence interval: 0.04 to 0.75). Conclusions: Despite measurable HIV prevalence, high antenatal care utilization, and STI symptom history, recently pregnant rural Indian women report low HIV testing. Barriers to HIV testing during pregnancy include lack of discussion by antenatal care providers and lack of awareness of existing testing services. Provider-initiated HIV counseling and testing during pregnancy would optimize HIV prevention for women throughout rural India.


OBJECTIVES: In September 1999, the Elizabeth Glaser Pediatric AIDS Foundation initiated a multicountry, service-based programmatic effort in the developing world to reduce perinatally acquired HIV infection. We review 6(1/2) years of one of the world’s largest programs for the prevention of mother-to-child transmission (PMTCT) of HIV.

METHODS: Each PMTCT facility records patient data in antenatal clinics and labor and delivery settings about counseling, testing, HIV status, and antiretroviral prophylaxis and submits the data to foundation staff. RESULTS: More than 2.6 million women have accessed foundation-affiliated services through June 2006. Overall, 92.9% of women who received antenatal care or were eligible for PMTCT services in labor and delivery have been counseled, and 82.8% of those counseled accepted testing. Among women identified as HIV positive, 75.0% received antiretroviral prophylaxis (most a single dose of nevirapine), as did 45.6% of their infants. CONCLUSIONS: The foundation’s experience has demonstrated that opt-out testing, supplying mothers with medication at time of diagnosis, and providing the infant dose early have measurably improved program efficiency. PMTCT should be viewed as an achievable paradigm and an essential part of the continuum of care.


In South Africa, the private sector has responded to the HIV epidemic by providing treatment in the form of highly active antiretroviral therapy (HAART). The private sector has paved the way for policy and treatment regimens, while the public sector has reviewed health-systems capacity and the political will to provide treatment. The paradigm of prevention of mother-to-child transmission of HIV (PMTCT) has led the way as a clear evidenced-based method of treatment and prevention in South Africa. In sub-Saharan Africa, the HIV epidemic is feminised as a growing proportion of infections occurs among women or affects women. While access to HIV treatment has been contested in South Africa, women’s sexual and reproductive health has been neglected. This paper is a reflection and critical review of current practice. Many HIV-positive women desire to choose to have a child, while the best choice of contraception for women on HAART is not well understood. In some areas there are reports of women being forced to accept injectable contraceptives. Some women who learn of their HIV-positive status during pregnancy may
want to choose to terminate their pregnancy. There is a clear absence of HIV/AIDS-treatment guidelines for women of reproductive age, including options for HAART and options regarding fertility intentions. A range of other sexual and reproductive health areas (relevant to both the public and private health sectors) are neglected; these include depression and anxiety, violence against women, HIV-testing practices, screening for cervical cancer, and vaccination. Given the narrow focus of HAART, it is important to expand HIV treatment conceptually, by applying a broader view of the needs of working women (and men), and so contribute to better HIV prevention and treatment practices. There is a need to move from an HIV/AIDS-care maternal-health paradigm to one that embraces women's sexual and reproductive health and rights.


Background: Prevention of mother-to-child transmission has been considered as not a simple intervention but a comprehensive set of interventions requiring capable health workers. Viet Nam's extensive health care system reaches the village level, but still HIV-infected mothers and children have received inadequate health care services for prevention of mother-to-child transmission. We report here the health workers' perceptions on factors that lead to their failure to give good quality prevention of mother-to-child transmission services. Methods: Semistructured interviews with 53 health workers and unstructured observations in nine health facilities in Hanoi were conducted. Selection of respondents was based on their function, position and experience in the development or implementation of prevention of mother-to-child transmission policies/programmes. Results: Factors that lead to health workers' failure to give good quality services for prevention of mother-to-child transmission include their own fear of HIV infection; lack of knowledge on HIV and counselling skills; or high workloads and lack of staff; unavailability of HIV testing at commune level; shortage of antiretroviral drugs; and lack of operational guidelines. A negative attitude during counselling and provision of care, treating in a separate area and avoidance of providing service at all were seen by health workers as the result of fear of being infected, as well as distrust towards almost all HIV-infected patients because of the prevailing association with antisocial behaviours. Additionally, the fragmentation of the health care system into specialized vertical pillars, including a vertical programme for HIV/AIDS, is a major obstacle to providing a continuum of care. Conclusion: Many hospital staff were not being able to provide good care or were even unwilling to provide appropriate care for HIV-positive pregnant women The study suggests that the quality of prevention of mother-to-child transmission service could be enhanced by improving communication and other skills of health workers, providing them with greater support and enhancing their motivation. Reduction of workload would also be important. Development of a practical strategy is needed to strengthen and adapt the referral system to meet the needs of patients.


OBJECTIVES: To describe a family-focused approach to HIV care and treatment and report on the first 2 years experience of implementing the mother-to-child transmission (MTCT)-plus program in Abidjan, Cote d'Ivoire. PROGRAM: The MTCT-plus initiative aims
to enroll HIV-infected pregnant and postpartum women in comprehensive HIV care and treatment for themselves and their families. **MAIN OUTCOMES:** Between August 2003 and August 2005, 605 HIV-infected pregnant or postpartum women and 582 HIV-exposed infants enrolled. Of their 568 male partners reported alive, 52% were aware of their wife's HIV status and 30% were tested for HIV; 53% of these tested partners were found to be HIV-infected and 78% enrolled into the program. Overall only 10% of the women enrolled together with their infected partner. On the other hand, the program involved half of the seronegative men who came for voluntary counselling and testing (VCT) in the care of their families. Of 1624 children <15 years reported alive by their mothers (excluding the last newborn infants of the most recent pregnancy systematically screened for HIV), only 10.8% were brought in for HIV testing, of whom 12.3% were found to be HIV-infected. **LESSONS LEARNED AND CHALLENGES:** The family-focused model of HIV care pays attention to the needs of families and household members. The program was successful in enrolling HIV women, their partners and infants in continuous follow-up. However engaging partners and family members of newly enrolled women into care involves numerous challenges such as disclosure of HIV status by women to their partners and family members. Further efforts are required to understand barriers for families accessing HIV services as strategies to improve partner involvement and provide access to care for other children in the households are needed in this West African urban setting.

**OBJECTIVE:** The objective of this paper is to review experience in prevention of mother-to-child transmission (PMTCT) of HIV in Georgia. **BACKGROUND:** PMTCT is one of the strategic priorities in Georgia. The first case of HIV infection in pregnant women was reported in 1999. Starting 2005 the National Programme on PMTCT became operational. **MATERIALS AND METHODS:** One hundred sixteen HIV voluntary counselling and testing (VCT) centers operate throughout the country at antenatal clinics. According to the National PMTCT protocol, all first time attending pregnant women are offered Voluntary Counselling and Testing (VCT). Testing on HIV/AIDS is based on identification of HIV antibodies by screening method and all positive results are referred to the Infectious Diseases, AIDS and Clinical Immunology Research Center (IDACIRC) for the further investigation (confirmation by Western Blot assay) and further management. Data collection was made retrospectively, using information from IDACIRC National HIV/AIDS Data Base, VRF for the period 1999-2007. **RESULTS:** Prevalence of HIV among pregnant women availing VCT services in 2006 was 0.03%. As of December, 2007 total 69 pregnancies of 64 women were registered at the IDACIRC. Fifty eight women (90.6%) acquired infection through heterosexual contact. None of the HIV positive women reported intravenous injection of illicit drugs. The majority of the HIV infected pregnant women had one sexual partner (90.6%). Of children delivered by 51 positive partners 41 (80%) were infected through injecting drugs intravenously and 10 (20%) persons through heterosexual contacts. Throughout the period 1999-2007 14 pregnant women received PMTCT services only partially. In 2 cases children were HIV-infected. In 12 pregnancies women received AZT in about the 28th week of pregnancy. No case of HIV transmission to child was recorded in this group. In 32 cases pregnant women received full prophylaxis therapy and all children were negative for HIV infection. Among 6 pregnant women admitted at IDACIRC later than the 28th week of pregnancy only 1 child was infected. As of December 2007, 5 women are still pregnant. Three of them receive antiretroviral drugs (ARV) prophylaxis with AZT+3TC+SQV/r. Two women are under 28 weeks of gestational age. **CONCLUSION:** Over the last several years

the national response to AIDS in Georgia achieved significant progress. The provision of comprehensive packages of PMTCT services in Georgia has been shown to minimize the risk of vertical transmission. As described above none of the women completing full course of ARV prophylaxis, combined with appropriate infant feeding, transmitted HIV to their children. PMTCT programmes are indisputably the main entry point not only for HIV related care and treatment for women, but also for other comprehensive care and prevention.


These elements should be integrated into ongoing PMTCT services as appropriate and feasible. These key elements are recommended by several countries as well as by WHO, UNICEF, CDC and /or USAID. 1. Provider-initiated, opt-out HIV testing and counselling in PMTCT settings: The conventional voluntary counselling and testing (VCT) model relies on the client to request the test (client-initiated) whereas the provider-initiated, opt-out approach encourages healthcare workers to routinely offer HIV testing and counselling to all clients as part of the standard package of care. Clients have the right to refuse or decline the routinely recommended HIV test (i.e., the client has the right to “opt-out” of the test). The basic principles of confidentiality, consent and counselling apply. See Appendix 3 for a comparison of provider-initiated and client-initiated testing.2. Essential PMTCT messages on first contact between client and healthcare worker: In many resource-constrained settings, pregnant women may make only one ANC visit, often late in pregnancy. Many women present to L&D or PD settings without knowing their HIV status. Therefore, providing essential PMTCT messages on the first encounter is recommended. Routine TC for PMTCT at the first ANC, L&D, or PD visit enables all pregnant and peripartum women to learn their HIV status and make informed decisions about PMTCT. Subsequent visits should be used to reinforce counselling messages and provide appropriate PMTCT interventions. 3. Group Pre-Test information session: Group information sessions save time, optimize human resources, allow for group interaction and can be easily integrated into the ANC and PD settings. These sessions are particularly useful where the client-to-provider ratio is high, because healthcare workers can provide basic testing and counselling messages to a large number of clients at one time. Conducting group Pre-Test information sessions as part of routine ANC is already standard practice in many resource-constrained settings.


In this article, we examine barriers to HIV testing uptake and participation in prevention of mother-to-child HIV transmission (PMTCT) services among adolescent mothers aged 15 to 19 years in rural and urban Limpopo Province, South Africa. We used the narrative research method involving key informants constructing typical case studies of adolescent experiences with HIV testing and entry into PMTCT. Case studies formed the basis of a community-based questionnaire and focus group discussions with adolescent mothers. Client-counselor dynamics during pretest counseling were pivotal in determining uptake and participation, and counselor profile strongly influenced the nature of the interaction. Other factors found to influence adherence to PMTCT recommendations included HIV and early premarital pregnancy stigma, fear of a positive test result, and concerns over confidentiality and poor treatment by health care providers. Adolescents described
elaborate strategies to avoid HIV disclosure to labor and delivery staff, despite knowing this would mean no antiretroviral therapy for their newborn infants. Theoretical, methodological, and programmatic implications of study findings are also discussed.


OBJECTIVE: To assess rates of offering and uptake of HIV testing and their predictors among women who attended prenatal care. METHODS: A population-based cross-sectional study was conducted among postpartum women (N=2,234) who attended at least one prenatal care visit in 12 cities. Independent and probabilistic samples were selected in the cities studied. Sociodemographic data, information about prenatal care and access to HIV prevention interventions during the current pregnancy were collected. Bivariate and multivariate analyses were carried out to assess independent effects of the covariates on offering and uptake of HIV testing. Data collection took place between November 1999 and April 2000. RESULTS: Overall, 77.5% of the women reported undergoing HIV testing during the current pregnancy. Offering of HIV testing was positively associated with: previous knowledge about prevention of mother-to-child transmission of HIV; higher number of prenatal care visits; higher level of education and being white. HIV testing acceptance rate was 92.5%. CONCLUSIONS: The study results indicate that dissemination of information about prevention of mother-to-child transmission among women may contribute to increasing HIV testing coverage during pregnancy. Non-white women with lower level of education should be prioritized. Strategies to increase attendance of vulnerable women to prenatal care and to raise awareness among health care workers are of utmost importance.


