

doi:10.1136/sextrans-2013-051184.0519

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**Background** Vaginal washing has been associated with an increased risk of bacterial vaginosis (BV) and a decreased likelihood of vaginal *Lactobacillus* colonisation. We sought to determine whether a lower prevalence of *Lactobacillus* colonisation in women reporting vaginal washing was independent of the effect of BV.

**Methods** We conducted a cross-sectional study of 273 HIV-negative female sex workers enrolled in an open cohort study in Mombasa, Kenya. Vaginal washing and sexual risk behaviours were assessed using structured face-to-face interviews. *Lactobacillus* species were detected by plating vaginal swabs on both Rogosa and Columbia 5% sheep blood agars. We used tetramethylbenzidine agar subculture to assess H<sub>2</sub>O<sub>2</sub>-production. BV was detected by Gram stain. Log-binomial regression was used to assess correlates of *Lactobacillus* colonisation, including vaginal washing, controlling for BV.

**Results** Two-hundred eighteen participants (80%) reported vaginal washing in the past week (median frequency per week = 14; range 1-35). *Lactobacillus* species were detected in 50/218 (23%) participants who reported vaginal washing versus 23/55 (42%) who did not report this practise. Similarly, H<sub>2</sub>O<sub>2</sub>-producing *Lactobacillus* species were detected in 13/218 (6%) participants who reported vaginal washing versus 10/55 (18%) who did not. After controlling for age, unprotected sex, and BV, vaginal washing was associated with a lower likelihood of any *Lactobacillus* (adjusted relative risk [aRR] = 0.55; 95% confidence interval [CI] 0.37-0.81) and H<sub>2</sub>O<sub>2</sub>-producing *Lactobacillus* (aRR = 0.33; 95% CI 0.15-0.73).

**Conclusion** Vaginal washing was associated with a lower likelihood of any *Lactobacillus* and H<sub>2</sub>O<sub>2</sub>-producing *Lactobacillus* species detected by culture. The results of our adjusted analysis suggest that the effect of vaginal washing on lactobacilli is not mediated entirely through the higher prevalence of BV associated with this



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with Lactobacillus.

important to determine whether  
improve vaginal health by promoting vaginal colonisation