Time to move towards opt-out testing for HIV in the UK

M Hamill and **colleagues** believe the UK could do more to ensure people know their HIV status

The diagnosis of HIV infection is the point of entry to prevention and treatment services. Yet many people are unaware that they are infected. The estimated proportion of people who remain undiagnosed ranges from 90% in sub-Saharan Africa, to one third in the United Kingdom, and a quarter in the United States.¹⁻³ The Secretary General of the United Nations declared in 2006 that "Countries should promote, through global and national campaigns, the ideal that each person knows his or her HIV status and has access to AIDS information, counselling and related services, in a social and legal environment that is supportive and safe for confidential testing and voluntary disclosure of HIV status."⁴ We consider how the UK should respond to this challenge.

Strategies for testing

HIV tests are usually done as part of diagnosis—in patients with signs or symptoms suggestive of HIV disease—or to screen for infection in people without symptoms. Most screening is done at the patient's request or because a healthcare worker judges a patient to be at increased risk for HIV infection and seeks consent for testing.

One way to increase knowledge of HIV infection status is to use an opt-out approach to testing. This approach, which is also voluntary, considers HIV testing to be a standard part of medical care for particular patient populations. The populations are defined by variables that serve as surrogates for HIV prevalence or risk of HIV infection—for example, age, geographical area, country of origin, and healthcare setting. No judgment is made about an individual patient's risk of infection. Patients are given information about HIV, how the test will be carried out, and are tested unless they specifically decline. Extensive pretest counselling is not required. Instead, counselling resources are focused on people found to be infected or on risk reduction strategies for those who test negative. Precedents of this model exist in several areas such as testing all NHS healthcare workers for hepatitis B virus.

New testing technologies make expanded testing easier. Point of care rapid tests can provide preliminary results during a single patient encounter.⁵ Rapid tests modified to use oral fluid samples obviate the need for either venepuncture or finger prick blood analysis.

In the US, the Centers for Disease Control and Prevention have revised their screening guidelines

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to make voluntary opt-out HIV testing a standard of care for people aged 13-64 years attending health care (box).³ The guidelines apply to all settings unless the prevalence of undiagnosed HIV infection is known to be <0.1%. The World Health Organization and the Joint UN Programme on HIV/AIDS recently published guidelines recommending provider initiated opt-out screening in concentrated and low level epidemics at sexually transmitted infection services, health services for populations at most risk, and antenatal, childbirth, and postpartum services.⁶

The UK currently uses opt-out testing for patients attending genitourinary medicine clinics and for pregnant women attending antenatal care.^{7,8} The British HIV Association (BHIVA) states that, "a potentially important mechanism for limiting the HIV epidemic is the widespread use of HIV testing in a variety of clinical settings," but provides no specific guidance on how the testing should be done.⁹ However, there is no recommendation for use of opt-out testing in other healthcare settings.

Case for routine opt-out testing

From 2003 to 2005, around 7500 people were newly diagnosed with HIV infection each year in the UK.² The largest numbers of infections are reported to have been acquired heterosexually and, of these, most were acquired in Africa. Infections in men who have sex with men continue to rise. Additionally, about 20000 UK residents aged 15-59 had undiagnosed HIV infection in 2005.² Of those undiagnosed, almost half were men who had sex with men and about one quarter were men and women born in Africa.

These undiagnosed people risk progression to serious illness or even death. Furthermore, through unprotected sex, they may transmit their infection

HIV screening guidelines for the United States³

- Opt-out HIV screening is recommended for patients in all healthcare settings
- People at high risk for HIV infection should be screened for HIV at least annually
- Separate written consent for HIV testing is not required; general consent for medical care should be considered sufficient to encompass consent for HIV testing
- Prevention counselling should not be required with HIV diagnostic testing or as part of HIV screening programmes in healthcare settings

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to others, and mothers may transmit to their infants. Therefore earlier diagnosis has clear advantages for public and individual health. Once diagnosed with HIV infection, sexual risk behaviours of infected people have been shown to decrease substantially.¹⁰ The routine availability of highly active antiretroviral therapy adds weight to the argument for more extensive testing.

Routine opt-out testing, which makes no judgment about an individual's risk, could also help reduce the stigma associated with testing. Stigma is an important barrier to HIV testing because infection is associated with sexual behaviour and drug use. When the infected person is homosexual or a member of an ethnic minority, the stigma may further increase.

Another consideration is the time taken up by increased HIV testing in general practice surgeries, accident and emergency departments, and hospital wards. The time needed for each patient is less for opt-out testing than for opt-in testing because extensive counselling and specific consent are not required.¹¹ However, more patients will be tested. Programmes for routine screening have been instituted in emergency departments and urgent care centres at several US hospitals and yielded relatively high rates of previously undiagnosed HIV infection.^{12 13} Similar findings have been reported in a UK accident and emergency department.¹⁴

Cost effectiveness of opt-out testing will vary according to several factors, including HIV prevalence in the population to be screened. Paltiel and colleagues recently showed that routine HIV testing using rapid tests would cost less than \$50 000 (£25 000; €37 000)

per quality adjusted life year (QALY) gained in US adults with a prevalence of undiagnosed HIV infection above 0.2%.⁵ No comparable cost effectiveness data are currently available for the UK.

