Increased uptake of HIV screening following introduction of "opt out" testing and results by telephone

M Mahto and S P Higgins

Sex. Transm. Inf. 2004;80;156-
doi:10.1136/sti.2003.007955

Updated information and services can be found at:
http://sti.bmjjournals.com/cgi/content/full/80/2/156

These include:

Rapid responses
You can respond to this article at:
http://sti.bmjjournals.com/cgi/eletter-submit/80/2/156

Email alerting service
Receive free email alerts when new articles cite this article - sign up in the box at the top right corner of the article

Topic collections
Articles on similar topics can be found in the following collections

- HIV Infection/AIDS (1055 articles)
- Sexually Transmitted Infections (1080 articles)
- Screening (594 articles)

Notes

To order reprints of this article go to:
http://www.bmjjournals.com/cgi/reprintform

To subscribe to Sexually Transmitted Infections go to:
http://www.bmjjournals.com/subscriptions/

Up to 19 different Chlamydia trachomatis (CT) serovars which are pathogenic predominantly for the urogenital tract and numerous CT variants have been identified. An increasing number of isolates are typed worldwide and provide a wealth of information on the epidemiology of CT infections, a sexually transmitted disease (STD) for which screening has been proposed. Recent studies have demonstrated an association between CT serovar G and squamous cell carcinoma. A possible shift in the serovar distribution over time in a region or country could reveal information on changes in the epidemiology of CT infections and could potentially have clinical implications.

We therefore determined the CT serovar distribution in a large STD population in Amsterdam in 2000–2, and compared it together with all published serovar distributions since 1986 in the Netherlands to assess if serovar distribution shifts over time occurred.

Of people attending the STD outpatient clinic in Amsterdam from 2000–2, those found CT positive (n = 407) by LGX (Abbott Laboratories, Chicago, IL, USA) were genotyped as described previously. This is the largest CT population typed to date in the Netherlands. The following serovar distribution was found: B = 1%; D = 12%; Da = 0.2%; D- = 1%; E = 33%; F = 23%; G = 4%; Ga = 9%; H = 8%; I = 6%; Ia = 1%; J = 3%; K = 2%.

Literature searches identified eight serovar distribution studies in the Netherlands, of which the first was performed in 1986. With the inclusion of the present study, 2204 serovars were available for analyses. In the serovar distributions comparison, we (1) did not distinguish between male and female participants, (2) did not distinguish between serovar distributions based on serotyping or genotyping techniques, (3) excluded serovars B/Ba because of the low numbers, (4) excluded double infections, (5) excluded variants, and (6) classified CT serovars in the three phylogenetically based serogroups: the B group (serovars D, Da, D-, E), the intermediate serogroup (serovars F, G, Ga), and the C group (serovars I, Ia, J, Jv, and K).

Results are shown in figure 1. In general, no statistical significant serovar distribution trends in time were observed between 1986 and 2002 when all studies were taken together. Of the nine studies, 1 and 6 represent serovar distributions from STD populations in Rotterdam and show no significant changes in general or over time (mean: C group: 30%; Int group: 21%; B group: 49%). Studies 2, 3, 4, and 9 represent serovar distributions from STD populations in Amsterdam and show no significant changes (mean: C group: 20%; Int group: 31%; B group: 49%). Studies 5, 7, and 8 represent serovar distributions from mixed symptomatic and asymptomatic infected people (5 and 7) and asymptotically infected populations in Amsterdam. They show no significant changes in general, over time, or compared to the Amsterdam STD based serovar distribution (C group: 17%; Int group: 30%; B group: 53%).

However, when the two geographically derived serovar distributions were compared to each other, (1) serovar C was found more frequently in Rotterdam: 30 v 19% (p = 0.001; OR 1.6 (95% CI: 1.2 to 2.1)), the most prominent serovar difference was serovar F (15 v 22%, p = 0.0002; OR 1.6 (95% CI: 1.2 to 2.0)), the intermediate serogroup was found less frequently in Rotterdam: 21 v 31% (p = 0.0002; OR 1.6 (95% CI: 1.2 to 2.1)), and serogroup B was stable (49 v 50%).