OBJECTIVE: To estimate both human immunodeficiency virus (HIV) testing acceptance rates in pregnancy using an opt-out policy and patient characteristics influencing acceptance. METHODS: At the first prenatal visit, HIV testing was offered using an opt-out approach. Reasons for refusing testing were explored. Demographic information was collected on all study subjects. RESULTS: In the prospective portion of the study, 1,140 of 1,233 women (92.5%) accepted testing. Race was predictive of accepting HIV testing, with Asian women significantly less likely (odds ratio [OR] 0.4, 95% confidence interval [CI] 0.3-0.6; P<.001) and Hispanic women significantly more likely (OR 6.9; 95% CI 2.2-22.0; P=.001) to be tested. Although English as a first language, country of birth, and insurance status were not significantly associated with acceptance, women who were fluent in English were more likely to be tested (OR 2.0; 95% CI 1.2-3.3; P=.01). Our testing rates were significantly higher than the provincial average. CONCLUSION: Using an opt-out strategy, HIV testing rates in our clinic were significantly higher than the provincial average. Rates were influenced by race and fluency in English.


OBJECTIVE: To determine the acceptance of HIV testing by pregnant women referred to the antenatal clinic at a tertiary training hospital. Women who accepted testing and were
positive received nevirapine. Their babies also received nevirapine within 72 hours of birth. Doctors, nurses and pharmacists were equipped with counselling and management skills for prevention of mother to child HIV vertical transmission. DESIGN: Substudy of a prospective operational research. SETTING: Harare Central Hospital, antenatal clinic. SUBJECT: 863 women were given lectures in a group followed by individualised pre and post test HIV counselling; 767 accepted testing for HIV. MAIN OUTCOME MEASURES: Acceptance rates for HIV testing, number of mothers and babies who received nevirapine as well as the characteristics of HIV positive and negative women were analysed. RESULTS: 89% of the women accepted HIV testing; 44% were positive. Seventy percent of the women who tested positive and their babies received nevirapine. CONCLUSION: Acceptance rates increased when lectures were given to a group of pregnant women followed by individualised pre and post test counselling. The support and encouragement that the women gave each other may explain this observation. Nevirapine should be issued to pregnant women at the time that the HIV test results are available irrespective of the age of gestation, with instructions to take the drug at the onset of labour at their place of delivery. This practice will increase the uptake of the drug by pregnant women. Medical students, nursing and pharmacy students should be equipped with skills for initiating and managing a mother to child HIV prevention programme during their training followed by refresher courses after graduating.

MSM


BACKGROUND: While the Centers for Disease Control and Prevention recommends at least annual human immunodeficiency virus (HIV) screening for men who have sex with men (MSM), a large number of HIV infections among this population go unrecognized. We examined the association between disclosing to their medical providers (eg, physicians, nurses, physician assistants) same-sex attraction and self-reported HIV testing among MSM in New York City, New York. METHODS: All men recruited from the New York City National HIV Behavioral Surveillance (NHBS) project who reported at least 1 male sex partner in the past year and self-reported as HIV seronegative were included in the analysis. The primary outcome of interest was a participant having told his health care provider that he is attracted to or has sex with other men. Sociodemographic and behavioral factors were examined in relation to disclosure of same-sex attraction. RESULTS: Among the 452 MSM respondents, 175 (39%) did not disclose to their health care providers. Black and Hispanic MSM (adjusted odds ratios, 0.28 [95% confidence interval, 0.14-0.53] and 0.46 [95% confidence interval, 0.24-0.85], respectively) were less likely than white MSM to have disclosed to their health care providers. No MSM who identified themselves as bisexual had disclosed to their health care providers. Those who had ever been tested for HIV were more likely to have disclosed to their health care providers (adjusted odds ratio, 2.10; 95% confidence interval, 1.01-4.38). CONCLUSIONS: These data suggest that risk-based HIV testing, which is contingent on health care providers being aware of their patients' risks, could miss these high-risk persons.
Since 2002, biennial production of sexually transmissible infection testing guidelines for men who have sex with men has supported sexually transmitted infection control efforts in inner Sydney, Australia.

OBJECTIVE: To integrate routine HIV testing into the services offered at a public health department STD clinic and document the rate of acceptance and rate of test positivity during the first 18 months. METHODS: Testing for HIV was added to the array of tests offered to all patients at the Maricopa County STD clinic. Patients were informed of this new option at registration and were provided with a consent form and instructions to read the form and sign it, unless they did not desire testing. STD clinicians were responsible for insuring that questions regarding testing were answered and that consent forms were signed. HIV prevention was integrated into the general STD preventive messages during the clinical encounter. RESULTS: Sixty-eight percent of patients accepted testing (12,176 of 17,875). Of these, 68 were HIV-positive, for a rate of 5.6 per 1,000. The positive rate for men was 8.6/1000 and for women 1.2/1,000. The rate for men who reported having sex with men (MSM) was 63.8/1,000. Fourteen of the HIV-positive MSM were co-infected with syphilis. Of the 68 who were HIV-positive, 58 (85.3%) were successfully located, informed of their test results, and referred for HIV treatment and support services. CONCLUSIONS: HIV testing can be included in the routine battery of tests offered at an STD clinic with high patient acceptance. Routine testing can discover those who are unaware of their HIV-positive status, providing an opportunity for early referral for treatment, counseling to avoid disease transmission, and notification of sexual contacts.

Background: The purpose of this study was to estimate the prevalence of human immunodeficiency (HIV) testing in the general population; to analyse factors related to voluntary testing; and to describe the main reasons for testing, the kinds of health services where testing takes place and the relations between self-risk perception and HIV testing. Methods: A probability sample survey of health and sexual behaviour in men and women aged 18 - 49 years and resident in Spain in 2003 (n=10 980) was used. A combination of face-to-face and computer-assisted self-interview was used, and bivariate and multivariate logistic regression analyses were performed. Results: Some 39.4% (40.2% in men and 38.5% in women) had ever been tested, blood donation being the main reason for men and pregnancy for women. In the multivariate analysis, HIV testing was associated with foreign nationality, high educational level, having injected drugs and having a large number of sexual partners. In men, it was also associated with age 30 - 39 years, having had sex with other men and having paid for sex. About 29.3% of men and 32.8% of women had their last voluntary HIV test in primary healthcare centres, whereas only 3.4% of men and 3.6% of women had last been tested in sexually transmitted infection/HIV diagnostic centres. About 20.2% of men and 5.5% of women with risk behaviours had never been tested. Conclusion: The proportion of men with risk behaviours who have never had an HIV test is
unacceptably high in Spain. Scaling up access to HIV testing in this population group remains a challenge for health policies and research.


While most genitourinary (GU) medicine clinics achieve a high uptake for testing HIV in new patients, they may still miss testing those at highest risk. Point-of-care testing (POCT) and salivary samples are acceptable and feasible but have not yet been shown to increase uptake among high-risk patients (HRP). This study aimed to describe reasons why HRP decline HIV testing and whether offering POCT along with standard testing would increase the uptake of testing HIV in two London GU medicine clinics. Anonymous self-administered questionnaires were offered to all new and rebooked patients. Eight hundred and ninety-nine questionnaires were analysed of which 598 were HRP. Uptake of HIV testing was 77.1% among HRP and 65.8% among the rest. A total of 51.1% of HRP who declined HIV testing said they would be more likely to accept a POCT and 32.8% a salivary test. Introduction of rapid POCT for HIV would increase patient's choice and may increase the likelihood of HRP accepting an HIV test.


Objectives: To determine what proportion of men who have sex with men (MSM) attending genitourinary medicine (GUM) clinics are offered and accept an HIV test and to examine clinic and patient characteristics associated with offer and uptake. Methods: A cross-sectional study of all GUM clinics in the United Kingdom, involving a case note review of up to 30 patient records per clinic and the completion of a clinic policy form. Results: Overall, 86% of MSM were offered a test and of those 82% accepted a test. Attending with symptoms of a sexually transmitted infection (STI), fewer numbers of partners in the past three months and having tested previously were all independently associated with a decreased likelihood of being offered a test. Attending with symptoms of an STI, increasing age, never having had a risk from unprotected anal intercourse or a previous HIV test and increasing time to wait for results were all independently associated with a decreased likelihood of a patient accepting a test. Only a quarter of clinics reported a written policy for HIV testing intervals among MSM; however, all clinics reported offering testing to all new MSM patients at first screening. The testing policy for reattending patients was less clear. Conclusions: Testing must reach those at most risk and those less likely to test in order to reduce further the proportion of undiagnosed HIV infection. This study suggests that opportunities to detect infection may be being missed and a move towards universal testing of all MSM attending with a new episode, as well as testing within the window period, is recommended.

The purpose of this article is to describe sexual health services available in Australia across the different states and territories for gay men and men who have sex with men (MSM) and their utilisation. An assessment of services available in different states is made, then the evidence about how MSM and people living with HIV/AIDS access health care in Australia is presented. This demonstrates that the number and location of sexual health services has changed over time. It also demonstrates that services available differ by state and territory. The availability of non-occupational post-exposure prophylaxis for HIV infection has been different in each state and territory, as has its utilisation. The majority of care for sexual health-related issues and for MSM and people living with HIV/AIDS is delivered in general practice settings in Australia, with hospital outpatient settings, including sexual health clinics, utilised commonly.

This study assessed HIV testing among 2,621 urban young men who have sex with men (YMSM). Of these, 77% were men of colour, 30% reported recent unprotected anal intercourse (UAI), 22% had never tested for HIV and 71% had not tested recently. Ever testing was associated with older age (OR=1.28), being employed (OR=1.34), exposure to more types of HIV preventions (linear trend p=0.02), sex with a main partner (OR=1.92), sex with a non-main partner (OR=1.36), UAI with a non-main partner (OR=0.53), UAI in the last three months (OR=1.32), knowing a comfortable place for testing (OR=5.44) and social support (OR=1.47). Rates of ever testing increased with behavioural risk with main partners; rates were lowest for men reporting high-risk with non-main partners. Recent testing was associated with greater numbers of HIV-prevention exposures (linear trend p <0.001), sex with a main partner (OR=1.30), knowing a comfortable place for testing (OR=2.31) and social support (OR=1.23). Findings underscore the urgency of promoting testing among YMSM, point to components for the recruitment and retention of young MSM of colour in testing programmes and highlight the need for a theory-based approach to intervention development.

IDUs

Background Although confinement in drug detoxification ("detox") and re-education through labor (RTL) centers is the most common form of treatment for drug dependence in China, little has been published about the experience of drug users in such settings. We conducted an assessment of the impact of detention on drug users’ access to HIV prevention and treatment services and consequent threats to fundamental human rights protections. Methods and Findings Chinese government HIV and anti-narcotics legislation and policy documents were reviewed, and in-depth and key informant interviews were conducted with 19 injection drug users (IDUs) and 20 government and nongovernmental organization officials in Nanning and Baise, Guangxi Province. Significant contradictions were found in HIV and antinarcotics policies, exemplified by the simultaneous expansion of community-based methadone maintenance therapy and the increasing number of drug users detained in detox and RTL center facilities. IDU study participants reported, on
average, having used drugs for 14 y (range 8-23 y) and had been confined to detox four times (range one to eight times) and to RTL centers once (range zero to three times). IDUs expressed an intense fear of being recognized by the police and being detained, regardless of current drug use. Key informants and IDUs reported that routine HIV testing, without consent and without disclosure of the result, was the standard policy of detox and RTL center facilities, and that HIV-infected detainees were not routinely provided medical or drug dependency treatment, including antiretroviral therapy. IDUs received little or no information or means of HIV prevention, but reported numerous risk behaviors for HIV transmission while detained. Conclusions Legal and policy review, and interviews with recently detained IDUs and key informants in Guangxi Province, China, found evidence of anti-narcotics policies and practices that appear to violate human rights and imperil drug users’ health.

