Occupational Medicine 2007;**57**:322–328
doi:10.1093/occmed/kqm045

IN-DEPTH REVIEW

Management of sex workers and other high-risk groups

William Spice

Key words Drugs; health care; sex workers.

Overview of the sex industry

Commercial sex work is a growth industry. According to an analysis of data from the National Survey of Sexual Attitudes and Lifestyles by Ward *et al.* [1], the proportion of men who reported paying women for sex more than doubled from 2.0 to 4.2% between 1990 and 2000. There has also been a diversification of sexual services, into areas beyond the traditional exchange of sex for money. Erotic dancing which entails less direct sexual contact between worker and client and other private sex work advertised on the Internet have become increasingly prevalent [2,3].

The sex industry is diverse in the ethnic origins of sex workers, many of whom are economic migrants and include women trafficked and coerced into sex work by organized crime networks [4]. There has been a demographic shift in the origin of commercial sex workers (CSW) working in west London between 1985 and 2002, with a reduction in the proportion with British nationality from 75 to 37%, and a corresponding increase seen in workers from the transitional economies of Eastern Europe and Russia (1–20%) and developing countries, particularly Asia (5–27%) [5]. The Poppy Project, in a survey of female sex workers across London, identified 93 different ethnic groups among women working in off-street premises, of whom only 19% were British [6]. This influx of individuals from many countries inevitably generates language and cultural barriers in access to health and other services.

The pathways that lead people into commercial sex work are also varied. At one end of the spectrum are those who work autonomously, undertake sex work by choice and are well organized with respect to their sexual health and accessing services [7,8]. These workers may have entered sex work for a specific reason (e.g. to fund higher education costs, pay debts or to cover family expenses), may be intermittent or opportunistic in their involvement in sex work [9] and succeed in exiting the industry at a time of their choice [10]. Others make a career decision to work in the sex industry and may enjoy a high level of job satisfaction and independence [11]. In contrast, are those who are driven into commercial sex work through drug addiction or coercion, and have little autonomy. These workers, including women sold for the purposes of trafficking, are highly vulnerable and have little prospect of leaving the industry unassisted [4,12]. Between these extremes lie the majority, who work in the industry due to varying degrees of economic necessity and choice [8].

There are significant differences between indoor work and street work, in terms of harm and risk to health. Street sex work is more likely to be linked with drugs [13,14] and many in the UK have entered the industry primarily out of the need to maintain expensive drug addictions to heroine and crack cocaine. In this setting, sex may either be exchanged directly for drugs, or drugs may be supplied by the pimp in exchange for earnings [15]. As a result, they are likely to be exposed to much higher levels of violence and abuse from clients and pimps than those who work indoors [16]. Pressure from clients for unprotected sex combined with drug dependency and competition among workers for clients lead street workers to offer, or be persuaded to accept unprotected vaginal or anal sex for more money [3,8,17]. Furthermore, street workers are often homeless, living in squats or drug dens, which may in turn have an adverse impact on health through the acquisition of tuberculosis and other respiratory diseases [4,13].

In contrast, workers who are based in off-street premises, whether in flats, saunas or massage parlours, are less exposed to the risk of violence and will generally work with a maid or a manager who can vet clients, look after money and provide security [18]. Indoor workers are more likely to have autonomy in working hours and the disposal of their income, and are less likely to be

Department of Sexual Health and HIV, Caldecot Centre, King's College Hospital, 15-22 Caldecot Road, London SE5 9RS, UK.

Correspondence to: William Spice, Caldecot Centre, Kings College Hospital, London SE5 9RS, UK. Tel: +44 203 299 4535; fax: +44 207 346 3486; e-mail: william.spice@kch.nhs.uk

supporting an addictive drug habit or to be under the control of pimps [19]. As a result, these workers are not compelled to agree to unsafe sexual practices for higher earnings, and use condoms with all clients [20]. Trafficked women and children who have been groomed and coerced into sex work are important exceptions to the paradigm that indoor sex work offers greater protection [4]. Here the individuals concerned are hidden from view to avoid detection by police and social services, and may frequently be moved between locations or across international borders.

