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# MSWAB® MEDIUM, A NON-ALCOHOL-BASED MEDIA FOR ELUTING DRY SELF-COLLECTED VAGINAL SWABS FOR HPV DETECTION WITH COMMERCIAL ASSAYS

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## INTRODUCTION

HPV screening have been performed from residual cervical samples in 20 or 10mL alcohol-based-media. Vaginal self-collection has been used to improve women's participation to HPV screening. Dry self-collected vaginal swabs (SCVS) are eluted in 20mL, 10mL or 5mL alcohol-based-media, which are costly and problematic to transport. A medium to elute self-collected swab that support HPV stability at different temperatures is necessary. Copan MSwab® is a non-alcohol based medium, PCR master-mix compatible, preserves intact cells, and has been tested for DNA and RNA virus's stability at different times and storage temperatures.

## AIM

The objectives were to:

- 1) compare the performance of HPV testing on professional collected cervical swabs (PCCS) to two dry SCVS eluted in 5mL of PreservCyt™ (PC) and in 5mL of MSwab® respectively;
- 2) Validate HPV stability from SCVS eluted in MSwab® stored at 22°C and at 37°C for 1, 2, 3, 4 weeks (wks) and 1 year at -20°C.

## METHOD

PCCS and two SCVS were obtained from 10 women referred to colposcopy. Two SCVS were obtained first, using FLOQSwabs® (code 552C.80PB), followed by PCCS collection, using L-Shape FLOQSwabs® (Copan). PCCS were placed in 20mL PC (Hologic) while SCVS were delivered dry to the Laboratory. One SCVS was eluted in 5mL of PC and the other in 5mL of MSwab®. FLOQSwabs® were placed in each media, vortexed at high-speed for 30', left the swab inside for 60' and vortex again for 30'. An aliquot was used for zero-time, and other separate aliquots of MSwab sample were stored at -20°C for 1 year and at 22°C at 37°C and tested weekly for 4wks and after 1 year at -20°C. At each time point nucleic acids were extracted on the Nimbus and analyzed for HPV with the AnyplexII™ HPV28 assay (Seegene).