In conclusion, no changes in serovar distribution differences were found over time in the Netherlands in general or within the two different geographic areas. However, the Rotterdam population differed significantly from the Amsterdam population in having a larger incidence of C group serovars and a lower incidence of the intermediate group serovars, albeit an identical B group serovar distribution. The findings could be the result of different ethnic compositions of the studied cohorts or other confounding factors between Rotterdam and Amsterdam, a subject that warrants further study.
Surveillance of sexually transmitted infections in primary care

Surveillance for sexually transmitted infections must respond to increases in the provision of sexual health services outside genitourinary clinics. Simms et al. proposed repeated panel surveys in general practices to improve surveillance in primary care, monitor changes in prevalence over time, and address the current lack of behavioural data. There are some limitations to this approach. Firstly, prevalence surveys will not measure actual diagnostic activity in primary care and other clinical settings. This is essential for determining whether proposals from the National Strategy for Sexual Health are being implemented effectively. Secondly, periodic surveys in different areas could not readily identify outbreaks. In the Bristol area, for example, most cases in an ongoing outbreak of sexually transmitted hepatitis B infection have presented to general practitioners. All genitourinary medicine clinics are the main setting for detecting outbreaks their impact in primary care should be monitored. Thirdly, the validity of panel surveys will depend on a high response rate and postal invitations often have low uptake.

A single system cannot fulfil all the requirements for infectious disease surveillance. Laboratory reporting remains incomplete and data need to be available for infections other than chlamydia for appropriate interpretation of time trends. Routine collection of data from laboratory diagnosed sexually transmitted infections from all clinical settings and linkage to demographic data could complement current proposals.

The Avon Surveillance System for Sexually Transmitted Infections (ASSIST) integrates person based genitourinary clinic and laboratory data to provide information for action at local level and to inform national initiatives. Data on positive and negative tests for laboratory diagnosed infections taken in any clinical setting are collected from the Health Protection Agency and trust laboratories. Postcode information for geographical mapping and small area analysis is obtained by matching pseudoanonymised data with GP registration databases. These data are also matched to disaggregate data from genitourinary and Brook clinics to identify duplicate tests and obtain geographic data for infections diagnosed in these settings.

ASSIST project data can be used to estimate the population burden of diagnosed infections and explore associations with demographic and socioeconomic characteristics over time. Automating regular data downloads and reporting will improve the timeliness of data collection to facilitate identification and monitoring of outbreaks. The wide coverage of the system can guide local service development and clinical practice and monitor the impact of the Sexual Health Strategy. For example, in 2001 half of all chlamydia tests and 44% of positive results came from GP, family planning, or Brook clinics. Nearly two thirds (62%) of those tested in general practice were over 25 years old in whom the positivity rate was 4% compared with 11% for 16–24 year olds.

We propose that, while behavioural data obtained from panel surveys in primary care provide depth, sentinel surveillance of laboratory diagnosed infections in all clinical settings provides breadth, and both are needed for effective surveillance.

References


Comparison of the serological response to treatment of early syphilis in HIV positive versus HIV negative individuals

The effectiveness of treatment for syphilis is evaluated by demonstrating declining titres of the non- treponemal antibody tests—for example, the rapid plasma reagin (RPR). The serological response in HIV co-infected individuals has been the subject of debate, with some studies reporting a similar serological response and others a delayed response in HIV positive patients. A resurgence of infectious syphilis has occurred in Manchester, United Kingdom, in recent years. From January 1999 to August 2002, 379 cases of early syphilis were...
reported and 28% were HIV co-infected (CDSC North West, personal communication). North Manchester General Hospital (NMGH) houses one of the city’s three genitourinary medicine clinics and the regional infectious diseases unit, providing care for approximately 1000 HIV positive individuals. Our aim was to evaluate the serological response to treatment for early syphilis in HIV positive and negative individuals treated at NMGH. Between January 1999 and March 2002, 75 men (72 homosexual) and three women were diagnosed with early syphilis. Of the 78, 40/75 men were HIV positive. The RPR results 3, 6, and 12 months following treatment for early syphilis were collected by retrospective and case note review. Exclusion criteria were syphilis re-infection during the study period (two patients), HIV status undetermined (six patients declined HIV testing), or lost to follow up (16 patients). Patients were divided into two groups—HIV positive and HIV negative individuals. From the sequential RPR results 3, 6, and 12 months following treatment the mean reduction in RPR titre in each group at these points was calculated, and statistical comparison made between the two groups using the Student’s t test.

