

Table S1 The original data of CDR3s diversity and HPV subtypes at the baseline year

Case	Group	D50	hr-HPV subtype result
1	Normal	12.84	-
2	Normal	14.7	-
3	Normal	0.2	-
1	hr-HPV	2.02	18+
2	hr-HPV	16.15	16+
3	hr-HPV	2.26	H9+
4	hr-HPV	0.07	52+
5	hr-HPV	8.12	58+
6	hr-HPV	0.2	52+
7	hr-HPV	9.08	16+
8	hr-HPV	7.31	52+
1	CIN 1	0.01	16+, H9
2	CIN 1	0.84	33+
3	CIN 1	0.78	16+
4	CIN 1	6.6	-
5	CIN 1	15.29	16+, H9
6	CIN 1	0.58	16+
1	CIN 2/3	2.5	52+
2	CIN 2/3	15.39	33+
3	CIN 2/3	20.14	58+
4	CIN 2/3	16.29	58+
1	Cancer	8.56	16+
2	Cancer	0.02	18+
3	Cancer	10.62	16+
4	Cancer	1.78	+
5	Cancer	19.14	+

H9 means the 9 subtypes of hr-HPV (31, 35, 39, 45, 51, 56, 59, 66 and 68) positive infection. +, positive results; -, negative. CDR3s, complementarity-determining region 3s; hr-HPV, high-risk human papillomavirus; CIN, cervical intraepithelial neoplasia.