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World AIDS Day 2001 – update on the world situation

UNAIDS has released a new report for World AIDS Day which summarises the current state of the global HIV epidemic. It is estimated that there are currently 40 million HIV-infected people in the world, 5 million of whom became infected in 2001. In the same year 3 million HIV-infected people have died.

The report highlights the increases in levels of infection in Eastern Europe. In the first six months of 2001 there were more than 40,000 new diagnoses of HIV in the Russian Federation. This brought the total number of diagnoses since the epidemic began to 129,000, compared with 10,993 reported to the end of 1998. In Africa, AIDS killed 2.3 million people in 2001. In sub-Saharan Africa there were an estimated 3.4 million new infections in the past year. Before the HIV epidemic, life expectancy in sub-Saharan Africa was at least 62 years; it has now fallen in some countries to 47 years. It is particularly important to provide young people with the information and life skills they need to avoid infection. The report *AIDS epidemic update – December 2001* is available from the UNAIDS website at www.unaids.org/epidemic_update/report_dec01/index.html.

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HIV and AIDS in the UK – an epidemiological review: 2000

HIV and AIDS in the UK – an epidemiological review: 2000 is, with the report on sexually transmitted infections described below, being published to coincide with World AIDS Day 2001. It describes the HIV epidemic in the United Kingdom (UK) from its beginnings through to the end of 2000. By that time over 44,000 HIV infections had been reported as diagnosed in the UK, and the number of people reported as seen for HIV-related care during 2000 was over 23,000.

When surveillance was developed in the UK in the mid-1980s, the groups most affected were homosexual men, and those who had received clotting factor products for the treatment of haemophilia. The latter route has been eliminated in the UK by the heat treatment of blood products. Homosexual men remain the group most at risk of acquiring infection in the UK, although there are now fewer new diagnoses of infection transmitted through sex between men than through heterosexual sex. The majority of heterosexually acquired infections, however, are acquired abroad, usually before the

infected individuals first came to the UK.

Copies of the report are available from Fateha Begum at the PHLS Communicable Disease Surveillance Centre (tel: 020 8200 6868 ext 4455; email fbegum@phls.org.uk), or may be downloaded from the PHLS website at www.phls.org.uk/facts/HIV/HIVreport.pdf.

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Sexually transmitted infections in the UK: new report shows large increases in diagnoses

The report *Sexually Transmitted Infections in the UK: New episodes seen at genitourinary medicine clinics, 1995 – 2000* (1) shows that between 1995 and 2000 the number of new episodes seen annually at genitourinary medicine (GUM) clinics in England, Wales, and Northern Ireland rose by more than a third, from 887,760 to 1,185,285. Over the same period, diagnoses of uncomplicated gonorrhoea, genital chlamydial infection, and infectious syphilis all more than doubled. These figures carry important implications for GUM clinics which have for some time been experiencing increasing workloads due both to the rising numbers of sexually transmitted infections (STIs) and an increased demand for other sexual health services, such as HIV counselling and testing.

The report highlights how the burden of most STIs falls disproportionately upon young people. During 2000, 1% of females aged 16 to 19 in England, Wales, and Northern Ireland, were diagnosed with genital chlamydial infection. Furthermore, 41% of females diagnosed with uncomplicated gonorrhoea were aged under 20 years. The report also emphasises that young people are at increased risk of other forms of sexual ill health, such as unplanned pregnancy, as they are more likely to have higher numbers of sexual partners and to use barrier contraception inconsistently (2).

Copies of the report are available from Oliver Clark at the PHLS Communicable Disease Surveillance Centre (tel: 020 8200 6868 ext 4452; email: oclark@phls.org.uk), or may be downloaded from the PHLS website at www.phls.org.uk/facts/STI/sti.htm.

1. PHLS, DHSS&PS and the Scottish ISD(D)5 Collaborative Group. *Sexually transmitted infections in the UK: new episodes seen at genitourinary medicine clinics, 1995 to 2000*. London: Public Health Laboratory Service, 2001.

2. Johnson A, Wadsworth J, Wellings K, Field J, Bradshaw S. *Sexual attitudes and lifestyles*. Oxford: Blackwell Scientific Publications, 1994.

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Prevalence of HIV and hepatitis infections in the UK in 2000

Transmission of HIV, hepatitis B and hepatitis C in the United Kingdom (UK) is continuing, according to the latest results from the Unlinked Anonymous Prevalence Monitoring Programme (UAPMP) (1-3). The prevalence of HIV infection in 2000 was highest in homosexual and bisexual men attending genitourinary medicine (GUM) clinics (11% in London and 2.2% elsewhere in the UK) and despite widespread administration of highly active anti-retroviral therapy (HAART), transmission of HIV continues to occur. A greater prevalence of HIV infection was seen in 2000 compared with 1999 in homosexual/bisexual men and injecting drug users (IDUs) in London, and in heterosexual women attending GUM clinics and in women giving birth both in London and the rest of the UK. Increases in the uptake of antenatal HIV testing have led to an increase in the proportion of maternal HIV infections diagnosed prior to delivery, and an associated fall in the number of infants infected with HIV from their mothers. When the prevalence data were combined with the latest data from the second National Survey of Sexual Attitudes and Lifestyles (4), it was estimated that there were 33,200 HIV-infected people aged 15 to 59 alive in the UK at the end of 1999, over a third of whom were unaware of their infection. More comprehensive tables and figures of data supplementary to the annual report (5) as well as electronic slides of the figures are available at www.phls.co.uk/facts/HIV/HivSlides.htm.

