OBJECTIVE: To assess the association between vaginal douching and sexually transmitted infections (STI) among a group of female sex workers (FSWs) in Nairobi, Kenya. METHODS: This study was part of a randomised, placebo controlled trial of monthly prophylaxis with 1 g of azithromycin to prevent STIs and HIV infection in a cohort of Nairobi FSWs. Consenting women were administered a questionnaire and screened for STIs. RESULTS: The seroprevalence of HIV-1 among 543 FSWs screened was 30%. HIV infection was significantly associated with bacterial vaginosis (BV), trichomoniasis, gonorrhoea, and the presence of a genital ulcer. Regular douching was reported by 72% of the women, of whom the majority inserted fluids in the vagina, generally after each sexual intercourse. Water with soap was the fluid most often used (81%), followed by salty water (18%), water alone (9%), and a commercial antiseptic (5%). Douching in general and douching with soap and water were significantly associated with bacterial vaginosis (p = 0.05 and p = 0.04 respectively). There was a significant trend for increased frequency of douching and higher prevalence of BV. There was no direct relation observed between douching and risk for HIV infection or other STIs. CONCLUSION: The widespread habit of douching among African female sex workers was confirmed. The association between vaginal douching and BV is of concern, given the increased risk of HIV infection with BV, which has now been shown in several studies. It is unclear why we could not demonstrate a direct association between douching and HIV infection. Further research is required to better understand the complex relation between douching, risk for bacterial vaginosis, and risk for HIV and other STIs.