

Non-disclosure of HIV serostatus and associations with psychological factors, ART non-adherence, and viral load non-suppression among people living with HIV in the UK

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Background

- Disclosure of HIV-serostatus to friends, family, and a stable partner balances risks and benefits.
- Various socio-demographic factors are associated with non-disclosure.
- The extent to which such non-disclosure impacts on social support, psychological health, adherence to antiretroviral treatment (ART), and virological outcomes of ART is not well understood.
- The implications of non-disclosure may be different in the current era of simpler treatments and excellent prognosis for HIV.

Objectives

To determine, among HIV-diagnosed people in the UK:

- Prevalence of non-disclosure within the social network (family, friends, co-workers, stable partner);
- Associations of socio-demographic and HIV-related factors with prevalence of non-disclosure in the social network;
- Associations of non-disclosure with: low social support, psychological symptoms, ART non-adherence, and viral load non-suppression among those on ART

Methods

- ASTRA (Antiretrovirals Sexual Transmission Risks and Attitudes): questionnaire study of HIV-outpatients attending 8 UK centres during 2011-2012
- Self-completed, confidential questionnaire included socio-demographic, lifestyle, HIV-, and health-related information.
- Latest clinic-recorded viral load (VL) and CD4 count at the time of the questionnaire were documented for all participants.
- N=3,258 participants (64% response rate):
2,248 MSM, 373 heterosexual men, 637 women

Methods

Disclosure:

- To family, friends, co-workers, stable partner
 - None, some, most or all
 - Friends and family combined

Associations with:

- Low social support (modified Duke-UNC FSSQ ≤ 12)
- Depression symptoms (PHQ-9 ≥ 10)
- Anxiety symptoms (GAD-7 ≥ 10)
- ART non-adherence (among those on ART: missing ≥ 1 ART dose in the past 2 weeks or ≥ 2 consecutive days of ART in the previous 3 months)
- Viral load non-suppression (VL > 50 c/mL among those on ART for ≥ 6 months)

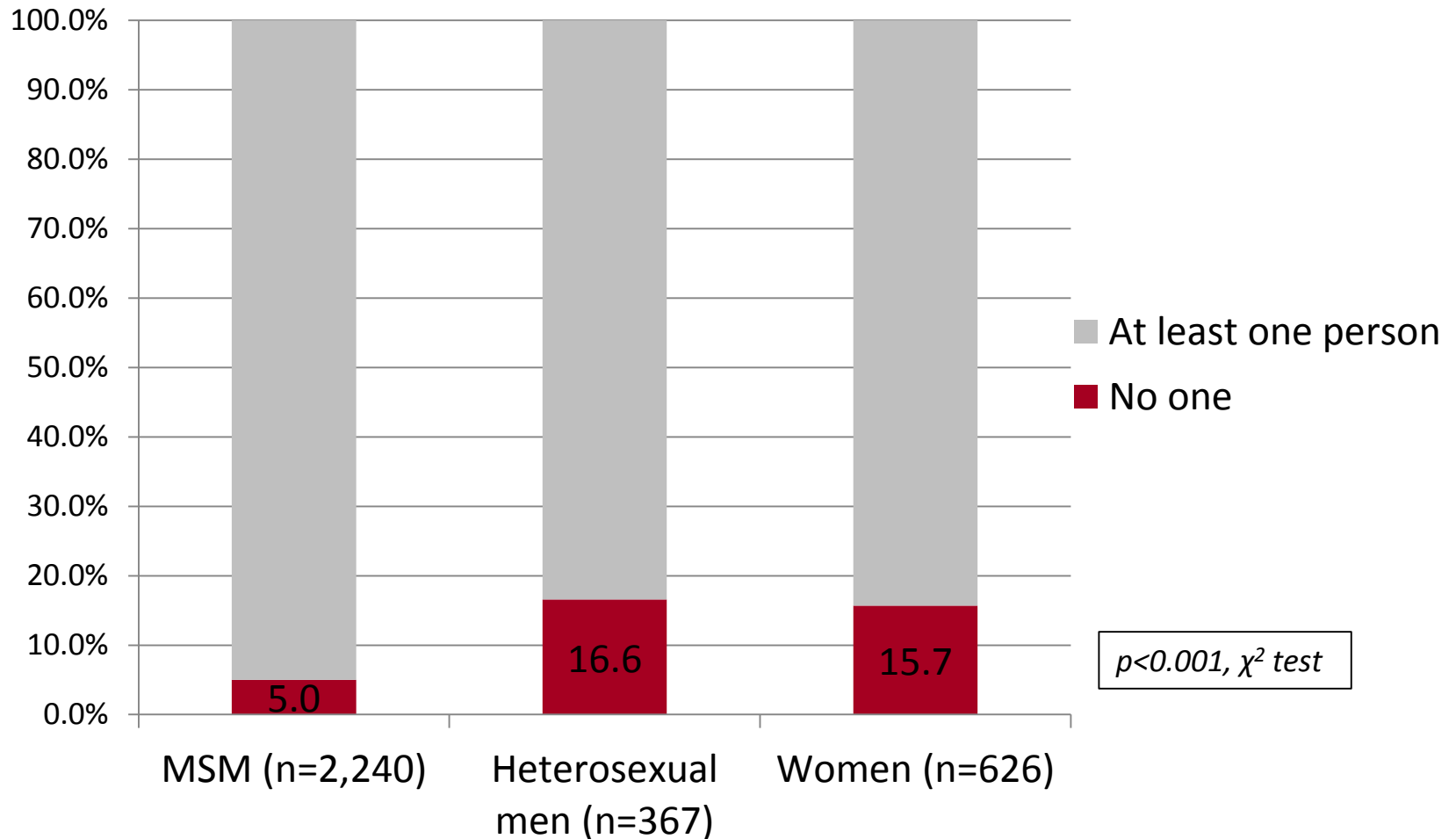
ASTRA participant characteristics (n=3,233)

