

Seroadaptive behaviors and HIV prevention strategies among sexually active MSM receiving HIV care in San Francisco



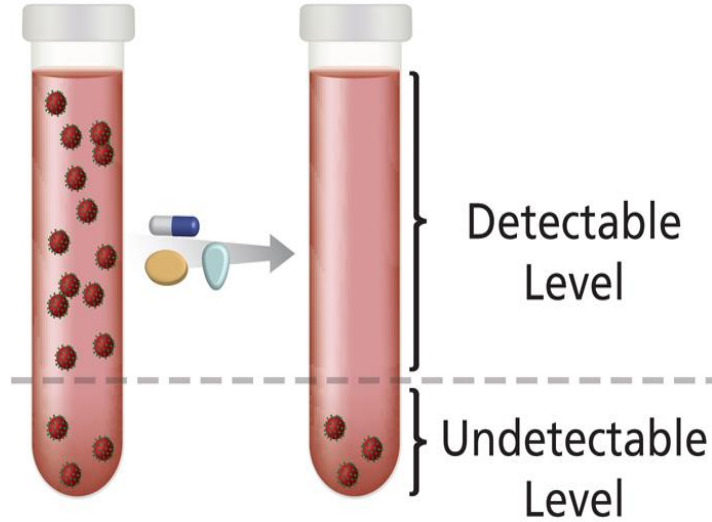
**MEDICAL
MONITORING
PROJECT**

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BACKGROUND



2010
iPrEx

2011
HPTN 052

2012
FDA PrEP

OBJECTIVES

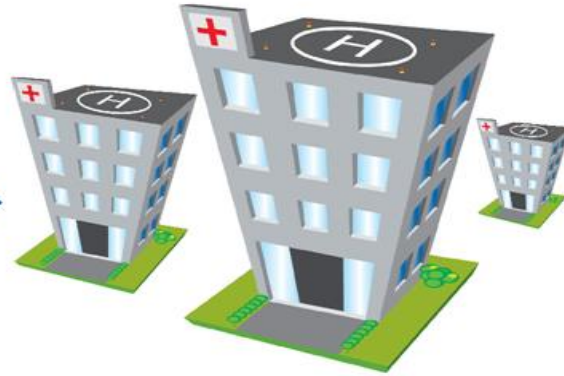
- Describe the frequency of prevention strategies used by MSM receiving HIV care in SF
- Examine how prevention strategies are combined

METHODS

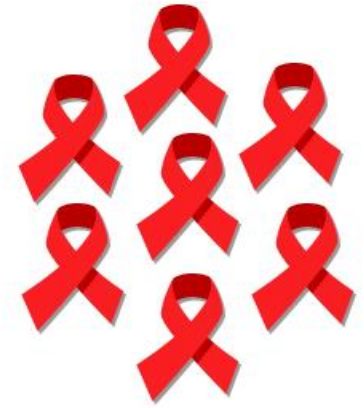
Medical Monitoring Project (MMP)



Stage 1: Project Areas
23 Project Areas



Stage 2: HIV Care Facilities
25-35 Facilities per cycle



Stage 3: HIV+ Patients
400 patients per cycle

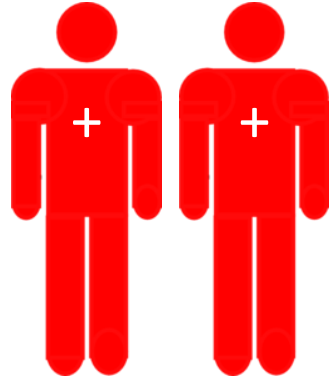
METHODS

- Interviews from August 2014 - April 2015
- Men with ≥ 1 male anal sex partner in the 12 months prior to interview
- Each participant could report up to 5 most recent sexual partners
- Male-male anal sex partnerships are included in this analysis

Definition of Prevention Strategies

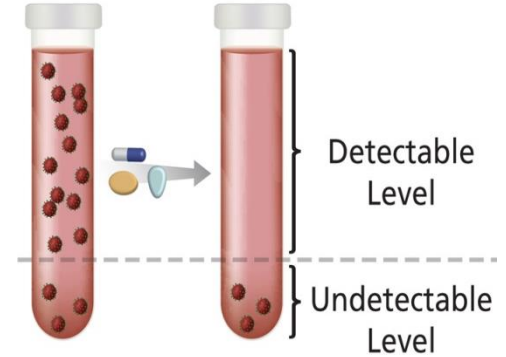
Serosorting

sex with an
HIV-positive
partner



TasP

participant
reported
being virally
suppressed



PrEP

sex with
an HIV-negative
partner using
PrEP



Condom use

always using
condoms



RESULTS

Sample

400 HIV+ adults



Participants

238 agreed and were interviewed



MSM

121 men with ≥ 1 male anal sex partner

Table 1: Characteristics of the 121 men who reported ≥ 1 male anal sex partner in the previous 12 months, San Francisco MMP 2014.

	n	%
Age, mean (median)	49.6 (50)	
Race/Ethnicity		
White	75	62%
African American	10	8%
Latino	30	25%
Other/Multi	6	5%
Diagnosed with HIV for 10 or more years	86	72%
Homeless	11	9%
Foreign born	23	19%
Some college education or greater	111	92%
On ART (self-report)	119	98%
Virally suppressed (self-report)	100	83%
# male sex partners past 12 months, mean (median)	12.7 (4)	

HIV serostatus of partners

380
partnerships

197 (51.8%)
HIV-positive

100 (26.3%)
unknown HIV status

83 (21.8%)
HIV-negative

Serosorting



```
graph TD; A[380 partnerships] --> B[197 (51.8%) HIV-positive]; A --> C[100 (26.3%) unknown HIV status]; A --> D[83 (21.8%) HIV-negative]; B --> E[Serosorting];
```

Condom use

380
partnerships

197 (51.8%)
HIV-positive

12 (6.1%)
condom
use

100 (26.3%)
unknown HIV status

54 (54.0%)
condom
use

83 (21.8%)
HIV-negative

34 (41.0%)
condom
use

TasP among HIV-/unknown partners

380
partnerships

```
graph TD; A[380 partnerships] --> B[197 (51.8%) HIV-positive]; A --> C[100 (26.3%) unknown HIV status]; A --> D[83 (21.8%) HIV-negative]; C --> E[88 (88.0%) TasP]; D --> F[70 (84.3%) TasP];
```

The diagram is a hierarchical flowchart. At the top is a blue box containing '380 partnerships'. A horizontal line below it branches into three vertical lines leading to three blue boxes: '197 (51.8%) HIV-positive', '100 (26.3%) unknown HIV status', and '83 (21.8%) HIV-negative'. From the 'unknown HIV status' box, a vertical line leads to a blue box '88 (88.0%) TasP'. From the 'HIV-negative' box, a vertical line leads to a blue box '70 (84.3%) TasP'.