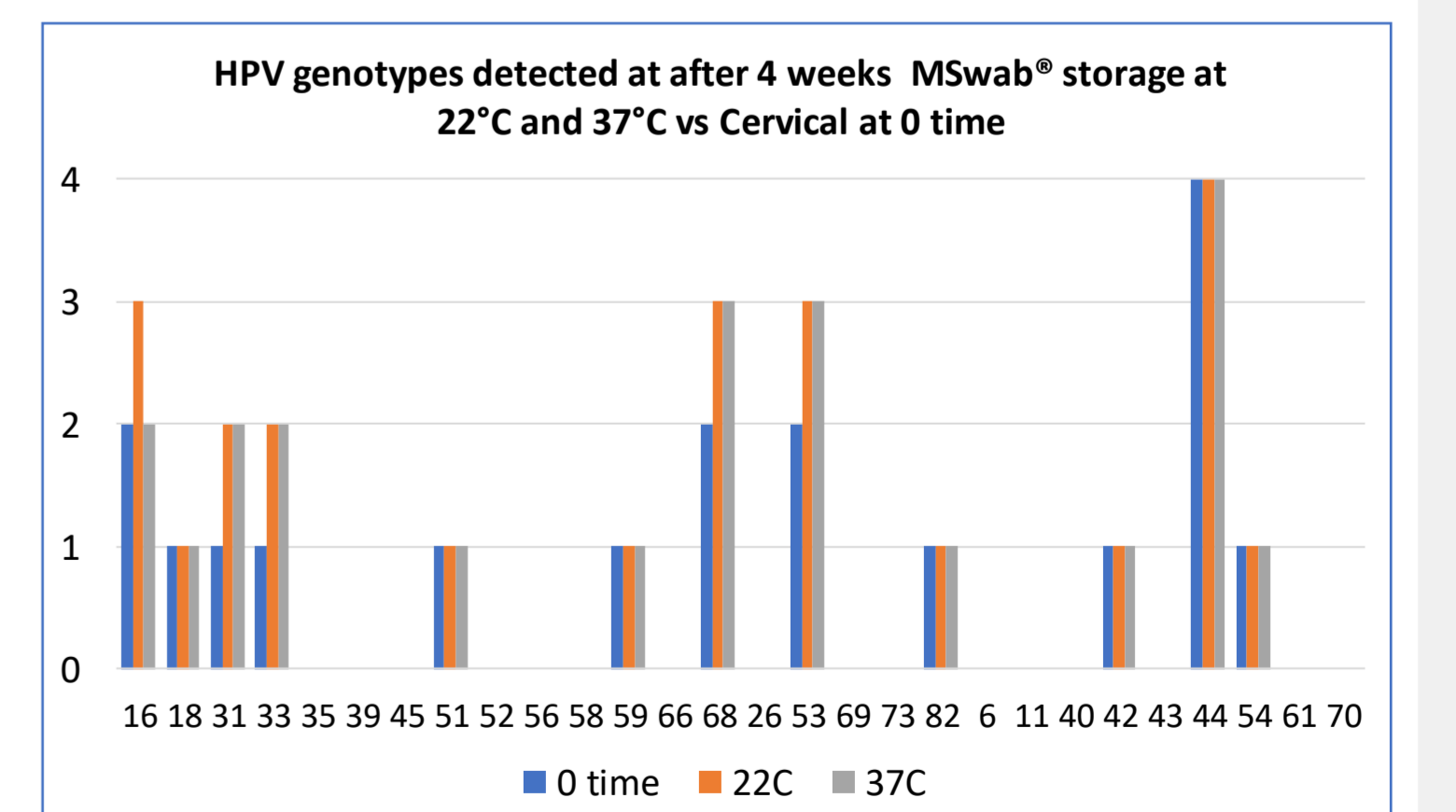
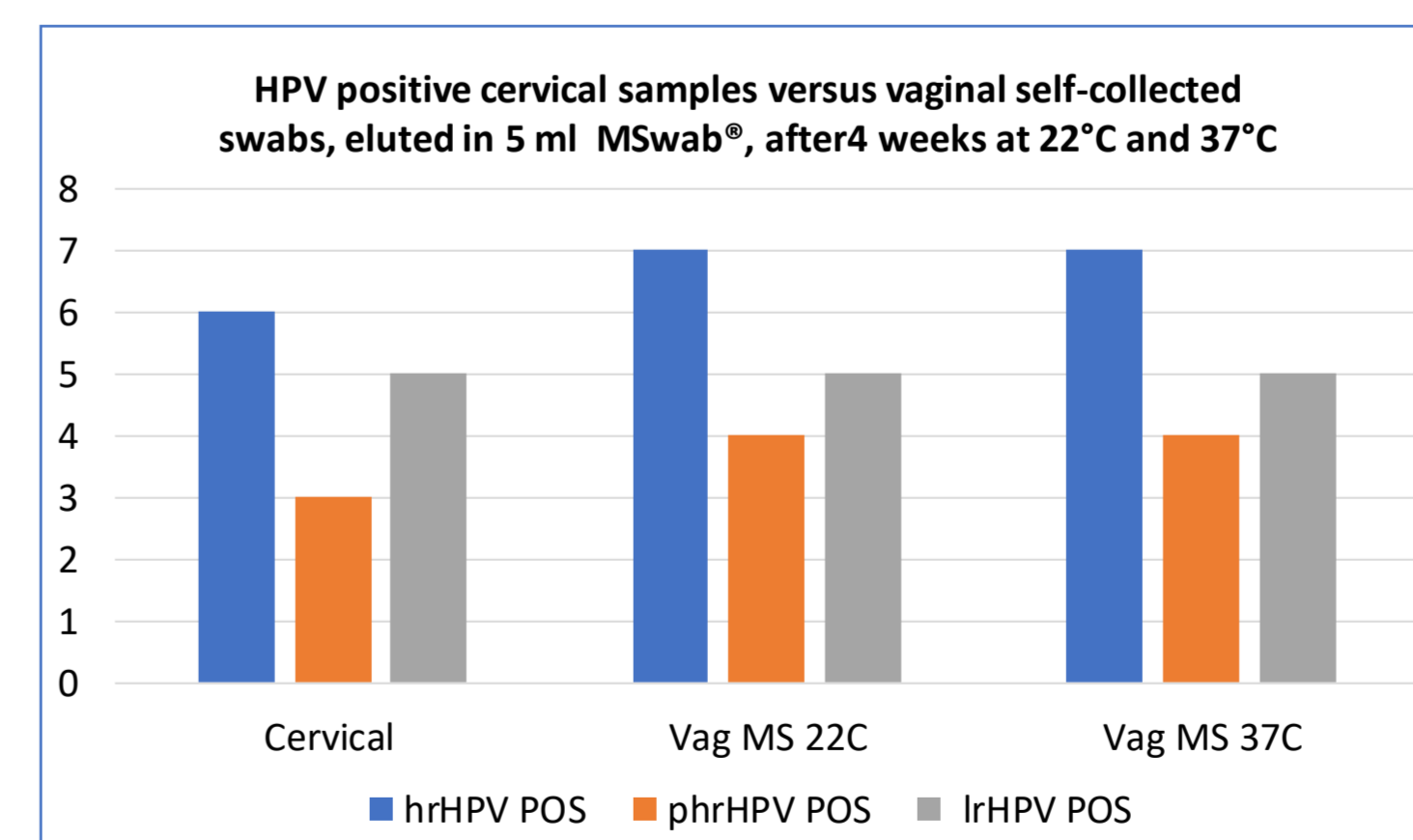