A substantial number of HIV infections in GUM clinic attendees, including in those presenting with an acute STI, remained undiagnosed. Data, including that on rises in the number of diagnoses of acute STIs, especially in HIV-infected homosexual and bisexual men aware of their HIV infection, strongly suggest that the risk of HIV transmission between homosexual and bisexual men has been increasing in recent years. In 2000, only 32% of HIV-infected homosexual and bisexual men attending London clinics who were unaware of their HIV infection prior to attendance, and who could potentially have been diagnosed, had their infection diagnosed at the clinic attendance. More worryingly, over half of the men who remained undiagnosed after visiting the clinic were concurrently infected with an acute STI. These individuals have an increased risk of transmitting their HIV infection to HIV-negative sexual partners.

The prevalence of HIV infection has increased in female heterosexual GUM clinic attendees in London from 0.69% in 1993 to 0.88% in 2000, and was significantly higher in heterosexuals born abroad, particularly in sub-Saharan Africa. In 2000, only 20% of heterosexuals attending GUM clinics with an acute STI were offered an HIV test and 63% of those concurrently infected with HIV remained undiagnosed after the clinic attendance.

In 2000, the prevalence of HIV infection in injecting drugs users (IDUs) in London was 3.7% in men and 2.9% in women and 0.2% and 0.3% in men and women outside London, respectively. The proportion of IDUs vaccinated against hepatitis B virus (HBV) increased significantly in 2000 to 35%, but 7% of those tested in 2000 who began injecting in the past three years had been infected with hepatitis B, an increase on the 1999 prevalence of 5.4%. One-third of IDUs in England and Wales have been, or are infected with hepatitis C, and only two-fifths of those who were infected with hepatitis C had been diagnosed. Sharing of injecting equipment continued at high levels in 2000, with 31% of drug users who had injected in the previous month reporting sharing needles and syringes. Additional data collected for the first time in 2000 showed that over half of IDUs had been in prison or a young offenders' institution. Furthermore, the prevalence of past hepatitis B and hepatitis C infections was higher among IDUs with a history of imprisonment.

The prevalence of HIV infection in pregnant women continued to rise in England and Scotland, and in 2000 was at the highest level yet recorded with 0.29% giving birth in London being infected, and 0.03% elsewhere in the UK. Eighty-five per cent of HIV-infected women giving birth in London were born in sub-Saharan Africa. Substantial improvements in the detection of maternal HIV infections were seen in England in 2000. The target for England and Wales of an 80% diagnosis rate was reached in Inner London, although rates varied between districts. In Outer London and elsewhere in the UK, 65% and 56% respectively of pregnant women had their HIV infection diagnosed before giving birth. In Scotland, the proportion of HIV infections diagnosed prior to delivery fell from 69% in 1999 to 52% in 2000. Achievement of the national objective of an 80% reduction in mother to child transmission of HIV infection requires a further improvement in the rate of antenatal HIV diagnosis outside London, as well as further improvements in London.

The unlinked anonymous serosurveys continue to provide information that is essential for effective and efficient monitoring of HIV transmission in the UK and for the evaluation of antenatal and other voluntary confidential HIV testing strategies (6,7). The data obtained for 2000 highlight the need for continued investment in HIV prevention services, including those for homosexual and bisexual men, people from sub-Saharan Africa, people who are HIV positive, and GUM clinic attendees at risk of acquiring STIs, as well as in needle exchange and other harm minimisation services for IDUs. Priority should be given to the promotion of voluntary confidential HIV tests for all GUM clinic attendees at risk of acquiring HIV, and for women receiving antenatal care (6,7). Priority should also be given to offering hepatitis B vaccine to homosexual and bisexual men attending GUM clinics and IDUs imprisoned or attending specialist treatment and support agencies.

Copies of the report can be ordered from the Department of Health, PO Box 777, London SE1 6XH, by fax on 01623 724 524 or by calling the NHS Response Line tel: 0870 1555455. or may be downloaded from the PHLS website at <www.phls.org.uk/facts/HIV/UAPMP.htm>.

1. Unlinked Anonymous Surveys Steering Group. *Prevalence of HIV and hepatitis infections in the United Kingdom 2000*. London: Department of Health, 2001; Available from <www.phls.org.uk/facts/HIV/UAPMP.htm>.

2. Deputy Chief Medical Officer. *Prevalence of HIV and hepatitis infections in the UK 2000: unlinked anonymous surveys*. (PL/CO (2001) 2). London: Department of Health, 2001.

3. Department of Health press release. *Latest figures on prevalence of HIV and hepatitis in the UK* (Press Release 2001/0580). London: Department of Health, 2001; [cited 30 November 2001] Available from <www.doh.gov.uk/newsdesk/index.html>.

4. Johnson AM, Mercer CH, Erens B, Copas AJ, McManus S, Wellings K *et al.* Sexual behaviours in Britain: partnerships, practices and HIV risk behaviours. *The Lancet* 2001; **358**: 1835-42.

5. The Unlinked Anonymous Prevalence Monitoring Programme supplementary data set for the annual report: data to the end of 2000. [cited 30 November 2001] Available from <www.phls.co.uk/facts/HIV/hiv.htm>.

6. Department of Health The national strategy for sexual health and HIV. Department of Health, London. 2001; [cited 30 November 2001] Available from <www.doh.gov.uk/nshs/index.htm>.

7. NHS Executive. *Reducing mother to baby transmission of HIV*. (Health Service Circular HSC 1999/183). London, Department of Health; August 1999.