**Prisoners**


OBJECTIVES: The aim of the study was to obtain an overview on diagnostic and therapeutic activities concerning hepatitis A, B, C virus and HIV in Swiss prisons. METHODS: A standardized questionnaire was sent to 91 prisons in the German and Italian speaking parts in October 2004; 41 institutions (45%) answered the questionnaire. RESULTS: In almost all prisons serological examinations were not done routinely, but were provided when demanded by inmates or recommended by the medical service. Vaccination against hepatitis A or B infection and initiation of antiviral therapy was possible in most institutions. CONCLUSIONS: Most of the prisons investigated offered diagnostic and antiviral treatment for hepatitis virus and HIV infections. A reported problem was the discontinuation of ongoing treatments or vaccination cycles after discharge. In some cases deficient funding was an obstacle.


**Migrants**


Migrant black Africans are disproportionately affected by HIV in Western Europe; we discuss the barriers to HIV testing for sub-Saharan migrants, with particular emphasis on the UK and the Netherlands. Cultural, social and structural barriers to testing, such as access to testing and care, fear of death and disease and fear of stigma and discrimination in the community, can be identified. Lack of political will, restrictive immigration policies and
the absence of African representation in decision-making processes are also major factors preventing black Africans from testing. HIV testing strategies need to be grounded in outreach and community mobilisation, addressing fear of diagnosis, highlighting the success of treatment and tackling HIV-related stigma among black African migrant communities.


**Children/Adolescents**


Increasingly, children are construed as persons with rights to information on matters that affect their wellbeing, including the presence of the human immune deficiency virus (HIV) in their lives. This paper, based on interviews with 60 HIV-positive migrant African parents recruited in London and the home counties, shows how these parents made sense of the language of children's rights and disclosed to their children that HIV affected them. The word affected refers to HIV-positive children and those whose parent or guardian is also HIV positive. The parents reported 164 children, a majority (81%) less than 18 years, 10% 19-24 years and 9% above the age of 25 years. Most (73%) were their biological children. The remaining children (27%) were orphans for whom they had a parental responsibility. Forty-eight per cent of the children were left behind in the country from which their parents emigrated. Parents expressed concerns about the language of rights, which they perceived as bestowing ‘too much liberties’ on children. However, parents also believed that children, depending on their age, had a right to know that the virus affected them. One-third of the children, most above age 18 years, were more likely to know that their parents were HIV positive. The child's residency influenced the parents' decision to tell HIV-positive children about their own status. Non-resident children, back home, were less likely to know that they were living with the virus. Gender compromised a parent's confidentiality, with mothers more likely to be linked to their child's HIV status than the child's biological father.


Diagnosing human immunodeficiency virus (HIV) infection in infants is difficult because maternal HIV antibodies cross the placenta, causing positive serologic tests in HIV-exposed infants for the first several months of life. Early definitive diagnosis of HIV requires virologic testing such as polymerase chain reaction (PCR), which is the diagnostic standard in resource-rich settings but has been too complex and expensive for widespread use in most countries with high HIV prevalence. Early PCR testing can help HIV-infected infants access treatment, provide psychosocial benefits for families of uninfected infants, and help programs for prevention of mother-to-child transmission of HIV monitor their effectiveness. HIV testing, including PCR, is increasingly available for infants in resource-limited settings, but there are many barriers and complex policy decisions that need to be addressed before universal early testing can become standard. This paper reviews challenges and progress in the field and suggests ways to facilitate early infant testing in resource-limited settings.

This study explored how adolescents involve their families, friends and sex partners when making decisions about seeking HIV voluntary counseling and testing (VCT) and disclosing their HIV-status. The study is based on 40 qualitative in-depth interviews with 16 to 19 year olds who knew their HIV status in Ndola, Zambia. The findings show that: a) almost half of the youth turned to family members for advice or approval prior to seeking VCT; b) a disapproving reaction from family members or friends often discouraged youth from attending VCT until they found someone supportive; c) informants often attended VCT alone or with a friend, but rarely with a family member; and d) disclosure was common to family and friends, infrequent to sex partners, and not linked to accessing care and support services. Family members need access to information on VCT so they can support young peoples’ decisions to test for HIV and to disclose their HIV status. These results reinforce the need to provide confidential VCT services for adolescents and the need to develop and test innovative strategies to reach adolescents, their families and sex partners with VCT information and services.


BACKGROUND: This study examined the use of HIV postexposure prophylaxis (PEP) among sexually assaulted adolescent females. METHODS: We analyzed data from the HIV PEP Project, an implementation and evaluation of a program of universal offering of PEP to sexual assault victims of all ages. Baseline and follow-up data were collected prospectively from consecutive clients seen at 18 hospital-based sexual assault treatment centers in Ontario, Canada from September 2003 to January 2005. Among 386 at-risk female adolescents, we examined the provision and uptake of and adherence to PEP, and factors related to antiretroviral acceptance and completion. RESULTS: Most adolescents were single (94.5%), living with family (68.0%), and attending school (67.4%). Slightly over two-fifths (42.7%) accepted and one-third (33.6%) completed the 28-day course of PEP. Factors associated with PEP acceptance were health care provider encouragement, being a student, and being moderately-to-highly anxious. PEP completion was associated with being white and an assailant known less than 24 hours. CONCLUSIONS: Our findings highlight the importance of the health care provider's role in counseling sexually assaulted female adolescents about HIV PEP use. The results also suggest that at-risk adolescents not enrolled in school and those from culturally diverse backgrounds may require additional supports.


BACKGROUND: The appropriate use of antiretroviral medications to protect against infection with human immunodeficiency virus (HIV) is unclear in cases of sexual assault of children, for whom the perpetrator’s risk of HIV is often unknown, and physical proof of sexual contact is usually absent. OBJECTIVE: In an effort to clarify prescribing practices for HIV post-exposure prophylaxis (PEP) at our institution, we examined records of all children tested for HIV for prevalence of infection, our experience with prescribing PEP, and follow-
up rates. DESIGN/METHODS: Medical records at a sexual abuse clinic of all children tested for HIV during a 38-month period were reviewed for information concerning risk factors for HIV acquisition, STI test results, and PEP experience. Children were defined as PEP-eligible if they were within 96 hours of assault, and there was a report of sexual contact with the potential to transmit HIV. RESULTS: One thousand seven hundred and fifty children were tested for HIV during the study period. Five children had a positive HIV ELISA, but only one child was confirmed HIV-positive. Three hundred and three children were eligible to receive HIV-PEP, but it was only offered to 16 (5.3%), of whom 15 accepted the medications. None of the children prescribed PEP completed follow-up, but 11 children had limited follow-up. CONCLUSIONS: Our results indicate that the prevalence of HIV infection among sexually abused children in our population is low, and follow-up rates are poor. Intensive efforts to try to ensure follow-up are warranted whenever PEP is prescribed. Further research may help better define the efficacy of PEP in sexually abused children and adolescents.

Gouveia, J., Souza, E., & Falbo, A. (2009). Late-stage HIV/AIDS among children: The missing diagnosis of a preventable disease. Tropical Doctor, 39(1), 41-42. We studied 126 malnourished children who had been admitted to the Instituto Materno Infantil Professor Fernando Figueira (IMIP) hospital. Nine (7.1%) had confirmation of HIV infection and all fulfilled the AIDS-defining criteria - all had been infected through mother-to-child transmission. Only one HIV-infected mother had been screened for HIV infection during prenatal care. There is, therefore, a need to increase HIV testing in all malnourished patients, especially when routine screening for HIV infection during prenatal care is not automatically undertaken.


Kankasa, C., Carter, R. J., Briggs, N., Bulterys, M., Chama, E., Cooper, E. R., et al. (2009). Routine offering of HIV testing to hospitalized pediatric patients at university teaching hospital, Lusaka, Zambia: Acceptability and feasibility. Journal of Acquired Immune Deficiency Syndromes (1999), 51(2), 202-208. OBJECTIVES: The difficulties diagnosing infants and children with HIV infection have been cited as barriers to increasing the number of children receiving antiretroviral therapy worldwide. Design: We implemented routine HIV antibody counseling and testing for pediatric patients hospitalized at the University Teaching Hospital, a national reference center, in Lusaka, Zambia. We also introduced HIV DNA polymerase chain reaction (PCR) testing for early infant diagnosis. METHODS: Caregivers/parents of children admitted to the hospital wards were routinely offered HIV counseling and testing for their children. HIV antibody positive (HIV+) children <18 months of age were tested with PCR for HIV DNA. RESULTS: From January 1, 2006, to June 30, 2007, among 15,670 children with unknown HIV status, 13,239 (84.5%) received counseling and 11,571 (87.4%) of those counseled were tested. Overall, 3373 (29.2%) of those tested were seropositive. Seropositivity was associated with younger age: 69.6% of those testing HIV antibody positive were <18 months of age. The proportion of counseled children who were tested increased each
quarter from 76.0% in January to March 2006 to 88.2% in April to June 2007 (P < 0.001). From April 2006 to June 2007, 1276 PCR tests were done; 806 (63.2%) were positive. The rate of PCR positivity increased with age from 22% in children <6 weeks of age to 61% at 3-6 months and to 85% at 12-18 months (P < 0.001). CONCLUSIONS: Routine counseling and antibody testing of pediatric inpatients can identify large numbers of HIV-seropositive children in high prevalence settings. The high rate of HIV infection in hospitalized infants and young children also underscores the urgent need for early infant diagnostic capacity in high prevalence settings.


In Kenya, HIV diagnosis is not routinely carried out in infants, and yet rapid diagnosis could improve access to lifesaving interventions. A cheap and readily accessible service can resolve this problem, if feasible. In this pilot study the feasibility and costs of provision of an infant HIV diagnosis service in Kenya are evaluated. Dried blood spots (DBS) were collected from infants exposed to HIV, sent to a central testing laboratory and tested using the Roche Amplicor v. 1.5 DNA PCR kit. The results were then dispatched to health facilities within a week. A total of 15.4% of the samples tested HIV+ despite the widespread access to prevention of mother to child transmission (PMTCT) programs in Kenya. The cost per test at 21.50 USD is prohibitive and will limit access to diagnosis. It remains to be seen whether the increase in testing will immediately lead to an increase in access to antiretroviral therapy (ART) services for infants.


We used adolescent simulated clients to evaluate whether HIV testing services in clinics participating in an adolescent-friendly initiative in Cape Town were superior to regular clinic services. We found improved accessibility to HIV testing, but no impact on adolescent’s experience of negative attitudes from health workers and confidentiality breaches.