Finally, sex work is not gender specific. The existence of a market for male sex workers who offer services to male or (less commonly) female clients is well recognized [21,22]. Transexual and transgendered individuals also participate in the sex industry, and have their own particular needs [8,23].

Research into commercial sex work is hampered by several methodological challenges. First, the study populations are usually small and unrepresentative due to problems gaining access to sex workers and establishing trust. As a result, researchers are reliant on individuals who attend sexual health clinics voluntarily, who may be poorly representative of the local CSW population, particularly the more vulnerable groups. Second, there is likely to be reporting bias in response to questionnaires or structured interviews on topics such as condom use and drug habits [24,25]. Third, the heterogeneity of CSW with respect to adherence to safer sex, drug misuse and local factors such as pimping and policing means that generalizability of results may be limited. Finally, CSW represent an unstable population both temporally and geographically, which means prospective studies are difficult to conduct without the loss of significant numbers of subjects, which itself may bias results.

Risks to health

There are four main categories of health risks faced by workers in the commercial sex industry. These relate to the acquisition of sexually transmitted infections (STI), harm through violence from clients or pimps, factors associated with the use of drugs and mental health.

Acquisition of STI

Bacterial (syphilis, chlamydia, gonorrhoea and *Mycoplasma genitalium)* and viral STI [human immunodeficiency virus (HIV), hepatitis A, B and C, herpes simplex virus (HSV) and human papilloma virus] are acquired mainly through unprotected vaginal, anal or oral intercourse. Some STI, such as chlamydia and gonorrhoea, cause mucosal inflammation, while others, including primary syphilis and HSV, produce ulceration. HIV, hepatitis B and C and syphilis are also transmitted through injecting drug use. Individuals who are both CSW and intravenous drug users have a dual risk of acquiring these infections.

There are numerous long-term sequelae of STI. Chronic infection with gonorrhoea and chlamydia causes pelvic inflammatory disease leading to higher rates of ectopic pregnancy and infertility. Tertiary syphilis causes neurological and cardiovascular complications. Chronic infection with hepatitis B or C can give rise to liver cirrhosis and hepatocellular carcinoma, while cervical and other anogenital neoplasia are associated with certain subtypes of the human papilloma virus. HIV infection causes progressive immunodeficiency which in turn leads to life-threatening opportunistic infections and cancers. Co-infection with HIV and hepatitis B or C is associated with a worse prognosis than with either alone. The majority of STI can be acquired congenitally and produce high levels of morbidity in neonates and infants.

It has generally been assumed that commercial sex work facilitates the spread of STI in a population [26], but research suggests that this may only apply in certain settings such as the developing world and street sex work, where condom use may not be widely practised [27,28]. The overall prevalence of HIV among UK CSW ranges between 0 and 3.5% [29] while a study from 11 European centres found an HIV prevalence of 1.5% among non-injecting CSW but 31.8% among injecting drug users [30]. A relatively low level of STI in female CSW attending a clinic in west London was also reported [31,32], and attributed to a high level of condom use. Infection rates were still above those for the general population, but this was largely explained by indirect factors such as injecting drug use and having unprotected sex with non-commercial partners who may themselves be injecting drug users [20]. This suggests that even in the context of drugs and street work, it is possible for workers to negotiate barrier protection with clients given the necessary skills.

