

# Self-Sampling HPV E6/E7 mRNA for Cervical Cancer Screening

## MULTICENTER CONCORDANCE & PATIENT ACCEPTANCE STUDY

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### Background & Methods

Self-sampling HPV testing may expand screening coverage. This multicenter study (5 Chinese centers, n=778 women 21–69y) evaluated concordance between self- vs clinician-collected samples for **HPV E6/E7 mRNA** (14 high-risk types, bDNA assay). Acceptability assessed via questionnaire (n=737).

### Diagnostic Concordance

**$\kappa=0.883$**

Kappa ( $p<0.001$ )

Almost perfect agreement

**96.5%**

Overall agreement

Self vs. clinician

**90.8%**

Sensitivity

**97.8%**

Specificity

	Clinician +	Clinician -
Self +	128	14
Self -	13	623

Age subgroups: Kappa 0.847–0.903

Regions (SH, ZJ, JS): Kappa 0.822–0.904

✓ All strata overall agreement >95%

### Acceptability (n=737)

**95.9%** Willing to use self-sampling

**93.5%** Found it comfortable

Ease of use 43.6%

Convenience 40.6%

Privacy 30.5%

Less discomfort 27.4%

Preferred location: Hospital 64.3% | Home 47.2%\*

\*Multiple responses; main concerns: reliability (22.4%) & safety (21.7%).

### Key advantages of HPV E6/E7 mRNA

Detects oncogenic activity, reduces false positives from transient HPV infections, provides better risk stratification.

#### Conclusions

- Self-sampling HPV E6/E7 mRNA shows near-perfect concordance with clinician sampling ( $\kappa=0.883$ ).
- High sensitivity (90.8%) & specificity (97.8%) support clinical utility.
- Patient acceptance excellent (95.9% willing), driven by ease, convenience & privacy.
- Self-sampling is an effective tool to expand cervical cancer screening coverage.