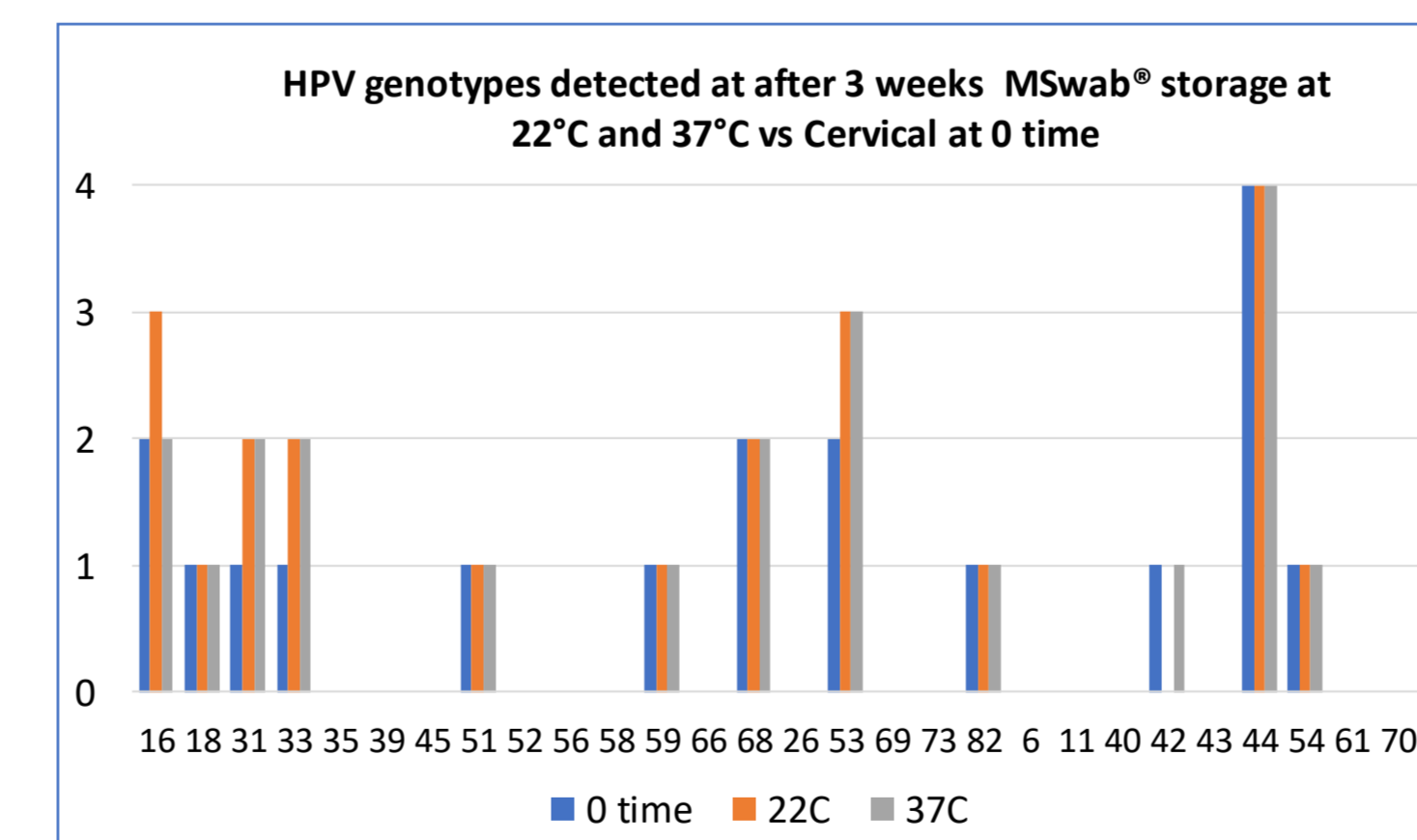
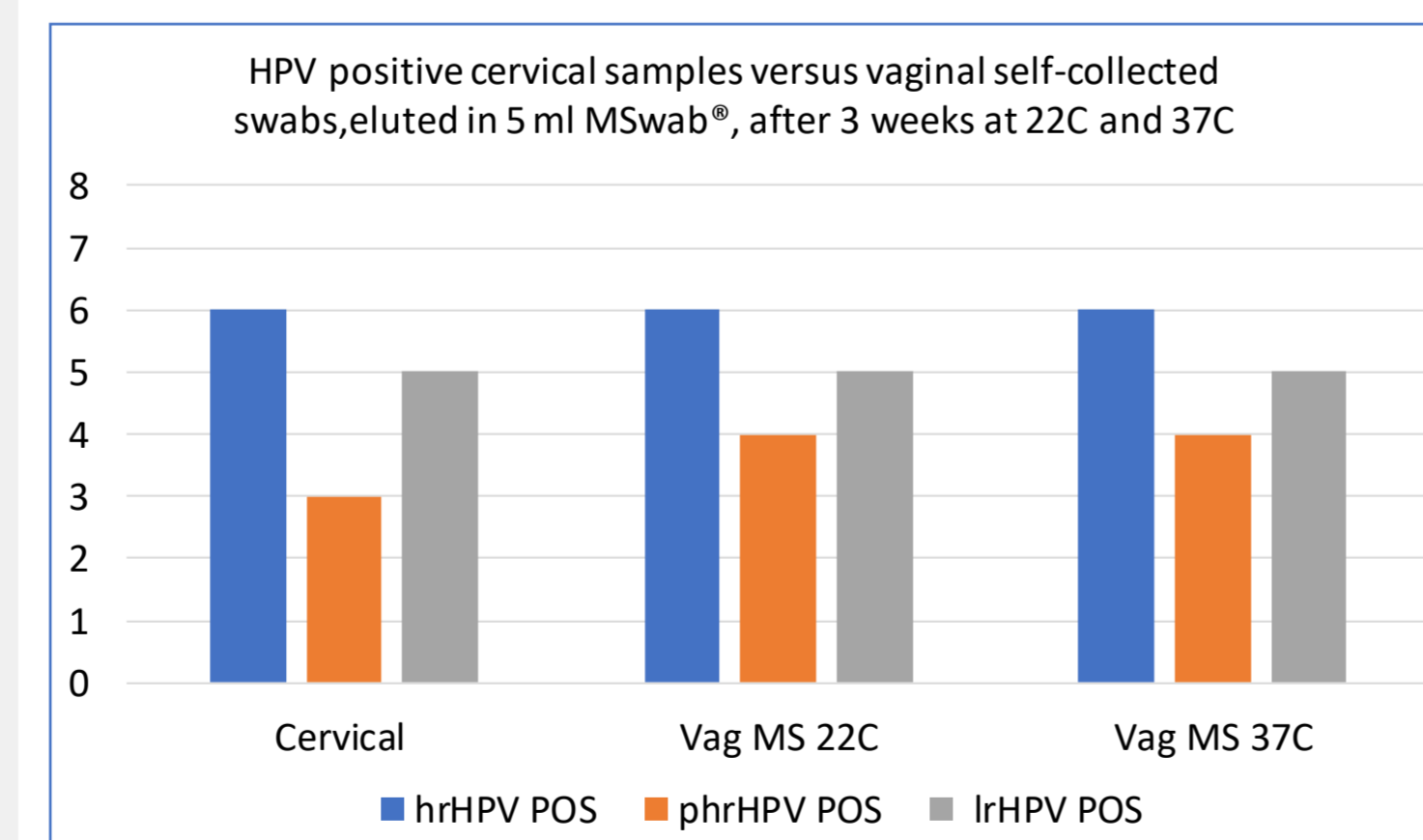