197 (51.8%)
HIV-positive

100 (26.3%)
unknown HIV status

83 (21.8%)
HIV-negative

88 (88.0%)
TasP

70 (84.3%)
TasP

PrEP use among negative partners

380
partnerships

```
graph TD; A[380 partnerships] --> B[197 (51.8%) HIV-positive]; A --> C[100 (26.3%) unknown HIV status]; A --> D[83 (21.8%) HIV-negative]; D --> E[30 (36.1%) PrEP];
```

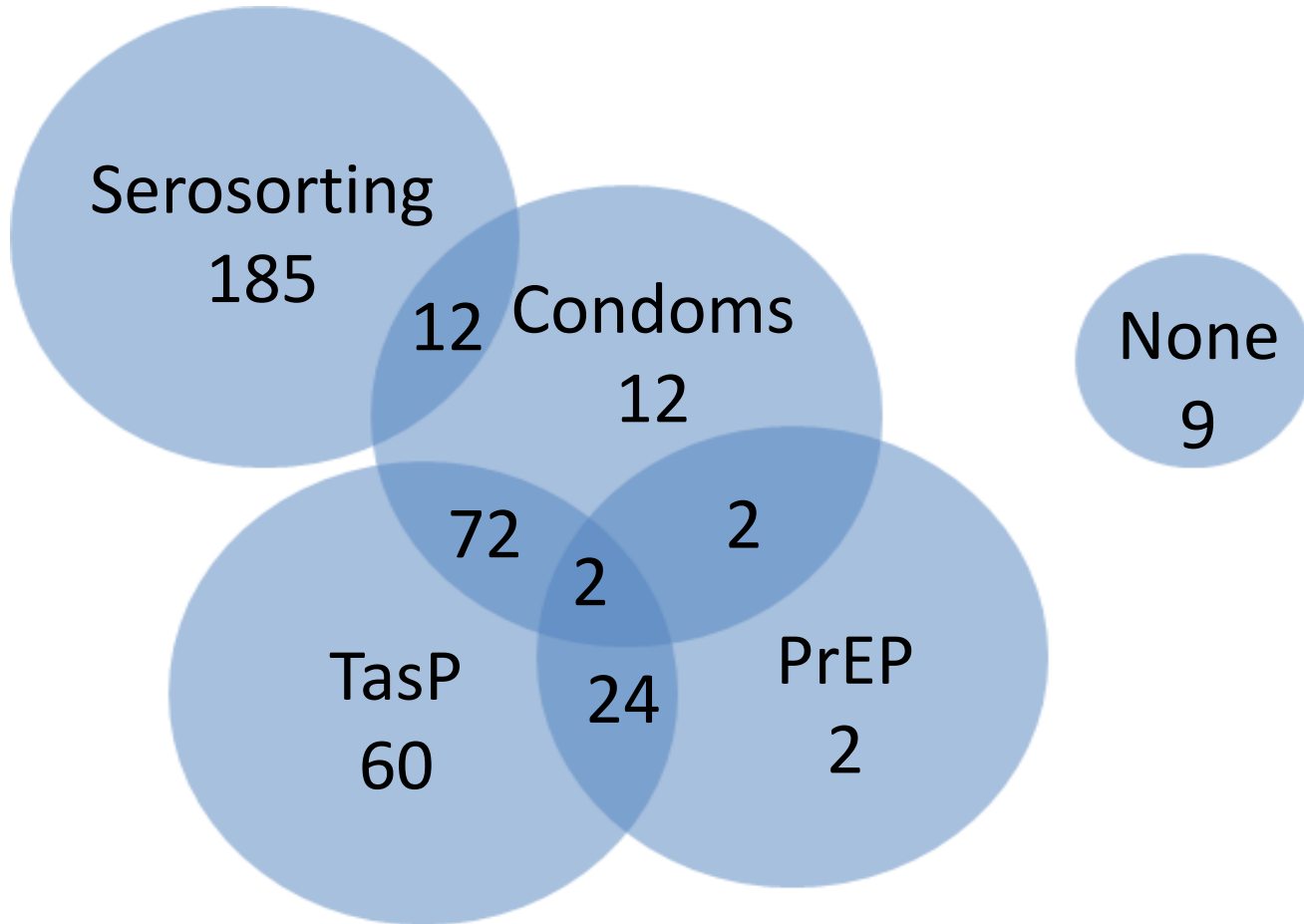
197 (51.8%)
HIV-positive

100 (26.3%)
unknown HIV status

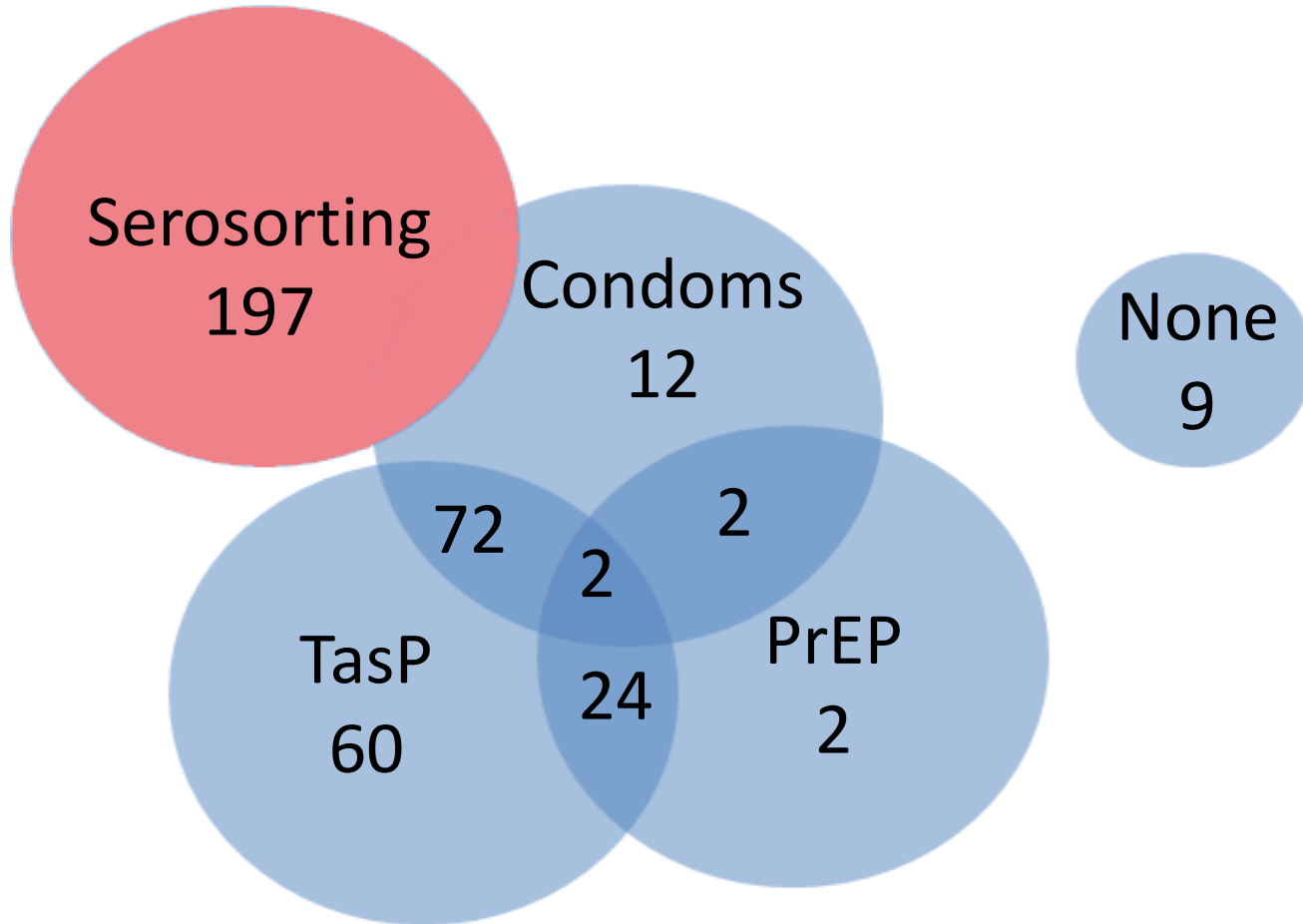
83 (21.8%)
HIV-negative

30 (36.1%)
PrEP

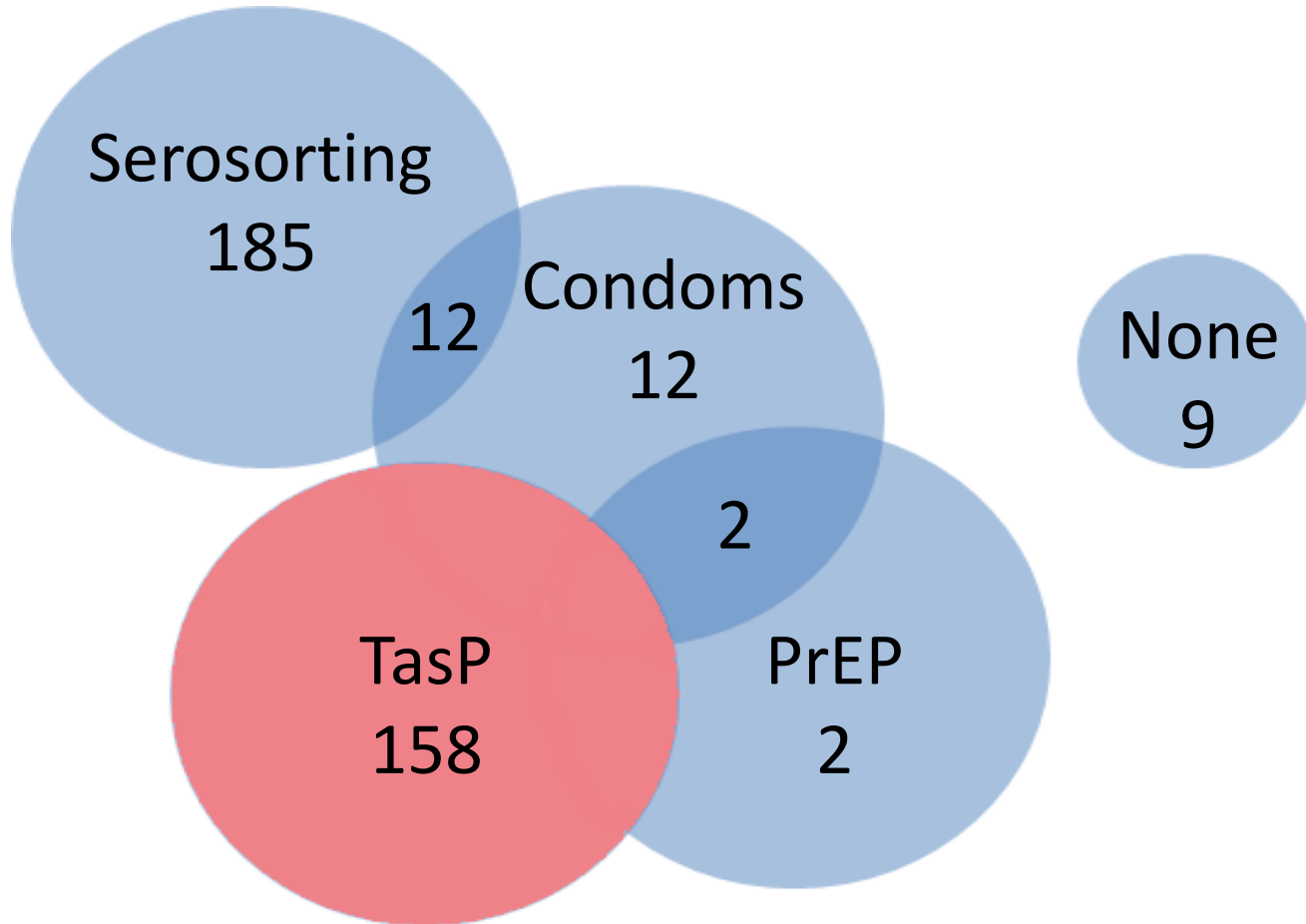
RESULTS