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Findings of the Second British National Survey of Sexual Attitudes and Lifestyles

Findings from a major national survey of sexual attitudes and lifestyles (Natsal 2000), have been published in three papers in *The Lancet* (1-3) giving the most accurate and up-to-date picture of sexual behaviour and health in Britain. Researchers at University College London, the London School of Hygiene and Tropical Medicine, the PHLS Communicable Disease Surveillance Centre and NatCen, the National Centre for Social Research, carried out the £1.4 million, three-year study. This is the second national survey of sexual attitudes and lifestyles. The first was conducted in 1990. Between May 1999 and February 2001, the research team interviewed 11,161 people aged between 16 and 44 years, selected randomly from across Britain to create a detailed picture of people's attitudes to sex as well as their sexual behaviour. Half of the participants were also asked to provide a urine sample, which was tested for *Chlamydia trachomatis* infection.

The main reported findings relate to partnerships, practices, and high-risk behaviours; early heterosexual sexual experiences; and reported sexually transmitted infections (STIs) and prevalent *C. trachomatis* infection. Respondents reported more sexual partners, homosexual experience, contact with prostitutes, and condom use than they did ten years ago. Changes between the surveys were greatest outside London and among women. The average number of heterosexual partners in the last five years was four for men and two for women. One in 23 men have paid for sex in the last five years, rising to one in eleven men living in London. One in 19 men and one in 20 women report having had a homosexual partnership, rising to one in ten men living in London. Condom use generally has increased, but a rise in number of partners is off-setting some of the public health benefits. One in four men and one in six women are using condoms consistently

The study found that a quarter of women and nearly a third of men have sex under the age of 16 (the age of sexual consent) but that the average age at first sexual intercourse is 16 years for both sexes. Two in five men and four in five women in their late teens and early twenties who first had sex aged 13 and 14 years wished they had waited longer.

Natsal 2000 also provided, for the first time, population-based estimates of reported STIs and prevalent undiagnosed genital *C. trachomatis* infection among both women and men. One in ten adults reported ever having had an STI. Genitourinary medicine (GUM) clinics remain the most popular sites for the treatment of STIs with over three-quarters of men and half of women who had ever had an STI reporting having attended a GUM clinic. *C. trachomatis* was found in 2% of urine samples from men and 1.5% from women, rising to 3% among young women, aged between 18 and 24 years. Nearly all of these people were unaware they had the infection

The results will be used by government departments and other agencies to inform sexual health policies, services, and education, and to produce estimates of current levels of HIV infection and future AIDS cases. The data have already been used in combination with surveillance figures to estimate the number of people infected with HIV in the UK. Preliminary results have also been published by the Department of Health (4).

The study was supported by a grant from the Medical Research Council with funds from the Department of Health, the Scottish Executive and the National Assembly for Wales.

1. Korovessis C, Johnson AM, Mccadden A, Mcmanus S, Wellings K *et al.* Sexual behaviour in Britain: reported sexually transmitted infections and prevalent genital *Chlamydia trachomatis* infection. *The Lancet* 2001; **385**: 1851-4.
2. Johnson AM, Mercer C, Erens B, Copas AJ, Mcmanus S *et al.* Sexual behaviour in Britain: partnerships, practices and HIV risk behaviour. *The Lancet* 2001; **385**: 1835-42.
3. Wellings K, Nanchahal K, Macdowall W, Mcmanus S, Erens B *et al.* Sexual Behaviour in Britain: early heterosexual experience. *The Lancet* 2001; **385**: 1843-50.
4. Unlinked Anonymous Surveys Steering Group. *Prevalence of HIV and hepatitis infections in the United Kingdom 2000*. London: Department of Health. 2001. Available from <www.phls.org.uk/facts/HIV/UAPMP.htm>.

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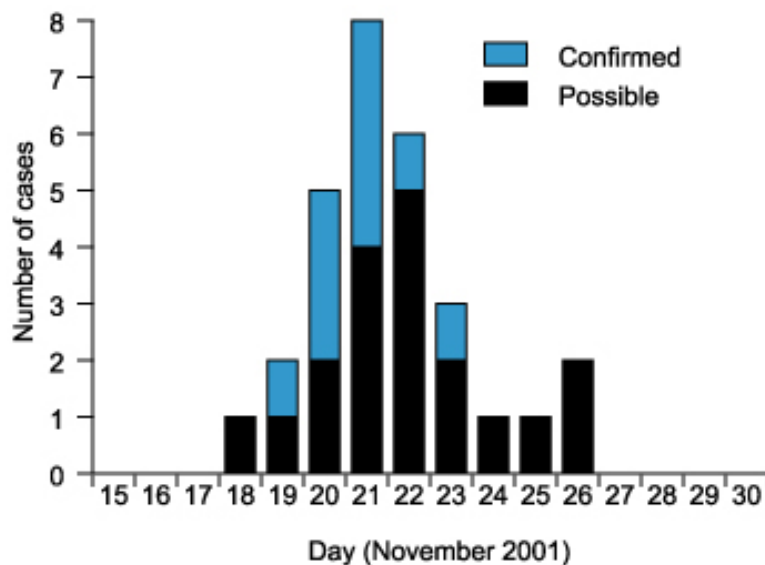
Outbreak of Vero cytotoxin-producing *Escherichia coli* O157 in Lancashire

A community outbreak of infection with Vero cytotoxin-producing *Escherichia coli* (VTEC) O157 VTEC in Ecclestone, Lancashire, appears to have been caused by cross-contamination between raw and cooked meats. There have been 13 confirmed cases and 20 possible cases, with 16 patients admitted to hospital. The PHLS Laboratory of Enteric Pathogens has confirmed 13 human and three environmental isolates to be *E. coli* O157 phage type 21/28 Vero cytotoxin type 2.

