Bacterial vaginosis (BV) is a common condition linked to numerous adverse health outcomes including increased risk of HIV acquisition. The microbiological antecedents to BV are poorly described, and knowledge about vaginal bacterial kinetics and reservoirs of vaginal bacteria outside of the vagina are useful for understanding pathogenesis and developing efforts to prevent BV. Data from several longitudinal studies of women will be presented to highlight the nature of the vaginal bacterial biota, how it changes with onset of BV, how the microbiota can be altered with an intravaginal product to reduce risk of BV, and which vaginal bacteria are most associated with HIV infection risk.