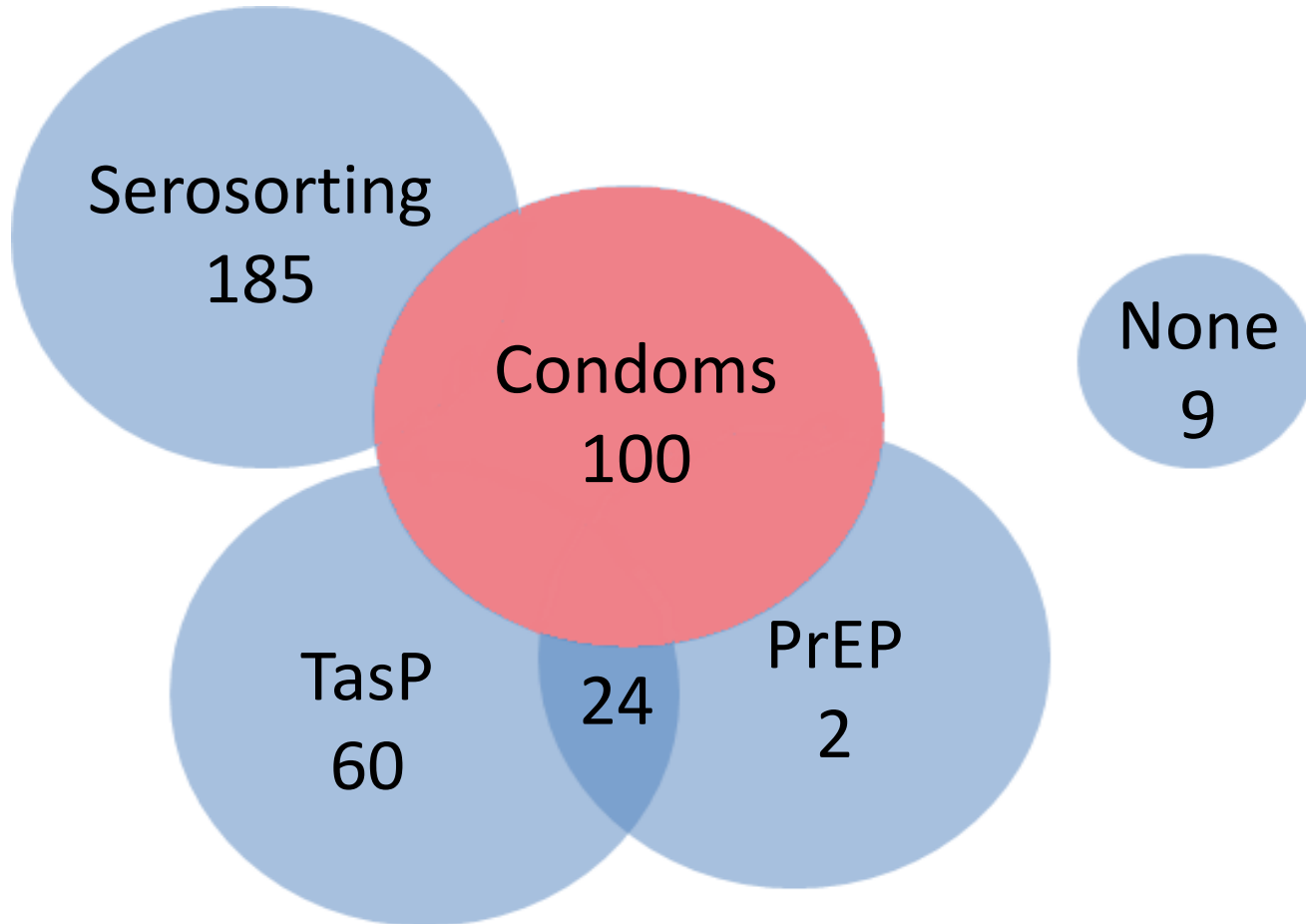
197 (52%) used serosorting



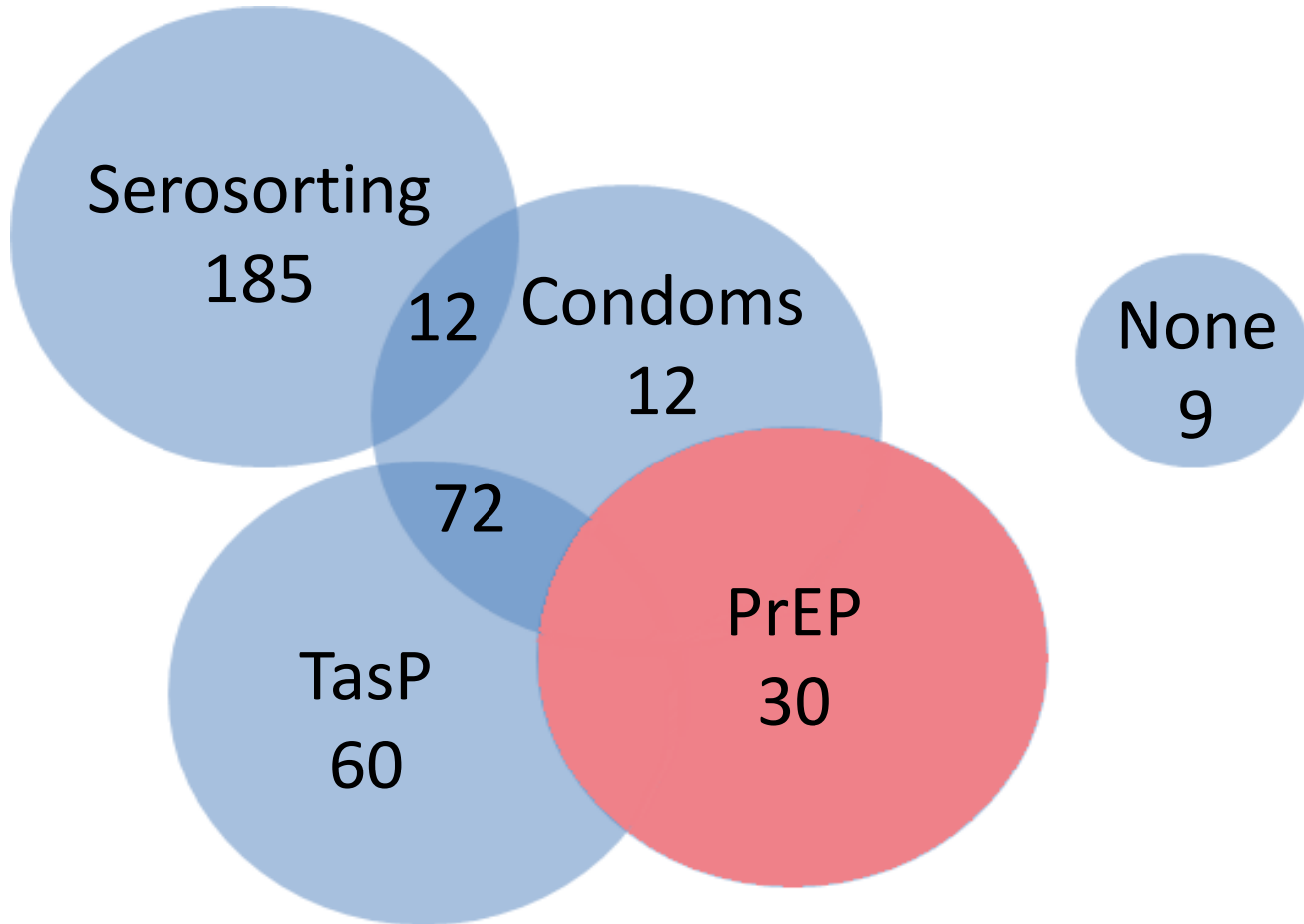
158 (42%) used TasP



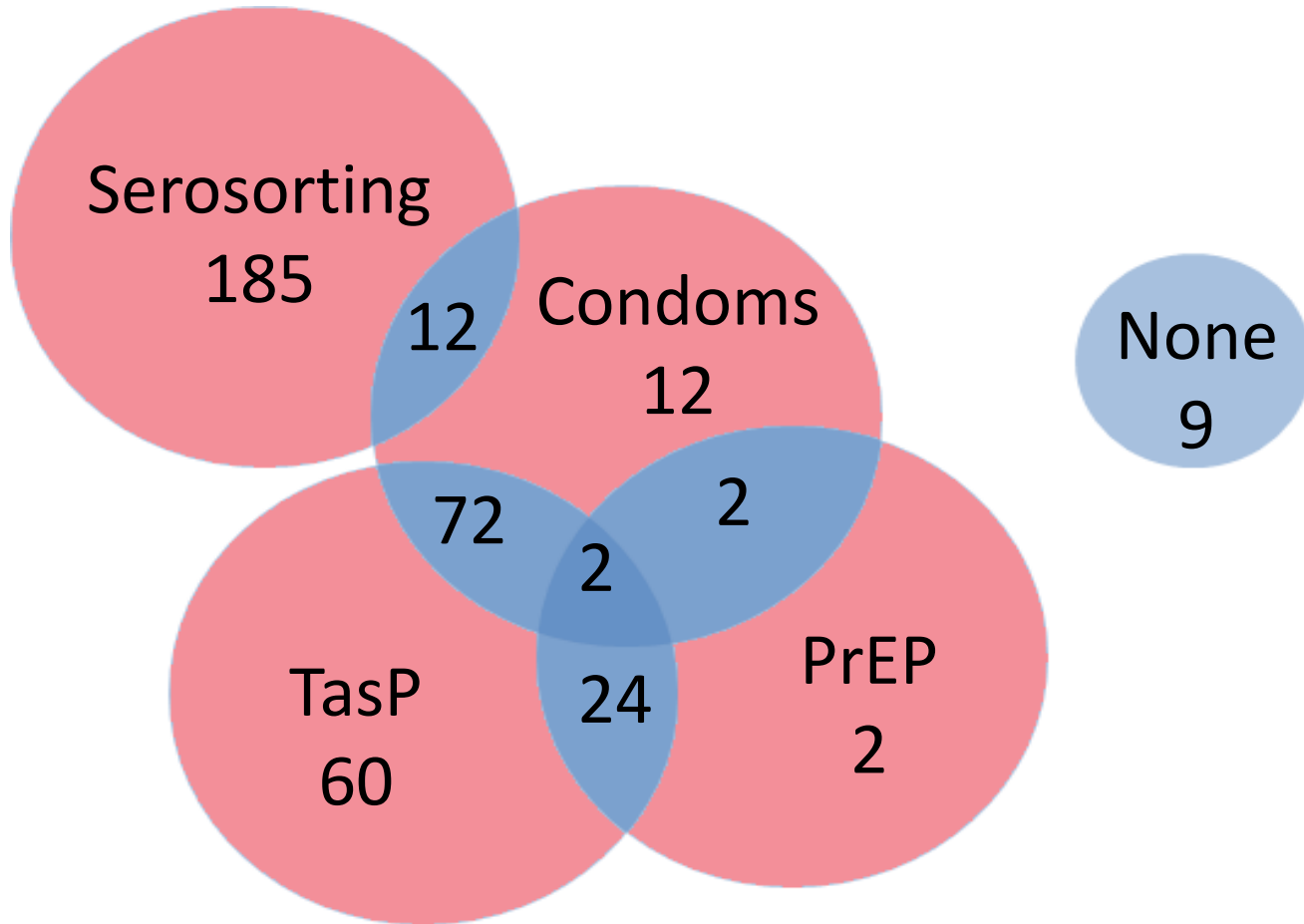
100 (26%) used condoms



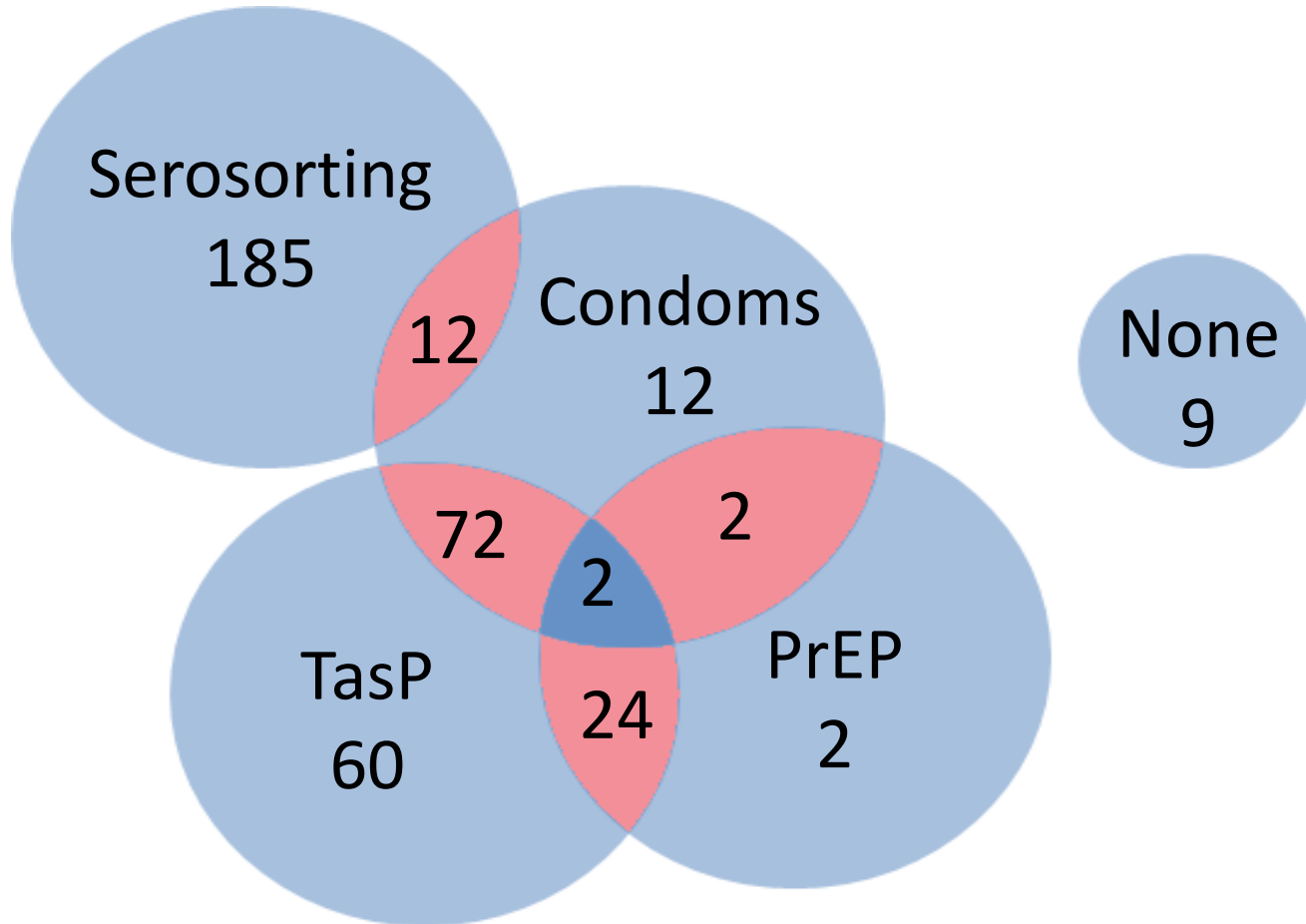
30 (8%) used PrEP



