

Table S4. Analysis of Composition of Microbiomes (ANCOM) of longitudinal vaginal, cutaneous penile and urethral specimens from couples that were cured vs couples who recurred^a

Taxon	CLR-mean difference ^b	W-statistic ^c	Detected_0.9 ^d	Detected_0.8 ^e	Detected_0.7 ^f	Detected_0.6 ^g
<i>Atopobium</i>	0.14	Inf	TRUE	TRUE	TRUE	TRUE
<i>Ezakiella</i>	0.24	Inf	TRUE	TRUE	TRUE	TRUE
<i>Flavobacterium</i>	0.17	Inf	TRUE	TRUE	TRUE	TRUE
<i>Fusobacterium</i>	0.00	Inf	TRUE	TRUE	TRUE	TRUE
<i>Murdochella</i>	0.20	Inf	TRUE	TRUE	TRUE	TRUE
<i>Rothia</i>	0.15	Inf	TRUE	TRUE	TRUE	TRUE
<i>Lactobacillus antri</i>	-0.09	Inf	TRUE	TRUE	TRUE	TRUE
<i>Lactobacillus coleohominis</i>	-0.07	Inf	TRUE	TRUE	TRUE	TRUE
<i>Lactobacillus crispatus</i>	-0.76	Inf	TRUE	TRUE	TRUE	TRUE
<i>Lactobacillus gasseri</i>	-0.45	Inf	TRUE	TRUE	TRUE	TRUE
<i>Sneathia sanguinegens</i>	1.08	40	TRUE	TRUE	TRUE	TRUE
<i>Corynebacterium</i>	0.31	33	FALSE	FALSE	TRUE	TRUE
<i>Dialister</i>	0.52	31	FALSE	FALSE	TRUE	TRUE
<i>Gemella</i>	0.84	31	FALSE	FALSE	TRUE	TRUE
<i>Sneathia amnii</i>	1.20	31	FALSE	FALSE	TRUE	TRUE
<i>Parvimonas</i>	0.12	30	FALSE	FALSE	FALSE	TRUE
<i>Peptostreptococcus</i>	0.02	28	FALSE	FALSE	FALSE	TRUE
<i>Atopobium vaginae</i>	0.29	23	FALSE	FALSE	FALSE	FALSE
<i>Muribaculaceae</i>	0.23	12	FALSE	FALSE	FALSE	FALSE
<i>Actinomyces</i>	-0.84	7	FALSE	FALSE	FALSE	FALSE
<i>Aerococcus</i>	0.34	2	FALSE	FALSE	FALSE	FALSE
<i>Alloprevotella</i>	-0.07	6	FALSE	FALSE	FALSE	FALSE
<i>Anaerococcus</i>	-0.25	1	FALSE	FALSE	FALSE	FALSE
<i>Bifidobacterium</i>	-0.71	7	FALSE	FALSE	FALSE	FALSE
<i>Campylobacter</i>	-0.33	12	FALSE	FALSE	FALSE	FALSE
<i>Enterococcus</i>	-0.47	7	FALSE	FALSE	FALSE	FALSE
<i>Escherichia/Shigella</i>	0.04	1	FALSE	FALSE	FALSE	FALSE
<i>Fenollaria</i>	-0.64	13	FALSE	FALSE	FALSE	FALSE