	MSM (n=2,240)	Heterosexual men (n=367)	Women (n=626)
	%	%	%
Mean age [SD]	45.5 [9.5]	47.3 [9.5]	42.5 [9.3]
Aged ≥60 years	6.9	10.5	3.9
Black, Asian, or mixed ethnic group	10.6	66.3	79.6
Born in the UK	71.2	27.6	19.8
University degree or above	44.5	38.5	34.3
Employed	61.9	47.0	48.6
Religious*	43.0	79.1	88.6
Has a stable partner/spouse	54.5	68.8	55.2
Median years since HIV diagnosis, [IQR]	10 [5-16]	8 [3-13]	8 [4-12]
On ART	85.1	91.4	87.8
VL≤50 c/mL [†]	76.0	76.8	77.4
CD4 count>350 cells/mm ³ [†]	83.8	65.3	80.1

*Identifies as belonging to a religion (Islam, Christianity, Judaism, Hinduism, Buddhism, Sikhism, other); † Clinic-recorded at time of recruitment

Overall disclosure prevalence

(to friends, family, work colleagues*, or a stable partner*)

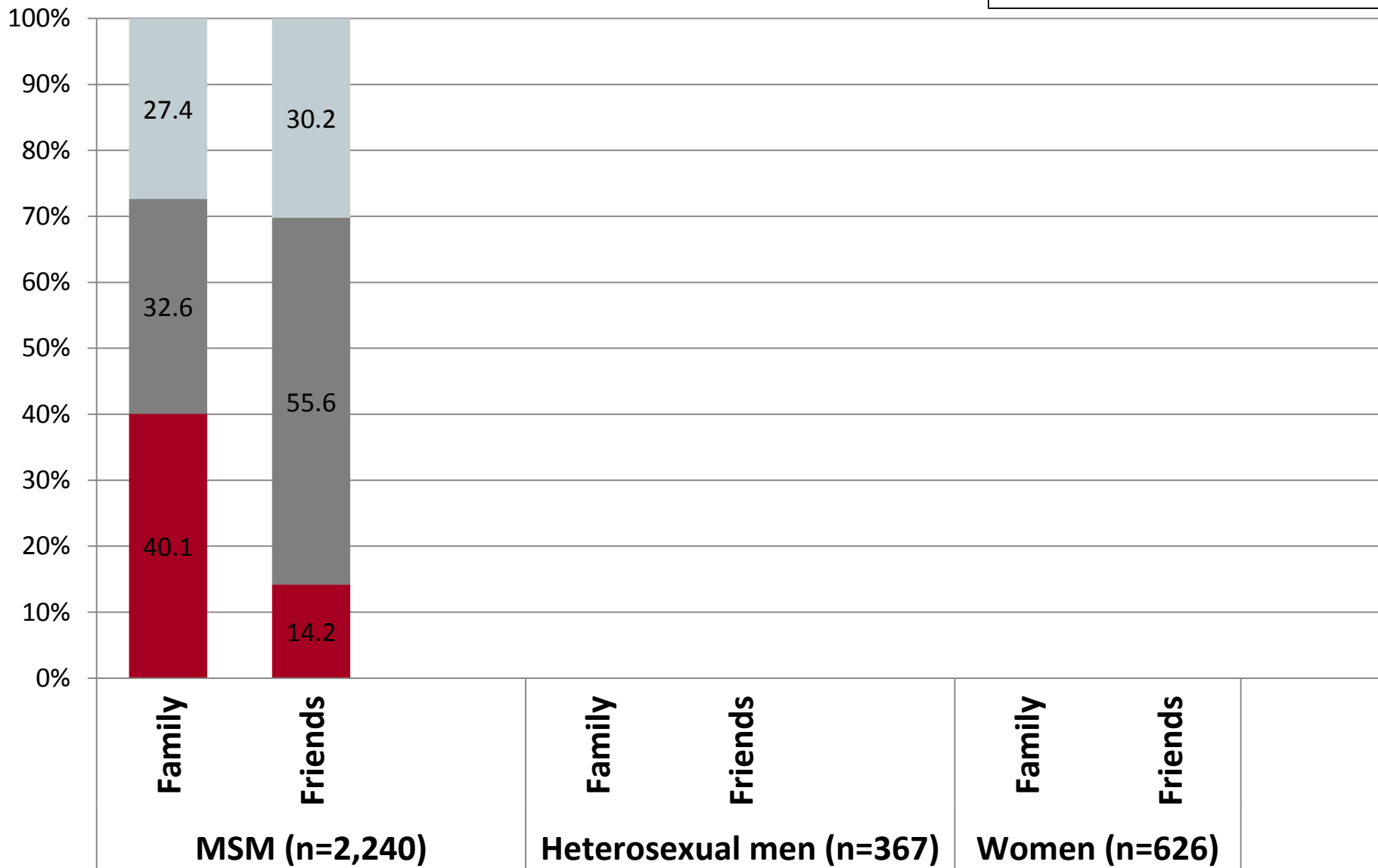


*If currently employed or in a stable relationship

Extent of disclosure according to confidant

■ None ■ Some ■ Most or all

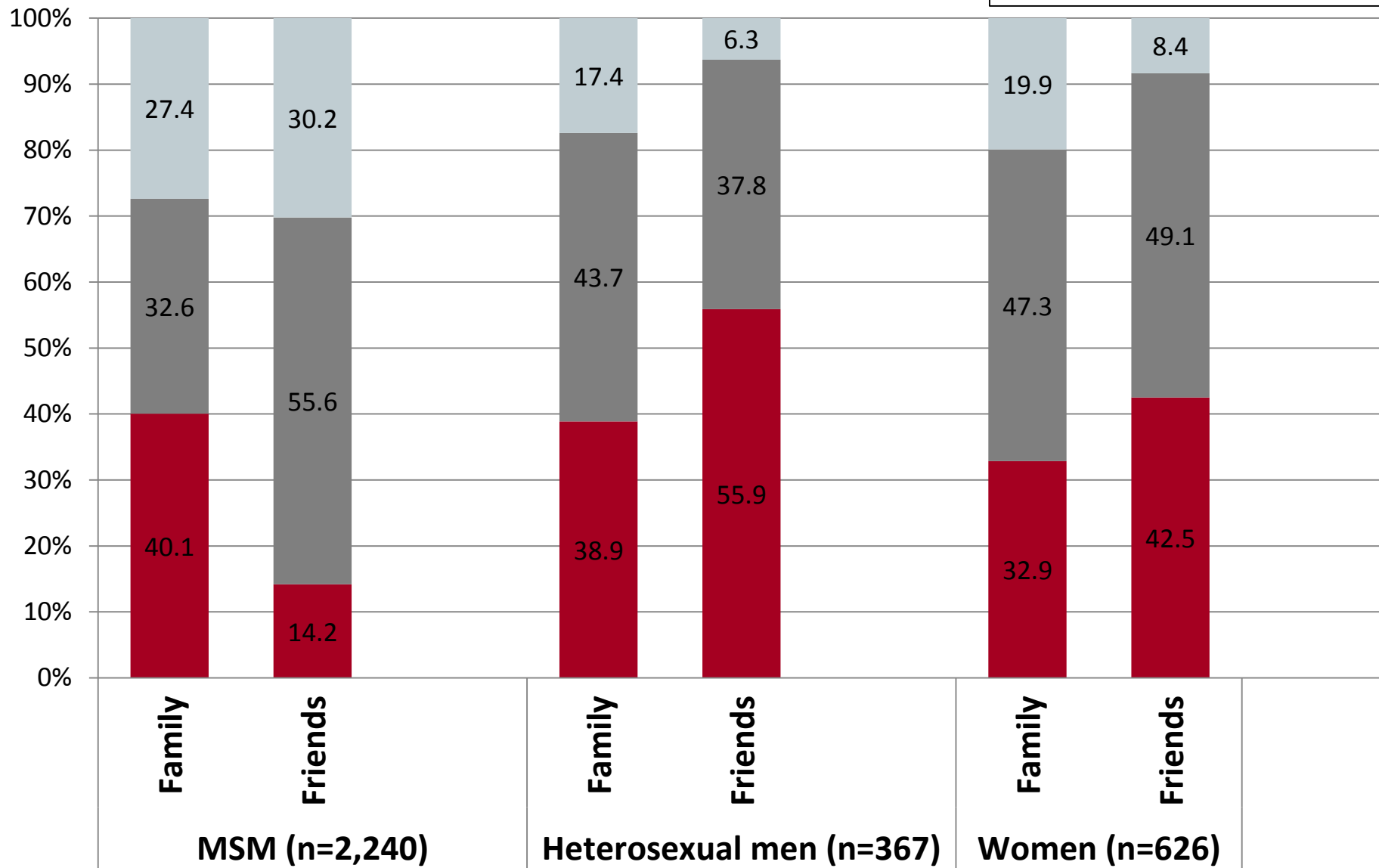
p<0.001 for all, comparing gender/sexuality groups, χ^2 test