MEASURE Evaluation received funding from the plan to conduct evaluations of four different, multifaceted programs for orphans and vulnerable children (OVC) — two in Kenya and two in Tanzania. Each evaluation examined the effectiveness of specific program strategies to improve the lives of OVC aged 8-14 and their guardians. While the emphasis of the evaluations was to explore the impact of interventions on OVC, some programs included initiatives targeting other priorities of the plan, such as HIV prevention. In particular, the Integrated AIDS Program-Thika (IAP) operating in Kenya included initiatives to promote HIV education and voluntary counseling and testing (VCT) within the broader community. This paper presents findings of the outcomes associated with these HIV prevention activities. The impact of IAP’s efforts concentrating on OVC can be found elsewhere.
DRAFT: NOT FOR CITATION OR QUOTATION


OBJECTIVES: To describe the clinical experience of a Guatemalan pediatric HIV clinic and referral center, and fill the gap in literature available on pediatric HIV in Guatemala, a country facing a growing HIV epidemic. METHODS: Analyses were performed on data available from the clinical databases maintained by the Clinica Familiar Luis Angel Garcia within the Hospital General San Juan de Dios in Guatemala City, Guatemala. RESULTS: From January 1997-June 2006, a total of 536 children (individuals under 13 years of age) were registered at the clinic, 54% of them female. At the initial visit, 241 were known to be HIV infected, while 295 were known to have been exposed to HIV, but were of undetermined infection status. Of the 295 with undetermined status, serostatus was determined in 173, and 57 (33%) were HIV positive. The patients came from all 24 departments of Guatemala, but the majority (64%) was from Guatemala City. Most had perinatal exposure; three patients had been sexually exposed to HIV (all male); and the mode of infection could not be determined for six children. In the cohort of children whose infection status was initially undetermined, the provision of antiretroviral (ARV) medication (both pre- and neonatal), in addition to Cesarean section, was associated with an odds ratio of 0.06 for HIV infection (P < 0.001) when compared to children who had no interventions. Highly active antiretroviral therapy (HAART) was administered to 167 HIV-infected children. There were 44 known deaths in this cohort; no deaths occurred among the children who were not infected. CONCLUSIONS: Pediatric HIV/AIDS is present in all parts of Guatemala. Programs to prevent mother to child transmission and to provide appropriate treatment to families living with HIV/AIDS must be a public health priority.


To explore relationships between mothers' uncertainty about infant HIV serostatus with stress, distress, depressive symptoms, and social support during infant HIV testing. This prospective longitudinal study of 20 HIV-infected mothers involved a prenatal visit and five postpartum visits clustered around infant HIV viral testing. Maternal uncertainty about infant HIV serostatus significantly decreased over time (p < 0.001). Before testing, uncertainty was inversely related to social support (r = -0.67), and positively related to perceived stress (r = 0.54), interpersonal social conflict (r = 0.57), symptom distress (r = 0.62), and depressive symptoms (r = 0.50); these relationships persisted throughout the infant testing period. Mothers with depressive symptoms during pregnancy demonstrated significantly more uncertainty within a few weeks after birth than mothers without depressive symptoms (p < 0.05). Several weeks after learning their infants were HIV negative, mothers' uncertainty was only associated with social conflict (r = 0.49). Maternal uncertainty about infant HIV status declined significantly over time. There were no changes in perceptions of stress, distress or social support. Mothers with depressive symptoms experienced greater uncertainty about infants' HIV status. Strategies to enhance support and treat depressive symptoms may reduce the uncertainty, stress, and distress HIV-infected mothers experience during viral testing of their infants.


Providers of health care to adolescent patients face numerous challenges. In addition to
increased risk for many health problems, adolescent patients may bring complex ethical, legal and developmental questions to bear as they seek medical services. This article describes the case of one such adolescent patient and discusses some of the attendant issues faced by her physician. For example, providing reproductive health care to teenage patients without the knowledge of parents or guardians requires familiarity on the part of providers with relevant state and federal law. Additionally, providers must be aware of financial barriers and they need to acquaint themselves with available services such as New York State's Family Planning Benefit Program. Attention to their patients' stages of cognitive and emotional development should inform providers' advice to adolescents, and an understanding of the importance that supportive adult relationships play during adolescence is essential to fostering healthy development. Open communication between adolescent patients and their parents or guardians should be encouraged, while maintaining the primary obligation of providing confidential care.


Providers in clinical settings may approach HIV testing in quite different ways. They may offer HIV testing routinely along with other tests. In doing so, the provider should only administer an HIV test to a client who has given informed consent to be tested. In addition, the provider should explain the confidentiality policy of the clinic...

**Indigenous populations**


The impact of the HIV/AIDS epidemic on minority communities called for interventions to stem the increase in new HIV infections and identify HIV-positive individuals for referral to care and treatment services. The Rapid Assessment, Response and Evaluation (RARE) project was designed to provide highly affected communities with a tool that would quickly identify conditions that fuel new infections and serve as barriers to HIV-positive individuals getting HIV testing, care, and treatment. RARE brought indigenous community health outreach workers and key community-level stakeholders together to advocate for the transfer of findings into programmatic and policy responses in places where high risk behaviors were practiced. This article describes RARE's qualitative methods that captured the voice of those most affected by the HIV/AIDS threat and identified critical insights and dynamics about factors that lead to HIV infections and those that can move positive individuals into care and treatment.

**Other groups**


BACKGROUND: Although HIV infection is more prevalent in people younger than age 45
years, a substantial number of infections occur in older persons. Recent guidelines recommend HIV screening in patients age 13 to 64 years. The cost-effectiveness of HIV screening in patients age 55 to 75 years is uncertain. OBJECTIVE: To examine the costs and benefits of HIV screening in patients age 55 to 75 years. DESIGN: Markov model. DATA SOURCES: Derived from the literature. TARGET POPULATION: Patients age 55 to 75 years with unknown HIV status. TIME HORIZON: Lifetime. PERSPECTIVE: Societal. INTERVENTION: HIV screening program for patients age 55 to 75 years compared with current practice. OUTCOME MEASURES: Life-years, quality-adjusted life-years (QALYs), costs, and incremental cost-effectiveness. RESULTS OF BASE-CASE ANALYSIS: For a 65-year-old patient, HIV screening using traditional counseling costs $55,440 per QALY compared with current practice when the prevalence of HIV was 0.5% and the patient did not have a sexual partner at risk. In sexually active patients, the incremental cost-effectiveness ratio was $30,020 per QALY. At a prevalence of 0.1%, HIV screening cost less than $60,000 per QALY for patients younger than age 75 years with a partner at risk if less costly streamlined counseling is used. RESULTS OF SENSITIVITY ANALYSIS: Cost-effectiveness of HIV screening depended on HIV prevalence, age of the patient, counseling costs, and whether the patient was sexually active. Sensitivity analyses with other variables did not change the results substantially. LIMITATIONS: The effects of age on the toxicity and efficacy of highly active antiretroviral therapy and death from AIDS were uncertain. Sensitivity analyses exploring these variables did not qualitatively affect the results. CONCLUSION: If the tested population has an HIV prevalence of 0.1% or greater, HIV screening in persons from age 55 to 75 years reaches conventional levels of cost-effectiveness when counseling is streamlined and if the screened patient has a partner at risk. Screening patients with advanced age for HIV is economically attractive in many circumstances.

Alternative Strategies for Scaling Up HTC

Agbonyitor, M. (2009). Home-based care for people living with HIV/AIDS in plateau state, Nigeria: Findings from qualitative study. Global Public Health, 4(3), 303-312. As health-care services in Nigeria and other African countries are becoming overstrained with patients, home-based care has increasingly been touted as a possible solution. The faith-based organisation, Gospel Health and Development Services, provides a home-based care programme for people living with HIV/AIDS (PLWHA) residing in Plateau State, Nigeria. This paper assesses the challenges that PLWHA in the programme faced while maintaining their health and livelihoods. The frustrations that volunteers endured in performing their work are also described, as well as the benefits and weaknesses of the programme from the perspective of PLWHA and their volunteer caregivers. Focus groups and interviews were done with 30 PLWHA and 22 volunteers to learn about their experiences with the home-based care programme and possible areas for its improvement. From these discussions three major challenges facing PLWHA emerged: discrimination towards PLWHA; the lack of money, food, and transport to health-care centres; and the desire for closer antiretroviral drug access.

Agencies engaged in humanitarian efforts to prevent the further spread of HIV have emphasized the importance of voluntary counseling and testing (VCT), and most high-prevalence countries now have facilities that offer testing free of charge. The utilization of these services is disappointingly low, however, despite high numbers reporting that they would like to be tested. Explanations of this discrepancy typically rely on responses to hypothetical questions posed in terms of psychological or social barriers; often, the explanation is that people fear learning that they are infected with a disease that they understand to be fatal and stigmatizing. Yet when we offered door-to-door rapid blood testing for HIV as part of a longitudinal study in rural Malawi, the overwhelming majority agreed to be tested and to receive their results immediately. Thus, in this paper, we ask: why are more people not getting tested? Using an explanatory research design, we find that rural Malawians are responsive to door-to-door HIV testing for the following reasons: it is convenient, confidential, and the rapid blood test is credible. Our study suggests that attention to these factors in VCT strategies may mitigate the fear of HIV testing, and ultimately increase uptake in rural African settings.


OBJECTIVE: To evaluate HIV testing efforts based on surveillance data. METHODS: We determined the contribution of new diagnoses to all positive confidential HIV-1 Western blotting conducted in New York City between 2004 and 2006 based on clinical history recorded in the HIV Surveillance Registry, by testing site type. RESULTS: Of 31,504 positive Western blots reported and linked to Registry cases, 36.8% were new diagnoses and 63.2% were repeat positive tests. City health department clinics and private physicians’ offices reported greater proportions of new diagnoses than other testing sites (64.4% and 58.3% vs. 31.1%). The percentage of positive tests at health department clinics that were new diagnoses increased from 59.8% in 2004 to 69.0% in 2006 (P = 0.001), coinciding with efforts to expand HIV testing. Repeat positive testers were significantly older, more likely to have an injection drug use history or AIDS, and less likely to be foreign-born. CONCLUSIONS: Repeat testing of known HIV-infected persons is common and an inefficient use of HIV prevention resources when the purpose of testing is to diagnose previously unidentified infections. Initiatives to increase HIV testing should be evaluated routinely using surveillance data to determine the proportion of infected persons identified who are newly diagnosed.


In 2006, the Centers for Disease Control and Prevention (CDC) released revised recommendations for performing human immunodeficiency virus (HIV) testing in health care settings, including implementing routine rapid HIV screening, the use of an integrated opt-out consent, and limited prevention counseling. Emergency departments (EDs) have been a primary focus of these efforts. These revised CDC recommendations were primarily based on feasibility studies and have not been evaluated through the application of
rigorous research methods. This article describes the design and implementation of a large prospective controlled clinical trial to evaluate the CDC's recommendations in an ED setting. From April 15, 2007, through April 15, 2009, a prospective quasi-experimental equivalent time-samples clinical trial was performed to compare the clinical effectiveness and efficiency of routine (nontargeted) opt-out rapid HIV screening (intervention) to physician-directed diagnostic rapid HIV testing (control) in a high-volume urban ED. In addition, three nested observational studies were performed to evaluate the cost-effectiveness and patient and staff acceptance of the two rapid HIV testing methods. This article describes the rationale, methodologies, and study design features of this program evaluation clinical trial. It also provides details regarding the integration of the principal clinical trial and its nested observational studies. Such ED-based trials are rare, but serve to provide valid comparisons between testing approaches. Investigators should consider similar methodology when performing future ED-based health services research.


BACKGROUND: Uptake of HIV testing and counseling (HTC) is lower among members of the poorest households in sub-Saharan countries, thereby creating significant inequalities in access to HTC and possibly antiretroviral treatment. OBJECTIVES: To measure uptake of home-based HTC and estimate HIV prevalence among members of the poorest households in a sub-Saharan population. METHODS: Residents of 6 villages of Likoma Island (Malawi) aged 18-35 and their spouses were offered home-based HTC services. Socioeconomic status, HIV testing history, and HIV risk factors were assessed. Differences in HTC uptake and HIV infection rates between members of households in the lowest income quartile and the rest of the population were estimated using logistic regression. RESULTS: Members of households in the lowest income quartile were significantly less likely to have ever used facility-based HTC services than the rest of the population (odds ratio = 0.60, 95% confidence interval (CI): 0.36 to 0.97). In contrast, they were significantly more likely to use home-based HTC services provided during the study (adjusted odds ratio = 1.70, 95% CI: 1.04 to 2.79). Socioeconomic differences in uptake of home-based HTC were not due to underlying differences in socioeconomic characteristics or HIV risk factors. The prevalence of HIV was significantly lower among members of the poorest households tested during home-based HTC than among the rest of the population (adjusted odds ratio = 0.37, 95% CI: 0.14 to 0.96). CONCLUSIONS: HTC uptake was high during a home-based HTC campaign on Likoma Island, particularly among the poorest. Home-based HTC has the potential to significantly reduce existing socioeconomic gradients in HTC uptake and help mitigate the impact of AIDS on the most vulnerable households.


