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## Background

- Intravaginal practices (IVP) are highly prevalent and commonly performed in many countries<sup>1-4</sup>
- IVP include cleansing the vagina with liquids; inserting dry substances to absorb vaginal fluid; ingesting substances intended to affect the feel or smell of the vagina; and inserting traditional substances<sup>1-4</sup>
- Women use IVP for a variety of purposes related to genital health, personal hygiene, and sexual pleasure
- IVP are associated with unintended and harmful side effects
- Vaginal cleansing and insertion can disrupt the genital mucosa and perturb the vaginal lactobacilli that populate a healthy vagina<sup>5</sup>
- Previous research supports an association between IVP, bacterial vaginosis, and HIV<sup>5</sup>

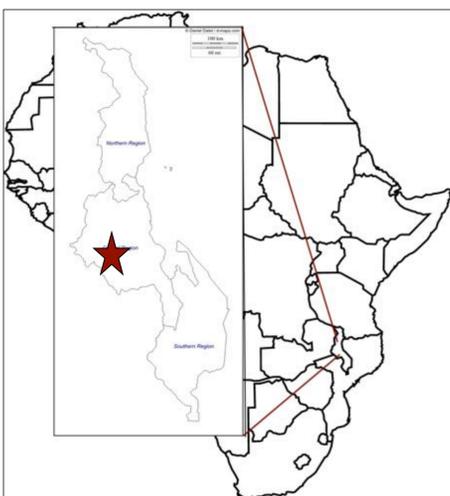
## Objective

- To characterize the prevalence and motivations for IVP among women participating in the baseline survey of a community-based cohort study on sexual and reproductive health in rural Lilongwe District, Malawi.

## Methods

### Participants

- Baseline survey of a community-based cohort study on sexual and reproductive health decision making in the catchment area of a rural clinic in Lilongwe District, Malawi
- Survey conducted from July 2014 to February 2015
- Eligibility criteria:
  - Living in selected villages
  - Woman between the ages of 15-39 years of age
- Baseline wave included 1,034 women and their male partners
- This analysis focuses on a subset of women (n=650) who answered a series of questions on IVP



### Data collection

- Trained research assistants administered in-person questionnaires to consented participants from July 2014- February 2015
- Interviewers recorded answers directly on tablet computers and uploaded data daily to an internet based storage system

## Methods

### Data measures

- To assess women's engagement in IVP we asked participants whether they cleansed or inserted any of the following into the vagina in the past 30 days:
  - Water only
  - Soap and water
  - Cotton, cloth or tissue
  - Other (alum or other powder; herbs, leaves or castor oil; lemon juice)
- Frequency of IVP (overall and by practice):
  - More than once a day
  - About once a day
  - Between once a day and once a week
  - Between once a week and once a month
  - Once a month or less often
- Those women reporting IVP were asked to list motivations



### Analysis

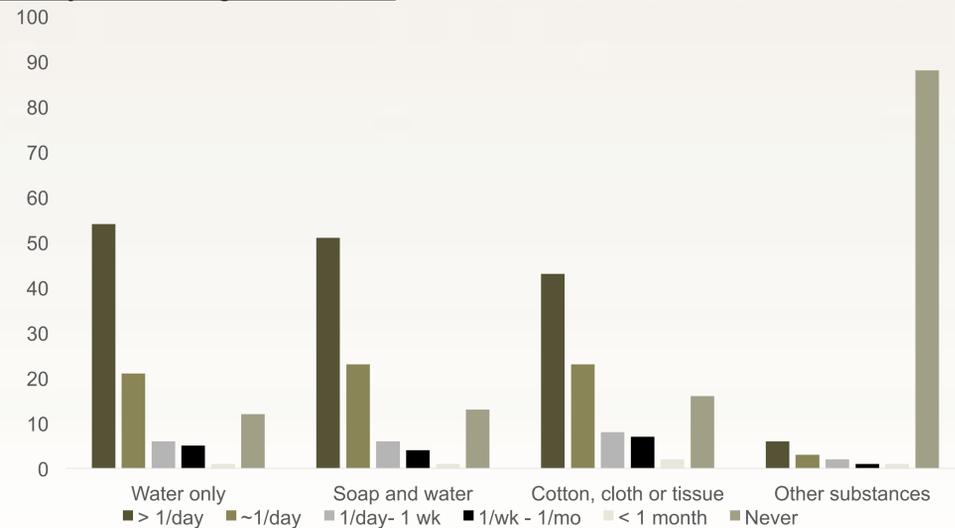
- Given the high frequency of reported IVP we collapsed women's responses into three frequency categories:
  - At least once per day
  - Less than once a day
  - Never
- We characterized unadjusted associations between age, education, HIV status, marital status, current hormonal contraception use, self-report of any STIs, genital ulcers or abnormal discharge, parity, sexual frequency, number of sexual partners, and time since last intercourse and frequency of IVP using chi-squared statistics

## Results

- 650 women were included in the final analysis
- 81% were married
- Median age was 25 years (interquartile range (IQR): 20-31)
- 81% of women had some primary education, only 11% had any secondary education
- Median number of lifetime sexual partners was 2 (IQR: 1-2)
- 10% of women self-reported ever having an STI
- 12% reported abnormal genital discharge in the past 12 months
- 78% had sexual intercourse within the past week

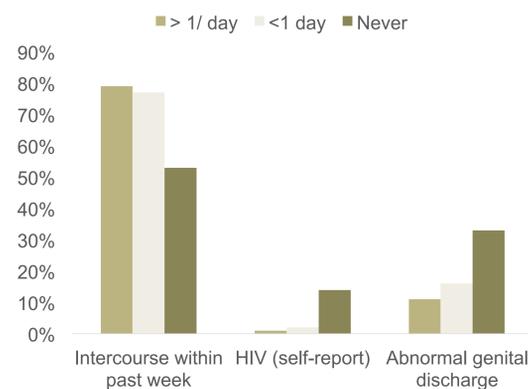
## Results

### Frequency of Intravaginal Practices



- IVP in the past 30 days was extremely common:
  - 88% cleansed with water
  - 87% cleansed with soap and water
  - 84% inserted cotton, cloth or tissue
  - 10% applied substances on the external genitalia
  - 2% applied castor oil and inserted alum or other power
- 43% of women inserted cotton, cloth or tissue  $\geq 1$  per day
- 51% cleansed with soap and water  $\geq 1$  day
- 6% used other substances  $\geq 1$  day

### Prevalence of select characteristics by IVP frequency



Characteristics of women who performed IVP at least once per day, less than once per day, and never were similar

- Only significant differences were in time since last intercourse, prevalence of HIV, and prevalence of abnormal vaginal discharge in the last 12 months

### Motivations for IVP

Motivation	N	%
Remove odors	602	91
Remove extra moisture	386	58
Prevent disease	327	49
Relieve symptoms of disease	273	41
To improve sex for partner	264	40
To please sexual partner	262	39
To improve sex for self	258	39
To clean after sex	251	37
To tighten the vagina	236	35
To get ready for sex	194	29
To avoid pregnancy	61	9

\*Women were allowed to select multiple reasons

## Discussion

- Intravaginal practices are highly prevalent and frequently performed among these rural Malawian women.
- Women's motivations for IVP varied and many women reported multiple reasons pertaining to genital health, cleansing, and pleasing their sexual partner.
- Future research should investigate the association between IVP and STI prevalence to better quantify the health risks associated with these IVP



## References

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## Acknowledgements

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