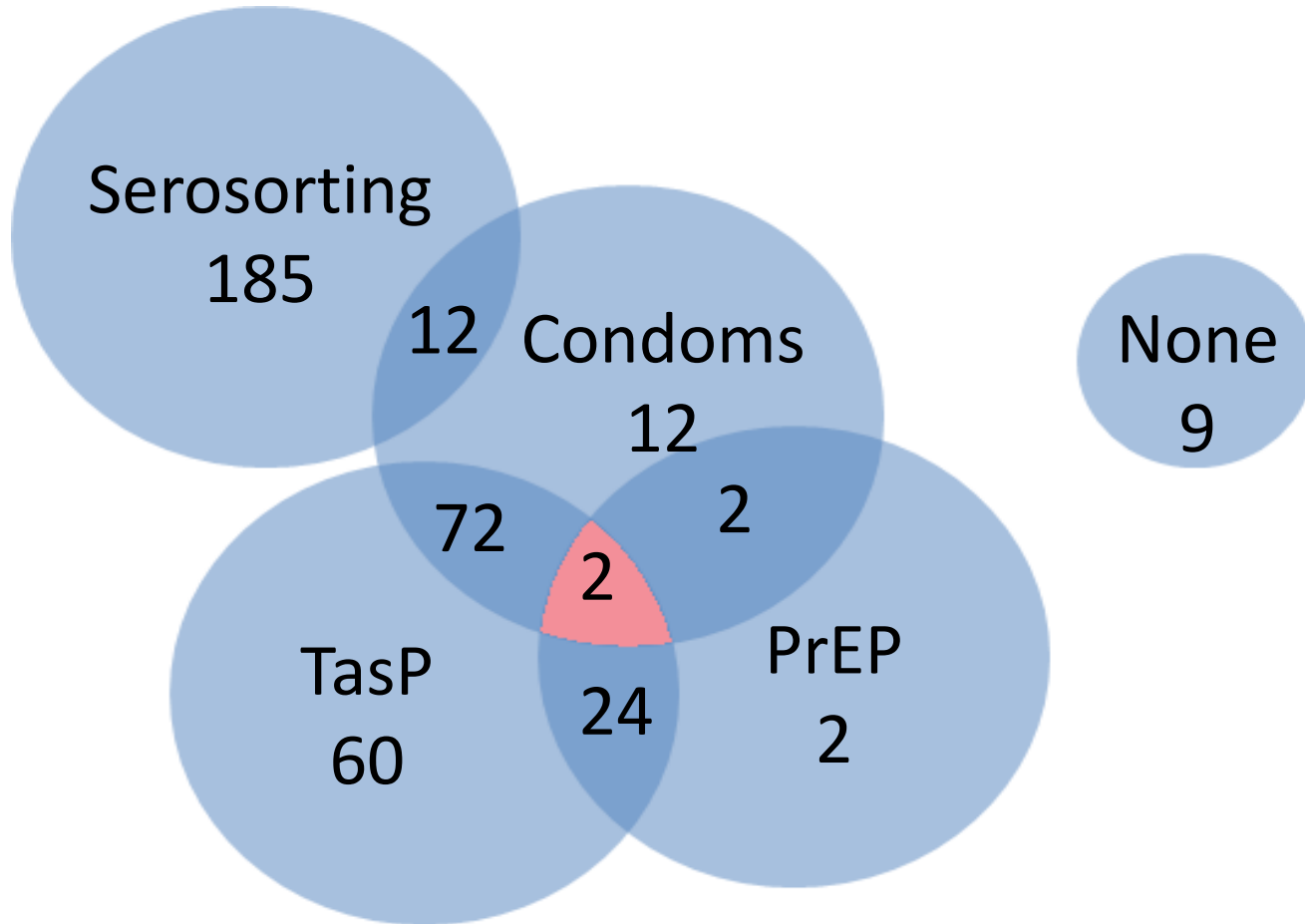
259 (68%) used one prevention method



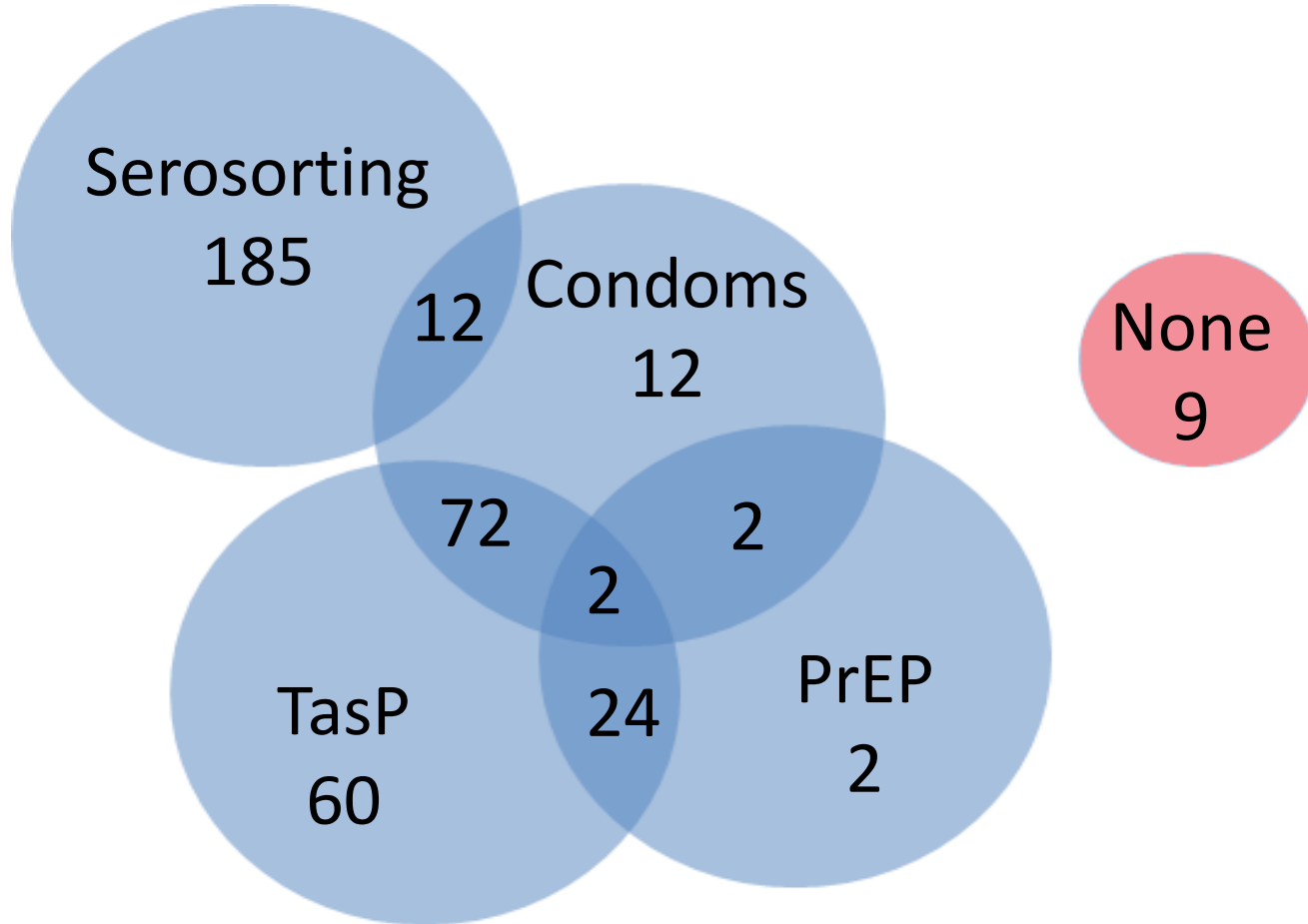
110 (29%) used two prevention methods



2 (<1%) used three prevention methods



9 (2%) used no prevention method



LIMITATIONS

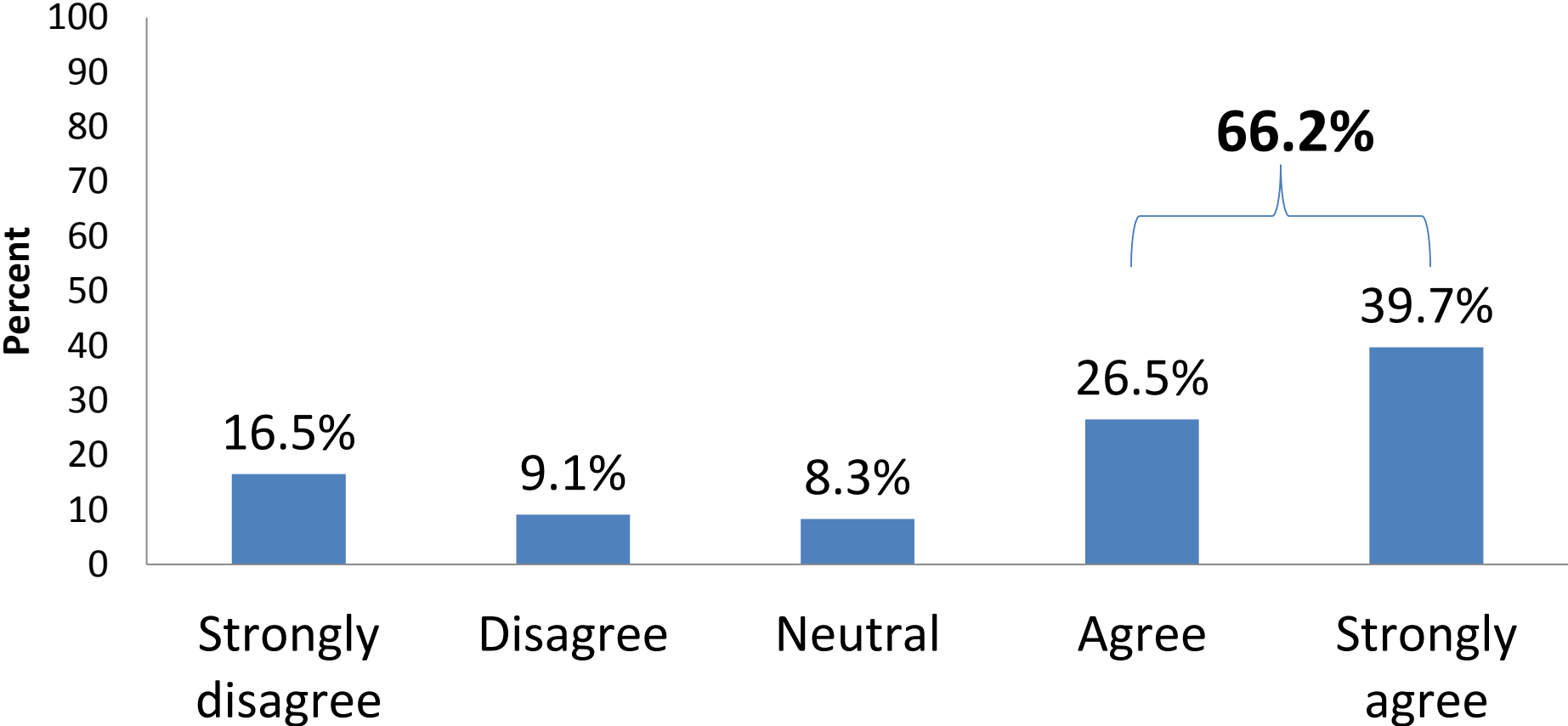
- Unweighted data