<i>Fingoldia</i>	-1.00	15	FALSE	FALSE	FALSE	FALSE
<i>Granulicatella</i>	-0.11	8	FALSE	FALSE	FALSE	FALSE
<i>Haemophilus</i>	0.48	7	FALSE	FALSE	FALSE	FALSE
<i>Howardella</i>	-0.47	14	FALSE	FALSE	FALSE	FALSE
<i>Lactobacillus</i>	0.04	25	FALSE	FALSE	FALSE	FALSE
<i>Lawsonella</i>	0.21	8	FALSE	FALSE	FALSE	FALSE
<i>Mobiluncus</i>	-0.07	7	FALSE	FALSE	FALSE	FALSE
<i>Mycoplasma</i>	0.52	3	FALSE	FALSE	FALSE	FALSE
<i>Neisseria</i>	-0.18	6	FALSE	FALSE	FALSE	FALSE
<i>Peptococcus</i>	-0.47	6	FALSE	FALSE	FALSE	FALSE
<i>Peptoniphilus</i>	0.25	3	FALSE	FALSE	FALSE	FALSE
<i>Porphyromonas</i>	-0.12	6	FALSE	FALSE	FALSE	FALSE
<i>Prevotella</i> spp. unclassified	0.13	7	FALSE	FALSE	FALSE	FALSE
<i>Solobacterium</i>	-0.32	11	FALSE	FALSE	FALSE	FALSE
<i>Staphylococcus</i>	0.78	16	FALSE	FALSE	FALSE	FALSE
<i>Streptococcus</i>	-0.15	7	FALSE	FALSE	FALSE	FALSE
<i>Sutterella</i>	0.34	12	FALSE	FALSE	FALSE	FALSE
<i>Ureaplasma</i>	-1.61	1	FALSE	FALSE	FALSE	FALSE
<i>Veillonella</i>	0.28	8	FALSE	FALSE	FALSE	FALSE
<i>Gardnerella</i>	1.73	0	FALSE	FALSE	FALSE	FALSE
<i>Lactobacillus iners</i>	-2.70	1	FALSE	FALSE	FALSE	FALSE
<i>Lactobacillus jensenii</i>	-0.95	4	FALSE	FALSE	FALSE	FALSE
<i>Prevotella bivia</i>	1.05	18	FALSE	FALSE	FALSE	FALSE
<i>Prevotella disiens</i>	0.68	8	FALSE	FALSE	FALSE	FALSE
<i>Prevotella melaninogenica</i>	0.05	8	FALSE	FALSE	FALSE	FALSE
<i>Prevotella timonensis</i>	0.41	1	FALSE	FALSE	FALSE	FALSE
<i>Alloscardovia</i>	0.09	Inf	TRUE	TRUE	TRUE	TRUE
<i>Arcanobacterium</i>	0.22	Inf	TRUE	TRUE	TRUE	TRUE
<i>Ezakiella</i>	0.16	Inf	TRUE	TRUE	TRUE	TRUE
<i>Fusobacterium</i>	0.25	Inf	TRUE	TRUE	TRUE	TRUE
<i>Mycoplasma</i>	-0.17	Inf	TRUE	TRUE	TRUE	TRUE
<i>Pseudomonas</i>	-0.05	Inf	TRUE	TRUE	TRUE	TRUE
<i>Lactobacillus gasseri</i>	0.26	Inf	TRUE	TRUE	TRUE	TRUE
<i>Streptococcus</i>	1.22	0	FALSE	FALSE	FALSE	FALSE