Over the past year, a move toward health provider-initiated testing for HIV has gained support among governments and the international health community. However, provider-initiated testing requires trained health workers and clear guidelines that address such issues as patients' rights to opt out, counseling, and confidentiality. For provider-initiated testing to yield maximum health impact, it also needs to occur in the context of expanded HIV care and treatment services. While opt-out testing in health facilities represents an important advance in increasing the number of individuals who know their HIV status, it
cannot replace voluntary counseling and testing (VCT) and the need for strategies to reach people who are outside of routine health services. This issue of Horizons Report examines HIV testing from different angles, drawing from relevant studies in several countries. These include the readiness of health workers in Kenya to provide routine HIV testing, and the effectiveness of workplace VCT programs in Kenya and Zambia to reach health workers and teachers—two large and important populations. The issue also describes strategies for increasing uptake of testing by truckers in Brazil and the role of families in youth’s decision-making to get tested for HIV in Zambia.

This study evaluates the effectiveness of a holistic model for treating people living with AIDS in Africa; the model aims to improve knowledge about AIDS prevention and care, increase trust in the health centre, impact behaviour, and promote a high level of adherence to HAART. The study took place in the context of the DREAM (Drug Resource Enhancement against AIDS and Malnutrition) programme in Mozambique, designed by the Community of Sant’Egidio to treat HIV patients in Africa. It provides patients with free antiretroviral drugs, laboratory tests (including viral load), home care and nutritional support. This is a prospective study involving 531 patients over a 12-month period. The patients, predominantly poor and with a low level of education, demonstrated a good level of knowledge about AIDS (more than 90% know how it is transmitted) and trust in the treatment, with a relatively small percentage turning to traditional healers. Overall the patients had a low level of engaging in risky sexual behaviour and a very good level of adherence to HAART (69.5% of the 531 subjects had a pill count higher than 95%). The positive results of the programme’s educational initiatives were confirmed with the patients’ good clinical results.

OBJECTIVE: HIV counseling and testing (HCT) is a key intervention for HIV/AIDS control, and new strategies have been developed for expanding coverage in developing countries. We compared costs and outcomes of four HCT strategies in Uganda. DESIGN: A retrospective cohort of 84 323 individuals received HCT at one of four Ugandan HCT programs between June 2003 and September 2005. HCT strategies assessed were stand-alone HCT; hospital-based HCT; household-member HCT; and door-to-door HCT. METHODS: We collected data on client volume, demographics, prior testing and HIV diagnosis from project monitoring systems, and cost data from project accounts and personnel interviews. Strategies were compared in terms of costs and effectiveness at reaching key population groups. RESULTS: Household-member and door-to-door HCT strategies reached the largest proportion of previously untested individuals (>90% of all clients). Hospital-based HCT diagnosed the greatest proportion of HIV-infected individuals (27% prevalence), followed by stand-alone HCT (19%). Household-member HCT identified the highest percentage of discordant couples; however, this was a small fraction of total clients (<4%). Costs per client (2007 USD) were $19.26 for stand-alone HCT, $11.68 for hospital-based HCT, $13.85 for household-member HCT, and $8.29 for door-to-door-HCT. CONCLUSION: All testing strategies had relatively low per client costs. Hospital-based HCT most readily identified HIV-infected individuals eligible for treatment, whereas home-based strategies more efficiently reached populations with low rates of prior testing and
HIV-infected people with higher CD4 cell counts. Multiple HCT strategies with different costs and efficiencies can be used to meet the UNAIDS/WHO call for universal HCT access by 2010.


AIM: To report the outcome of a comparative study among people living with HIV/AIDS (PLWHAs) served by an integrated community/home-based care (ICH) programme and those who are not in any home-based care programme in terms of acceptance and disclosure of the HIV status. BACKGROUND: One of the major challenges in HIV/AIDS care in developing countries is acceptance and disclosure of a positive HIV status by PLWHAs. Denial and non-disclosure of HIV status hinders prevention efforts as well as access to treatment, care and support for PLWHAs. METHODS: Quantitative data were collected in 2004 from a group of PLWHAs served by the ICH programme and a group that was not receiving any community/home-based care. Data were compared between the two groups in terms of acceptance and disclosure of HIV status. FINDINGS: The ICH was effective in improving acceptance and disclosure of the HIV-positive status by PLWHAs in the programme. PLWHAs in the ICH programme did not find disclosure of their status difficult, and had disclosed their positive HIV status to more people than those who are not in any programme. PLWHAs in the ICH programme not only disclosed their positive HIV status within their family network and households, but also disclosed to the community in general, sports group, religious groups and other social networks. CONCLUSIONS: Community/home-based care programmes can serve as catalysts for acceptance and disclosure of a positive HIV status by PLWHAs.

Opar, A. (2009). *Expanded HIV testing planned, but some remain less than positive.* *Nature Medicine, 15*(8), 831.


OBJECTIVES: Bundling human immunodeficiency virus (HIV) testing with tests for other infectious diseases such as hepatitis C, syphilis, or gonorrhea has been proposed as a method to recruit at-risk individuals into HIV testing. The objectives of this study were to determine (1) the types of at-risk clients who choose the rapid vs. standard HIV test when bundled with hepatitis and sexually transmitted infection (STI) tests, and (2) whether clients receiving a rapid HIV test are more likely to return on time for hepatitis and STI test results. METHODS: We recruited individuals from drug treatment programs, methadone maintenance programs, needle-exchange programs, a community-based agency serving the gay and lesbian community, and the Center for Behavioral Research and Services' office-based testing facility at California State University, Long Beach from January 2005 through November 2007. RESULTS: A total of 2,031 clients from a multiple morbidities testing program in Long Beach, California, were tested between January 2005 and November 2007. For clients receiving hepatitis and STI testing, the majority chose the standard HIV test. Clients who received a rapid HIV test returned in significantly fewer days than clients who received a standard HIV test. Injection drug users and sex traders were more likely to choose the standard HIV test and more likely to fail to return for test results.
on time. CONCLUSION: The rapid HIV test, in conjunction with hepatitis and STI tests, results in clients being more likely to return on time for hepatitis and STI results. Public health efforts should focus on acquainting high-risk clients with rapid HIV testing.


BACKGROUND: The Centers for Disease Control and Prevention recently recommended the expansion of human immunodeficiency virus (HIV) antibody testing. However, antibody tests have longer "window periods" after HIV acquisition than do nucleic acid amplification tests (NAATs). METHODS: Public Health-Seattle & King County offered HIV antibody testing to men who have sex with men (MSM) using the OraQuick Advance Rapid HIV-1/2 Antibody Test (OraQuick; OraSure Technologies) on oral fluid or finger-stick blood specimens or using a first- or second-generation enzyme immunoassay. The enzyme immunoassay was also used to confirm reactive rapid test results and to screen specimens from OraQuick-negative MSM prior to pooling for HIV NAAT. Serum specimens obtained from subsets of HIV-infected persons were retrospectively evaluated by use of other HIV tests, including a fourth-generation antigen-antibody combination assay. RESULTS: From September 2003 through June 2008, a total of 328 (2.3%) of 14,005 specimens were HIV antibody positive, and 36 (0.3%) of 13,677 antibody-negative specimens were NAAT positive (indicating acute HIV infection). Among 6811 specimens obtained from MSM who were initially screened by rapid testing, OraQuick detected only 153 (91%) of 169 antibody-positive MSM and 80% of the 192 HIV-infected MSM detected by the HIV NAAT program. HIV was detected in serum samples obtained from 15 of 16 MSM with acute HIV infection that were retrospectively tested using the antigen-antibody combination assay. CONCLUSIONS: OraQuick may be less sensitive than enzyme immunoassays during early HIV infection. NAAT should be integrated into HIV testing programs that serve populations that undergo frequent testing and that have high rates of HIV acquisition, particularly if rapid HIV antibody testing is employed. Antigen-antibody combination assays may be a reasonably sensitive alternative to HIV NAAT.


BACKGROUND: Routine HIV testing is recommended for all adolescents ages 13 years and older. This study aims to report the prevalence of HIV testing among black adolescents, describe characteristics of adolescents who have been tested, and identify potentially modifiable factors associated with greater likelihood of testing across gender. METHODS: Black adolescents ages 13 to 18 were recruited from community-based outreach in 4 US cities. Present analyses include sexually active participants (N = 990; 52.3% female). RESULTS: Twenty-nine percent of adolescents had ever been tested for HIV. In a multivariate logistic regression adjusted for significant demographics, the strongest predictor of HIV testing among girls was prior STI testing (OR = 88.39) followed by pregnancy (OR = 2.75), risk reduction self-efficacy (OR = 2.28), and STI knowledge (OR = 2.25). Among boys, having had an STI test (OR = 38.09), having talked about testing with partners (OR = 3.49), and less religiosity (OR = 2.07) were associated with HIV testing. CONCLUSIONS: Blacks adolescents are disproportionately at risk for HIV/AIDS, yet less than one-third of participants reported being tested. Those receiving sexual or reproductive healthcare services were most likely to be tested, but many teens at risk for HIV do not
seek available services and others may face barriers to accessing healthcare. Findings provide support for increasing school-based educational programs due to the low rates of STI/HIV knowledge among teens. Additionally, culturally-sensitive programs promoting HIV testing among teens should foster skill-building for preventive behaviors and increase partner communication about testing.

**Linking prevention and treatment: Scaling up VCT**


OBJECTIVE: To explore behaviour change, baseline risk behaviour, perception of risk, HIV disclosure and life events in health centre-based voluntary counselling and testing (VCT) clients. DESIGN AND SETTING: Single-arm prospective cohort with before-after design at three (one urban and two rural) government health centres in Kenya; study duration 2 years, 1999-2001. SUBJECTS: Consecutive eligible adult clients. MAIN OUTCOME MEASURES: Numbers of sexual partners, partner type, condom use, reported symptoms of sexually transmitted infection, HIV disclosure and life events. RESULTS: High rates of enrollment and follow-up provided a demographically representative sample of 401 clients with mean time to follow-up of 7.5 months. Baseline indicators showed that clients were at higher risk than the general population, but reported a poor perception of risk. Clients with multiple partners showed a significant reduction of sexual partners at follow-up (16% to 6%; p<0.001), and numbers reporting symptoms of sexually transmitted infection decreased significantly also (from 40% to 15%; p<0.001). Condom use improved from a low baseline. Low rates of disclosure (55%) were reported by HIV-positive clients. Overall, no changes in rates of life events were seen. CONCLUSION: This study suggests that significant prevention gains can be recorded in clients receiving health centre-based VCT services in Africa. Prevention issues should be considered when refining counselling and testing policies for expanding treatment programmes.


BACKGROUND: The low uptake of HIV voluntary counseling and testing (VCT), an effective HIV prevention intervention, has hindered global attempts to prevent new HIV infections, as well as limiting the scale-up of HIV care and treatment for the estimated 38 million infected persons. According to UNAIDS, only 10% of HIV-infected individuals worldwide are aware of their HIV status. At this point in the HIV epidemic, a renewed focus has shifted to prevention, and with it, a focus on methods to increase the uptake of HIV VCT. This review discusses home-based HIV VCT delivery models, which, given the low uptake of facility-based testing models, may be an effective avenue to get more patients on treatment and prevent new infections. OBJECTIVES: (1) To identify and critically appraise studies addressing the implementation of home-based HIV voluntary counseling and testing in developing countries. (2) To determine whether home-based HIV voluntary counseling and testing (HBVCT) is associated with improvement in HIV testing outcomes compared to facility-based models. SEARCH STRATEGY: We searched online for published and unpublished studies in MEDLINE (February 2007), EMBASE (February...
2007), CENTRAL (February 2007). We also searched databases listing conference proceedings and abstracts; AIDSearch (February 2007), The Cochrane Library (Issue 2, 2007), LILACS, CINAHL and Sociofile. We also contacted authors who have published on the subject of review. SELECTION CRITERIA: We searched for randomized controlled trials (RCTs) and non-randomized trials (e.g., cohort, pre/post-intervention and other observational studies) comparing home-based HIV VCT against other testing models.

