**BACKGROUND**

- There are limited data on the epidemiology of *Trichomonas vaginalis* (TV) in urban populations in Africa.
- We conducted a survey to determine the prevalence of TV and associations with HIV-1 and other risk factors in migrant men and women living in inner-city Johannesburg.

**METHODS**

- A community-based survey was conducted from January to November 2004. Two stage sampling was used to identify eligible men living in four single-sex hostels and women living in six adjacent informal settlements in Region F, Johannesburg, South Africa.
- Consenting participants aged >18 provided data on living conditions, socio-demographics, sexual behaviour, past and current symptoms and health-seeking behaviour.
- TV was detected in first catch urine (FCU) using in-house PCR based on previously published methods (Kaydos-Daniels, 2003). Neisseria gonorrhoeae (NG) and Chlamydia trachomatis (CT) were detected in FCU using Amplicor CT/NG PCR (Roche Diagnostic Systems, Indianapolis, IN, USA). HIV-1 was detected in oral fluid using Vironostika® HIV Uni-Form II Ag/Ab (bioMerieux, Durham, NC, USA).
- Factors associated with TV were identified using multivariable logistic analysis, adjusting for recruitment site. Results are presented as odds ratios with 95% confidence intervals (CI).
- This study received ethical approval from the University of the Witwatersrand Human Research Ethics Committee and the ethics committee of the London School of Hygiene & Tropical Medicine.

**RESULTS**

**Prevalence of *Trichomonas vaginalis* and other STIs**

- TV was detected in 81/1438 (5.6%) men and 188/991 (19.0%) women; 94% of men and 92% of women infected with TV were asymptomatic.
- Infection with CT and NG were 5.2% and 1.9% in men; and 11.1% and 2.0% in women. 11 (0.8%) men and 51/991 (5.1%) women had mixed infections.
- 344 (24.0%) men and 549 (55.5%) women were HIV-1 seropositive.

**Risk factors for Trichomoniasis**

- HIV-1 was associated with TV in both men (adjusted OR=1.77; 95% CI 1.08 to 2.91; p=0.023) and women (adjusted OR=1.53; 95% CI 1.07 to 2.18; p=0.020).
- Other risk factors for TV are indicated in Table 2. These included smoking and an inverse relationship with perception of safety for both men and women, whilst other factors differed by sex.

**CONCLUSIONS**

- TV was highly prevalent and was consistently associated with HIV-1 in this high-risk urban migrant population. 92%-94% of TV infections were asymptomatic. Prevention and management of TV in these communities will require screening programmes.
- The extremely high HIV-1 prevalence rates observed call for urgent and innovative interventions in this high-risk inner-city environment.