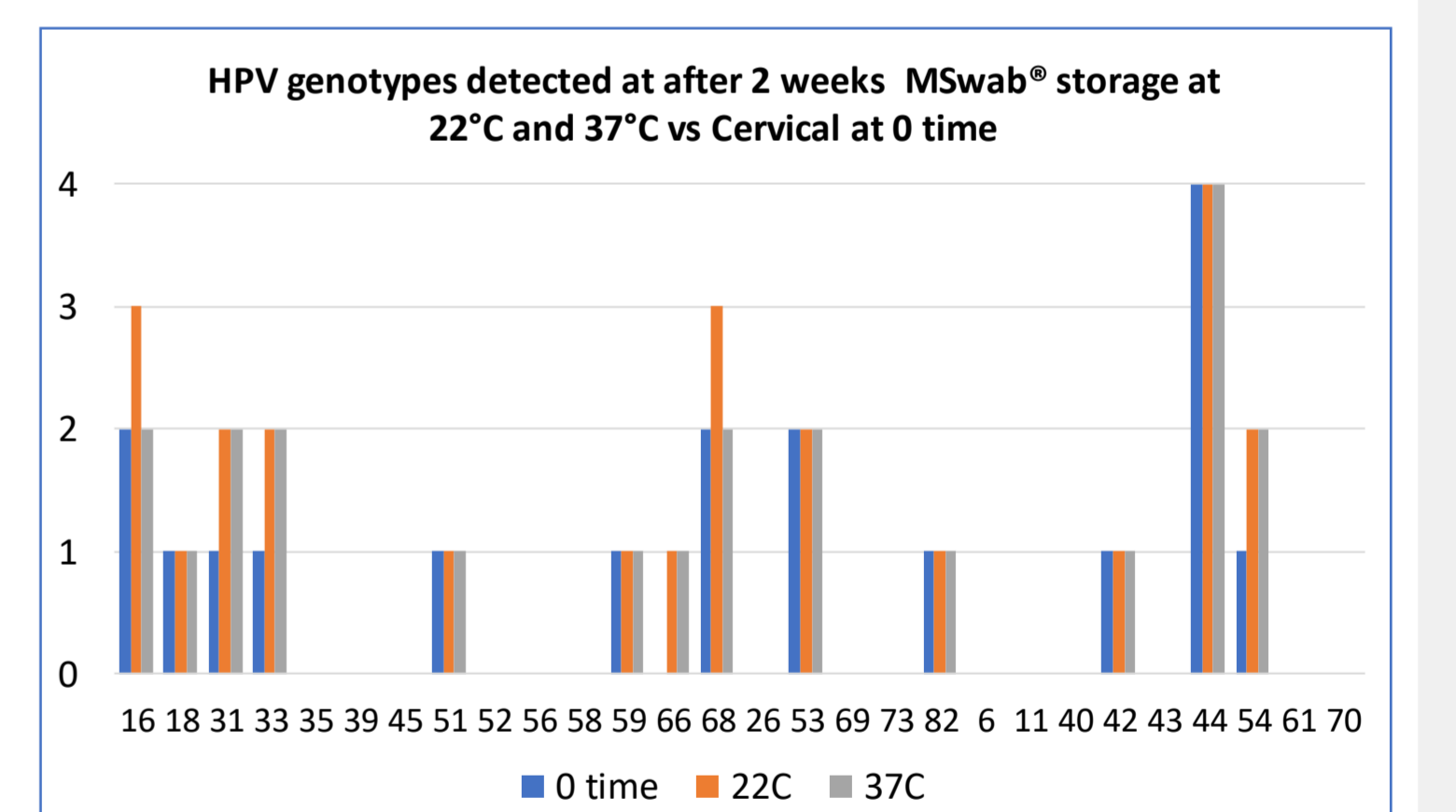
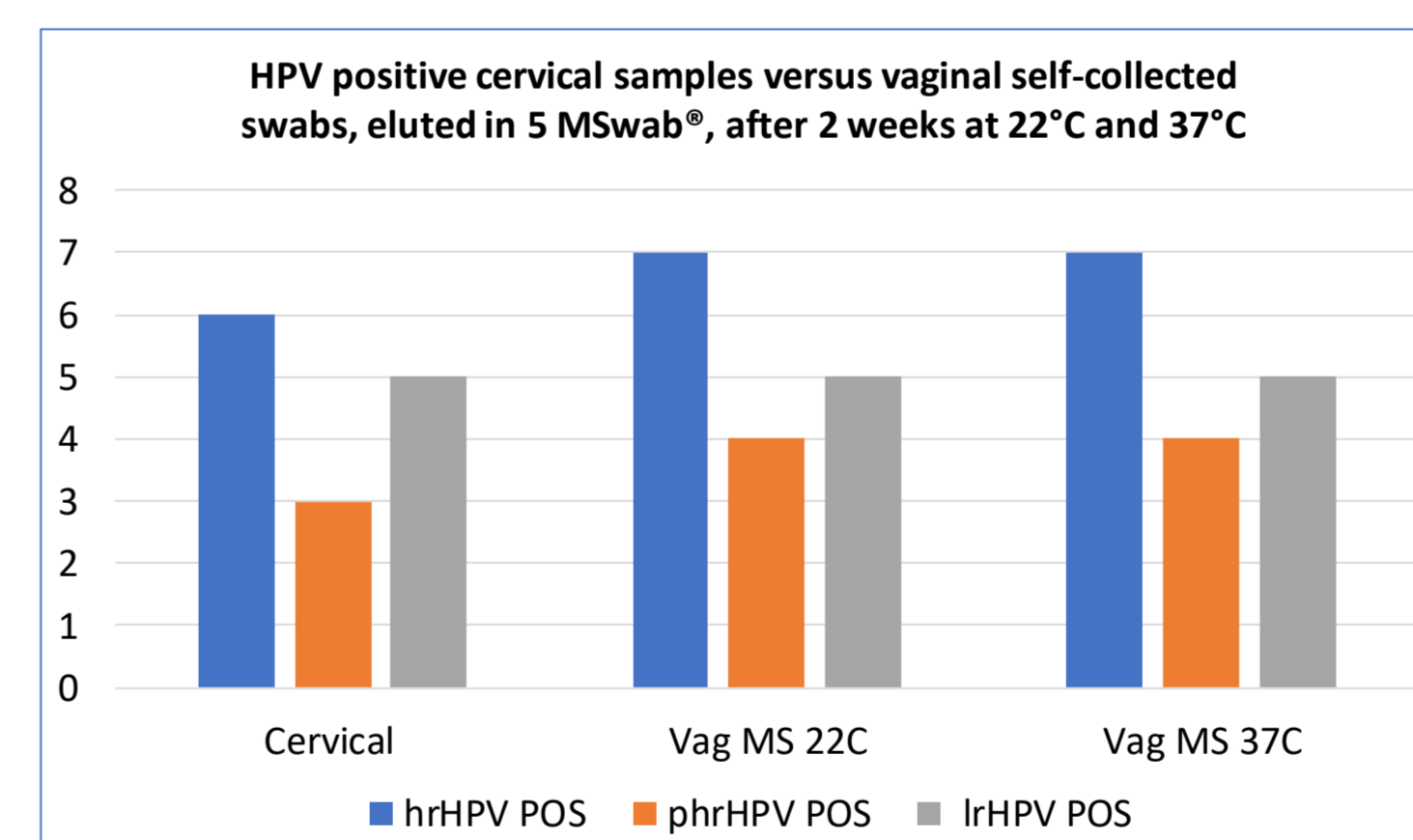
