

PostScript

LETTERS

Condom effectiveness for prevention of *C trachomatis* infection

Replicating methods and comparing results across studies are critical for the resolution of scientific controversies. In a recent report, Niccolai *et al* demonstrated that condoms were effective in preventing chlamydia among STD clinic patients with known exposure to *Chlamydia trachomatis*.¹ We were pleased to see the authors apply the methodology that we first presented for estimating condom effectiveness against chlamydia and gonorrhoea in 2001^{2,3} and published in the *American Journal of Epidemiology* last year.⁴ Their findings confirm the importance of restricting the study population to people with known STI exposure (that is, sexual contacts of infected people) to reduce confounding on condom effectiveness estimates against bacterial⁵ and viral^{5,6} infections.

By focusing their analysis on chlamydia alone, Niccolai *et al* underscore the need for disease specific estimates of condom effectiveness. Focusing on a single disease is important because, although condoms should protect against all infections transmitted via the male urethra (including gonorrhoea and chlamydia),⁷ other factors, such as transmission efficiency, are disease specific and may influence the magnitude of the protective effect. We would like to clarify for readers, however, that the methodology we described will also allow for disease specific estimates of protection when multiple infections are evaluated among people with known exposure. As we noted (Warner *et al* p 243), the key point is that infections diagnosed among study participants must be identical to those of the participants' infected partner. (For example, the relation between condom use and risk for gonorrhoea should be assessed only among participants exposed to gonorrhoea, likewise for chlamydia.) Maintaining this algorithm, we combined estimates for chlamydia and gonorrhoea after observing the disease specific point estimates (0.38 and 0.47, respectively) were neither appreciably nor significantly different from each other (Warner *et al* p 245). Thus, application of this methodology need not be limited to a single infection.

Niccolai *et al*'s study represents the most recent application of this methodology for estimating condom effectiveness among people with known STI exposure and, encouragingly, provides independent confirmation of the validity of this approach and of our earlier findings. This work adds to an increasing body of evidence^{4,8,9} suggesting that studies confounded by important differences between consistent users and inconsistent or non-users (for example, degree of STI exposure) tend to underestimate the protective effect of condoms against bacterial STI. Studies limited to individuals with known STI exposure are likely to estimate the protective effect of condom use more accurately. Given that such studies can be conducted using secondary analyses of

existing trial data,^{4,8} as well as routinely collected clinic data,^{1,9} we encourage investigators to adopt similar methodologies to reduce confounding when evaluating condom effectiveness.

Finally, restricting the study population to sexual contacts of infected people probably has many applications for STI research beyond assessment of condom effectiveness. This methodology for reducing confounding may also provide a clearer insight into an array of potential causative and preventive factors for STI, where studies are subject to the same sources of confounding that have plagued condom effectiveness research.

L Warner, M Macaluso, D Newman

Centers for Disease Control and Prevention, Division of Reproductive Health, Atlanta, GA, USA

L Warner, H Austin, D Kleinbaum

Rollins School of Public Health of Emory University, Department of Epidemiology, Atlanta, GA, USA

M Kamb, J Douglas

Centers for Disease Control and Prevention, Division of STD Prevention, Atlanta, GA, USA

C K Malotte

California State University – Long Beach Department of Health Science, Long Beach, CA, USA

J M Zenilman

Baltimore City Health Department, and Johns Hopkins University School of Medicine, Infectious Diseases Division, Baltimore, MD, USA

Correspondence to: Lee Warner, Centers for Disease Control and Prevention, Division of Reproductive Health, 4770 Buford Highway NE, Mail Stop K-34, Atlanta, GA 30333, USA; dlw7@cdc.gov

Disclaimer: The findings and conclusions in this letter are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.

doi: 10.1136/sti.2005.018978

Accepted for publication 17 November 2005

References

- Niccolai L, Rowhani-Rahbar A, Jenkins H, *et al*. Condom effectiveness for prevention of *Chlamydia trachomatis* infection. *Sex Transm Infect* 2005;81:323–5.
- Warner L, Newman D, Peterman T, *et al*. Uncontrolled confounding: a methodologic problem in evaluating condom effectiveness for prevention of sexually transmitted diseases. National HIV Prevention Conference, Atlanta, GA, 12–15 August, 2001.
- Warner L, Newman D, Peterman T, *et al*. Studying condom effectiveness for sexually transmitted disease (STD) prevention: the importance of knowing partner infection status. National STD Prevention Conference, San Diego, CA, 4–7 March, 2002.
- Warner L, Newman DR, Austin HD, *et al*. Condom effectiveness for reducing transmission of gonorrhoea and chlamydia; the importance of assessing partner infection status. *Am J Epidemiol* 2004;159:242–51.
- Weller S, Davis K. Condom effectiveness in reducing heterosexual HIV transmission. *Cochrane Database Syst Rev* 2001;(3):CD003255.
- Wald A, Langenberg AG, Link K, *et al*. Effect of condoms on reducing the transmission of herpes simplex virus type 2 from men to women. *JAMA* 2001;285:3100–6.
- Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines 2002. *MMWR* 2002;51(No RR-6).
- Warner L, Macaluso M, Austin HD, *et al*. Application of the case-crossover design to reduce unmeasured confounding in studies of condom effectiveness. *Am J Epidemiol* 2005;161:765–73.
- Shlay J, McClung MW, Patnaik JL, *et al*. Comparison of sexually transmitted disease prevalence by reported level of condom use among patients attending an urban sexually transmitted disease clinic. *Sex Transm Dis* 2004;31:154–60.