- Descriptive; no associations or statistical tests
- 37% of the 121 MSM had more than 5 sexual partners in the past 12 months
- Social-desirability bias and measurement error

CONCLUSION

- High use of seroadaptive behaviors and HIV prevention strategies
- Nine partnerships had no evidence of any prevention strategy
- PrEP was used as a prevention strategy in 36% of HIV-negative partnerships

Extra slides

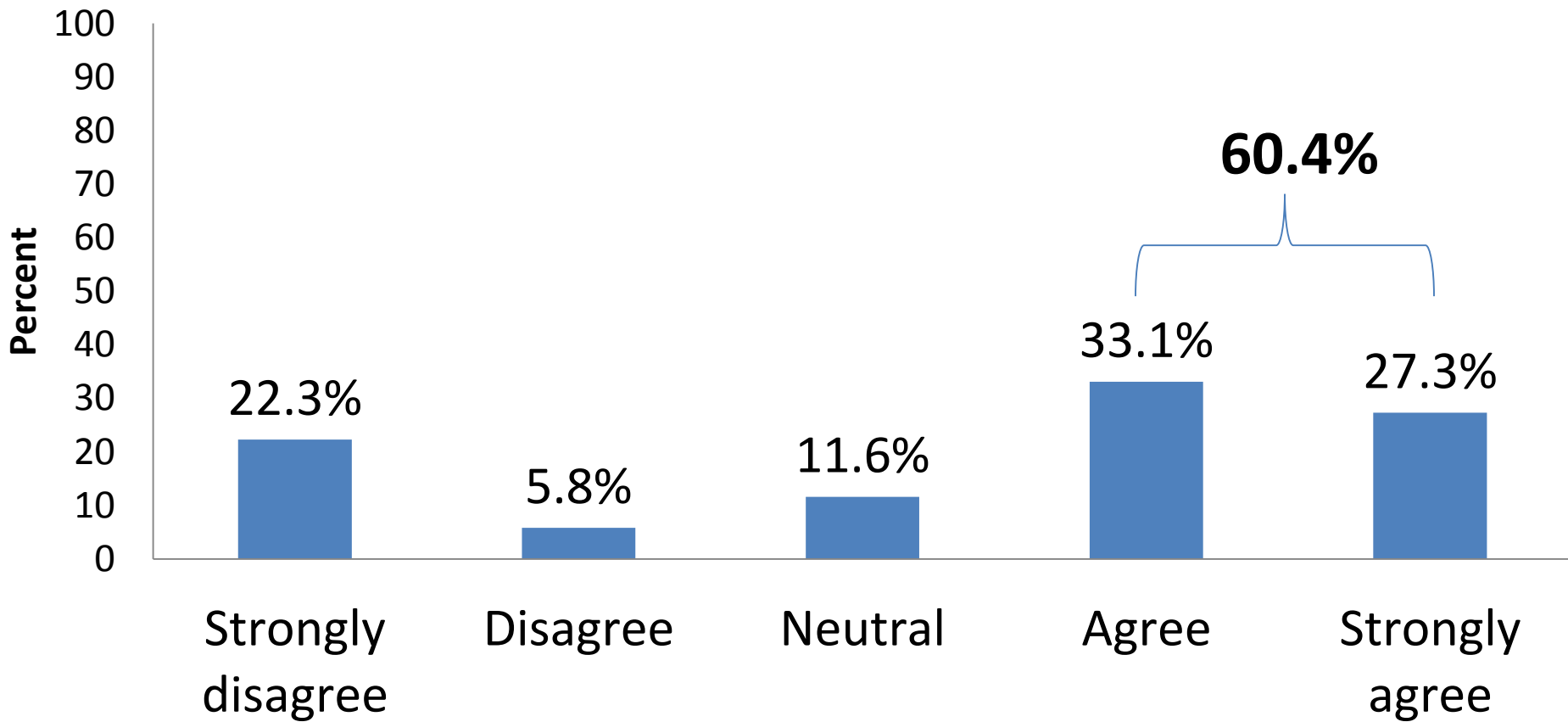
If my partner tells me he or she is HIV positive, I am more likely to have unprotected sex with him or her.