DATA COLLECTION AND ANALYSIS: We independently selected studies, assessed study quality and extracted data. We expressed findings as odds ratios (OR), and relative Risk (RR) together with their 95% confidence intervals (CI). MAIN RESULTS: We identified one cluster-randomized trial and one pre/post-intervention (cohort) study, which were included in the review. An additional two ongoing RCTs were identified. All identified studies were conducted in developing countries. The two included studies comprised one cluster-randomized trial conducted in an urban area in Lusaka, Zambia and one pre/post-intervention (cohort) study, part of a rural community cohort in Southwestern Uganda. The two studies, while differing in methodology, found very high acceptability and uptake of VCT when testing and or results were offered at home, compared to the standard (facility-based testing and results). In the cluster-randomized trial (n=849), subjects randomized to an optional testing location (including home-based testing) were 4.6 times more likely to accept VCT than those in the facility arm (RR 4.6, 95% CI 3.6-6.2). Similarly, in the pre/post study (n=1868) offering participants the option of home delivery of results increased VCT uptake. In the intervention year (home delivery) participants were 5.23 times more likely to receive their results than during the year when results were available only at the facility. (OR 5.23 95% CI 4.02-6.8).

AUTHORS’ CONCLUSIONS: Home-based testing and/or delivery of HIV test results at home, rather than in clinics, appears to lead to higher uptake in testing. However, given the limited extant literature and the limitations in the included existing studies, there is not sufficient evidence to recommend large-scale implementation of the home-based testing model.


This study examined how individual, relational and environmental factors related to adolescent demand for HIV voluntary counseling and testing (VCT). A cross-sectional survey among randomly selected 16-19-year-olds in Ndola, Zambia, covered individual (e.g., HIV knowledge), environmental (e.g., distance), and relational factors (e.g., discussed VCT with family). Multivariate regression analysis compared 98 respondents who planned to test for HIV within the year with 341 respondents who did not. Discussing HIV testing with family members was strongly associated with planning to test (odds ratio [OR] = 6.1; 95% confidence interval [CI] = 2.24-16.58). VCT discussions with sex partners (OR = 3.64; 95% CI = 1.34-5.08) and with friends (OR = 2.61; 95% CI = 1.34-5.08) were also associated with HIV testing plans. Significant individual factors were having ever had sex (OR = 2.33; 95% CI = 1.41-3.84) and HIV risk perception (OR = 2.71; 95% CI = 1.51-4.88). Relational and individual factors strongly correlated with VCT demand, supporting the need to examine these factors when implementing and evaluating adolescent VCT strategies.


Holtgrave, D. (2007). Evidence-based efforts to prevent HIV infection: An overview of current status and future challenges. Clinical Infectious Diseases, 45 Suppl 4, S293-9. Since the early 1990s, the incidence of human immunodeficiency virus (HIV) infection in the United States has been approximately 40,000 cases per year. Because this rate has not decreased substantially in >15 years, the efficacy and cost-effectiveness of programs to prevent HIV infection have come under intensifying examination. In this article, several issues are addressed, including the efficacy of HIV prevention strategies at the national level in the United States, the status of the goals from the current (albeit expired) national HIV prevention plan, the role of opt-out HIV testing in a new comprehensive national HIV prevention plan, and a review of evidence-based prevention strategies that should be emphasized in a new plan.

OBJECTIVES: HIV voluntary counselling and testing (VCT) is important for prevention, detection and treatment of HIV infection. A study was conducted to determine the extent of utilization of VCT, and to study the attitudes and preferences of the community regarding VCT.
METHODS: A total of 301 adults, aged 18-49 years, residing in Nakuru, Kenya were randomly selected using a two-stage sampling process. A self-administered questionnaire delivered during home visits was used to collect data over a 4-week period.
RESULTS: The majority of study participants (184 of 287; 64.1%) had never been tested for HIV; 77 (26.8%) had received VCT, and 26 (9.1%) had received HIV testing without counselling. A total of 219 (78.2%) of the 280 responding participants expressed readiness to have VCT. The majority of participants (216 of 296; 73%) preferred VCT, while 46 (15.5%) preferred testing without counselling. The majority (227; 76.7%) preferred couple testing and dedicated clinics and private doctors' offices as testing facilities. The choice of a nearby facility was ranked above the provision of anonymity by most participants (162 of 298; 54.4%; vice versa for 136 of 298; 45.6%).
CONCLUSIONS: With HIV/AIDS continuing to be a major public health concern in Kenya, the issues surrounding acceptance and use of VCT need to be addressed. Enhancing community awareness of the benefits of early HIV diagnosis, providing couple-based VCT as an integral part of VCT and increasing access to VCT testing sites may enhance utilization of VCT.

BACKGROUND: HIV counseling and testing is an important intervention in the prevention, control and management of the human immunodeficiency virus (HIV). Counseling and testing can be an entry point for prevention, care and support. Knowledge of the quality of services and motivations for testing by individuals is important for effective understanding of the testing environment.
METHODS: A cross sectional explorative study of clients accessing HIV voluntary counseling and testing (VCT) and counselors was conducted in 6 government health centers in Blantyre City, Malawi. We aimed to assess the availability of critical clinic supplies and identify the motivations of clients seeking counseling and testing services. We also aimed to identify the health professional cadres that were providing VCT in Blantyre city.
RESULTS: 102 VCT clients and 26 VCT counselors were interviewed. Among the VCT clients, 74% were < or =29 years, 58.8% were females and only 7%
reported no formal education. 42.2% were single, 45.1% married, 8.8% widowed and 3.9% divorced or separated. The primary reasons for seeking HIV counseling and testing were: recent knowledge about HIV (31.4%), current illness (22.5%), self-assessment of own behavior as risky (15.5%), suspecting sexual partner's infidelity (13.7%) and seeking HIV confirmatory test (9.8%) and other reasons (6.9%). Of the 26 VCT counselors, 14 were lay volunteers, 7 health surveillance assistants and 5 nurses. All except one had been trained specifically for HIV counseling and testing. All 6 facilities were conducting rapid HIV testing with same day test results provided to clients. Most of the supplies were considered adequate for testing. CONCLUSION: HIV counseling and testing facilities were available in Blantyre city in all the six public health facilities assessed. The majority of counseling and testing clients were motivated by perceptions of being at risk of HIV infection. In a country with 12% of individuals 15 to 49 years infected, there is need to encourage testing among population groups that may not perceive themselves to be at risk of infection.


BACKGROUND: There is growing need for research in China regarding posttest risk behavior differences among injecting drug users that explores the effect of various testing modes (nonvoluntary vs. voluntary) and other related factors on changes in posttest risk behaviors. METHODS: One hundred seventy-two study subjects self-reported human immunodeficiency virus (HIV)-related personal risk behaviors including condom use rates and needle-sharing habits. Fisher exact test and multivariate regression analysis compared the impact of HIV testing mode on ongoing risk behaviors for HIV transmission. RESULTS: The study found that those who received positive test results were 5.37 times more likely to increase condom use with regular sexual partners, that men were 8.8 times more likely than women to increase posttest condom use in commercial sexual activities. Needle-sharing behavior was significantly lower for subjects who tested HIV-positive (odds ratio [OR]: 4.5), who notified sexual partners of test results (OR: 0.03), and who had tested voluntarily (OR: 0.04). CONCLUSION: Based on the study results this report concludes that voluntary HIV testing and encouragement of partner notification of test results should be incorporated into China's national testing strategy.


BACKGROUND: Changing community norms to increase awareness of HIV status and reduce HIV-related stigma has the potential to reduce the incidence of HIV-1 infection in the developing world. METHODS: We developed and implemented a multilevel intervention providing community-based HIV mobile voluntary counseling and testing, community mobilization, and posttest support services. Forty-eight communities in Tanzania, Zimbabwe, South Africa, and Thailand were randomized to receive the intervention or clinic-based standard voluntary counseling and testing (VCT), the comparison condition. We monitored utilization of community-based HIV mobile voluntary counseling and testing and clinic-based standard VCT by community of residence at 3 sites, which was used to assess differential uptake. We also developed quality assurance procedures to evaluate staff fidelity to the intervention. FINDINGS: In the first year of the study, a 4-fold increase in testing was observed in the intervention versus comparison communities. We also found an overall 95% adherence to intervention components. Study outcomes, including prevalence
of recent HIV infection and community-level HIV stigma, will be assessed after 3 years of intervention. CONCLUSIONS: The provision of mobile services, combined with appropriate support activities, may have significant effects on utilization of voluntary counseling and testing. These findings also provide early support for community mobilization as a strategy for increasing testing rates.


BACKGROUND: Kenya, a country with high HIV prevalence, has seen a rapid scale-up of voluntary counseling and HIV-testing (VCT) services from three sites in 2000 to 585 by June 2005. From 2002 onwards, services were promoted by a four-phase professionally designed mass media campaign. OBJECTIVE: To assess the impact of a mass media campaign on VCT services. DESIGN: Observational data from client records. METHODS: VCT client data from 131 voluntary counseling and testing sites were included. Descriptive statistics and Poisson regression were used to assess the impact of campaign phases. RESULTS: Client records (381,160) from 131 sites were analyzed. A linear increase in new sites and an exponential increase in client utilization were observed. Regression analysis revealed that the first phase of the campaign increased attendance by 28.5% (95% confidence interval = 15.9, 42.5%) and the fourth by 42.5% (95% confidence interval = 28.4, 64.1%). These two phases, which directly mentioned HIV, had more impact on utilization than the second and third phases, which did not have a significant effect. CONCLUSION: The Kenyan experience suggests that a professional, intensive mass media campaign is likely to contribute to increases in utilization of testing. Expansion of programs for counseling and HIV testing in developing countries is likely to be facilitated by mass media promotion of these services.


OBJECTIVE: To examine the acceptance of repeat population-based voluntary counselling and testing (VCT) for HIV in rural Malawi. METHODS: Behavioural and biomarker data were collected in 2004 and 2006 from approximately 3000 adult respondents. In 2004, oral swab specimens were collected and analysed using ELISA and confirmatory Western blot tests, while finger-prick rapid testing was done in 2006. We used cross-tabulations with chi(2) tests and significance tests of proportions to determine the statistical significance of differences in acceptance of VCT by year, individual characteristics and HIV risk. RESULTS: First, over 90% of respondents in each round accepted the HIV test, despite variations in testing protocols. Second, the percentage of individuals who obtained their test results significantly increased from 67% in 2004, when the results were provided in randomly selected locations several weeks after the specimens were collected, to 98% in 2006 when they were made available immediately within the home. Third, whereas there were significant variations in the sociodemographic and behavioural profiles of those who were successfully contacted for a second HIV test, this was not the case for those who accepted repeat VCT. This suggests that variations in the success of repeat testing might come from contacting the individuals rather than from accepting the test or knowing the results. CONCLUSIONS: Repeat HIV testing at home by trained healthcare workers from
outside the local area, and with either saliva or blood, is almost universally acceptable in rural Malawi and, thus, likely to be acceptable in similar contexts.

