

## Abstract

**BACKGROUND:** Since 2000, peer-mediated interventions among female sex workers (FSW) in Mombasa Kenya have promoted behavioural change through improving knowledge, attitudes and awareness of HIV serostatus, and aimed to prevent HIV and other sexually transmitted infection (STI) by facilitating early STI treatment. Impact of these interventions was evaluated among those who attended peer education and at the FSW population level. **METHODS:** A pre-intervention survey in 2000, recruited 503 FSW using snowball sampling. Thereafter, peer educators provided STI/HIV education, condoms, and facilitated HIV testing, treatment and care services. In 2005, data were collected using identical survey methods, allowing comparison with historical controls, and between FSW who had or had not received peer interventions.

**RESULTS:** Over five years, sex work became predominately a full-time activity, with increased mean sexual partners (2.8 versus 4.9/week;  $P < 0.001$ ). Consistent condom use with clients increased from 28.8% (145/503) to 70.4% (356/506;  $P < 0.001$ ) as well as the likelihood of refusing clients who were unwilling to use condoms (OR = 4.9, 95% CI = 3.7-6.6). In 2005, FSW who received peer interventions (28.7%, 145/506), had more consistent condom use with clients compared with unexposed FSW (86.2% versus 64.0%; AOR = 3.6, 95% CI = 2.1-6.1). These differences were larger among FSW with greater peer-intervention exposure. HIV prevalence was 25% (17/69) in FSW attending  $\geq 4$  peer-education sessions, compared with 34% (25/73) in those attending 1-3 sessions ( $P = 0.21$ ). Overall HIV prevalence was 30.6 (151/493) in 2000 and 33.3% (166/498) in 2005 ( $P = 0.36$ ).