Harm through violence

Physical violence is perhaps the greatest single threat to the health and well being of CSW. According to Kinnell [33], 87 CSW have been murdered in Britain since 1990. A questionnaire survey of 115 street or outdoor and 125 indoor CSW working in Glasgow, Edinburgh and Leeds conducted by Church *et al.* [16] found that outdoor workers were twice as likely to report violence such as beatings, stabbing, rape and robbery, than indoor workers. Outdoor workers in Glasgow had a six times greater risk of violence than indoor CSW in Edinburgh. Only one-third of assaults were reported to the police. Among street-based CSW, economic pressures, use of heroine or crack cocaine while working, not being able to control the location for sex and having sex in the client's car were all strong predictors of violence. Norton-Hawk [17] also

found that being under the control of a pimp increased the likelihood of violence, partly because of the pressure to earn extra money. These women were more likely to be single, to have come from dysfunctional families and never to have held a legal job. In general, licensed brothel workers felt more secure than in the street setting owing to the closer proximity of fellow workers, the provision of security systems and the right to legal protection [13,34].

Factors associated with use of drugs

Intravenous drug use is associated with multiple medical complications, including cellulitis and abscesses at injecting sites, deep vein thrombosis, pulmonary embolism, bacterial endocarditis, septic embolization, rhabdomyolysis and death through overdose or contamination with toxins. Sharing needles and syringes contributes to the risk for acquiring HIV, hepatitis B and C and syphilis, and this accounts for the majority of infections among CSW who are supporting opiate addictions [35]. Other drugs such as cocaine, crack cocaine and crystal methamphetamine can lead to cardiovascular and neurological disease and immunosuppression.

In general, CSW who inject drugs exhibit higher levels of risk-taking behaviour compared with non-CSW, including higher injection frequency, use of crack cocaine, higher rates of sharing injecting equipment and use of shooting galleries [14,36,37]. HIV prevalence was 32% among CSW and 21% in the non-CSW group (14). Non-injecting drug use, particularly smoking crack cocaine, has been implicated as an indirect risk factor for STI transmission through impairment of judgement, leading sex workers to engage in higher risk behaviours than non-crack users [15,23,38].

Mental health

There is a strong relationship between mental ill-health and risk-taking behaviours (drug use or sexual practices) among CSW [39]. Several studies have reported higher levels of psychological distress levels in CSW, than a non-CSW control group, even after adjusting for confounding factors such as age, previous rape and crack cocaine use [37,40,41].

What remains unclear is the relative contribution to the distress of working as a sex worker versus pre-existing psychological trauma as a result of drug use, previous childhood abuse, domestic violence or imprisonment. Vanwesenbeeck [42] partly addressed this issue in an assessment of 'burnout' among 96 CSW in Holland, using measures of emotional exhaustion, depersonalization and personal competence in comparison with a group of female nurses. Increases in the first two were attributed to factors such as coercion, violence, negative social reactions, lack of control with clients and inadequate support from managers. Personal competence was positively associated with having a professional attitude towards sex work and with support from colleagues and managers. It was concluded that the conditions under which sex work are conducted have a greater influence on the worker's psychological well being than the nature of the work itself.

Male and transgender sex workers

The term 'transgender' refers both to transexuals, who display many of the physical attributes of the opposite sex while retaining their natural genitalia, and individuals who have undergone gender reassignment surgery. In terms of commercial sex work, both groups are usually male-to-female transgenders. Transvestites, men who dress as women but do not undergo hormonal or surgical modification, are not considered here in the context of sex work.

Male CSW

Male CSW may be homosexual, bisexual or heterosexual in orientation, and although typically viewed as servicing male clients, a significant proportion also engage in sex work with female clients [21,22].

In a study of 94 male CSW attending sexual health clinics in Sydney, 6.5% of the male CSW were HIV positive, compared with 0.4% of the female CSW and 24% of non-CSW homosexual men, but 21, 5 and 12%, respectively, had anogenital warts [21]. Injecting drug use was twice as common among male CSW than in the other two groups and was significantly higher among workers who reported female non-paying clients than among those whose non-commercial partners were male. Overall, male CSW had significantly more non-paying partners than female CSW. Eighty-six per cent of male CSW reported 100% condom use with clients in the past 3 months compared with 88% of female CSW. In contrast, only half reported consistent condom use with non-paying partners.