Ecclestone is a village of approximately 5000 inhabitants and is covered by a single medical practice. The outbreak came to light on 23 November 2001, when the village general practitioner (GP) saw five patients who presented with bloody diarrhoea. Initial investigations linked the cases to the butcher's counter in a local supermarket. The butcher closed the counter voluntarily the following day, and the company issued a product recall for meat and cheese purchased after 1 November 2001.

The extent of the outbreak suggests that contamination of cooked meats occurred over a period of days. The outbreak curve (figure) shows the peak day of onset was 21 November. This is consistent with most cases having purchased meat during the preceding week.

Figure Cases of VTEC O157 infection in Ecclestone, November 2001, by date of onset



Twelve of the 33 possible and confirmed cases are male and 21 female. The age range is 2 to 83 years, with a mean age of 51. Twenty-one cases have had bloody diarrhoea. Given the relatively long incubation period of VTEC O157 (some outbreaks have reported an incubation period of up to 14 days) (1), further cases are expected over the next few days.

Community outbreaks of VTEC O157 accounted for 59% of outbreaks of VTEC O157 infection

reported to CDSC and LEP between 1992 and 1998 (2,3). This outbreak illustrates the risk associated with having a single counter with both raw and cooked meat.

1. Subcommittee of the PHLS Advisory Committee on Gastrointestinal Infections. Guidelines for the control of infection with Vero cytotoxin producing *Escherichia coli* (VTEC). *Commun Dis Public Health* 2000; **3**: 12-23.

2. Wall PG, McDonnell RJ, Adak GK, Cheasty T, Smith HR, Rowe B. General outbreaks of Vero cytotoxin producing *Escherichia coli* O157 in England and Wales from 1992-1994. *Commun Dis Rep CDR Rev* 1996; **6**(2): R28-33.

3. Willshaw GA, Cheasty T, Smith HR, O'Brien SJ, Adak GK. Verocytotoxin-producing *Escherichia coli* (VTEC) O157 and other VTEC from human infections in England and Wales: 1995-1998. *J Med Microbiol* 2001; **50**(2): 135-42.

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The British Travel Health Association seeks to widen membership

The British Travel Health Association (BTHA) was set up by a small steering group of travel health professionals, and launched in December 1998. Since then it has grown into an organisation of several hundred members and has become a registered charity. Its aims, as stated in its constitution are the relief of sickness and the protection of health primarily, but not exclusively, among people who travel overseas. It seeks to fulfil those aims by:

- Promoting a multi-disciplinary approach to travel health
- Providing a forum for discussion and information exchange
- Offering information and education
- Promoting research on travel health issues
- Increasing public awareness of travel health hazards
- Supporting members with a specialty or interest in travel health and medicine

Although there are other professions among the Association's members, the BTHA currently consists largely of medical and nursing members engaged in primary and hospital care, and occupational health. As part of its multidisciplinary approach to travel health the BTHA would like to extend an invitation to consultants in communicable disease control (CCDC)/public health specialists to become members. They will be welcomed and encouraged to take a full part in the running of the Association and its subcommittees and to stand for election to its Executive Committee.

For further information, and application details please contact Amanda Burrige, Secretariat, British Travel Health Association, Scottish Centre for Infection and Environmental Health, Clifton House, Clifton Place, Glasgow G3 7LN (tel 0141 300 1174; fax 0141 300 1170; email btha@scieh.csa.scot.nhs.uk).

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HIV infection and AIDS in the United Kingdom: monthly report - November 2001

United Kingdom data from the PHLIS AIDS and STD Division, Scottish Centre for Infection and Environmental Health, Institute of Child Health, London, and Oxford Haemophilia Centre (on behalf of UK Haemophilia Centre Doctors' Organisation)

'I care...do you?' is the slogan for this year's World AIDS Day, taking place on 1 December. The impact of HIV in the United Kingdom (UK) is the regular focus of the monthly *CDR* HIV/AIDS section, but in response to World AIDS Day this report considers the global situation. It draws mainly from the summary prepared by UNAIDS for World AIDS Day (1) and the set of fact sheets (2) prepared for the United Nations special session on HIV/AIDS, which was held in New York in June 2001 to mark the twentieth anniversary of the first recognition of AIDS.

Africa

It is estimated that there will be more than 28 million HIV-infected people in Africa at the end of 2001, and that 2.3 million people will have died there during 2001 alone. More than 12 million children have lost one or both parents to the virus and this number is expected to double in the next ten years. Over a million of those living with HIV infection were children who had acquired infection from their mothers. In several countries in southern Africa more than one in five adults are infected, with estimates of 25% or over for Swaziland, Zimbabwe, and Botswana. South Africa, with 4.7 million people infected, is the country with the highest estimated total in the world. North Africa, was until recently relatively free from infection, but has an increasing problem with, for example antenatal prevalence rates of about 1% in Algeria.

Central and South America, and the Caribbean

Over 1.8 million people in Central and South America, and the Caribbean are infected with HIV, including nearly 200,000 who became infected in 2001. Haiti has the highest adult HIV prevalence in the world outside sub-Saharan Africa at 5%, while five other Caribbean countries have rates of around 2%. Most of the infections in the Caribbean have been heterosexually transmitted, and this route of transmission is becoming increasingly important throughout the whole region. Injecting drug use (IDU) has played an important role in the spread of the disease in Argentina, Uruguay and Brazil. Sex between men has also been a significant route of transmission in these countries, as well as in Costa Rica and Mexico.