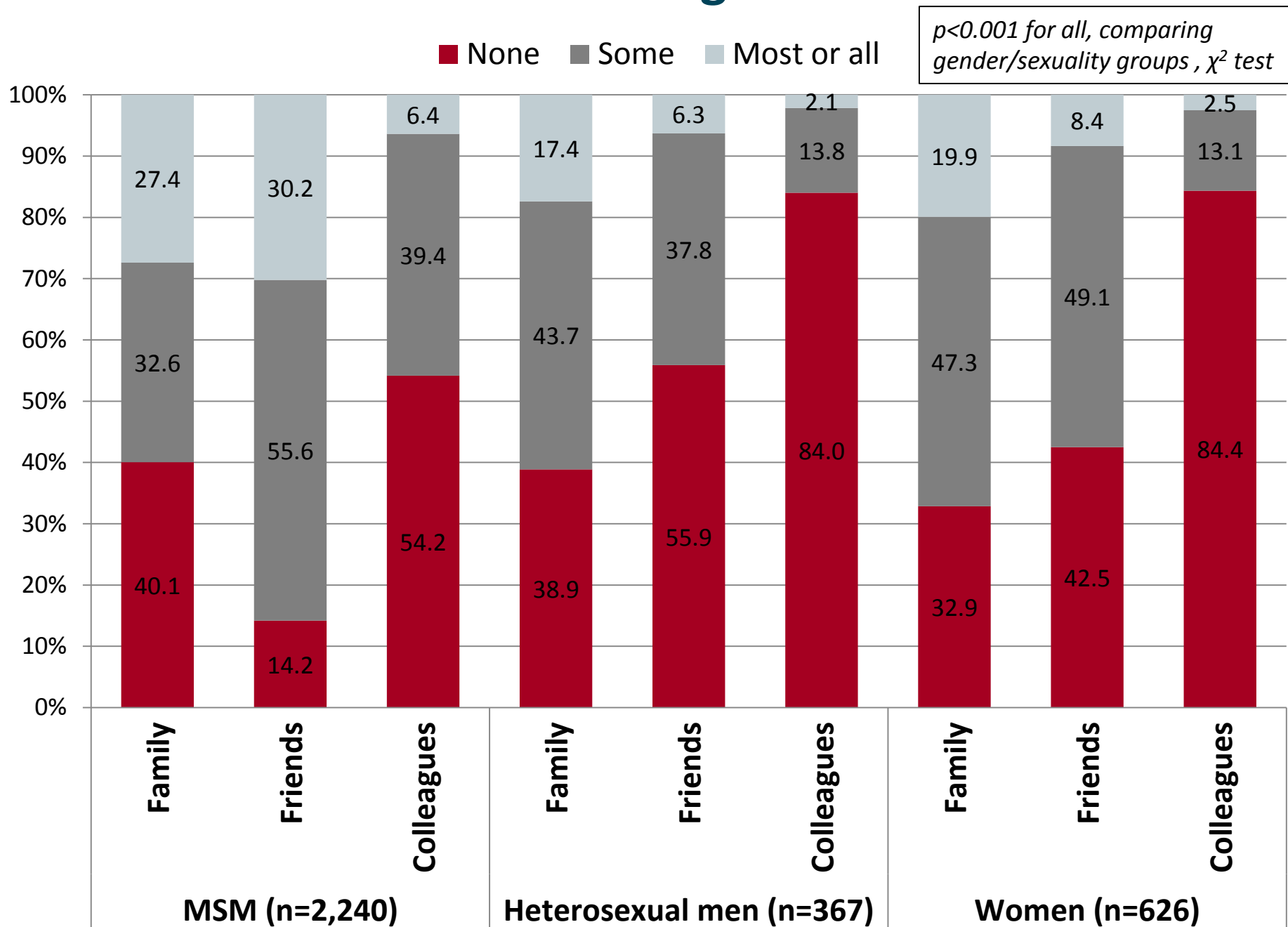
Extent of disclosure according to confidant

■ None ■ Some ■ Most or all

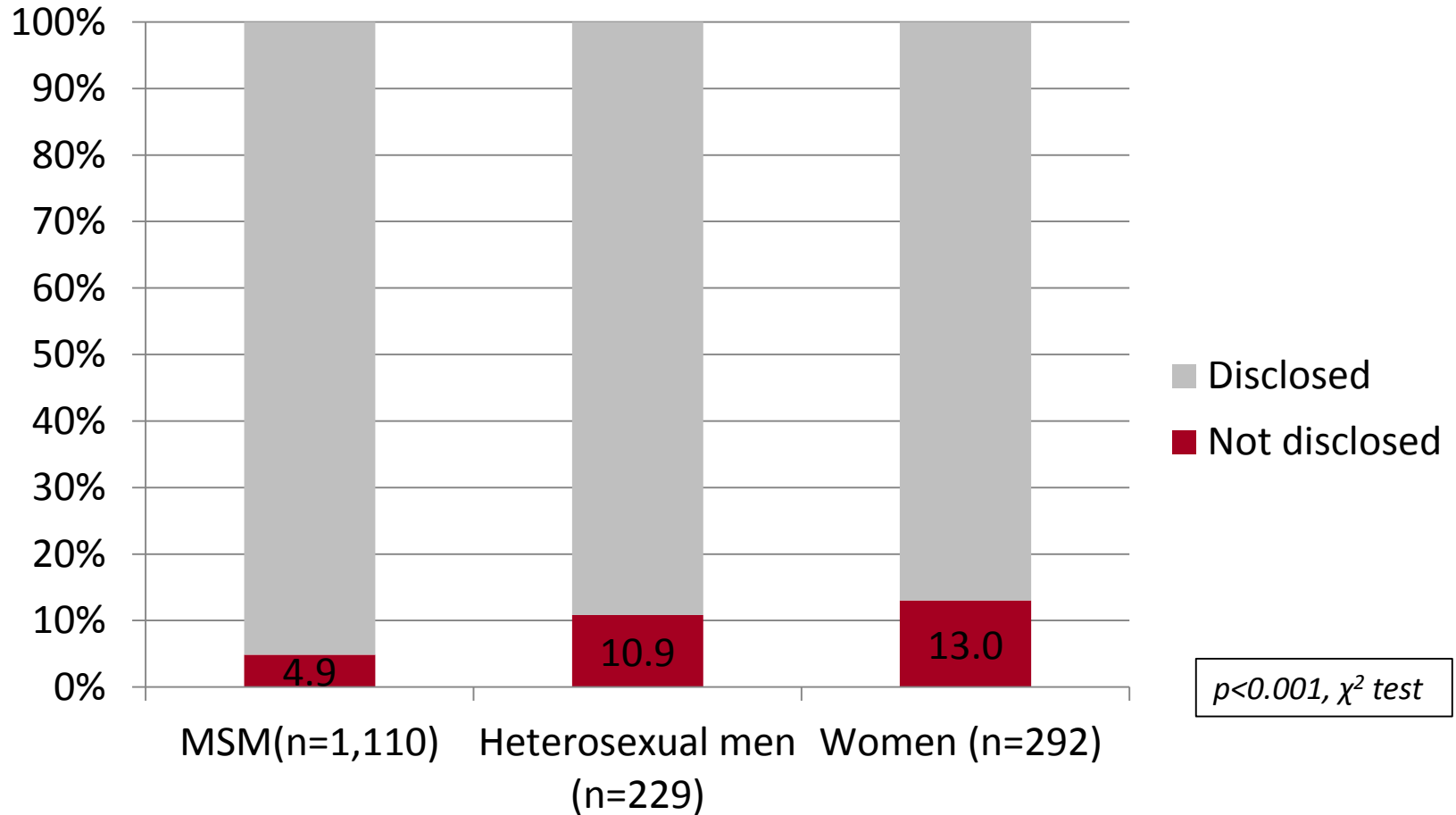
p<0.001 for all, comparing gender/sexuality groups, χ^2 test