Did the “Brazilian” kill the pubic louse?

Anecdotal experience in our clinic suggests a recent reduction in cases of pubic lice despite increased patient numbers and increasing prevalence rates of other sexually transmitted infections (STIs). Also, in recent years we have seen an increasing number of patients who have undergone extensive pubic hair removal procedures, such as the “Brazilian.” Could there be an association between the rates of pubic lice and the introduction of pubic hair removal practices? We have looked at the prevalence rates of pubic lice in relation to hair removal practices and, for comparison, also looked at the rates of gonorrhoea and chlamydia over the same period.

Annual cases of pubic lice, chlamydia, and gonorrhoea diagnosed at the Department of Genitourinary Medicine, Leeds, were obtained for 1997–2003. Prevalence rates were calculated by dividing these figures by new patient numbers. Changes in percentages were analysed using the χ^2 test and odds ratios.

The rates for gonorrhoea, chlamydia, and pubic lice between 1997 and 2003 are shown in figure 1.

Comparing 2003 with 1997 there was a significant drop in the rate of pubic lice (OR 0.41; 95% CI 0.23 to 0.70 $p=0.0004$), whereas there was a significant increase in gonorrhoea (OR 2.18; 95% CI 1.86 to 3.48 $p<0.0001$) and chlamydia (OR 1.31; 95% CI 1.21 to 1.43 $p<0.0001$).

In female patients the significant fall occurred in 2000 (2000 compared with 1997: OR 0.28; 95% CI 0.08 to 0.92 $p=0.02$), whereas in men the significant drop was later in 2003 (2003 compared with 1997: OR 0.40; 95% CI 0.22 to 0.75 $p=0.02$).

Despite rises in the prevalence of chlamydia and gonorrhoea, there has been a significant drop in pubic lice over recent years. Sexual behaviour changes cannot account for this discordance in trends of STIs so there must be another explanation. The drop in pubic lice in women appears to be most dramatic around 2000 and coincided with the introduction of extensive waxing techniques, such as the “Brazilian,” in women in the United Kingdom.

The “Brazilian” is essentially a normal bikini wax leaving a little “landing strip” of hair or nothing at all. Its origins lie in Brazil

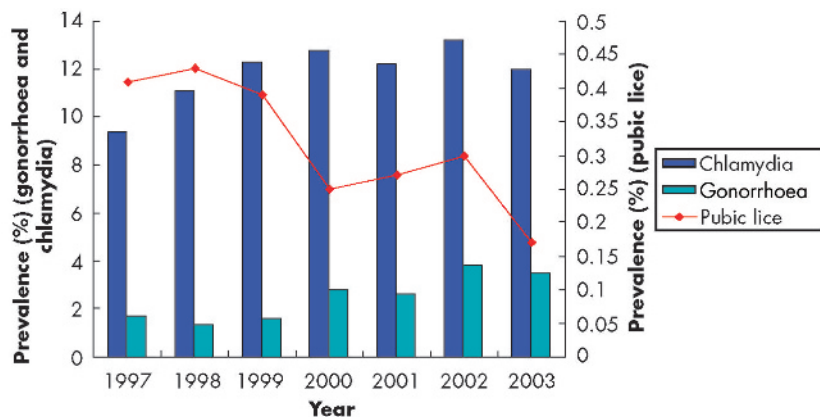


Figure 1 Prevalence of chlamydia, gonorrhoea, and pubic lice in all patients, Department of Genitourinary Medicine, LGI, 1997–2003.

where waxing has long been part of the culture. Initially the “Brazilian” was only available at selected London salons but by 2000–1 it had become a widely available and increasingly popular waxing technique across the United Kingdom.

Although initially predominantly seen in females, extensive hair depilation, including pubic hair, has become popular in males in the past few years. This, along with reduced transmission rates from female partners, may account for the recent similar reduction in male patients.

Our findings confirm a recent fall in prevalence of pubic lice, and show that in women this coincided with the emergence of the “Brazilian.” There are obviously many important methodological flaws in this study such as not having the rates of pubic hair removal in the patients. Also, there are other possible explanations for the findings, such as patients with pubic lice having difficulty gaining clinic appointments because of the current access problems. However, we think that this is an interesting observation and that hair removal practices may have contributed to the reduction in pubic lice.