Asia

Around 64 million people in Asia carry HIV, with China being particularly vulnerable to epidemic spread. There has been a recent steep rise in other sexually transmitted infections (STIs), and in population movements in response to economic growth – the number of HIV infected people in China could exceed 1 million at the end of 2001. It is estimated that in India 3.7 million are infected with HIV, the highest national figure after South Africa. Prevalence exceeds 1% in Cambodia, Myanmar, and Thailand, and in Indonesia infection rates among IDUs has reached 40% in Jakarta. In some central Asian countries (parts of the former Soviet Union), the problems of IDU and epidemics of other STIs are combining with HIV to create large numbers of new infections.

Eastern Europe

With similar problems to parts of central Asia, there has been very rapid HIV spread in many eastern European countries, with emerging epidemics in Estonia and Uzbekistan, and more than a quarter of a million people living with HIV in the Ukraine. In the Russian Federation the epidemic is still concentrated in IDUs and their partners, but growing prostitution and STI epidemics make more general spread likely. Reports of HIV infection in Russia have increased 15-fold since 1998, to more than 75,000 in 2001.

Western Europe, north America, and Australia

There are almost 1.5 million people with HIV in these regions, many of them benefiting greatly from effective antiretroviral therapy. Unfortunately it seems that unsafe sex is increasing among men who have sex with men, as evidenced by rises in the transmission of other STIs in this group. In the United States, high HIV prevalences among IDUs (18% in Chicago, and 30% in parts of New York) are causing alarm. In contrast, needle exchanges and other preventative methods seem to be effectively limiting transmission in this group, for example in the UK and Australia.

The economic impact of HIV

HIV is impacting on economic development throughout much of the developing world; as the UN report states 'By killing so many people in the prime of their lives, AIDS poses a serious threat to development. By reducing growth, weakening governance, destroying human capital, discouraging investment and eroding productivity, AIDS undermines countries' efforts to reduce poverty and improve living standards' (2). In some countries it has already caused a 5% increase in the number of people living in poverty, and in the hardest hit countries of sub-Saharan Africa, the gross domestic product may drop by 8% by 2010. Impoverished people are more likely to turn to prostitution, a tool for survival that increases their own, and others, risk of contracting HIV. HIV-associated losses to the agricultural work force are resulting in lower food production in some areas. Around 7 million agricultural workers have died from AIDS in the 25 worst hit countries in Africa. Education services are also suffering staffing losses from an often low base. The disruption of families, communities, and social systems which result from famine, and violent conflict all magnify the impact of HIV, which is in itself destabilising. Migration for work, a norm in parts of southern Africa, also contributes to spread through its disruption of family life.

Care and support for those infected

Those who know they are infected with HIV and have access to care can, by acknowledging their status, influence the stigmatisation that often thwarts prevention efforts. Those who care for them demonstrate the safety of everyday contact. Although the high price of effective therapy has been a bar to its widespread use in the developing world it is not the only obstacle. Provision for proper prescription, and compliance and response monitoring are essential but hard to provide in resource-poor settings. It should also be realised that even at greatly reduced prices the cost of antiretroviral drugs would put their provision beyond the capacity of health services for the vast majority of HIV-infected individuals in developing countries.

HIV Prevention

There are examples of prevention activities which are effective with all the main risk groups in many parts of the world: in Kampala, Uganda, prevalence in teenage females fell from 28% in 1991 to 6% in 1998 and in the country as a whole has fallen from an estimated 14% in the early 1990s to

around 8% in 2000; in Thailand and Cambodia condom use has been effectively promoted; there have been successful harm reduction programmes for IDUs in countries such as the UK and Australia as well as among gay men in many parts of the world. There are still large numbers, however, who are not being reached by HIV prevention messages.

HIV and young people

Recent surveys in 17 countries across three continents have shown that more than half the adolescents questioned were unable to identify a means of protecting themselves from HIV. It has also been shown that half the teenage girls in sub-Saharan Africa do not realise that a healthy looking person can still be infected with HIV. As a result an estimated 10.3 million people aged between 15 and 24 years are living with HIV. In Zambia 18% of young women surveyed were HIV infected within a year of becoming sexually active. Often infection has arisen through sexual activity coerced either by physical force or economic necessity or a mixture of the two. Twenty per cent of the estimated 2 million sex workers in India are under 15, and nearly 50% under 18 years old. In Cambodia 30% of sex workers aged 13 to 19 are HIV infected.

Mother to child transmission

In 2000 alone around 600,000 infants are estimated to have acquired HIV, over 90% from their mothers, and over 90% in sub-Saharan Africa. Breast feeding increases the risk of transmitting infection from an HIV-infected mother to her child, and in a breast feeding population it is estimated that 20% of the HIV-infected infants will have acquired HIV during the pregnancy, 50% during delivery, and 30% through breast feeding. In the developed world the mother to child transmission rate can be reduced to around 2% in women whose infection has been diagnosed, through the use of antiretroviral therapy, careful delivery management, and the avoidance of breast feeding. Daily zidovudine from week 36 of pregnancy, or two doses of nevirapine, one given to the mother at delivery and one to the child 72 hours after delivery, combined with safer infant feeding methods can halve the risk of infant infection. The use of breast milk substitutes is itself hazardous in resource poor countries where there may be no access to clean water, and ways of making it safer need to be developed. By the end of 2000 the United Nations Inter-Agency Task Team's projects had already advised 81,000 women, two-thirds of whom had been tested – a third of those found positive had had antiretroviral treatment and been counselled on infant feeding. The experience gained has shown that mother to child transmission prevention programmes should be scaled up and nevirapine is to be provided free to developing countries through the United Nations system for five years from 2000.