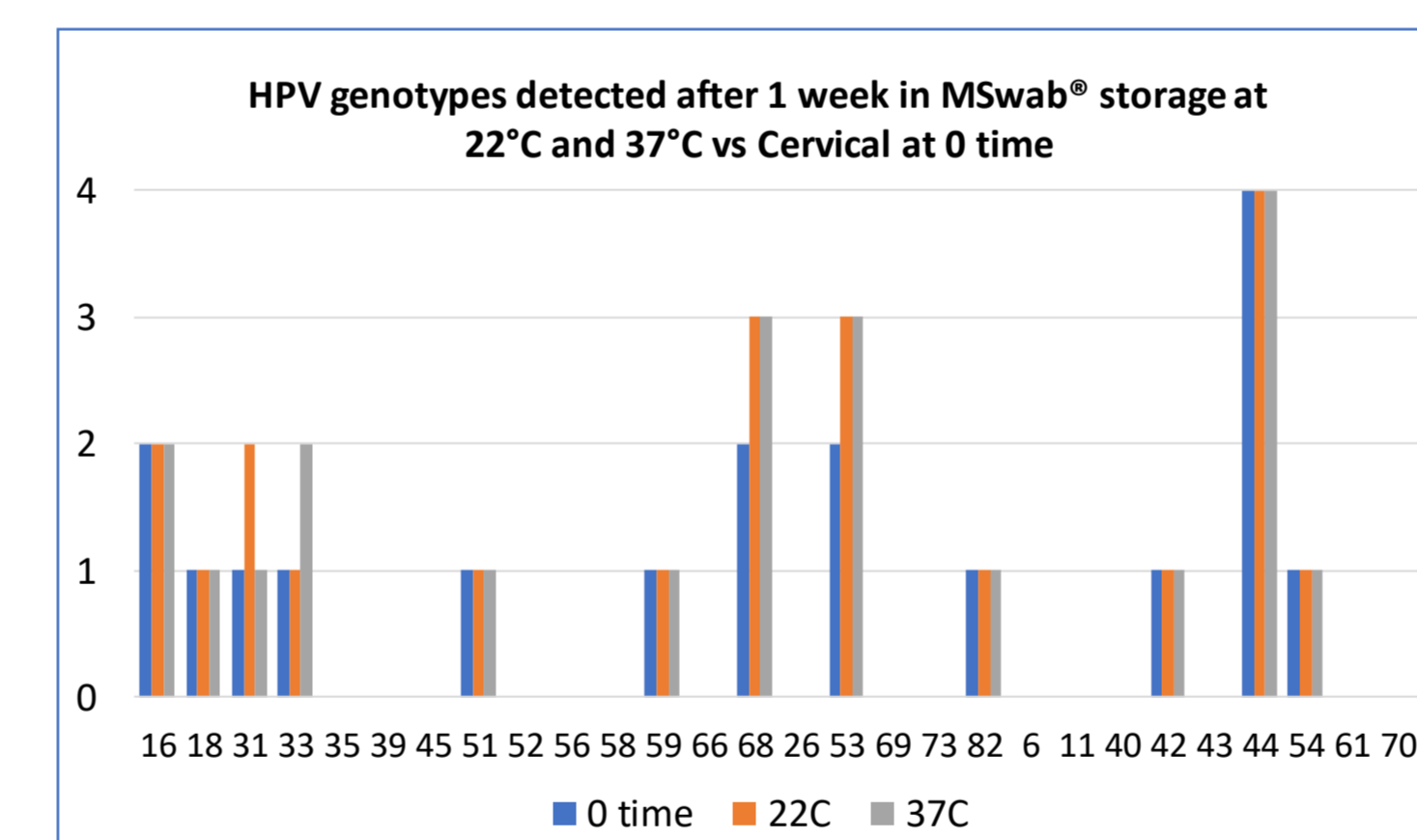
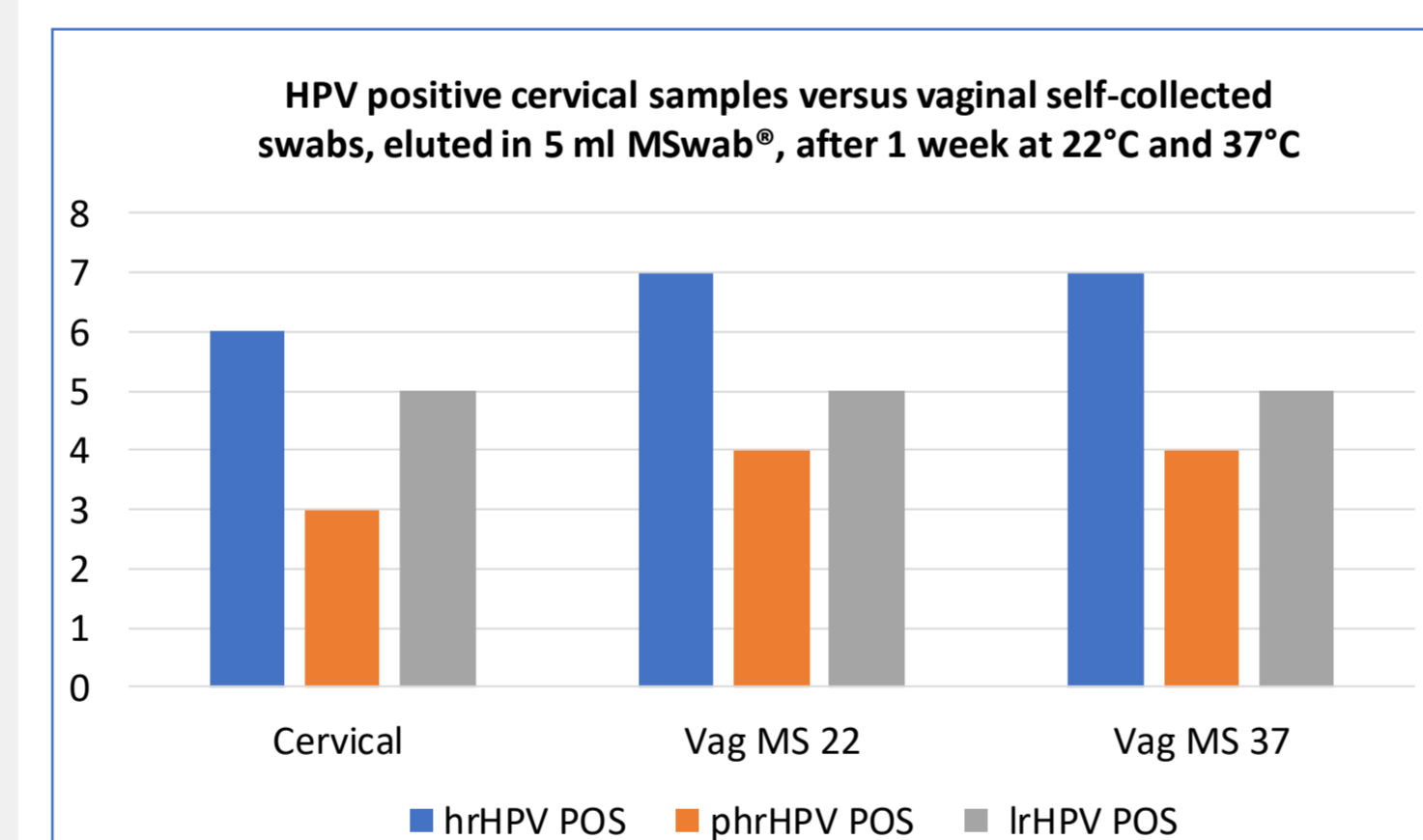