Male-to-female transgender CSW

Transgenders form a special group of sex workers in terms of their risks and needs. Discrimination in conventional job markets leads a high proportion to engage in commercial sex work [43]. Incentives to earn money are perhaps also higher in this group compared to other groups of sex workers due to the costs of gender reassignment surgery and hormones used to enhance feminine physical attributes.

Misuse of other drugs is high among transgenders, and reported rates of HIV, hepatitis and syphilis are correspondingly increased [44]. Transgenders also report high rates of needle sharing, both for illicit drugs and for

hormones. Post-operative transgenders may engage in both vaginal and anal intercourse, and it has been suggested that surgically constructed vaginas are more susceptible to transmission of HIV and other STI [45]. Transgenders are heavily stigmatized in society, even by other sex workers, and are at high risk both of violence from clients and of being coerced into providing unsafe sexual services for more money [46,47].

Sex work and the law

The Home Office published a document in 2004 entitled 'Paying the Price' [48] which proposed policies for tackling the commercial sex industry. Emphasis was placed on disrupting sex markets to achieve an overall reduction in street work, taking measures to protect communities from the associated 'nuisance' and reducing all forms of exploitation in the industry. Following a period of public consultation, the government document 'A Co-ordinated Prostitution Strategy' [49] was published in January 2006.

Responses to both documents have been generally unfavourable. Boynton and Cusick [50] point out that the government's failure to address health and human rights for sex workers will undermine efforts to reduce exploitation and minimize harm. For example, it remains illegal for more than one individual to sell sex from indoor premises at one time. As maids are to be classified as 'controlling prostitution', sex workers will be compelled to operate alone despite the increased vulnerability that this entails [8]. The government's refusal to license indoor workplaces also acts as a barrier to ensuring that such premises conform with employment and health and safety legislation, and do not harbour children or trafficked women.

The UK Network of Sex Work Projects pointed to the negative effects of anti-kerb-crawling legislation and the use of Anti-Social Behaviour Orders against street workers in pushing the industry further underground. Criminalization affects access to services and the job market while also hampering the efforts of outreach workers in delivering services to those who are most vulnerable. Furthermore, disrupting demand increases competition between workers and encourages more risky behaviour. The UK Network of Sex Work Projects (UKNSWP) also criticized the government for ignoring the benefits that would result from regulating off-street premises and improving conditions for the many who work in the industry out of choice.

The UKNSWP calls for managed zones for street sex work, pointing to the success of projects in Holland and Cologne. By relocating street work to non-residential areas, managed zones improve safety for workers, build good relations with the police, allow regular access to services and reduce the interdependence between street work and drugs. Such proposals were well received in consultations with street workers throughout the UK [8].

Services for CSW

Assessment of needs

Service provision to this highly heterogeneous population needs to be tailored to the local needs expressed by sex workers themselves, which are shaped by the individual's own professional, behavioural and social context. For example, street workers may perceive drug dependency or the associated violence from dealers and pimps as their principal problem, while for others, the main requirement may be for suitable housing or childcare. Several surveys of female CSW in London have found that demand was greatest for housing, followed by sexual health and substance misuse services. In contrast, among those wishing to exit the industry, provision of safe house and hostel accommodation, counselling services and peer support groups were highlighted. Other gaps in service provision included dedicated exiting programmes, outreach services, treatment for depression, support following sexual assault, education programmes and community safety strategies [19,24,51].

It is important to recognize that many sex workers are reluctant to seek help through mainstream services such as genitourinary medicine (GUM) clinics and general practitioners for fear of stigma and disapproval [19,23,51]. Service providers must therefore be prepared to overcome these barriers and seek to establish trust by providing surroundings in which confidentiality, non-judgemental attitudes and sympathetic listening predominate [7]. De-stigmatized delivery of service is more likely to be encountered in settings dedicated to sex workers, rather than through piecemeal access to mainstream services for sexual health, drug rehabilitation or housing.