Extent of disclosure according to confidant



Disclosure to a stable partner/spouse (n=1,631 in a relationship)



Factors associated with non-disclosure (n=3,233)

		MSM (n=2,240)			Heterosexual men and women (n=993)		
		N	%	p-value	N	%	p-value
Age at recruitment, yearsⁱ	≤30	110	6.4		62	11.3	
	30-39	502	3.8		236	16.1	
	40-49	943	5.0		412	15.3	
	50-59	508	4.1		173	17.3	
	≥60	154	10.4	0.037 ^T	60	20.0	0.054 ^T
Ethnicity	White	1969	4.0		241	10.4	
	Black African	20	20.0		576	16.3	
	All other (incl. missing)	251	12.4	<0.001	176	22.7	0.003
Religious[*]	No	1268	3.7		147	15.6	
	Yes	955	6.5	0.003	837	16.1	0.883
Time since HIV diagnosisⁱ	≤3 months	59	15.3		20	35.0	
	3 months-2 years	189	7.9		109	23.9	
	2-5 years	339	7.4		163	17.8	
	5-15 years	1000	4.8		512	14.1	
	>15 years	640	2.2	<0.001 ^T	174	12.6	<0.001 ^T
ART status	On ART	1900	4.6		872	15.1	
	Not on ART	332	7.8	0.013	106	21.7	0.081

P-values by Chi-squared test, or Chi-squared test-for-trend (T)

^{*}Identifies as belonging to a religion (Islam, Christianity, Judaism, Hinduism, Buddhism, Sikhism, other.)

ⁱMissing values: age group - 24 MSM, 52 heterosexuals; time since HIV diagnosis- 14 MSM, 18 heterosexuals.

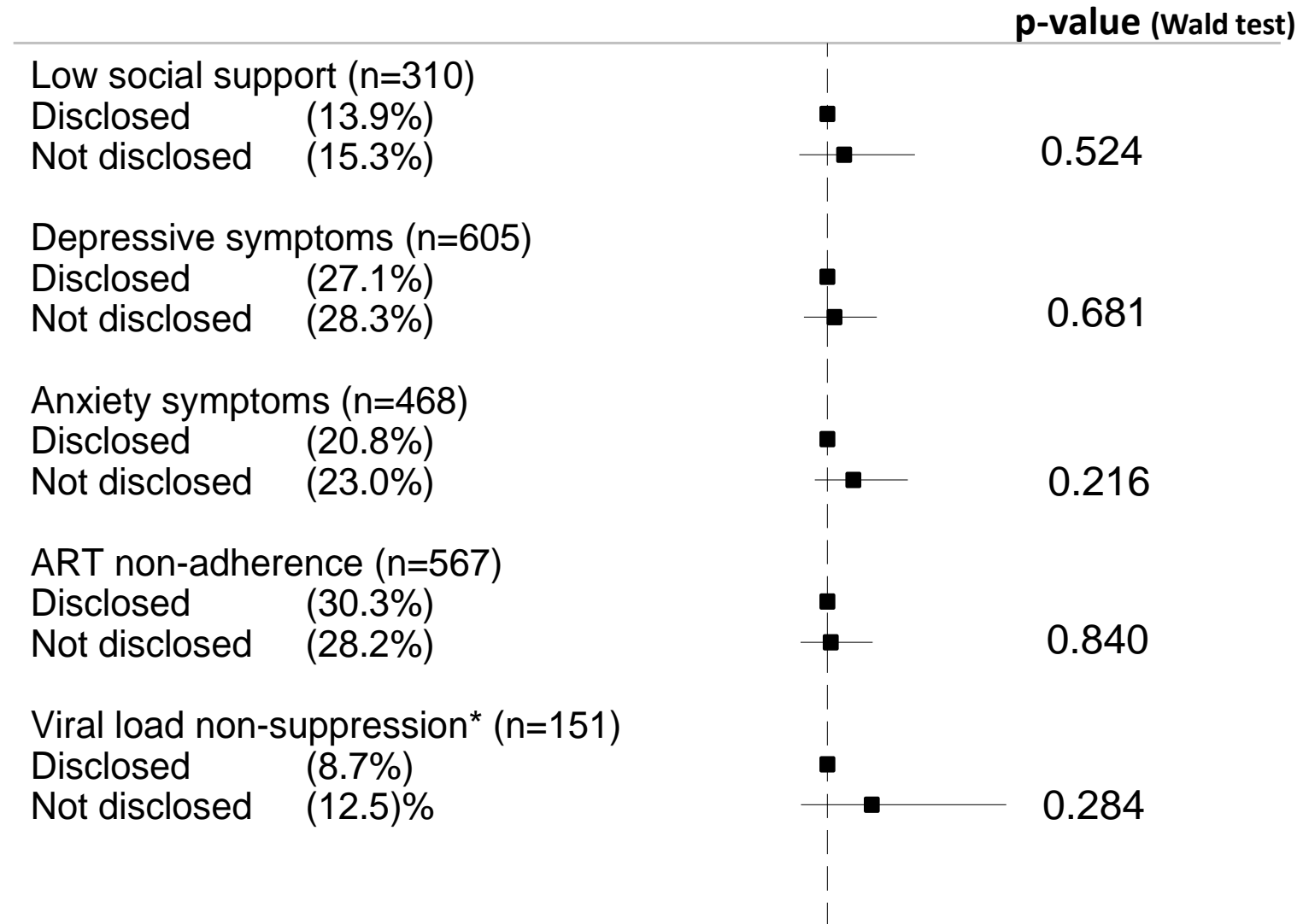
Prevalence of low social support, psychological symptoms, ART non-adherence, and viral load non-suppression

