Transient increase in gonorrhoea among heterosexuals attending a sexual health clinic in South Australia temporally associated with increased prostitution policing

Introduction

Notifications of gonorrhoea in Australia have risen over the last decade, from 30.7 per 100,000 in 2002 to 58.9 per 100,000 in 2012 [1]. Similar patterns were seen in South Australia [2]. When reviewing this data we noticed a substantial rise and then fall in heterosexual gonorrhoea at Clinic 275 over a five year period between 2006 and 2010.

Aim

To determine if there was an identifiable cause for this gonorrhoea rise and compare the changes at Clinic 275 with two other large sexual health services in other Australian States to determine whether the observations at Clinic 275 were unique or represented an Australia wide phenomenon.

Methods

This study was a retrospective analysis of computerised records at three Australian sexual health services (Clinic 275, MSHC and SSHC). The main analysis involved the Adelaide sexual health service (Clinic 275) between 1st of January 1990 and 31st of December 2012. Potential risk factors for gonorrhoea were reviewed at Clinic 275.

Statistical Analysis

We used a chi square test to determine if the proportion of episodes of care or individuals with gonorrhoea was different between epidemic and non-epidemic years in the three clinics. We then undertook a logistic regression on those factors found to be significant in the univariate analysis. Data analysis was performed using STATA (Version 11).

Results

Figure 1a: Proportion of episodes of care or individuals seen in a year with urethral gonorrhoea in heterosexual men at Clinic 275 (1990-2012), Melbourne Sexual Health Centre (MSHC) (2003-12) and Sydney Sexual Health Centre (SSHC) (1993-2012)

Figure 1b: Proportion of episodes of care or individuals seen in a year with cervical or vaginal gonorrhoea in non-sex worker women at Clinic 275 (1990-2012), Melbourne Sexual Health Centre (MSHC) (2003-12) and Sydney Sexual Health Centre (SSHC) (1993-2012)

Table 1: Crude and adjusted odds ratios for vaginal/cervical gonorrhoea among women attending Clinic 275 during epidemic years

Conclusions

A substantial and self-limiting rise in heterosexual gonorrhoea was associated with sex workers and isolated to one Australian city. This was temporally associated with increased policing. Prosecuting sex workers may have resulted in adverse public health outcomes.

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