Harm reduction

Services aimed at harm reduction need to address the four main areas of risk discussed, namely, sexual health, physical violence, drug use and mental health.

Sexual health services should include screening for, and treatment of STI, provision of condoms, and education to reduce disease transmission. Mallory and Gabrielson [3] reported that ~8- to 12-h training is required to impart lasting safer sex behaviours. Effective measures include practice with condom application, and the development of assertiveness and negotiating skills with clients through role play [52]. Sexual health services should also offer reproductive health care, including cervical screening, family planning, management of gynaecological problems and referral for more specialist services such

as colposcopy, termination of pregnancy and psychosexual counselling [53].

Reducing the risk of violence towards sex workers depends on a range of strategies that includes safety advice, awareness of potentially dangerous clients, training in assertiveness and negotiating skills and distribution of 'dodgy punter' registers based on physical descriptions provided by CSW [7,8,48,54].

Harm reduction in relation to drug use is critically important as a means to protect the individual from the risks of both infection and violence. Needle and syringe exchanges reduce the need to share equipment and visit shooting galleries, and can provide the opportunity for education in safer injecting practices [14,37]. Drug rehabilitation and methadone programmes, as well as those which treat addiction to crack cocaine, are therefore an essential means by which the individual can withdraw from the drug culture [23].

Sex workers who have experienced violence or abuse in early life, or who continue to be exposed either through their work or in their non-commercial partnerships, are likely to suffer in varying degrees from conditions such as depression and post-traumatic stress disorder. These problems require careful evaluation and counselling [3,55] backed up by practical measures such as the provision of emergency housing.

Peer support is recognized as an important means by which important information about safer sex and the reduction of risk from violent clients can be passed between workers [23,56,57]. CSW who act as peer educators are likely to be more successful than health care workers in promoting condom use with both commercial and non-paying partners [24].

Drop-in clinics and outreach

Most dedicated services for CSW concentrate on sexual health, either in the form of clinics or through outreach providers visiting both indoor premises and street locations [24]. The principal role of outreach is to distribute condoms, provide clean needles and syringes, offer information and advice on safer sex and sexual health and refer sex workers to clinic-based services for STI screening and other health needs [7]. Advice may also be offered on safety, access to drug programmes, housing services or legal assistance. One successful pilot scheme in Liverpool involved engaging a wide range of CSW including male workers. A nurse practitioner established links with escort agencies, indoor premises, street workers and a number of outreach projects in order to build trust and provide fast-track clinic appointments for both workers and their partners [51].

Drop-in services for CSW are typically based either in general GUM clinics or in outreach settings, such as general practitioner (GP) surgeries in areas where the sex industry is concentrated. Donegan *et al.* [58] found specific services offered by 25 GUM departments in the UK providing various combinations of outreach workers, drop-in clinics and outreach clinics. Cooper *et al.* [59] identified 81 dedicated services for CSW across the UK in a 1995 survey, and 124 in 1999. Most provided outreach and were geared towards harm reduction.

Another model is the Working Women's Project in Streatham, South London run by Mainliners, and based in a primary health care centre. Staff include a GP and female nurses from the nearby Caldecot Centre for Sexual Health at Kings College Hospital. The project provides a full range of services, including sexual health screening and information, pregnancy testing, referral for abortion and other gynaecological problems, contraceptive advice, information on safer sex and drug use, free condoms, a needle exchange, general medical care, an 'ugly mugs' list, emotional support and advice on legal issues. Referral can also be made to other services including counselling, housing and drug programmes.

Exit strategies

Workers who wish to leave the sex industry may face multiple obstacles depending on their level of vulnerability [12]. For example, street-based CSW may need protection from pimps or violent partners through the emergency provision of safe houses or shelters, referral to drug rehabilitation programmes or counselling services to address mental health issues. Low educational level, learning difficulties and a criminal record can also act as barriers to the reintegration of sex workers into the non-sex workforce [7].