Roura, M., Urassa, M., Busza, J., Mbata, D., Wringe, A., & Zaba, B. (2009). Scaling up stigma? The effects of antiretroviral roll-out on stigma and HIV testing. early evidence from rural Tanzania. Sexually Transmitted Infections, 85(4), 308-312. OBJECTIVE: To investigate the interplay between antiretroviral therapy (ART) scale-up, different types of stigma and Voluntary Counselling and Testing (VCT) uptake 2 years after the introduction of free ART in a rural ward of Tanzania. METHODS: Qualitative study using in-depth interviews and group activities with a purposive sample of 91 community leaders, 77 ART clients and 16 health providers. Data were analysed for recurrent themes using NVIVO-7 software. RESULTS: The complex interplay between ART, stigma and VCT in this setting is characterised by two powerful but opposing dynamics. The availability of effective treatment has transformed HIV into a manageable condition which is contributing to a reduction in self-stigma and is stimulating VCT uptake. However, this is counterbalanced by the persistence of blaming attitudes and emergence of new sources of stigma associated with ART provision. The general perception among community leaders was that as ART users regained health, they increasingly engaged in sexual relations and "spread the disease." Fears were exacerbated because they were perceived to be very mobile and difficult to identify physically. Some leaders suggested giving ART recipients drugs "for impotence," marking them "with a sign" and putting them "in isolation camps." In this context, traditional beliefs about disease aetiology provided a less stigmatised explanation for HIV symptoms contributing to a situation of collective denial. CONCLUSION: Where anticipated stigma prevails, provision of antiretroviral drugs alone is unlikely to have sufficient impact on VCT uptake. Achieving widespread public health benefits of ART roll-out requires community-level interventions to ensure local acceptability of antiretroviral drugs.

Sasse, A., Vincent, A., Galand, M., Ryckmans, P., & Liesnard, C. (2006). High HIV prevalence among patients choosing anonymous and free testing in Belgium, 1990-2002. International Journal of STD & AIDS, 17(12), 817-820. From 1990 through 2002, 25,250 anonymous and free HIV tests were performed at a testing site, which carried out the majority (85%) of anonymous testing in Belgium. During the same period, approximately 7.3 million confidential tests were registered nationwide. The rate of new HIV infections diagnosed at the anonymous testing site was 11.1/1000 tests; it was significantly higher than the rate observed among confidential tests (relative risk = 7.41; P < 0.0001). New HIV cases diagnosed through anonymous testing include a higher proportion of young adults (42.0% versus 32.5% in confidential testing; P < 0.001) and a higher proportion of men who have sex with men (32.7% vs. 25.9% in confidential testing; P < 0.02). Anonymous and free HIV testing was particularly sought by persons with higher infection risk, and efficiently contributed to HIV diagnosis in this population. Anonymous and free testing should be and remain an accessible alternative integrated in HIV testing policies.


This study sought to describe the development of HIV counselling and testing services in a rural private hospital and to explore the factors associated with reasons for seeking HIV testing and sexual behaviours among adults seeking testing in the rural hospital. Data for this study were drawn from a voluntary counselling and testing clinic in a private hospital in rural Andhra Pradesh state in southern India. In total, 5,601 rural residents sought HIV counselling and testing and took part in a behavioural risk-assessment survey during October 2003-June 2005. The prevalence of HIV was 1.1%. Among the two reported reasons for test-seeking--based on past sexual behaviour and based on being sick at the time of testing--men, individuals reporting risk behaviours, such as those having multiple pre- and postmarital sexual partners, individuals whose recent partner was a sex worker, and those who reported using alcohol before sex, were more likely to seek testing based on their past sexual behaviour. Men also were more likely to seek testing because they were sick. The findings from this large sample in rural India suggest that providing HIV-prevention and care services as part of an ongoing system of healthcare-delivery may benefit rural residents who otherwise may not have access to these services. The implications of involving the private sector in HIV-related service-delivery and in conducting research in rural areas are discussed. It is argued that services that are gaining prominence in urban areas, such as addressing male heterosexual behaviours and assessing the role of alcohol-use, are equally relevant areas of intervention in rural India.


Article 1. Scope These guidelines stipulate contents, operation procedures for VCT services and standards for any VCT clinics. Article 2. To whom it applies These guidelines shall apply to all health facilities/settings, all those who provide VCT services and testing facilities as well regardless of public or private settings. These guidelines are not applicable to any types of compulsory HIV testing stated by the article No. 28 in the law on HIV/AIDS prevention and control.

Solomon, S., Venkatesh, K. K., Srikrishnan, A. K., & Mayer, K. H. (2008). Challenges of expansion of voluntary counselling and testing in India. Sexual Health, 5(4), 371-372. Voluntary counselling and testing (VCT) has been recognised as an integral element of any effective HIV public health primary prevention and care program. In India, it is currently estimated that 2.0-3.1 million individuals are living with HIV. As low-cost antiretroviral therapy has increasingly become available in India, VCT could be an important link connecting individuals to treatment and care. Major barriers remain for scaling-up of VCT services, including location of VCT centres, HIV-associated stigma, and lack of perception of HIV risk. Future national expansions of VCT services must engage the Indian private sector, which is likely to remain the largest provider of healthcare for the foreseeable future, through scaling-up personnel in these facilities to provide accurate testing and culturally-relevant counselling.

widespread. Whether such screening is an effective use of resources is unclear. We used epidemiologic and economic data from Russia to develop a Markov model to estimate costs, quality of life and survival associated with a voluntary HIV screening programme compared with no screening in Russia. We measured discounted lifetime health-care costs and quality-adjusted life years (QALYs) gained. We varied our inputs in sensitivity analysis. Early identification of HIV through screening provided a substantial benefit to persons with HIV, increasing life expectancy by 2.1 years and 1.7 QALYs. At a base-case prevalence of 1.2%, once-per-lifetime screening cost $13,396 per QALY gained, exclusive of benefit from reduced transmission. Cost-effectiveness of screening remained favourable until prevalence dropped below 0.04%. When HIV-transmission-related costs and benefits were included, once-per-lifetime screening cost $6910 per QALY gained and screening every two years cost $27,696 per QALY gained. An important determinant of the cost-effectiveness of screening was effectiveness of counselling about risk reduction. Early identification of HIV infection through screening in Russia is effective and cost-effective in all but the lowest prevalence groups.


OBJECTIVE: To describe the associations between socio-demographic, behavioural and clinical characteristics and the use of HIV voluntary counselling and testing (VCT) services among residents in a rural ward in Tanzania. METHODS: Eight thousand nine hundred and seventy participants from a community-based cohort were interviewed, provided blood for research HIV testing, and were offered VCT. Univariate and multivariate logistic regression was used to identify socio-demographic, clinical and behavioural factors associated with VCT use. RESULTS: Although 31% (1246/3980) of men and 24% (1195/4990) of women expressed an interest in the service, only 12% of men and 7% of women subsequently completed VCT. Socio-demographic factors, such as marital status, area of residence, religion and ethnicity influenced VCT completion among males and females in different ways, while self-perceived risk of HIV, prior knowledge of VCT, and sex with a high-risk partner emerged as important predictors of VCT completion among both sexes. Among males only, those infected with HIV for 5 years or less tended to self-select for VCT compared to HIV-negatives (adjusted odds ratio = 1.43; 95% CI: 0.99-2.14). This contributed to a higher proportion of HIV-positive males knowing their status compared to HIV-positive females. CONCLUSIONS: In this setting, a disproportionate number of HIV-positive women are failing to learn their status, which has implications for equitable access to onward referral for care and treatment services. Evidence that some high-risk behaviours may prompt VCT use is encouraging, although further interventions are required to improve knowledge about HIV risk and the benefits of VCT. Targeted interventions are also needed to promote VCT uptake among married women and rural residents.


BACKGROUND: HIV voluntary counseling and testing (VCT) is considered an effective prevention method of HIV infection. In order to understand the VCT environment and enhance the effective delivery of VCT services in a country, an accurate assessment of the current status of VCT services is very important. METHODS: From July 2006 to June 2007, we conducted a cross-sectional survey using a face to face interview among 2676 VCT
clients from a high risk area in Shenyang city, China. RESULTS: The major demographic characteristics among 2,676 VCT clients were: 41.1% were in the age range 20 to 30 years; 73.1% were males; and 67.1% had attained the level of junior high school education. The primary information source for VCT services was mass media like television (TV) and newspaper in 88.9%. 34.3% were afraid of the result of infection which was the main barrier to accept VCT services among 540 participants answering the question. 75.2% were motivated by recently acquired knowledge about HIV. 47.9% had 3 or more male sex partners, 62.3% had used condoms sometimes, and 14.5% had been infected with a STD. 2.8% of the participants identified themselves as men who have sex with men (MSM). The main demographic characteristics of MSM did not differ from the total group of participants except with respect to age: 63.5% reported having one male sex partner in the preceding 12 months, 44.6% reported never using condoms in the preceding 12 months, and only 2.7% reported a history of sexually transmitted disease. CONCLUSION: Public education offered by health workers in hospitals, private clinics and other medical institutions needs to be strengthened. Given the results from this study, we recommend: (1) making VCT a routine part of health services, especially in areas where many high-risk individuals live; (2) improving the information sources and increasing the understanding of HIV and HIV-infected individuals; (3) enhancing international collaboration in strategic planning, technical assistance, and protocols to translate policy into effective action; (4) supporting Chinese non-government organizations (NGOs) in playing a significant role in the battle against AIDS.

Temoshok, L. R., & Wald, R. L. (2008). Integrating multidimensional HIV prevention programs into healthcare settings. Psychosomatic Medicine, 70(5), 612-619. Effective secondary prevention programs to reduce HIV transmission risk-relevant behaviors among HIV-infected individuals must go beyond the traditional, common sense prevention components to develop biomedically and epidemiologically informed behavioral interventions as part of comprehensive, integrated, multidisciplinary HIV care. Incorporating and expanding on the Serostatus Approach to Fighting the Epidemic, a five-pronged strategy set forth by the Centers for Disease Control and Prevention in 2001, we discuss recent findings from the biomedical sciences on viral and host factors that influence infectiousness to support the idea that the most proactive prevention programs will explicitly integrate biomedical interventions and approaches designed to reduce infectiousness, and thus the sexual transmission of HIV. Based on studies of emerging and spreading drug-resistant HIV variants, we have posited the potential development of biodisparity as the biological entrenchment of disparities in socioeconomic status, access to care, and HIV risk-relevant behaviors that differentially affect minorities living with HIV in the US. It is clear that creative approaches based on an expanded behavioral medicine interface with the latest HIV biomedical and epidemiological research are needed to enhance the efficacy of HIV secondary prevention.

**Linking HIV testing and TB**


In countries with high HIV prevalence, up to 80% of tuberculosis (TB) patients also have
human immunodeficiency virus (HIV) infection. HIV testing and counseling needs to be more feasible and accessible to all people in settings with a generalized HIV epidemic, but particularly to those likely to have HIV infection and who need care and treatment. Implementing provider-initiated and -delivered HIV testing and counseling (PITC) in clinical settings where patients have symptoms and signs consistent with HIV-related disease, including TB, is therefore a priority. We describe a new tool that has been developed to assist countries in planning and implementing PITC in TB clinical settings. The materials include a template for national guidance for the PITC program and procedures, a training curriculum for clinic staff and job aids including a script that assist clinicians in communicating appropriate pre- and post-test information to their TB patients, including the benefits to HIV-infected TB patients of knowing their status so they can obtain HIV care and treatment and prevent the spread of HIV.


Setting: TB clinics in Kinshasa, Democratic Republic of Congo. Objectives: To identify an acceptable approach to human immunodeficiency virus (HIV) counseling and testing (CT) for patients with tuberculosis (TB) from health care worker (HCWs) and patient perspectives. Design: A qualitative evaluation was conducted of three models of routine provider-initiated HIV CT: off-site referral to a freestanding voluntary counseling and testing (VCT) center, on-site referral for HIV CT at the primary health care center to which the TB clinic belongs and HIV CT by the TB nurse. Results: Incorporating HIV CT into routine TB care was supported by HCWs (96%) and patients (99%). The trusting patient-provider relationship was a primary reason why most HCWs (74%) and patients (68%) preferred the HIV CT by TB nurse model. Patients also cited continuity of care and potential optimisation of the management of HIV co-infected patients as reasons. Some patients and HCWs were concerned about confidentiality issues (HIV status documentation and privacy of counseling) and the potential difficulty of refusing routine HIV CT when it was offered by TB nurses. Some HCWs also expressed worry about the increased workload. Conclusion: Qualitative data provided insight into reasons for the high uptake observed of routine HIV CT offered by TB nurses and identified potential concerns when implementing this model.