Drug use

Sharing needles and other contaminated injecting equipment is a highly effective way of spreading HIV and other blood borne viruses; it is estimated that worldwide about 10% of HIV infections result from sharing needles, but in some European and Asian countries it is responsible for more than half of HIV transmission. Drug use is also costly, so addicts often turn to prostitution to finance their habit, potentially spreading the infection further. An increasing number of countries are apparently vulnerable to HIV spread through IDU as it becomes more widespread; in 1992 80 countries reported IDU but by 2000 the number had increased to 132.

Orphans

“The AIDS epidemic has orphaned millions of children. Even if prevention campaigns become hugely successful and HIV infections drop dramatically, most people already infected with HIV are expected to succumb to AIDS-related illnesses. Millions more children will lose one or both parents over the next ten years” (2).

It is estimated that by 2010 more than 26 million children will have been orphaned (lost one or both parents) by HIV, and that HIV has increased the rate of orphan-hood to 10% or more in some African countries. Although Africa is the region currently worst affected by this problem, it is increasingly going to affect other countries, especially those in the Caribbean and Asia. The children are typically reared by grandparents, or siblings in child-headed households, having already had the trauma of watching their parent or parents die. Resources should be devoted towards supporting extended families and communities in caring for these children. In the view of

the UNAIDS report orphanages should be carefully supervised and seen only as providing short term provision for such children, who should as far as possible be provided for in their communities.

Vaccine development

The usual mechanism for an effective vaccine, a challenge which harmlessly stimulates a neutralising antibody to the infection in the person vaccinated, is difficult to utilise against HIV because HIV antibody fails to inactivate the virus. Approaches based on the possibility of stimulating cellular immunity are also being explored. It is an additional complication that ten subtypes of HIV have been identified, and each may require its own vaccine unless a broadly protective one can be developed. So far 30 experimental vaccines have been tested in around 60 trials. There are three phases of testing: the first to confirm the vaccine's safety and determine whether it is likely to have protective value in between 20 and 40 volunteers, the second to repeat this process but involving hundreds of people, and the third, large scale field trials involving thousands, to gauge its real protective value against HIV infection, or the onset of AIDS. By mid-2001 only two phase three trials had been started. Initial results are expected soon. The International AIDS Vaccine Initiative, a research consortium started in 1996, is committed to ensuring that rich and poor countries alike get access to a vaccine simultaneously.

Developing an effective global response to HIV

The fact sheets of the United Nations Special Session on HIV/AIDS include a description of the global response required to make any real impact on the global HIV epidemic. 'An effective response to HIV/AIDS has to achieve three basic objectives: it must reduce the number of new infections; it should expand access to care and treatment for people living with HIV/AIDS; and it needs to soften the impact of the epidemic on social and economic development' (2). These goals require collaborative effort from all sectors of government and society. The report cites Senegal as having managed to contain the epidemic through fostering 'partnerships between women's groups, faith-based organisations, district authorities, government agencies and private sector entities', and Botswana, Ghana, and Laos are noted for their attempts to boost 'provincial and district level strategic planning and implementation capacity'. Developing countries cannot, however, be expected to meet the challenge of HIV alone. Global funding will be needed to support comprehensive national plans.

1. UNAIDS. *AIDS epidemic update; December 2001*. [Online publication] [cited 28 November 2001]. Available from <www.unaids.org/epidemic_update/report_dec01/index.html>.

2. Complete set of fact sheets prepared for United Nations Special session on HIV/AIDS 25-27 June 2001 New York. Available from <www.unaids.org/fact_sheets/ungass/index.html>.

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Sexually transmitted infections quarterly report: syphilis in the United Kingdom

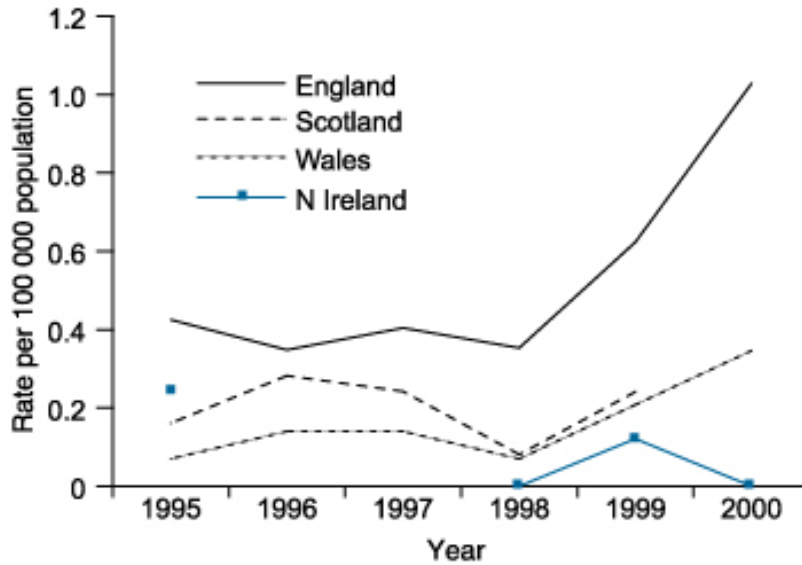
This report is based on statistical returns (KC60) from genitourinary medicine clinics (GUM) to the PHLS Communicable Disease Surveillance Centre (CDSC), CDSC (Wales), CDSC (Northern Ireland). In Scotland, data from GUM clinics are collected on the ISD(D)5 statistical return and are collated by the Information and Statistics Division (ISD) of the Common Services Agency. Scottish data for 2000 are currently unavailable. Reports made to CDSC through the PHLS routine treponemal reporting system in England and Wales are also discussed below.