Exit programmes therefore need to be holistic and tailored to individual vulnerabilities, which is best achieved through coordinated referral to the relevant agencies and the provision of long-term follow-up [8]. Clark and Squires [7] proposed the establishment of Vulnerable Adult Protection programmes in which the coordinating role would be taken on by a key worker. In such a model, an initial intervention to provide safe house accommodation could be followed by referral to drug rehabilitation or sexual health services, and ultimately lead to training in new skills and assistance with job seeking. The Sex Workers in Sexual Health Project in Coventry reported on 10 CSW who had successfully exited over 2 years [60], but few services exist owing to funding constraints and lack of multi-agency co-operation, with the majority concentrating on harm reduction rather than exiting.

Sex workers in the UK will continue to face multiple hazards for as long as the occupation continues to be seen as a policing problem rather than a welfare issue. Clear distinctions need to be drawn between coerced and non-coerced sex work, and recognition given to the heterogeneity and differing needs of this population in order to be able to target interventions appropriately. Decriminalization would open the way for the licensing of indoor

premises and the establishment of managed zones for street sex work, which would in turn provide a stable setting for the effective implementation of strategies for harm reduction and exiting. Until such a time, however, existing services will continue to be fragmented and under-funded to the detriment both of sex workers themselves and the wider community.

Acknowledgements

The author would like to acknowledge the assistance of Louise Hinchcliffe of the Poppy Project for facilitating access to some of the source materials used in this review.

Conflicts of interest

None declared.