Contributors

JDW conceived the idea; NRA collected the data, both authors wrote the paper and act as guarantors.

N R Armstrong, J D Wilson

Department of Genitourinary Medicine, The General Infirmary at Leeds, Great George Street, Leeds LS1 3EX, UK

Correspondence to: Dr N R Armstrong, Department of Genitourinary Medicine, The General Infirmary at Leeds, Great George Street, Leeds LS1 3EX, UK; nicola.armstrong@leedsth.nhs.uk

Ethical approval for this study was not needed as departmental figures were used for the analysis. No information about individual patients was needed.

doi: 10.1136/sti.2005.018671

Accepted for publication 3 February 2006

Funding: none

Competing interests: none.

REVIEWS

Oxford Handbook of Genitourinary Medicine, HIV and AIDS

Ed Richard Pattman, Michael Snow, Pauline Handy, K Nathan Sankar, Babiker Elawad. Oxford: Oxford University Press, 2005, pp 580; £24. ISBN 0-19-852077-8.

As a medical student and then a junior doctor I carried an *Oxford Handbook of Medicine* around with me like a security blanket as I stalked the wards and casualty department in the sure knowledge that it would enable me to deal with most problems after a brief thumb through its familiar pages. Indeed, I still dive into it for a brief reminder of general medicine when my brain lets me down! It was therefore with great interest that I embarked upon reading this instalment from the Oxford University Press. This book, aimed at healthcare professionals training in genitourinary medicine, is highly readable, and manages to pack a lot more material than one would guess from its diminutive size. It is successful in doing this by combining a clear layout, digestible text, and good clinical photographs.

In this handbook the authors clearly did not set out to replace the exhaustive tome of *Sexually Transmitted Diseases*; however, it does provide a good basic overview of sexual health including the spectrum of STIs, sexual dysfunction, and HIV infection. As always in a handbook it is difficult to know what to keep in or leave out. This is exemplified by the chapter on contraception which is very brief, only discussing barrier methods and emergency contraception before somewhat unexpectedly going on to cover the contraceptive needs of HIV positive women. There are, however, novel facets of the handbook that should be commended. It combines clinical detail with procedural, ethical, and medicolegal issues, giving the reader a historical as well as a practical view of life in a genitourinary medicine clinic. I especially liked the opening chapter on the genitourinary medicine service, which brings together its development in the United Kingdom and elsewhere and ends with

current day performance targets set in the national strategy for sexual health and HIV.

The long term utility of this book is assured as it fits a niche snugly, aiming itself not only at doctors but also at allied healthcare professionals working in the field, including specialist nurses and health advisers. It can be used to gain a good basic introduction or a brief recap on the subject much in the model of other Oxford handbooks and it is a lot easier to carry in your bag than *Sexually Transmitted Diseases*!

G Sethi

Guy's and St Thomas's Hospital, London, UK; cindy.sethi@gstt.nhs.uk

A History of the African AIDS epidemic.

By John Iliffe. Oxford: James Currey Publishers, 2006, pp 208; £14.95. ISBN 0-85255-890-2.

Why has Africa a uniquely terrible HIV/AIDS epidemic? This was the question posed most provocatively by President Thabo Mbeki of South Africa and reiterated by John Iliffe on the opening page of this book. In the course of the 159 pages that follow, Iliffe attempts to answer it using a historical approach. His conclusion, put most simply, is that Africa has suffered from HIV/AIDS more than other continents because it had the first epidemic established in the general population. He makes a comparison between the HIV/AIDS epidemic and industrial revolutions/nationalist movements, suggesting that the former only makes sense as a sequence.

In the first part of the book, Iliffe describes the origins of HIV-1 and HIV-2, using data derived from molecular evolutionary studies and retrospective testing of stored sera. Having established western equatorial Africa as the likely source of HIV in Africa, he then outlines migration routes for the HIV-1 virus, first to east Africa and, subsequently, to the south and to the west. Throughout these early chapters, it becomes clear that successful spread of HIV-1 requires a complicated interplay between various environmental, social, and cultural factors, such as poverty, lack of empowerment of women, migrant labour practices, civil unrest, views concerning premarital sexual intercourse, early marriage, and the use of commercial sex workers.

In the latter half of the book, Iliffe describes responses from international, governmental, and non-governmental perspectives. Many people consider the measures taken by national and international authorities in the 1980s and early 1990s as generally inadequate. Most African governments were slow to grasp the scale of the crisis and many were weak regimes faced with more immediate problems. The last chapter discusses the containment of the HIV/AIDS epidemic with revitalisation of the response to HIV/AIDS at both the global and African levels.

Overall, this is an interesting and well researched book, which offers an informative introduction to the African AIDS epidemic.

David A Lewis,

National Institute of Communicable Diseases, Johannesburg, South Africa; davidl@nicd.ac.za