The results are shown in table 1. We found no significant difference in the reduction of RPR titre in the year following treatment between the HIV positive and negative groups. Of the 31 HIV positive individuals in this study, 17 were taking highly active antiretroviral therapy at the time their syphilis was diagnosed. The average CD4 lymphocyte count in this group was 460×10^9/l (range 33–1000) and viral load 83 515 copies/ml (range 50–442 000).

Limitations of the study are that it was retrospective, patients in the HIV positive and negative groups were not matched individually for variables such as stage of syphilis or initial RPR titre, and the treatment regimens varied (HIV positive patients received 12 days intramuscular procaine penicillin or 14 days oral doxycycline, and HIV positive patients prolonged courses of treatment in accordance with the UK national guidelines for the treatment of early syphilis). No account was taken of the patient’s CD4 lymphocyte count, or whether they were receiving antiretroviral therapy. However, the cohort represents a diverse group of HIV positive individual and we consider them representative of those generally encountered in clinical practice.

We demonstrated that in clinical practice the RPR remains a valid way of assessing the response to treatment of syphilis in those co-infected with HIV. Larger prospective studies, with cases and controls matched for variables such as the stage of syphilis at diagnosis, the initial RPR titre, and treatment regimens are required.

### Table 1 Number of patients in each group and the mean four dilution drop in RPR titres 3, 6, and 12 months following treatment in HIV positive compared to HIV negative individuals

<table>
<thead>
<tr>
<th></th>
<th>HIV positive</th>
<th>HIV negative</th>
<th>p Value (t test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 months</td>
<td>31</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>No of patients</td>
<td>1.71</td>
<td>1.57</td>
<td></td>
</tr>
<tr>
<td>Mean drop in RPR</td>
<td>20</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>6 months</td>
<td>31</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>No of patients</td>
<td>2.20</td>
<td>2.18</td>
<td></td>
</tr>
<tr>
<td>Mean drop in RPR</td>
<td>12</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12 months</td>
<td>31</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>No of patients</td>
<td>2.54</td>
<td>3.45</td>
<td></td>
</tr>
<tr>
<td>Mean drop in RPR</td>
<td>12</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

### References

Is it time to rethink the roles of health professionals in the HIV outpatient setting?

HIV outpatient services across the United Kingdom are seeing large increases in their patient workload. This is fuelled by the success of highly active antiretroviral therapy (HAART), resulting in fewer deaths, and by increases in the number of new diagnoses. A further rise is anticipated in England following implementation of “The national strategy for sexual health and HIV” that plans to increase HIV testing dramatically in order to reduce the number of undiagnosed HIV infections by 50% by the end of 2007. The success of HAART has also changed the focus away from the “acute-terminal” model of care that has prevailed since the beginning of the epidemic and learn from the management models seen in other areas of the health service. As these new models are developed, in addition to staff requiring training to be conversant with common problems seen during routine routine care, in the management of chronic disease, antiretroviral therapy, it is essential that evaluation is conducted to ensure similar levels of effectiveness, efficiency, and acceptability.

### Contributors
SE and DM developed the study; SE, SD, and CG collected and analysed the data; SD and KM wrote the text. SE, DM, and CG provided comments on the text.

S S Dave
Mortimer Market Centre, Camden Primary Care Trust, London WC1E 6AU, UK

K Miles, C Griffiths, D E Mersey
Department of Sexually Transmitted Diseases, Royal Free and University College Medical School, University College London, UK

S G Edwards
Mortimer Market Centre, Camden Primary Care Trust, London WC1E 6AU, UK

Correspondence to: Dr Sangesta S Dave, Mortimer Market Centre, Camden Primary Care Trust, London WC1E 6AU, UK; sangesta.dave@camden.pct.nhs.uk

Funding: None.

Competing interests: None declared.
Syphilis outbreak in Milan, Italy

Infectious syphilis has been considered a sensitive marker of risky sexual behaviour. Following a decline of syphilis in Western Europe, there has been a resurgence of infectious syphilis in many countries, with a number of outbreaks in men who have sex with men (MSM). The STD centre of Milan is the biggest in northern Italy with an average of about 6000 patients per year. All patients are offered screening tests for syphilis using treponemal particle agglutination test (TPPA) and rapid plasma reagin (RPR).