References

1. Ward H, Mercer CH, Wellings K *et al.* Who pays for sex? An analysis of the increasing prevalence of female commercial sex contacts among men in Britain. *Sex Transm Infect* 2005;**81:**467–471.
2. Maticka-Tyndale E, Lewis J, Clark JP, Zubick J, Young S. Social and cultural vulnerability to sexually transmitted infections: the work of exotic dancers. *Can J Public Health* 1999;**90:**19–23.
3. Mallory C, Gabrielson M. Preventing HIV infection among women who trade sex. *Clin Excell Nurse Pract* 2005;**9:**17–22.
4. Zimmerman C. *The Health Risks and Consequences of Trafficking in Women and Children: Findings from a European Study.* London School of Hygiene and Tropical Medicine 2003. http://www.lshtm.ac.uk (9 March 2006, date last accessed).
5. Ward H, Day S, Green A, Cooper K, Weber J. Declining prevalence of STI in the London sex industry, 1985 to 2002. *Sex Transm Infect* 2004;**80:**374–376.
6. Dickson S. *Sex in the City: Mapping Commercial Sex across London. The Poppy Project 2004.* http://www.eaves4women.co.uk/ (9 February 2006, date last accessed).
7. Clark M, Squires S. Worlds forever apart? Using vulnerable adult protection policies to deliver better health and social services to street prostitutes. *J Adult Prot* 2005;**7:**24–31.
8. *United Kingdom Network of Sex Work Projects Response to Paying the Price 2004.* http://uknswp.org (1 February 2006, date last accessed).
9. Pyett PM, Haste BR, Snow J. Who works in the sex industry? A profile of female prostitutes in Victoria. *Aust N Z J Public Health* 1993;**20:**431–433.
10. Cusick l, Martin A, May T. *Findings 207: Vulnerability and Involvement in Drug Use and Sex Work.* London: Home Office, 2003.
11. Anon. Prostitution shake-up: one sex worker's view. *Br Med J* 2006;**332:**190.
12. Hester M, Westmarland N. *Research Study 279: Tackling Street Prostitution: towards a Holistic Approach.* London: Home Office, 2004.
13. Pyett PM, Warr DJ. Vulnerability on the streets: female sex workers and HIV risk. *AIDS Care* 1997;**9:**539–547.
14. Tyndall MW, Patrick D, Spittal P, Li K. Risky sexual behaviours among injection drug users with high HIV prevalence: implications for STD control. *Sex Transm Infect* 2002;**78:**170–175.
15. Elwood WN, William ML, Bell DC, Richard AJ. Powerlessness and HIV prevention among people who trade sex for drugs ('strawberries'). *AIDS Care* 1997;**9:**273–284.
16. Church S, Henderson M, Barnard M, Hart G. Violence by clients towards female prostitutes in different work settings: questionnaire survey. *Br Med J* 2001;**322:**524–525.
17. Norton-Hawk M. A comparison of pimp- and non-pimp-controlled women. *Violence Against Women* 2004;**10:**189–194.
18. Whittaker D, Hart G. Managing risks: the social organisation of indoor sex work. *Soc Health Illn* 1996;**18:**399–414.
19. Taylor D. *Sex for Sale: New Challenges and New Dangers for Women Working on and off the Streets. Mainliners 2003.*
20. Ward H, Day S, Weber J. Risky business: health and safety in the sex industry over a nine year period. *Sex Transm Infect* 1999;**75:**340–343.
21. Estcourt CS, Marks C, Rohrsheim R, Johnson AM, Donovan B, Mindel A. HIV, sexually transmitted infections, and risk behaviours in male commercial sex workers in Sydney. *Sex Transm Infect* 2000;**76:**294–298.
22. Harcourt C, Donovan B. The many faces of sex work. *Sex Transm Infect* 2005;**81:**201–206.
23. Rekart ML. Sex-work harm reduction. *Lancet* 2005;**366:**2123–2134.
24. Wilson J. Outreach programmes for female commercial sex workers. *Int J STD AIDS* 1999;**10:**697–698.
25. Zenilman JW, Weisman CS, Rompalo AM *et al.* Condom use to prevent incident STD's: the validity of self-reported condom use. *Sex Transm Dis* 1995;**22:**15–20.
26. Cameron DW. Can we reduce HIV transmission by providing healthcare and HIV therapy to commercial sex workers? *J Int Assoc Physicians AIDS Care* 1998;**4:**24–26.
27. Cusick L. Non-use of condoms by prostitute women. *AIDS Care* 1998;**10:**133–146.
28. Moriskey DE, Stein JA, Sneed CD *et al.* Modelling personal and situational influences on condom use among establishment-based commercial sex workers in the Philippines. *AIDS Behav* 2002;**6:**163–172.
29. Day S, Ward H. *Sex Work, Mobility and Health in Europe.* London: Kegan and Paul, 2004.
30. McKeganey NP. Prostitution and HIV: what do we know and where might research be targeted in the future? *AIDS* 1994;**8:**1215–1226.
31. Day S, Ward H, Harris JRW. Prostitute women and public health. *Br Med J* 1988;**297:**1585.
32. Ward H, Day S, Mezzone J *et al.* Prostitution and the risk of HIV. *Br Med J* 1993;**307:**356–358.
33. Kinnell H. Violence and sex work in Britain. In: Day S, Ward H, eds. *Sex Work, Mobility and Health in Europe.* London: Kegan and Paul, 2004;**33:**179–197.
34. Brents BG, Hausbeck K. Violence and legalised brothel prostitution in Nevada. *J Interpers Violence* 2005;**20:**270–295.