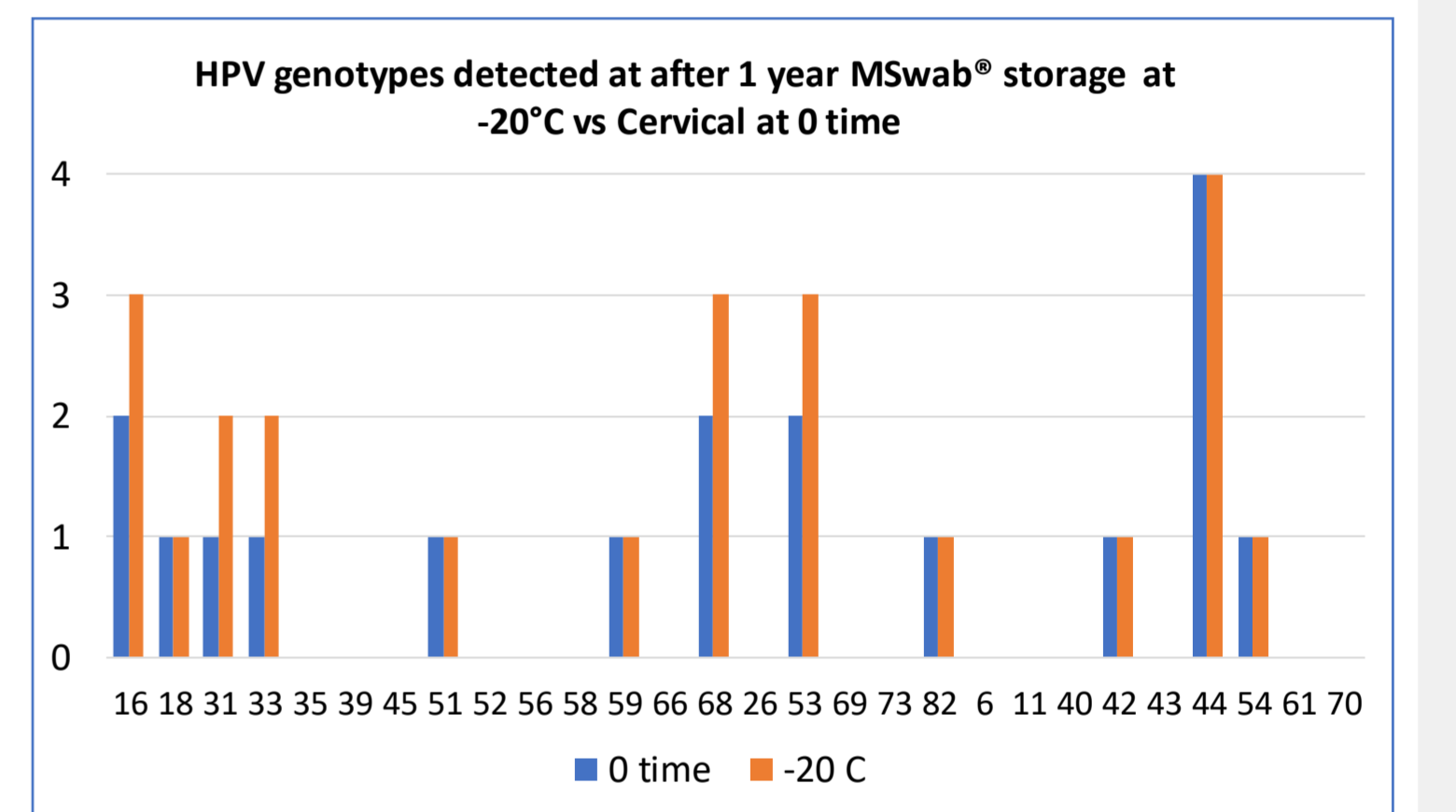
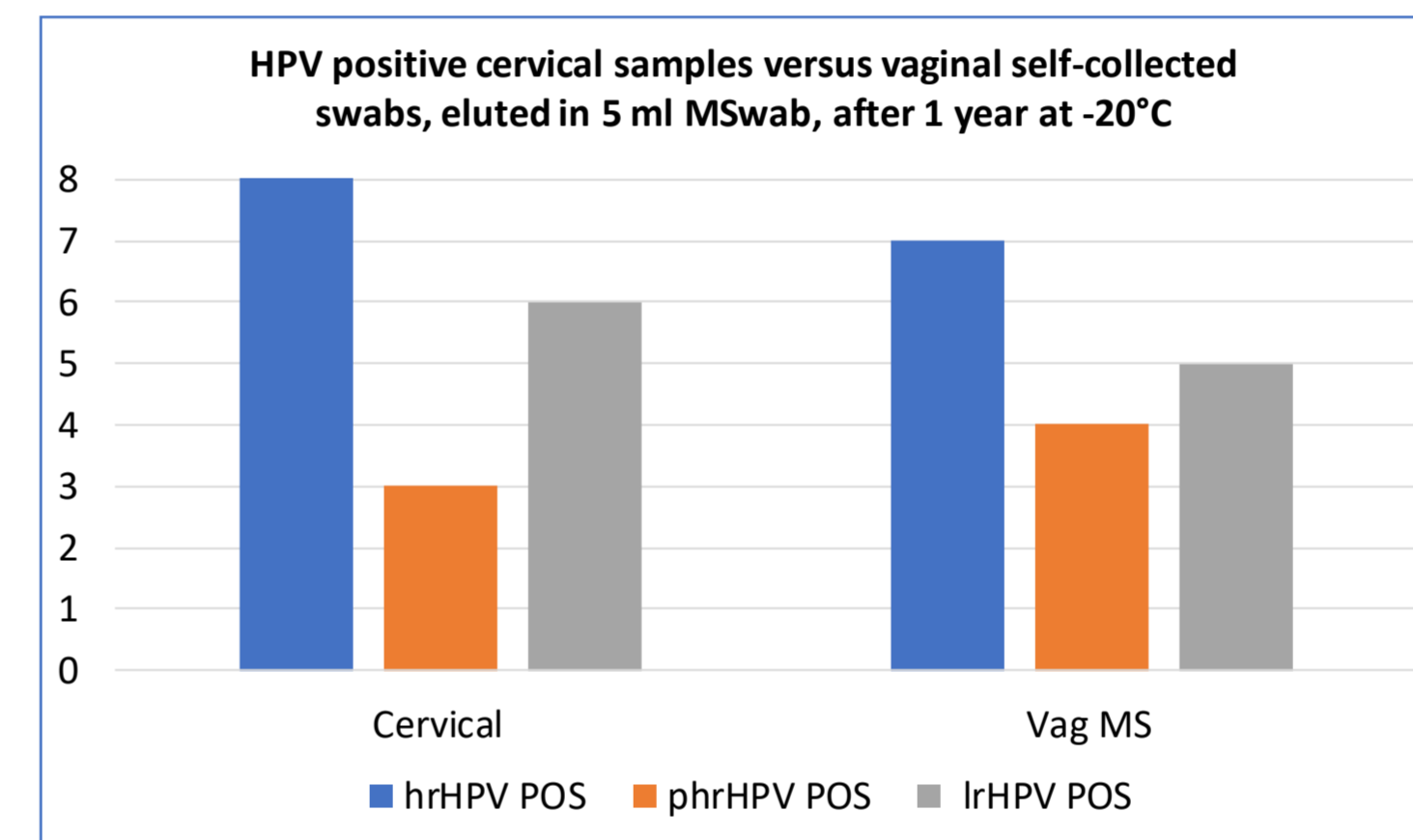
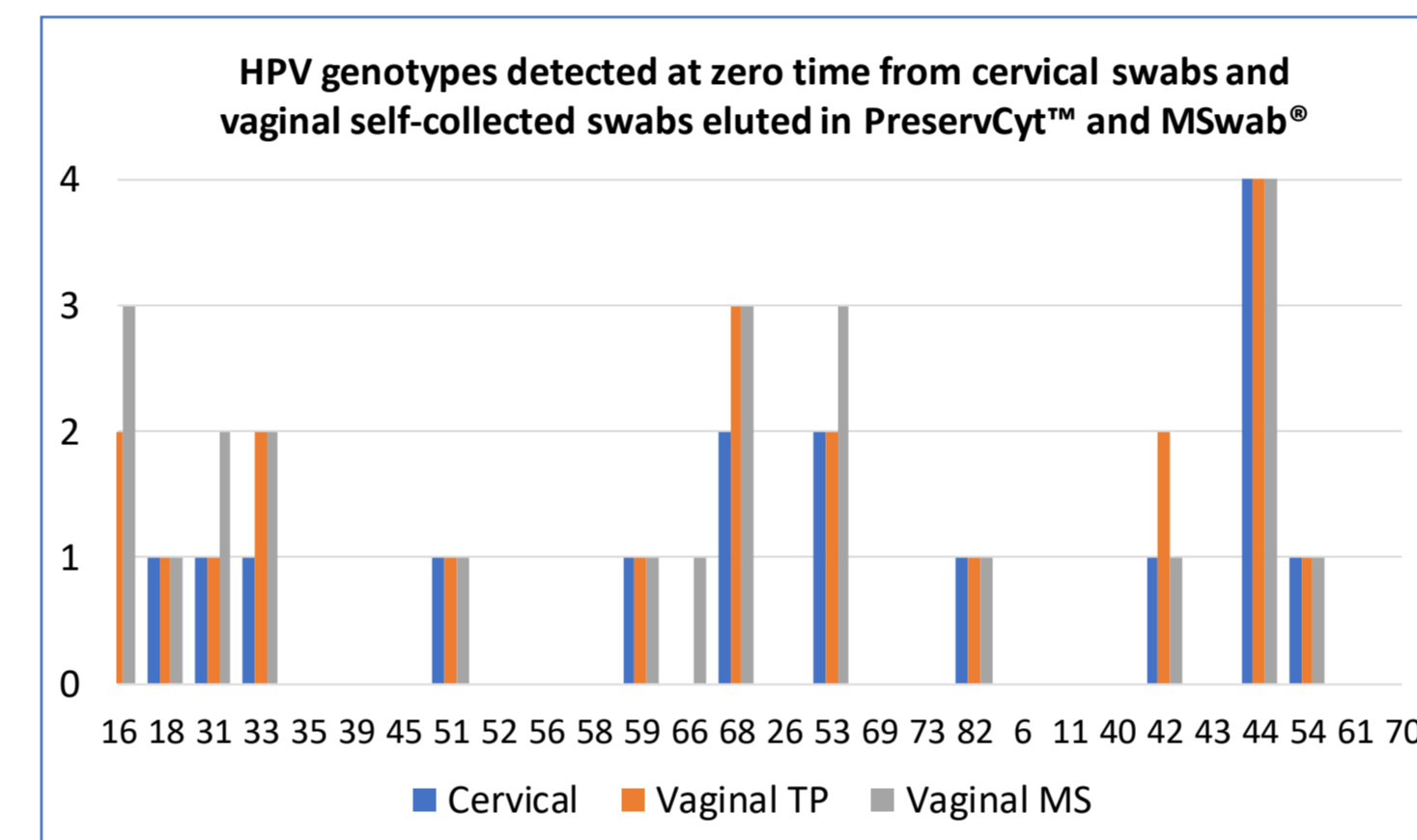