The number of cases of early syphilis (primary, secondary, and early latent asymptomatic with probable infection <12 months previously) has increased from 46 to 211 between 2000 and 2002. Over the same time the number of cases of late syphilis (asymptomatic with probable infection >12 months previously) has remained stable. Most cases of early syphilis in 2001 and 2002 (261/306, 85%) were in MSM. Fig 1 shows the trends. As in other reports of recent syphilis outbreaks in MSM, a proportion of cases (25.8%) are in men with HIV. Of the 74 HIV positive men with early syphilis, 39 (53%) already knew their HIV status. This is an indication that our health promotion messages are not effective with this group at least. The fear of AIDS has declined in Italy: public campaigns are soft, HAART therapy has changed the appreciation of HIV infection in patients, and HIV is no longer considered a fatal condition.

Correspondence to: Dr Marco Cusini, Centro MTS, Istituto di Scienze Dermatologiche, Via Pace 9, 20122 Milano, Italy. m.cusini@polclinico.mi.it

Online HIV/STI Chinese clinician training

The spread of HIV in China is accelerating and many Chinese physicians are poorly trained to address it. We review clinician training and the internet in China, and present the results of a convenience sampling of 136 Chinese clinicians regarding their access and attitudes towards computer based HIV/STI training.

Having been trained in an era of virtual STI eradication, many Chinese physicians are inadequately prepared to respond to the current HIV epidemic. Many medical curricula frequently lack STI coursework, and a European Union-China Project (EUCP) study in 2000 showed as few as 5% of physicians had ever received any HIV/STI training. Coinciding with the spread of HIV is the exponential growth of the internet and computer technology, reaching over 68 million internet users as of June 2003. These computer based resources can potentially serve as a powerful medium for the training of clinicians.

To investigate this opportunity, we adapted Chinese language HIV/STI materials developed by the EUCP to create an online HIV/STI training page for the website of the Chinese National AIDS Prevention and Control Center (www.aids.net.cn). We then presented the site and distributed paper based surveys to 136 clinicians recruited during STI training courses in several urban areas.

The response rate was 97% (132/136). Among those sampled, 95% reported having computer access and 86% reported having internet access, defined as access at home, work, or internet cafes. Similar access levels have been reported in a recent Chinese report of computer and internet access among a sample of 132 medical students.

Accepted for publication 28 September 2003

References

4 Weir E, Fishman D. Syphilis: how we dropped the ball? CMAJ 2002;167:1267–8

Treatment of vulval vestibulitis with a potent topical steroid

Vulval vestibulitis (vestibulodynia) is characterised by penetration introital pain and erythema and tenderness localised to the vestibular glands. The aetiology is unknown and most treatment strategies are based on anecdote. Some clinicians recommend the use of a topical steroid but there are no published data to support this. We designed a randomised double blind crossover study to compare a potent topical steroid, Dervamove ointment (clobetadob propionate 0.05%), with a very mild steroid, 0.3% hydrocortisone ointment. The hydrocortisone acted as a placebo as it was impossible to obtain a matching placebo for Dervamove ointment. To demonstrate a 20% difference

www.sti.bmjournals.com Downloaded on 5 July 2005
between Dermovate and hydrocortisone treated episodes if the placebo effect was 40%, 110 patients were needed. Unfortunately, recruitment was slow and the study ended when the expiry date of the medications was reached.

This report describes the outcomes in the patients who participated. The ethics committee of Mount Vernon and Watford Hospitals NHS Trust approved the study; patients gave written informed consent. All patients had introital pain, tenderness, and erythema compatible with a diagnosis of vulval vestibulitis. The study comprised three phases:

1. emollients only for 2–8 weeks,
2. tube one of the study medication, applied to the vestibule each night for 28 nights,
3. tube two of medication used similarly.

The tubes were identical and the study was designed so that within blocks of 10 patients, half would use each medication first. The same clinician assessed each patient at 14 day intervals using a three point scale for each of the parameters—pain, tenderness, and erythema (maximum score 9; minimum score 0 for each visit). The scores obtained at entry (minimum 3) and after each phase were noted.