Vaginal microbiota

Table S4. Analysis of Composition of Microbiomes (ANCOM) of longitudinal vaginal, cutaneous penile and urethral specimens from couples that were cured vs couples who recurred^a

Cutaneous penile microbiota	<i>Enterococcus</i>	1.39	0	FALSE	FALSE	FALSE	FALSE
	<i>Gardnerella</i>	1.12	0	FALSE	FALSE	FALSE	FALSE
	<i>Corynebacterium</i>	0.19	0	FALSE	FALSE	FALSE	FALSE
	<i>Gemella</i>	1.22	0	FALSE	FALSE	FALSE	FALSE
	<i>Sneathia amnii</i>	1.07	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella bivia</i>	0.64	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella timonensis</i>	0.76	0	FALSE	FALSE	FALSE	FALSE
	<i>Sneathia sanguinegens</i>	0.67	0	FALSE	FALSE	FALSE	FALSE
	<i>Lactobacillus iners</i>	-0.63	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella disiens</i>	0.51	1	FALSE	FALSE	FALSE	FALSE
	<i>Peptoniphilus</i>	0.14	0	FALSE	FALSE	FALSE	FALSE
	<i>Anaerococcus</i>	0.42	0	FALSE	FALSE	FALSE	FALSE
	<i>Granulicatella</i>	0.70	0	FALSE	FALSE	FALSE	FALSE
	<i>Ureaplasma</i>	-0.27	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella</i> spp. unclassified	0.09	0	FALSE	FALSE	FALSE	FALSE
	<i>Facklamia</i>	0.27	0	FALSE	FALSE	FALSE	FALSE
	<i>Fingoldia</i>	-0.03	0	FALSE	FALSE	FALSE	FALSE
	<i>Aerococcus</i>	-0.31	0	FALSE	FALSE	FALSE	FALSE
	<i>Haemophilus</i>	-0.21	0	FALSE	FALSE	FALSE	FALSE
	<i>Dialister</i>	0.12	0	FALSE	FALSE	FALSE	FALSE
	<i>Dermabacter</i>	0.14	0	FALSE	FALSE	FALSE	FALSE
	<i>Howardella</i>	0.15	0	FALSE	FALSE	FALSE	FALSE
	<i>Actinotignum</i>	-0.24	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella melaninogenica</i>	-0.11	0	FALSE	FALSE	FALSE	FALSE
	<i>Atopobium deltae</i>	-0.14	0	FALSE	FALSE	FALSE	FALSE
	<i>Negativicoccus</i>	-0.06	0	FALSE	FALSE	FALSE	FALSE
	<i>Peptococcus</i>	-0.04	0	FALSE	FALSE	FALSE	FALSE
	<i>Peptostreptococcus</i>	-0.19	0	FALSE	FALSE	FALSE	FALSE
	<i>Veillonella</i>	-0.22	0	FALSE	FALSE	FALSE	FALSE
	<i>Rothia</i>	-0.34	0	FALSE	FALSE	FALSE	FALSE
	<i>Porphyromonas</i>	-0.52	0	FALSE	FALSE	FALSE	FALSE
	<i>Micrococcus</i>	-0.37	0	FALSE	FALSE	FALSE	FALSE
	<i>Escherichia/Shigella</i>	-0.56	0	FALSE	FALSE	FALSE	FALSE
	<i>Varibaculum</i>	-0.47	1	FALSE	FALSE	FALSE	FALSE
	<i>Murdochiella</i>	-0.45	0	FALSE	FALSE	FALSE	FALSE
	<i>Actinomyces</i>	-0.35	0	FALSE	FALSE	FALSE	FALSE
	<i>Fenollaria</i>	-0.68	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotellaceae</i>	-0.69	0	FALSE	FALSE	FALSE	FALSE
	<i>Staphylococcus</i>	-0.46	0	FALSE	FALSE	FALSE	FALSE
	<i>Campylobacter</i>	-0.50	0	FALSE	FALSE	FALSE	FALSE
	<i>Propionimicrobium</i>	-0.70	0	FALSE	FALSE	FALSE	FALSE
	<i>Mobiluncus</i>	-0.77	0	FALSE	FALSE	FALSE	FALSE
	<i>Sutterella</i>	-0.60	0	FALSE	FALSE	FALSE	FALSE
	<i>Lawsonella</i>	-1.64	0	FALSE	FALSE	FALSE	FALSE
	<i>Atopobium parvulum</i>	0.26	Inf	TRUE	TRUE	TRUE	TRUE
<i>Coriobacteriales Inc Se</i>	0.43	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Acinetobacter</i>	-0.06	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Cutibacterium</i>	0.31	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Enterobacter</i>	0.02	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Micrococcus</i>	0.00	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Murdochiella</i>	0.17	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Pseudoclavibacter</i>	0.17	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Ruminococcaceae UCG014</i>	0.21	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Lactobacillus crispatus</i>	0.11	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Lactobacillus gasseri</i>	0.13	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Lactobacillus jensenii</i>	0.13	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Prevotella buccalis</i>	0.07	Inf	TRUE	TRUE	TRUE	TRUE	
<i>Fingoldia</i>	0.61	0	FALSE	FALSE	FALSE	FALSE	
<i>Prevotella bivia</i>	1.53	0	FALSE	FALSE	FALSE	FALSE	
<i>Prevotella disiens</i>	1.68	0	FALSE	FALSE	FALSE	FALSE	
<i>Anaerococcus</i>	0.68	0	FALSE	FALSE	FALSE	FALSE	
<i>Peptoniphilus</i>	0.38	0	FALSE	FALSE	FALSE	FALSE	
<i>Prevotella</i> spp. unclassified	0.57	0	FALSE	FALSE	FALSE	FALSE	
<i>Dialister</i>	1.25	0	FALSE	FALSE	FALSE	FALSE	
<i>Prevotella timonensis</i>	0.89	0	FALSE	FALSE	FALSE	FALSE	

Table S4. Analysis of Composition of Microbiomes (ANCOM) of longitudinal vaginal, cutaneous penile and urethral specimens from couples that were cured vs couples who recurred^a