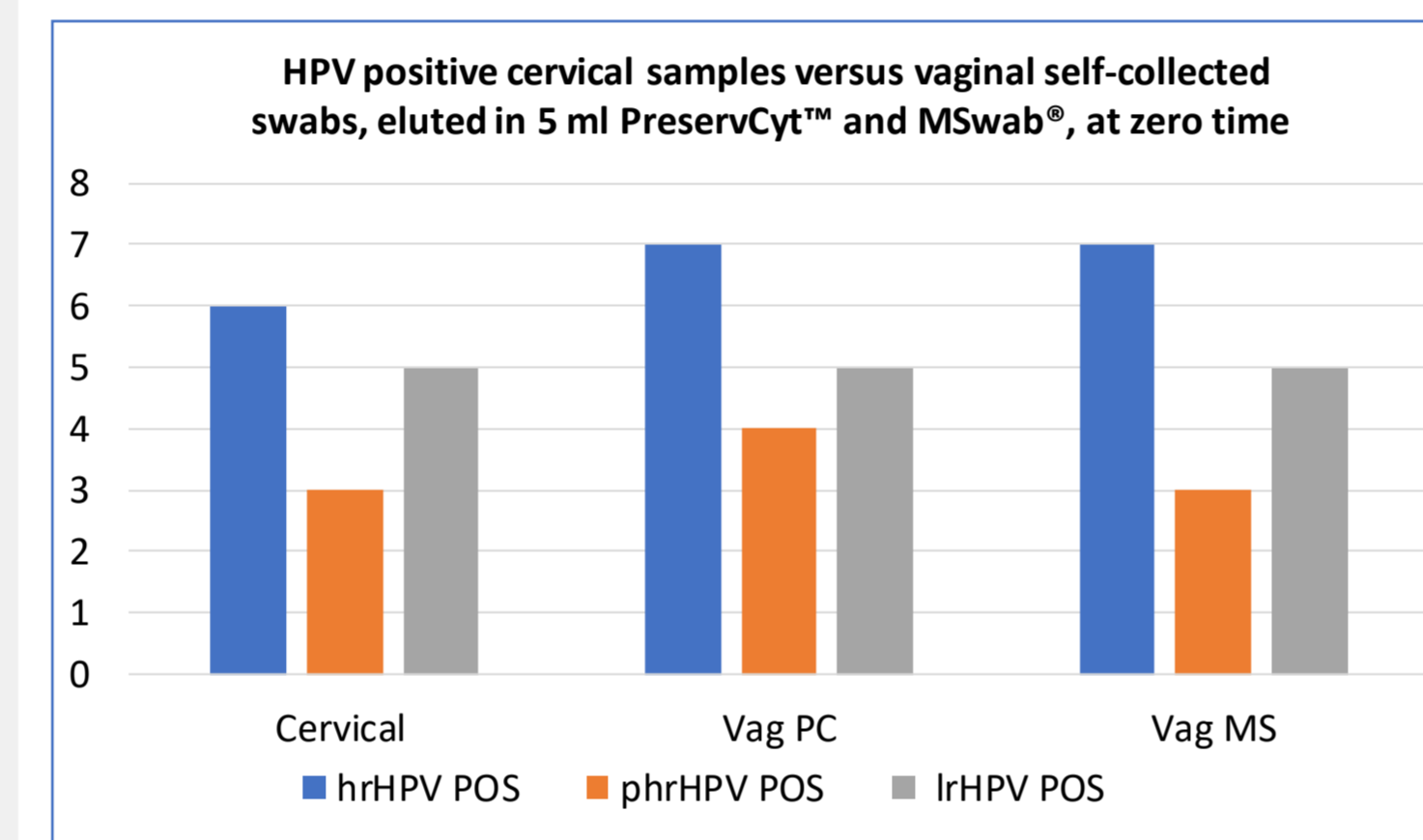
## COLLECTION DEVICES