	MSM (n=2,240)		Heterosexual men and women (n=993)	
	n	%	n	%
Low social support (FSSQ ≤ 12)	312	14.0	148	15.3
Depression symptoms (PHQ-9 ≥ 10)	609	27.1	275	27.2
Anxiety symptoms (GAD-7 ≥ 10)	470	20.9	239	23.7
ART non-adherence*	568	30.2	303	35.1
Viral load non-suppression†	153	9.0	100	12.9

*Missing ≥ 1 ART dose in the previous two weeks or ≥ 2 consecutive days of ART on ≥ 1 occasion in the previous three months

†VL > 50 c/mL among participants on ART for ≥ 6 months

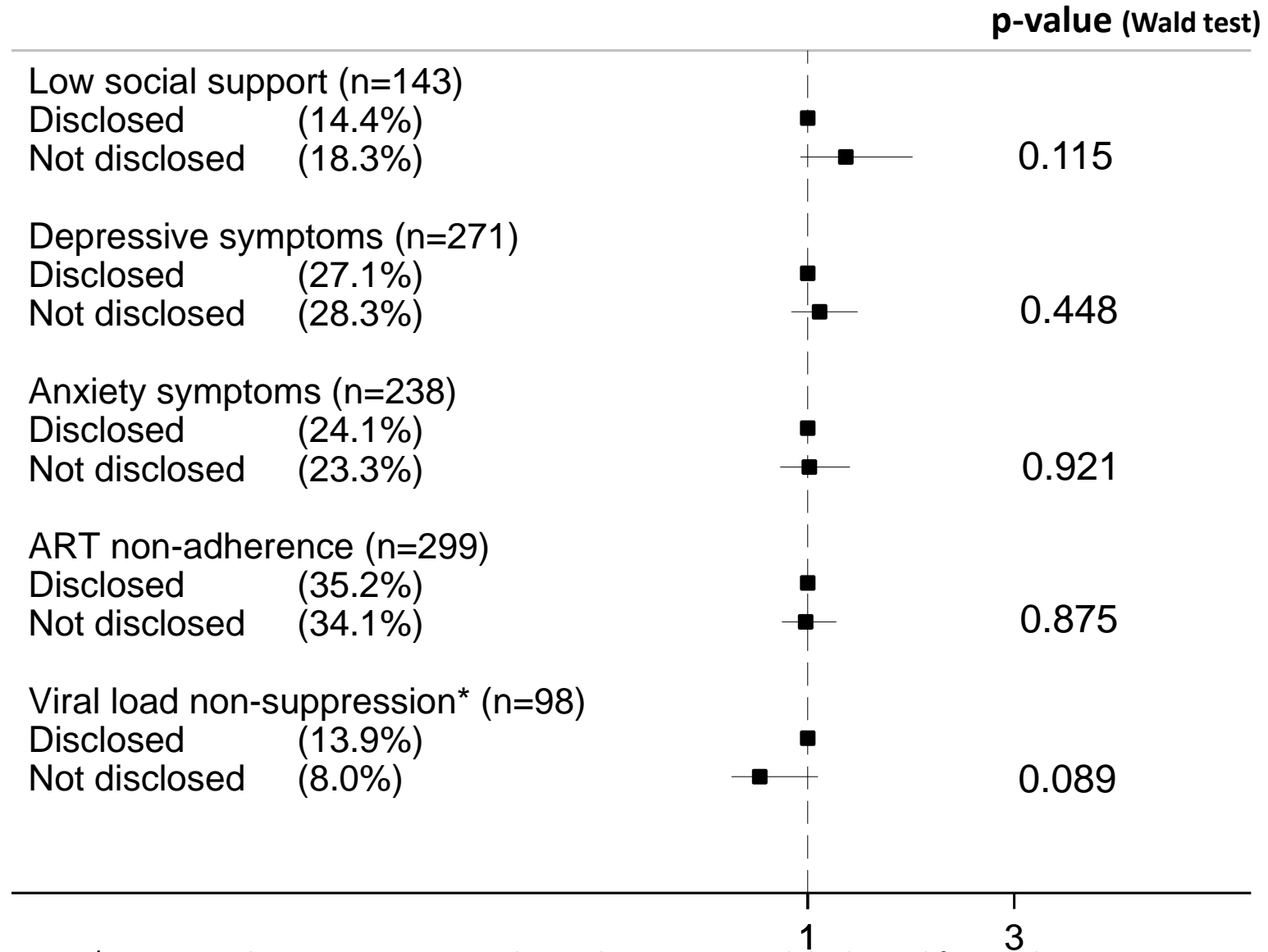
Non-disclosure and association with social support, mental health, ART success (n=2,240 MSM)



*VL>50c/mL among participants on ART ≥6 months.