Evidence of benefit

To inform a discussion of expanding opt-out HIV testing in the UK, we first need data on the likely yield from a changed testing policy. The best data come from unlinked anonymous prevalence surveys. Such surveys of men who have sex with men attending UK sentinel genitourinary clinics in 2005 showed the prevalence of previously undiagnosed HIV infection was 3.2%.² Prevalence was highest in London (3.8%). Although people attending genitourinary medicine clinics presumably have a higher HIV seroprevalence than the rest of the population, these data suggest that screening in other facilities serving men who have sex with men would detect additional infected people.

As expected, unlinked anonymous surveys of child-bearing women in the UK show much lower HIV prevalence, with undiagnosed infection detected in only 0.09% of women in England and Scotland.² Again, infection rates were highest in London, especially in south east London, where the prevalence was 0.6%. Prevalence was highest in women from sub-Saharan Africa (2.4%) and from central America and the Caribbean (0.82%).

Further surveys are needed in areas of known increased HIV prevalence and in facilities that are known to serve people at increased risk of infection. Ideally, they should be based in facilities that already routinely collect blood samples for other purposes, such as accident and emergency departments and acute care hospital wards.

Since most people in the UK with heterosexually acquired HIV are from sub-Saharan Africa, testing Africans living in the UK would be likely to detect many previously undiagnosed infections. This strategy, however, raises ethical problems because some of this group may be illegal immigrants or failed asylum seekers and thus not entitled to free HIV treatment.¹⁶ Although these people may not get free antiretroviral drugs, knowledge of HIV status could reduce both horizontal and vertical transmission. Furthermore, they may be able to access affordable prophylaxis against opportunistic infections.

Any decision to expand screening also requires UK data on the cost effectiveness at various levels of seroprevalence. NICE guidelines suggest a threshold for cost effectiveness of between £20 000 and £30 000 per QALY gained.¹⁷ Given the mobility of populations, especially refugees, estimation of regional seroprevalence would need to be ongoing.

All public health decisions are based on weighing the pros and cons of a particular action or policy. In view of the clear advantages of early diagnosis of HIV infection for public and individual health, we believe the effectiveness and feasibility of expanded opt-out testing should be seriously assessed.

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Contributors and sources: MH is a clinician with an interest in improving HIV testing and access to care. HWJ has reported widely on the epidemiology of HIV and is involved in HIV research in the developed and developing world. This article arose from discussions on UK health policy on screening mechanisms and is based on searching Medline and British and US guidelines. All authors contributed equally to the article. HWJ is the guarantor.

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SUMMARY POINTS

Around one third of people with HIV infection in the UK remain undiagnosed

Routine opt-out testing could increase knowledge of HIV serostatus

Current UK guidelines recommend opt-out testing only for pregnant women and people attending genitourinary clinics

Opt-out testing takes less time per patient and may reduce stigma

The feasibility of expanding opt-out testing should be assessed

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Routine testing to reduce late HIV diagnosis in France

Although around half the French population has had an HIV test, many people are still not diagnosed until the disease is advanced. **Cyrille Delpierre** and **colleagues** believe the answer is to expand routine testing

Around 130 000 people in France were infected with HIV in 2005. Among the 7000 people newly diagnosed in 2004, 58% became infected through heterosexual intercourse, 29% through homosexual intercourse, and 2% through intravenous drug use. Around half of those infected through heterosexual intercourse came from sub-Saharan Africa.

In France, testing is free in all healthcare settings, and anonymous counselling and testing is provided in dedicated sites all over the country. Besides prenatal routine testing, current policy focuses on high risk groups (men who have sex with men, sub-Saharan migrants) and behaviours (unprotected sex). This policy results in a large number of tests annually. However, around 40% of cases identified are in people with advanced infection, most of whom belong to groups not focused on by the current testing policy. We discuss the consequences of late testing on mortality and spread of infection and recommend expanding HIV testing to all primary care settings.

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Testing policy

Since the 1980s, France's institutional framework of HIV testing has been based on wide access to free voluntary counselling and testing, routine testing in blood and tissue donors, and routinely offering HIV tests to pregnant women and to people getting married or entering prison. Since 1997, national and regional information campaigns have been launched to increase the awareness of the potential benefits of early diagnosis. However, these efforts remained mainly focused on people with high risk behaviours. The result of this policy is a high rate of testing, with 82 tests per 1000 population in 2004, the highest rate in Europe after Austria,¹ and a positive test ratio of 2.4/1000 tests in 2004.¹

Around half the French population has had at least one HIV test.² But, despite this high level of testing, 40% of people already have AIDS or CD4 cell counts below 200×10⁶/l when the HIV infection is first