Serostatus of partner	CAI	ICAI*
HIV+ (n=197)	94%	64%
HIV-/unknown (n=183)	52%	28%

*from perspective of MMP participant

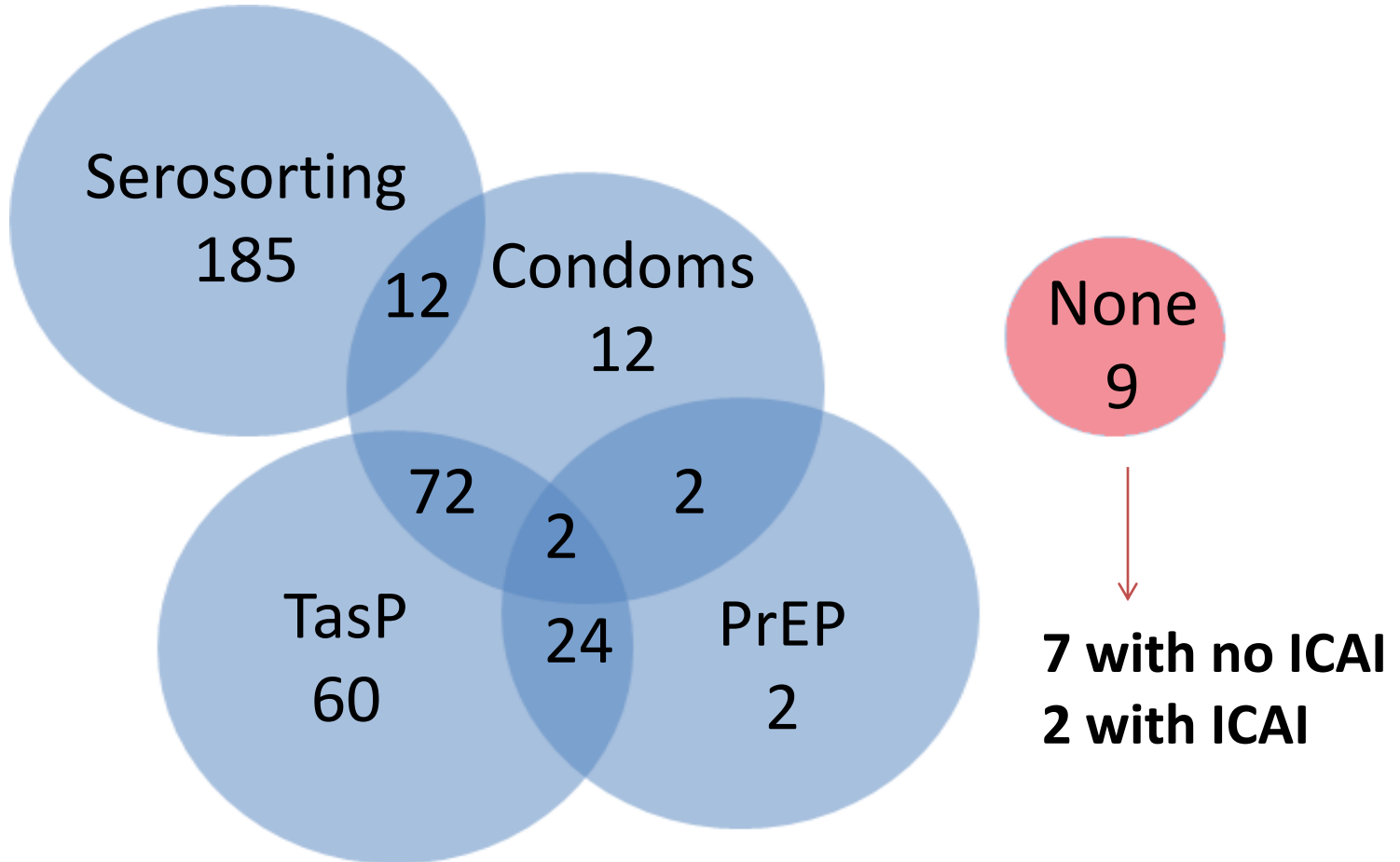
If I have an undetectable HIV viral load, I am more likely to have unprotected sex.



Participant's self reported viral load	CAI	ICAI*
Undetectable (n=158)	53%	30%
Detectable (n=25)	44%	12%

*from perspective of MMP participant

RESULTS



Viral load agreement

		MRA	
		Undetectable	Detectable
Self-report	Undetectable	91	5
	Detectable	6	6

97/108= 90% of observations agree

Differences in characteristics and type of prevention method?

- Condoms: homeless, older partners, and if MMP participant disclosed, less likely to use condoms
- PrEP: younger MMP age more likely to have partnership with partner on PrEP
- TasP: younger MMP age and younger partner age more likely to use TasP; disclosure less likely
- Serosort: older MMP age, older partner age, higher education more likely; foreign born less likely

STI diagnosis and prevention type

- No self-reported STI in 2014 interview
- Data in MRA on diagnosis comes from primary HIV care site (many MSM in SF get STI tests at Magnet and SFCC, no data on STI tests there)
- STI incidence is increasing in SF
- Warrants further investigation

Condom use- by PrEP for negatives

380
partnerships

197 (51.8%)
HIV-positive

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83 (21.8%)
HIV-negative

6.1%
condom
use

54.0%
condom
use

56.6%
condom use
(HIV- no PrEP)

13.3%
condom use
(HIV- & PrEP)