Twenty two patients were recruited, but some patients withdrew or were excluded for protocol violations. Fourteen patients completed all phases of the study and two completed the first two phases. After emollient use, nine patients had improved (mean score −1.1; range −0.5 to −2); after Dermovate, 11 improved (mean score −2.7; ranges −0.5 to −8); and after hydrocortisone nine improved (mean score −1.8; range −1 to −3) (table 1). Eight patients who used both treatments had a better response to Dermovate and four had a better response to hydrocortisone (p<0.07). Eight patients expressed a definite preference, seven for Dermovate and one for hydrocortisone. There may, however, have been an effect of the order of the treatments as two patients did better on their second (p<0.06).

Although this study was not completed, some conclusions can be reached. Short term use of a potent topical steroid preparation did not produce a clinically important improvement in all cases but some patients had very good responses, which were maintained. This may reflect the fact that the aetiology of vulval vestibulitis is multifactorial and where there has been an inflammatory, infective, or irritant cause, topical steroids may be helpful. There is an urgent need to identify and classify the causes of this syndrome so that appropriate treatment can be targeted more accurately.

Acknowledgements

I wish to thank Glaxo-Welcome (now Glaxo-Smith Kline) for the supply of the study medication.

The number of people emigrating from Africa to the United Kingdom is now escalating. They contribute to the increasing number of heterosexuals with HIV in the United Kingdom. Increasingly, developing countries are improving their access to antiretroviral drugs through global funds for AIDS and other sources. It is well known that resistance to antiretrovirals develops where therapy is either suboptimal or adherence is imperfect, and that such resistance is associated with poor outcome.

A Zimbabwean man aged 47 was admitted to the Royal Sussex County Hospital, in August 2001 with lobar pneumonia. He had a new HIV diagnosis should be closely questioned regarding previous testing and treatment, and also baseline resistance testing should be routinely considered.

References


Increased uptake of HIV screening following introduction of “opt out” testing and results by telephone

Rogstad et al showed an increase both in the number of patients who were offered the HIV test and those who took the test following the use of a leaflet. We report the increased uptake rate of HIV testing since the introduction of “opt out” testing and giving results by phone. Before January 2002, patients attending our clinic were offered an HIV test if they belonged to high risk groups such as men who have sex with men or injecting drug users. Pretest counselling was done by our health advisers and patients were required to return to the clinic to receive their test results. In 2001, 904 of 2930 new and re-registered patients (31%) underwent HIV testing.

The UK government’s national strategy for sexual health and HIV set its target for reducing undiagnosed HIV in genitourinary medicine clinics by increasing the uptake of HIV testing to 40% by the end of 2004 and to 60% by the end of 2007.1

From 1 January 2002, we introduced an “opt out” system, whereby all patients were offered HIV tests, regardless of risk category. This led to an increase in HIV test uptake in the following 3 months to 37% (272 of 740 new patients).

This caused an increase in the workload of our health advisers, who were spending much time in pretest counselling low risk patients and giving negative HIV results. It became clear that exhaustive, in-depth HIV pretest counselling was impractical and inappropriate when the majority of those tested were “low risk.” Accordingly, we decided that only high risk patients should be referred pretest to the health advisers.

It was also observed that some patients who initially agreed to undergo HIV testing changed their minds when they learned that they would be required to return to the clinic to collect their results. We decided to offer HIV results by telephone, in line with our policy for all other screening tests. High risk patients, however, were encouraged to attend in person for their result. In the next 3 months 44% (50 of 114 new patients) took HIV tests.

Five patients tested HIV positive, but only one received the result by telephone.

The introduction of a telephone HIV results system enabled us to exceed the Department of Health target for 2004. The new system was adopted after consideration of the pros and cons in a departmental meeting in which the opinions of all staff were canvassed. Some concern was expressed about the potential for patients given bad news outside the clinical setting. We tried to minimise such outcomes by encouraging patients to telephone in the presence of their partner, a friend, or a relative. Results were only given by telephone when the patient felt it was psychologically harmful (or indeed beneficial) for patients to receive a positive HIV result by telephone; research is needed to answer this question.