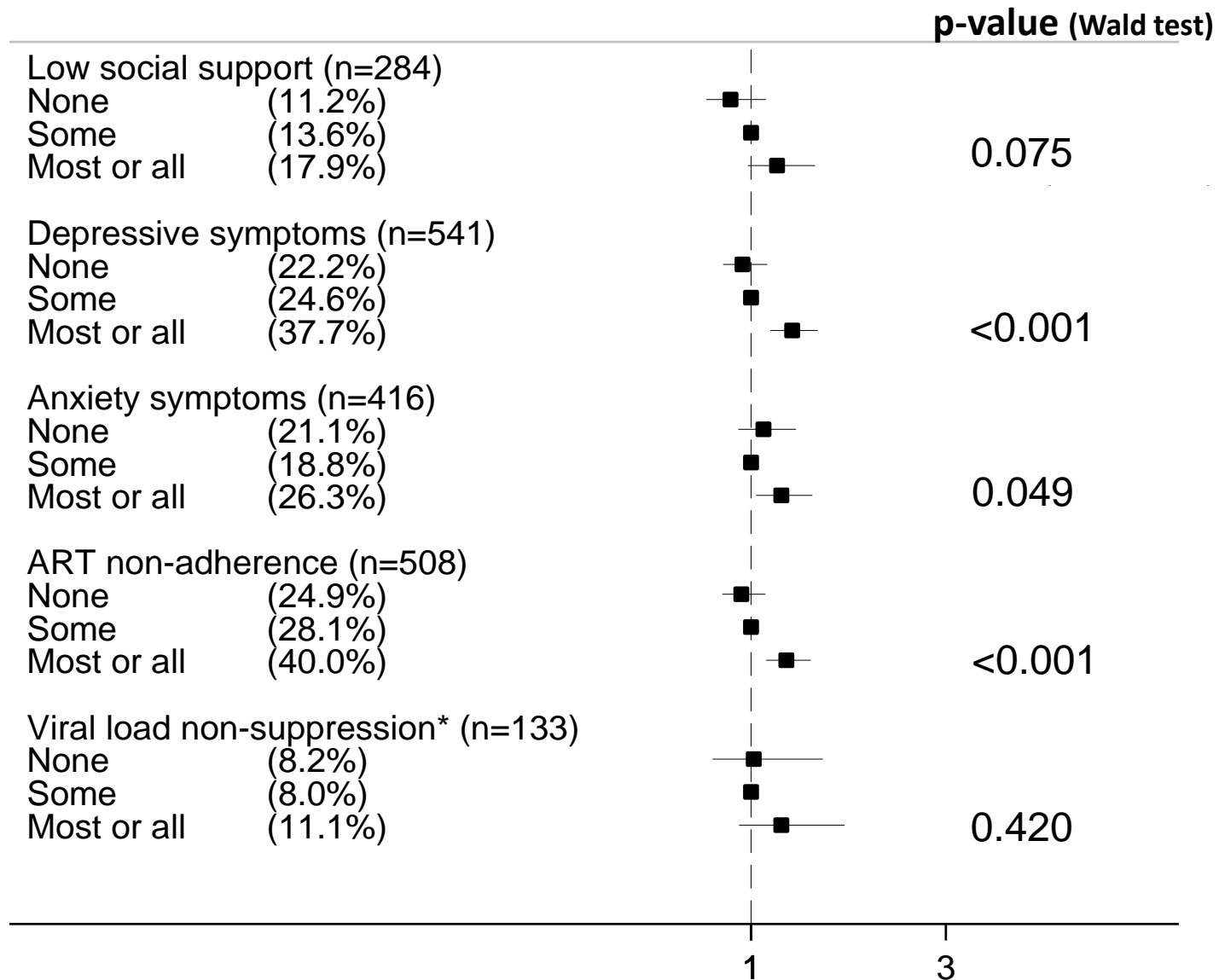
Each separate model adjusted for age group, ethnicity, religion, time since HIV diagnosis, clinic, ART status (social support, depression, anxiety models only) using modified Poisson regression.

Non-disclosure and association with social support, mental health, ART success (n=993 heterosexuals)