Urethral microbiota	<i>Corynebacterium</i>	-0.99	0	FALSE	FALSE	FALSE	FALSE
	<i>Pseudomonas</i>	1.08	0	FALSE	FALSE	FALSE	FALSE
	<i>Gemella</i>	1.46	0	FALSE	FALSE	FALSE	FALSE
	<i>Porphyromonas</i>	0.53	0	FALSE	FALSE	FALSE	FALSE
	<i>Fenollaria</i>	0.37	0	FALSE	FALSE	FALSE	FALSE
	<i>Veillonella</i>	0.00	0	FALSE	FALSE	FALSE	FALSE
	<i>Neisseria</i>	0.28	0	FALSE	FALSE	FALSE	FALSE
	<i>Haemophilus</i>	0.30	0	FALSE	FALSE	FALSE	FALSE
	<i>Gardnerella</i>	0.56	0	FALSE	FALSE	FALSE	FALSE
	<i>Aerococcus</i>	0.21	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella melaninogenica</i>	0.37	0	FALSE	FALSE	FALSE	FALSE
	<i>Peptostreptococcus</i>	0.28	0	FALSE	FALSE	FALSE	FALSE
	<i>Actinomyces</i>	0.46	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotellaceae</i>	-0.10	0	FALSE	FALSE	FALSE	FALSE
	<i>Rothia</i>	-0.04	0	FALSE	FALSE	FALSE	FALSE
	<i>Sutterella</i>	0.26	0	FALSE	FALSE	FALSE	FALSE
	<i>Campylobacter</i>	-0.15	0	FALSE	FALSE	FALSE	FALSE
	<i>Granulicatella</i>	0.15	0	FALSE	FALSE	FALSE	FALSE
	<i>Fusobacterium</i>	0.27	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella nanceiensis</i>	0.03	0	FALSE	FALSE	FALSE	FALSE
	<i>Negativicoccus</i>	0.10	0	FALSE	FALSE	FALSE	FALSE
	<i>Muribaculaceae</i>	-0.07	0	FALSE	FALSE	FALSE	FALSE
	<i>Staphylococcus</i>	-1.94	0	FALSE	FALSE	FALSE	FALSE
	<i>Prevotella corporis</i>	-0.05	0	FALSE	FALSE	FALSE	FALSE
	<i>Atopobium deltae</i>	-0.17	1	FALSE	FALSE	FALSE	FALSE
	<i>Mobiluncus</i>	-0.44	0	FALSE	FALSE	FALSE	FALSE
	<i>Streptococcus</i>	-1.10	0	FALSE	FALSE	FALSE	FALSE
	<i>Dermabacter</i>	0.04	0	FALSE	FALSE	FALSE	FALSE
	<i>Peptococcus</i>	-0.22	0	FALSE	FALSE	FALSE	FALSE
	<i>Enterococcus</i>	-0.96	0	FALSE	FALSE	FALSE	FALSE
	<i>Bergeyella</i>	-0.30	0	FALSE	FALSE	FALSE	FALSE
	<i>Howardella</i>	0.03	0	FALSE	FALSE	FALSE	FALSE
	<i>Alloprevotella</i>	-0.38	0	FALSE	FALSE	FALSE	FALSE
	<i>Atopobium spp. unclassified</i>	-0.32	0	FALSE	FALSE	FALSE	FALSE
<i>Actinotignum</i>	-0.48	0	FALSE	FALSE	FALSE	FALSE	
<i>Ezakiella</i>	-0.52	0	FALSE	FALSE	FALSE	FALSE	
<i>Solobacterium</i>	-0.26	0	FALSE	FALSE	FALSE	FALSE	
<i>Facklamia</i>	-0.35	0	FALSE	FALSE	FALSE	FALSE	
<i>Enhydrobacter</i>	-0.43	0	FALSE	FALSE	FALSE	FALSE	
<i>Alloscardovia</i>	-0.52	0	FALSE	FALSE	FALSE	FALSE	
<i>Propionimicrobium</i>	-0.05	0	FALSE	FALSE	FALSE	FALSE	
<i>Prevotella bergensis</i>	-0.71	0	FALSE	FALSE	FALSE	FALSE	
<i>Ureaplasma</i>	-0.79	0	FALSE	FALSE	FALSE	FALSE	
<i>Lawsonella</i>	0.17	0	FALSE	FALSE	FALSE	FALSE	
<i>Arcanobacterium</i>	-0.85	1	FALSE	FALSE	FALSE	FALSE	
<i>Lactobacillus iners</i>	-1.25	0	FALSE	FALSE	FALSE	FALSE	
<i>Varibaculum</i>	-1.04	0	FALSE	FALSE	FALSE	FALSE	
<i>Escherichia/Shigella</i>	-2.00	0	FALSE	FALSE	FALSE	FALSE	

CLR, centre log-ratio transformed relative abundance; Inf = indicates a taxa that was identified as a structural zero

^aSpecimens collected at day-0 and day-8 have been excluded from this analysis. Recurrence was defined as 3-4 Amsel criteria and NS=4-10 during the follow-up period

^bCLR-mean difference represents the difference in the mean-CLR transformed abundance of a taxon between recurrence and cure cases

^cW statistic - the number of comparisons in which the null hypothesis as rejected for that taxon

^dA value of TRUE indicates that the null hypothesis was rejected in $\geq 90\%$ of comparisons for that taxon

^eA value of TRUE indicates that the null hypothesis was rejected in $\geq 80\%$ of comparisons for that taxon

^fA value of TRUE indicates that the null hypothesis was rejected in $\geq 70\%$ of comparisons for that taxon

^gA value of TRUE indicates that the null hypothesis was rejected in $\geq 60\%$ of comparisons for that taxon