Given the drive to reduce the number of people infected with HIV infections in the demands of working life, we believe telephone results are here to stay.

M Mahto, S P Higgins
Department of GU Medicine, North Manchester General Hospital, Manchester M8 5RB, UK

Correspondence to: Dr M Mahto, Genitourinary Medicine Department, Stepping Hill Hospital, Stockport, SK2 7JE, UK, dhm@hotmail.net.uk

Accepted for publication 8 October 2003

References

CD-ROM REVIEW

Topics in International Health: Sexually Transmitted Infections, 2nd ed

Institutional licence £120; individual licence £30; developing world licence £20. CD-Roms are not Apple Mac compatible. Disc adviser: Dr J E Richeris, Department of Sexually Transmitted Diseases, Royal Free and University College London Medical School, UK. London: The Wellcome Trust, 2003. ISBN 0 85199 631 0.

Having previously resisted the temptation to upgrade from printed text to the 21st century medium, I was suitably impressed by both the technical design and the factual content of this 2nd edition CD-Rom. As a bit of a computer novice I found the software easy to install and navigate with helpful instructions at the touch of a button. The program itself runs on Windows 95, 98, 2000, NT4, or XP and needs 32MB of RAM with at least a 120 MHz Intel Pentium processor (or equivalent).

The CD-Rom provides a vast wealth of information on all aspects of common and tropical STIs that are presented in the form of 18 interactive tutorials, each reviewed by expert authors, and a collection of about 400 images. The material covers ranges from history taking and clinical examination to epidemiology, laboratory diagnosis, and syndromic management of STIs. It includes in-depth tutorials on individual STIs that provide up to date recommendations. It is useful both in the developing and developed world. HIV/AIDS is covered in a separate CD-Rom. However, there is detailed mention here of epidemiological synergy with common STIs and trends in the use of STIs to reduce transmission of HIV.

The 18 tutorials consist of 50–70 slides on each topic. The CD-Rom is therefore topic led with no search facility for those wishing to access a list of differential diagnoses by symptoms and signs. The user’s attention span is maximised by a mixture of high quality images interspersed with relevant yet concise text and a useful summary of all sections. Interactive quizzes and diagrams help to reinforce learning and a notepad is strategically placed for users wishing to go back to basics and include their own free text. A glossary is available on each page should any terms need further clarification and all text is fully referenced. The pictures used in all the tutorials appear chronologically in the image collection and can be printed. They can also be sorted and saved in groups of your choice. The only hitch is that they can’t be downloaded into presentations, personal slide libraries, or palm pilots—shame!

The detail presented is still not enough to rival textbooks such as King Holmes’s Sexually Transmitted Diseases but this is not the purpose of the CD-Rom. It is ambitiously designed for use as an educational resource in both developed and developing countries and I think it serves this purpose well. Its appeal spans a broad range: medical students swatting for exams (and Sphs sitting Dip GUM), academic researchers as a useful point of reference and all healthcare professionals involved in direct clinical care of patients with STIs including nurses and health advisers.

Overall, the CD-Rom provides an interactive way of accessing and assimilating a huge amount of information on all aspects of STIs. It is definitely much more user friendly than logging a huge textbook around and gets a big thumbs-up from me!

K P Prime

8th European Society of Contraception Congress

The 8th European Society of Contraception Congress will be held from 23–26 June 2004 in Edinburgh, Scotland, UK. For further details please contact ESC Central Office, c/o Orga-Med Congress Office, Essenerstraat 77, B-1740 Ternat, Belgium (tel: +32 2 582 08 52; fax: +32 2 582 55 15; email: organarmac.com@pandora.be; and website: http://www.contraception-esc.com/edinburgh.htm).

The statistical calculation of this table combined all women, regardless of age. The authors have recalculated this table, and the revised version is available on the website (http://sti.bmjjournals.com/cgi/data/79/i/22/DC1/1 with the correct age restriction — female participants 16 to 24 years only, as originally specified. The majority of these data (general practice, family planning, and youth clinics) have only changed marginally; the main differences lie within the GUM clinics, due to the wider age of women tested at this setting. The conclusions, however, are unaffected by this error. The authors stand by their assertion that prevalence tends to be higher in those reporting and attending with symptoms than those screened opportunistically.

CORRECTION