35. Watson D, Kall B, Ray S. Sex for money and drugs. In: Brown BS, Beschner GM, eds. *Handbook on Risk of AIDS.* Westport, CT: Greenwood Press, 1993; 211–223.
36. Pyett PM, Haste BR, Snow J. Risk practices for HIV infection and other STDs amongst female prostitutes working in legalized brothels. *AIDS Care* 1996;**8:**85–94.
37. Paone D, Cooper H, Alperen J, Shi Q, des Jarlais, DC. HIV risk behaviours of current sex workers attending syringe exchange: the experiences of women in five US cities. *AIDS Care* 1999;**11:**269–280.
38. Chiasson M, Stoneburner R, Hilderbrandt D, Ewing W, Telzak E, Jaffe H. Heterosexual transmission of HIV1 associated with the use of smokable freebase cocaine (crack). *AIDS* 1991;**5:**1121–1126.
39. Kelly JA, Murphy DA, Baker GR. Factors associated with severity of depression and high risk sexual behaviour among persons diagnosed with HIV infection. *Health Psychol* 1993;**12:**215–219.
40. El Bassel N, Schilling RF, Irwin KL *et al.* Sex trading and psychological distress among women recruited from the streets of Harlem. *Am J Public Health* 1997;**87:**66–70.
41. Chudakov B, Ilan K, Belmaker R, Cwikel J. The motivation and mental health of sex workers. *J Sex Marital Ther* 2002;**28:**305–315.
42. Vanwesenbeeck I. Burnout among female indoor sex workers. *Arch Sex Behav* 2005;**34:**627.
43. Nemoto T, Luke D, Mamo L, Ching A, Patria J. HIV risk behaviours among male-to-female transgenders in comparison with homosexual or bisexual males and heterosexual females. *AIDS Care* 1999;**11:**297–312.
44. Elifson KW, Boles J, Posey E, Sweat M, Darrow W, Elsea W. Male transvestite prostitutes and HIV risk. *Am J Public Health* 1993;**83:**260–262.
45. Modan B, Goldschmidt R, Rubenstein E *et al.* Prevalence of HIV antibodies in transsexual and female prostitutes. *Am J Public Health* 1992;**82:**590–592.
46. Garber M. *Vested Interests: Cross-Dressing and Cultural Anxiety.* New York: Routledge, 1992.
47. Boles J, Elifson KW. The social organisation of transvestite prostitution and AIDS. *Soc Sci Med* 1994;**39:**85–93.
48. *Paying the Price: A Consultation Document on Prostitution.* London: Home Office, 2004.
49. *A Coordinated Prostitution Strategy.* London: Home Office, 2006.
50. Boynton P, Cusick L. Sex workers to pay the price. *Br Med J* 2006;**332:**190–191.
51. Wells A, Wakelam D. The exponential benefits of taking sexual health services out of the clinic and into sex working communities using a 'needs-led' approach to overcome the stigma barrier. *Eur J Contracept Reprod Health Care* 2004;**9:**127.
52. Wingood GM, DiClemente RJ. The effects of an abusive primary partner on the condom use and sexual negotiation practices of African-American women. *Am J Public Heath* 1997;**87:**1016–1018.
53. Mardh PA, Shoubnikova M, Genc M, Chaplinkas S, Unzeitig V. Health care of female commercial sex workers. *Eur J Contracept Reprod Health Care* 1999;**4:** 165–180.
54. Bindel J. No Escape? *An Investigation into London's Service Provision for Women Involved in the Commercial Sex Industry. The Poppy Project 2006.* http://www.poppy.ik.com (27 April 2006, date last accessed).
55. Wyatt GE, Myers HF, Williams JK. Does a history of trauma contribute to HIV risk for women of colour? Implications for prevention and policy. *Am J Public Health* 2002;**92:**660–665.
56. Donegan C. Prostitutes can help prevent transmission of HIV. *Nurs Times* 1996;**92:**38–39.
57. Day S, Ward H. Sex workers and the control of sexually transmitted disease. *Genitourin Med* 1997;**73:**155–156.
58. Donegan C, Ward H, Day S. Services for female prostitutes in genito-urinary medicine clinics in the UK. *Genitourin Med* 1996;**72:**450–451.
59. Cooper J, Kilvington J, Day S, Ziersch A, Ward H. HIV prevention and sexual health services for sex workers in the UK. *Health Educ J* 2001;**60:**26–34.
60. Aris R, Pitcher J. *Evaluation of Coventry SWISH Arrest Referral Scheme for Sex Workers: Final Report.* London: Terrence Higgins Trust, 2004.