Background: Zambia faces overlapping tuberculosis (TB) and human immunodeficiency virus (HIV) epidemics; however, care for co-infected patients often occurs through separate, vertical programs. Objective: To establish a program to integrate TB and HIV services in Lusaka primary care centers. Methods: In collaboration with the Zambian Ministry of Health, TB-HIV integration activities began in December 2005 and were expanded to seven health centers by March 2007. Principal activities included developing staff capacity to manage co-infected patients, implementing HIV testing within TB departments and establishing referral systems between departments. Results: Using a provider-initiated approach, 2053 TB patients were offered HIV testing. Seventy-seven per cent agreed to be tested; 69% of those tested were HIV-infected. Of these, 59% were enrolled in HIV care. The proportion of antiretroviral treatment (ART) program enrollees who were TB-HIV co-infected increased by 38% after program implementation. The median
CD4 count among co-infected patients was 161 cells/microl, with 88% eligible for ART. CONCLUSION: Integration of HIV testing and referral services into urban primary care centers identified many co-infected patients and significantly increased the proportion of TB patients among people accessing HIV care. Ongoing challenges include maximizing the number of patients accepting HIV testing and overcoming barriers to enrollment into HIV care.

Mahendradhata, Y., Ahmad, R. A., Kusuma, T. A., Boelaert, M., Van der Werf, M. J., Kimerling, M. E., et al. (2008). Voluntary counselling and testing uptake and HIV prevalence among tuberculosis patients in Jogjakarta, Indonesia. Transactions of the Royal Society of Tropical Medicine and Hygiene, 102(10), 1003-1010. We aimed to establish HIV prevalence and uptake of unlinked anonymous testing and voluntary counselling and testing (VCT) among tuberculosis (TB) patients in Jogjakarta, Indonesia. We introduced unlinked anonymous HIV testing for TB patients attending directly observed treatment, short-course services between April and December 2006. Patients were additionally offered VCT services. Of 1269 TB patients who were offered unlinked anonymous testing, 989 (77.9%; 95% CI 75.6-80.1%) accepted. HIV prevalence was 1.9% (95% CI 1.6-2.2%). HIV infections were less frequently diagnosed among TB patients who attended a public health centre [odds ratio (OR) 0.15; 95% CI 0.03-0.70] rather than public hospital. They were more frequent in TB patients with a university education background (OR 5.16; 95% CI 1.01-26.63) or a history of HIV testing (OR 57.87; 95% CI 9.42-355.62). Of the 989 patients who accepted unlinked anonymous testing, only 133 (13.4%; 95% CI 11.5-15.7%) expressed interest in VCT. Of these, 52 (39.1%; 95% CI 31.2-47.6%) attended VCT, but interest was higher among students and those offered VCT by public health centres. The HIV prevalence in Jogjakarta is higher than expected and needs to be monitored cautiously. Unlinked anonymous HIV testing is well accepted and can be implemented with modest additional efforts.

Mahendradhata, Y., Ahmad, R. A., Lefevre, P., Boelaert, M., & Van der Stuyft, P. (2008). Barriers for introducing HIV testing among tuberculosis patients in Jogjakarta, Indonesia: A qualitative study. BMC Public Health, 8, 385. BACKGROUND: HIV and HIV-TB co-infection are slowly increasing in Indonesia. WHO recommends HIV testing among TB patients as a key response to the dual HIV-TB epidemic. Concerns over potential negative impacts to TB control and lack of operational clarity have hindered progress. We investigated the barriers and opportunities for introducing HIV testing perceived by TB patients and providers in Jogjakarta, Indonesia. METHODS: We offered Voluntary Counselling and Testing (VCT) to TB patients in parallel to a HIV prevalence survey. We conducted in-depth interviews with 33 TB patients, 3 specialist physicians and 3 disease control managers. We also conducted 4 Focus Group Discussions (FGDs) with nurses. All interviews and FGDs were recorded and data analysis was supported by the QSR N6 software. RESULTS: Patients' and providers' knowledge regarding HIV was poor. The main barriers perceived by patients were: burden for accessing VCT and fear of knowing the test results. Stigma caused concerns among providers, but did not play much role in patients' attitude towards VCT. The main barriers perceived by providers were communication, patients feeling offended, stigmatization and additional burden. CONCLUSION: Introduction of HIV testing among TB patients in Indonesia should be accompanied by patient and provider education as well as providing conditions for effective communication.

**SETTINGS:** Twelve large public hospitals geographically distributed in Thailand.

**OBJECTIVES:** To assess the uptake of diagnostic human immunodeficiency virus (HIV) counselling and testing (DCT), HIV prevalence in tuberculosis (TB) patients and HIV services provided to newly diagnosed HIV-infected TB patients.

**METHOD:** We provided DCT in TB clinics to newly registered TB patients. Post-test counselling was provided at TB clinics for non-HIV-infected patients and at HIV voluntary counselling and testing centres for HIV-infected patients. HIV-infected patients were referred for HIV-related care during TB treatment.

**RESULTS:** From July to October 2006, 8% of 1086 new TB patients were known to be HIV-infected at the time of TB diagnosis. Of 1000 patients with unknown HIV status, 93% were tested: HIV infection was diagnosed in 11%. Including patients with previously diagnosed HIV infection, 17% of all TB patients were HIV-infected. Of 99 newly diagnosed HIV patients, 36% received cotrimoxazole prophylaxis. Of 41 with CD4 < 200 cells/microl, 42% began antiretroviral treatment during TB treatment.

**CONCLUSION:** The acceptance of DCT was high, but the provision of HIV services was disappointingly low. Increased staff capacity building, stronger coordination with the acquired immune-deficiency syndrome programme and better field supervision are needed to achieve universal access to care for HIV-infected TB patients.


**OBJECTIVE:** To determine whether implementation of provider-initiated human immunodeficiency virus (HIV) counseling would increase the proportion of tuberculosis (TB) patients who received HIV counseling and testing.

**DESIGN:** Cluster-randomized trial with clinic as the unit of randomization.

**SETTING:** Twenty, medium-sized primary care TB clinics in the Nelson Mandela Metropolitan Municipality, Port Elizabeth, Eastern Cape Province, South Africa.

**SUBJECTS:** A total of 754 adults (18 years and older) newly registered as TB patients in the 20 study clinics.

**INTERVENTION:** Implementation of provider-initiated HIV counseling and testing.

**MAIN OUTCOME MEASURES:** Percentage of TB patients HIV counseled and tested. SECONDARY: Percentage of patients with HIV test positive, and percentage of those who received cotrimoxazole and who were referred for HIV care.

**RESULTS:** A total of 754 adults newly registered as TB patients were enrolled. In clinics randomly assigned to implement provider-initiated HIV counseling and testing, 20.7% (73/352) patients were counseled versus 7.7% (31/402) in the control clinics (P = 0.011), and 20.2% (n = 71) versus 6.5% (n = 26) underwent HIV testing (P = 0.009). Of those patients counseled, 97% in the intervention clinics accepted testing versus 79% in control clinics (P = 0.12). The proportion of patients identified as HIV infected in intervention clinics was 8.5% versus 2.5% in control clinics (P = 0.044). Fewer than 40% of patients with a positive HIV test were prescribed cotrimoxazole or referred for HIV care in either study arm.

**CONCLUSIONS:** Provider-initiated HIV counseling significantly increased the proportion of adult TB patients who received HIV counseling and testing, but the magnitude
of the effect was small. Additional interventions to optimize HIV testing for TB patients urgently need to be evaluated.


The strong interaction between the HIV and tuberculosis epidemics has been well described. Australian national surveillance data suggest that HIV status is ascertained by clinicians in less than 50% of people with tuberculosis. Clinicians are not able to reliably predict which people have HIV infection - risk factor assessment alone is insufficient. Because tuberculosis is an AIDS-defining condition and highly effective therapy for HIV infection is available, all patients with Mycobacterium tuberculosis infection should be offered HIV testing.


BACKGROUND: The combined tuberculosis and human immunodeficiency virus (TB-HIV) epidemic demands effective and urgent action. OBJECTIVE: To assess the effectiveness of the system of referral of TB suspects from the integrated HIV counselling and testing centres (ICTCs) to the designated microscopy centres (DMCs) in Tamil Nadu, and to identify reasons for dropping out. DESIGN: ICTC counsellors identified TB suspects among clients (excluding pregnant women and children) in six districts of Tamil Nadu in 2007 and referred them to DMCs, irrespective of their HIV status. From the records at ICTCs and DMCs, we collected information on the number of referrals to the DMCs, TB suspects attending DMCs and smear-positive TB cases with or without HIV. Clients who did not attend the DMCs were interviewed to elicit reasons for dropping out. RESULTS: Of 18329 clients counselled, 1065 (6%) were identified as TB suspects and referred to DMCs. Of these, 888 (83%) attended and 177 (17%) dropped out; 81% of the drop-outs were interviewed. Reasons for dropping out were multiple: 51% were due to the health system, 62% due to the disease and 62% due to personal reasons. Twelve per cent of DMC attendees were smear-positive. CONCLUSION: The ICTC-to-DMC referral system makes a significant contribution to the detection of TB cases. Reasons for dropping out were multiple, but are correctable. This study also probes into current policies on programme coordination and recommends strategies for strengthening the collaboration between the TB and HIV programmes.


Tuberculosis is the main cause of morbidity and mortality in people living with HIV/AIDS worldwide. Early diagnosis and treatment is essential to addressing the dual epidemic of tuberculosis and HIV. Increasing recognition of the importance of integrating tuberculosis services--including screening--into HIV care has led to global policies and the beginnings of implementation of joint activities at the national level. However, debate remains about the best methods of screening for pulmonary tuberculosis among people living with HIV/AIDS in resource-limited settings. Mycobacterial culture, the gold standard for tuberculosis diagnosis, is too slow and complex to be a useful screening test in such settings. More widely available methods, such as symptom screening, sputum smear microscopy, chest radiography, and tuberculin skin testing have important shortcomings, especially in people
living with HIV/AIDS. However, until simpler, cheaper, and more sensitive diagnostics for tuberculosis are available in peripheral healthcare settings, a strategy must be developed that uses current evidence to combine available screening tools.

Roehr, B. (2008). **WHO says more HIV patients should be screened for tuberculosis.** *BMJ (Clinical Research Ed.),* 337, a1181.


**SETTING:** Kinshasa, Democratic Republic of Congo. **OBJECTIVES:** To evaluate the implementation of three models of provider-initiated HIV counseling and testing (CT) for tuberculosis (TB) patients. **METHODS:** HIV CT was offered to all TB patients aged > or =18 months registered for treatment at three project clinics between August 2004 and June 2005. HIV CT was performed at the TB clinic, the health center or the freestanding voluntary counseling and testing (VCT) center. HIV-infected patients received cotrimoxazole prophylaxis. **RESULTS:** Uptake of HIV CT was high (95-98%) when performed at the TB clinic or primary health care center, but significantly lower (68.5%) among patients referred to a free-standing VCT center. The overall HIV prevalence among the 1088 patients tested for HIV was 18.8%. HIV was associated with female sex (aOR 1.91), recurrent TB (aOR 2.74), extra-pulmonary TB (aOR 1.97) and age. **CONCLUSIONS:** Implementation of provider-initiated routine HIV CT by the TB nurse or health care worker at the primary health care center results in a higher uptake compared to referral of patients with TB to freestanding VCT clinics. Provider-initiated HIV CT is only a first step and needs to be linked to access to HIV care, support and treatment.