In England, Wales, and Northern Ireland between 1995 and 2000, diagnoses of infectious syphilis rose by 145%. Between 1999 and 2000 the number of diagnoses of infectious syphilis increased by 57% (figure 1) (1). In 2000, 333 new diagnoses of primary and secondary infectious syphilis (259 male, 74 female) were made in GUM clinics. Forty-nine per cent (126) of the 259 cases seen in males were seen in men who have sex with men (MSM). Unlike other sexually transmitted infections (STIs) seen in the United Kingdom (UK), the burden of syphilis does not fall upon

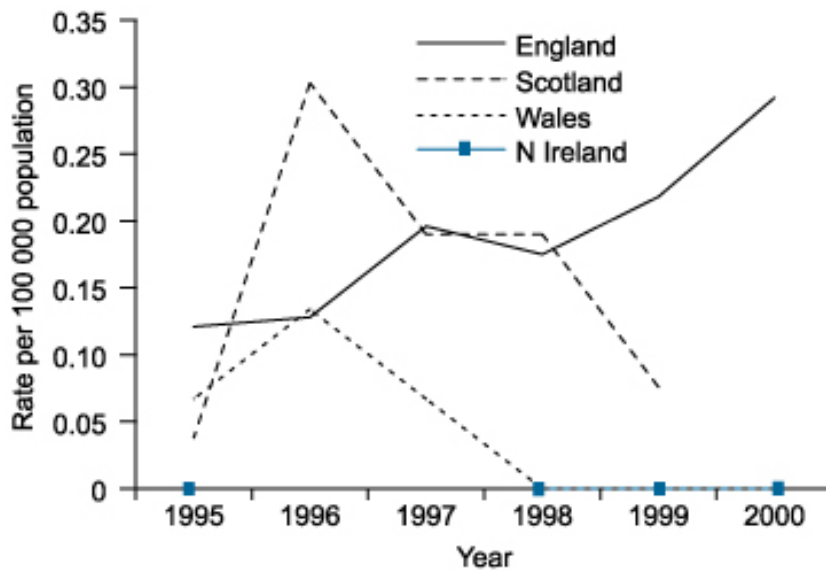
teenagers: increased rates were seen in most age groups (figure 2).

Figure 1 Rates of diagnoses of infectious syphilis (primary and secondary) made in GUM clinics by sex and country: 1995 - 2000*

a) Male



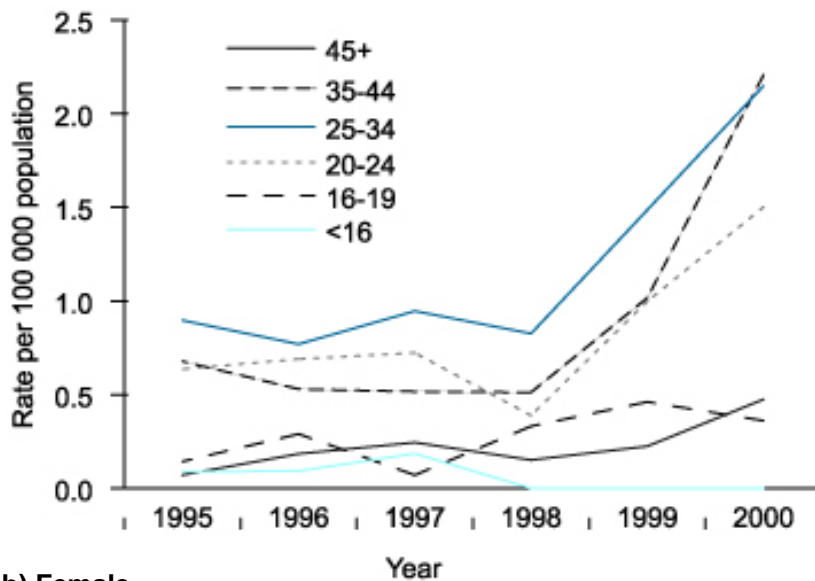
b) Female



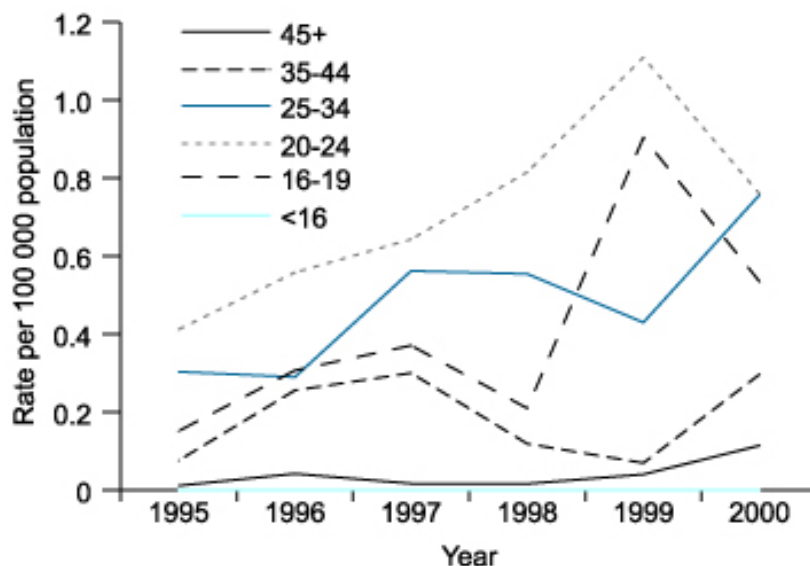
*Data are currently unavailable from Scotland for 2000 and from Northern Ireland for 1996 & 1997

Figure 2 Rates of diagnoses of infectious syphilis made in GUM clinics by sex and age group, UK: 1995-2000*

a) Male



b) Female



*Data are currently unavailable from Scotland for 2000 and from Northern Ireland for 1996 & 1997