L-Shape FLOQSwabs®  
Vaginal Self-collection FLOQSwabs®

## RESULTS

- HPV data obtained after 4 weeks from FLOQSwabs® self-collected vaginal samples, eluted in 5mL of PreservCyt™ or 5 ml of MSwab®, revealed a good concordance for high-risk HPV (hrHPV) and low-risk HPV (lrHPV) detection compared to professional collected cervical samples.
- In only one case, self-collected vaginal samples eluted in both type of media, resulted HPV positive as compared to a negative result of professional collected cervical samples.
- hrHPV genotypes detected 16, 18, 31, 33, 51, 59, and 68.
- Excellent stability in sample preservation and concordant hrHPV detection was observed in self-collected vaginal samples eluted in 5mL MSwab® at both 22°C and 37°C for 4 weeks and after 1 year at -20°C.



## CONCLUSIONS

Results obtained in this study demonstrated a high degree of concordance in hrHPV detection between professional collected cervical samples and self-collected vaginal samples eluted in PreservCyt™ and MSwab®. Excellent stability was observed at both 22°C and 37°C after 4 weeks and up 1 year at -20°C. MSwab® can be an optimal alternative to alcohol-based media, for the elution FLOQSwabs® and self-collected vaginal samples for the detection of HPV.

## CONTACT INFORMATION

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