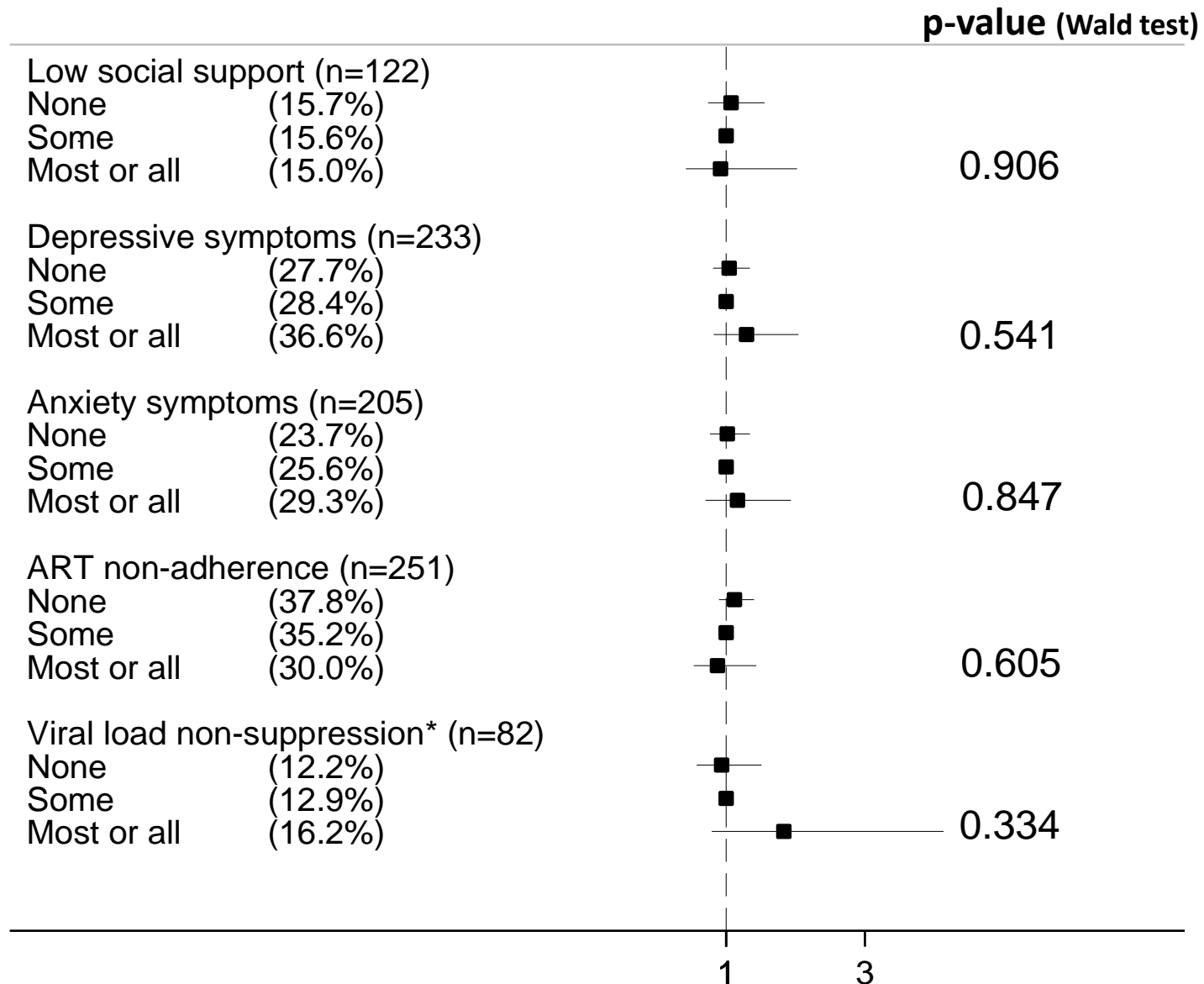
*VL>50c/mL among those on ART ≥6 months. Each separate model adjusted for gender, age group, ethnicity, time since HIV diagnosis, and clinic, using modified Poisson regression.

Disclosure to friends and family and association with social support, mental health, ART success (n=2,031 MSM)



* VL>50c/mL among those on ART ≥6 months. Each separate model adjusted for age group, ethnicity, religion, time since HIV diagnosis, clinic, ART status (social support, depression, anxiety models only) using modified Poisson regression.

Disclosure to friends and family and association with social support, mental health, ART success (n=814 heterosexuals)



* VL>50c/mL among those on ART ≥6 months. Each separate model adjusted for gender, age group, ethnicity, time since HIV diagnosis, and clinic, using modified Poisson regression.

Conclusions

- The prevalence of non-disclosure among HIV-diagnosed ASTRA participants was low, and higher among heterosexual men and women than MSM.
- Factors significantly associated with non-disclosure were: older age, black ethnicity, more recent HIV diagnosis, not being on ART, and identifying with a religion (MSM only) .
- Non-disclosure was not associated with adverse psychological symptoms, ART non-adherence, or virological success of ART.
- Results may partly reflect simpler ART regimens, lower toxicity, good clinic support.

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All ASTRA study participants

ASTRA clinic teams

Royal Free Hospital: *Alison Rodger; Margaret Johnson; Jeff McDonnell; Adebisi Aderonke*

Mortimer Market Centre: *Richard Gilson; Simon Edwards; Lewis Haddow; Simon Gilson; Christina Broussard; Robert Pralat; Sonali Wayal*

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East Sussex Sexual Health Clinic: *Kazeem Aderogba; Caron Osborne; Sue Cross; Jacqueline Whinney; Martin Jones*

Newham University Hospital: *Rebecca O'Connell; Cheryl Tawana*

Whipps Cross University Hospital: *Monica Lascar; Zandile Maseko; Gemma Townsend; Vera Theodore; Jas Sagoo*

ASTRA core team: *Fiona Lampe; Alison Rodger; Andrew Speakman; Andrew Phillips*

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ASTRA advisory group: *Lorraine Sherr; Simon Collins; Jonathan Elford ; Alec Miners; Anne Johnson; Graham Hart; Anna-Maria Geretti; Bill Burman*

CAPRA grant Advisory Board: *Nick Partridge; Kay Orton; Anthony Nardone; Ann Sullivan*

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