After two decades of consistent decline, new diagnoses of infectious syphilis started to increase in the late 1990s (figure 1). This increase has been punctuated by outbreaks of infectious syphilis, the first of which occurred in Bristol in 1997. Such outbreaks give an insight into factors influencing syphilis epidemiology in the UK – the outbreak in Bristol was associated with heterosexually acquired infection, commercial sex work, and ‘crack’ cocaine use, whereas outbreaks in Brighton, Manchester and London were among MSM, some of whom had concurrent HIV infection (2-4). As with syphilis outbreaks that have occurred in mainland Europe and in the United States (US), those seen in England have been associated with high syphilis incidence areas, high rates of partner change within risk groups, and concurrent HIV infection (5). A number of other factors may have influenced the increase in diagnoses of syphilis and co-infection with HIV. Effective antiretroviral therapies have increased the prevalence of HIV-infected individuals. At the same time, reporting of unsafe sex among MSM, particularly with a partner of unknown HIV status, has increased in London since 1996 (6). In addition, the recent growth in traditional (such as saunas and cruising grounds) and new (internet chat rooms) ‘sexual marketplaces’ has also provided more opportunities for acquiring new sexual partners.

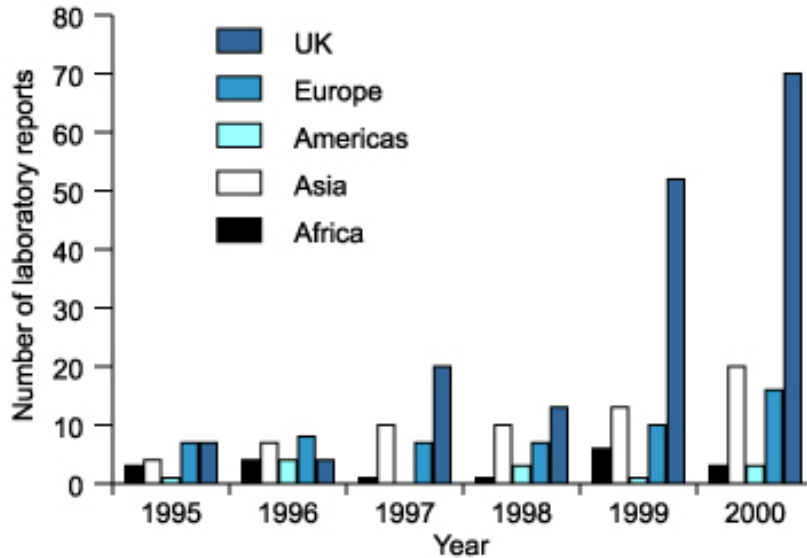
Routine treponemal reporting system

While routine treponemal reports from reference laboratories are not complete (not all laboratories use the service) they provide more detailed data than KC60 returns. Data from the 167 reports received in 2000 indicate that the majority of infections occur in Caucasians (91 of 167). In 2000

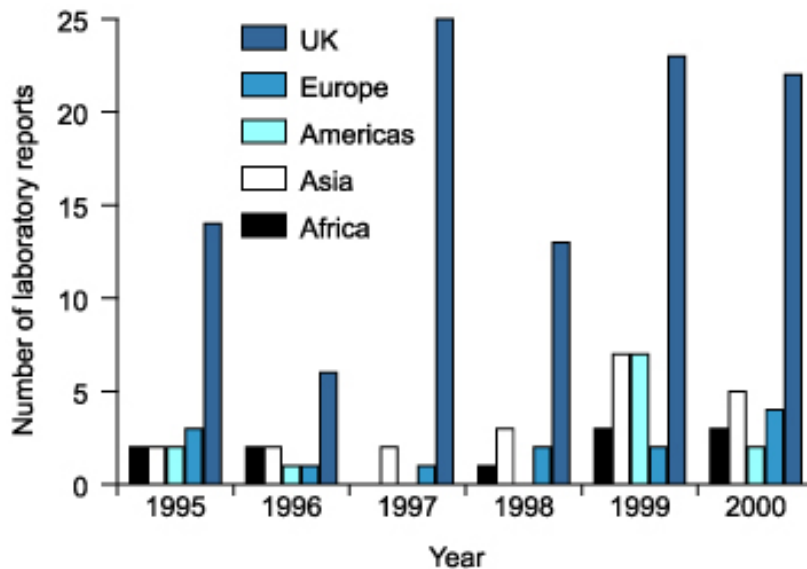
almost two-thirds of syphilis infections were acquired in the UK (figure 3), but a growing number of infections are acquired abroad, particularly in Europe and Asia. Eighteen cases of syphilis reported in 2000 were in pregnant women, ten of which were detected by antenatal screening.

Figure 3 Laboratory reports of infectious syphilis in males and females by probable region of acquisition England and Wales, 1995 to 2000

a) Male



b) Female



Syphilis awareness campaign

An integrated mass media campaign was launched in September 2001 in response to outbreaks and increased incidence of syphilis among MSM in England. The aim of the campaign was to promote awareness of the signs and symptoms of syphilis, and to encourage those who may have been at risk to seek advice. A number of strategies were used, including a briefing paper for health workers and volunteers working with homosexual men. Advertisements in the gay press also provided information about syphilis, these ran for three months, during which time a more detailed leaflet was distributed by outreach workers and enclosed in national gay magazines. Poster versions of the advertisements were also produced. The campaign was funded by the Department of Health, and implemented by the Terrence Higgins Trust in consultation with the PHLS. Further information about the campaign, including press advertisements and leaflets are available from the Terrence Higgins Trust website at <www.tht.org.uk>.

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