Supplementary Table 1. Eligibility criteria for inclusion in the systematic review

Eligibility criteria for inclusion in systematic review
Study type
cross-sectional
cohorts
randomised controlled trials
Population type
reproductive-aged women (not currently pregnant)
post-menopausal women
Sex steroid type reported on
hormonal contraceptives stratified by
oestrogen-containing hormonal contraception
progestin-only contraception
menopausal hormone therapy
Molecular methods employed
quantitative polymerase chain reaction (qPCR)
16S microarray
next-generation sequencing
Sanger sequencing
Study outcome: reported on a measure of one/more of the following
composition of the vaginal microbiota (one or more species)
stability of the vaginal microbiota
diversity of the vaginal microbiota

Supplementary Table 2. Bias Assessment Tool

Selection Bias	Was the recruited population representative of the general population? E.g. age etc	Yes (low risk) – population was clearly representative	0
		No (high risk) - population was clearly not representative	1
	Were participants randomly allocated? If self-selected treatment, were they consecutively enrolled?	Yes (low risk) – Patients randomly allocated treatment	0
		No (medium risk) – Not randomised, but sequentially enrolled	1
		No (high risk) – Patients self-selected their treatment	2
Sample Size	Was the sample size adequate to supporting findings?	Yes (low risk) - Large number of participants sampled (n>100)	0
		Yes (low risk) – Sample size calculations shown and met	0
		No (high risk) – Low number of participants	1
Measurement Bias	Were appropriate controls present?	Yes (low risk)- Women not using HC/MHT	0
		Yes (low/medium risk) – Participant baseline specimen as a comparator	1
		No (high risk) – No Controls	2
		No (high risk) - Cu-IUD as a comparator (HC studies ONLY) OR women without PM symptons not on MHT (MHT studies ONLY)	2
	Were the analyses stratified by the HC taken?	Yes (low) – Clearly stratified by oestrogen-containing and progestin-only	0
		N/A MHT study with no stratification needed	0
		No (high) – Unclear whether combined or progestin-only	1
	Adjusted for confounding variables?	Yes (low risk) – Adjusted for confounding variables	0
		No (high risk) – No adjusting for confounding variables	1
Summary of the overall risk of study bias		Low Risk	**0-2**
		Moderate Risk	**4-6**
		High Risk	**7-8**

Abbreviation: HC, hormonal contraception; MHT, menopausal hormone therapy; Cu-IUD, copper

Supplementary Table 3. Summary of study populations, design, locations and methods

	Study Population	
Study Groups	**HC**	**HRT**
1. Reproductive aged women		
1a. Reproductive aged HIV negative women	20	-
1b. HIV or HIV/HPV positive women	2	-
1c. Women with BV	1	-
1d. Sex workers (no other risk factors)	2	-
2. Post-menopausal women	-	4
Study Design		
Cross-sectional	9	1
Longitudinal	16	3
Study duration, madian weeks (range)	31 (1 to 104)	10 (4 to 13)
Study Region (Defined by WHO)		
East Asia and Pacific [a]	1	1
Europe and Central Asia	2	0
Latin America and Carribean	2	0
Middle East and North Africa [a]	0	3
North America	8	0
South Asia	0	0
Sub-Saharan Africa	12	0
Molecular Methods		
NGS	19	1
qPCR	4	0
Microarray [b]	2	1
Sanger Sequencing [b]	0	3

Abbreviations: HC, hormonal contraception; MHT, menopausal hormone therapy; HIV, Human immunodeficiency virus; HPV, Human papilloma virus; BV, Bacterial vaginosis; NGS, Next-generation sequencing; qPCR, quantitative PCR; DGGE, Denaturing gradient gel Electrophoresis