



UNSW AUSTRALIA

The Use of Mobile Phone Apps to Meet Partners by Gay Men in Australia is Not Associated with Increased Risk-Taking: Findings from the Gay Community Periodic Surveys, 2014

Hull, P.B., Mao L., Prestage G.P., Zablotska I.B., De Wit J.B.F., Holt M.

Never Stand Still | Arts & Social Sciences | Centre for Social Research in Health

Background



- Risk behaviour of those seeking sex online
- Development of partner seeking mobile apps with location functions
 - 2009 Grindr
- Increase in smartphone use
 - 76% in 2014
- Increase in survey participants that met sex partners using a mobile app



Gay Community Periodic Surveys

- Sydney, Melbourne, Queensland, Adelaide, Perth, Canberra, Tasmania
- Cross-sectional surveys
- Recruitment at major gay community events, gay social venues, sex-on premises venues and sexual health clinics.
- Sexual behaviour, HIV & STI testing, drug use
- Anonymous self-complete questionnaires
- ~70 items

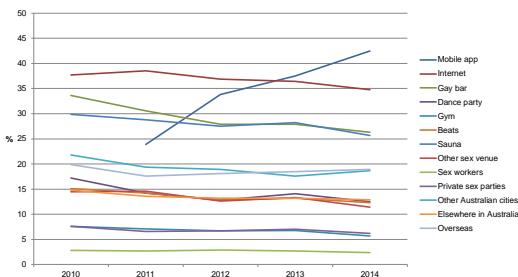


In the last 6 months how often have you had sex with men you met at or through:

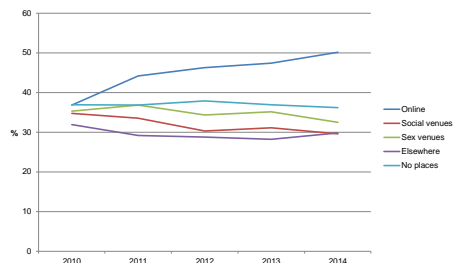
- Internet
- Mobile app
- Gay bar
- Dance party
- Gym
- Beat
- Gay sauna
- Other sex venue
- Sex workers
- Private sex parties
- Other Australian cities
- Elsewhere in Australia
- Overseas



Proportions of participants reporting sex with men they met at listed places/methods – all participants

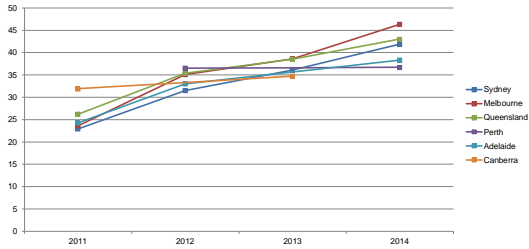


Proportions of all participants reporting sex with men they met at types of places/methods





Proportion of all participants reporting having sex 'occasionally' or 'often' with men met through mobile app, by city



Sample population

- Sydney, Melbourne, Brisbane, Adelaide, Perth surveys 2014
- 6,321 completed surveys
- 4,116 (65.1%) men reported having sex with men met at or through at least one place/method listed



Demographics

- Age
 - Mean = 36.4, SD = 12.1
- Employment
 - Full/part time = 77.2%
- HIV status
 - Positive = 10.4%
 - Negative = 79.1%

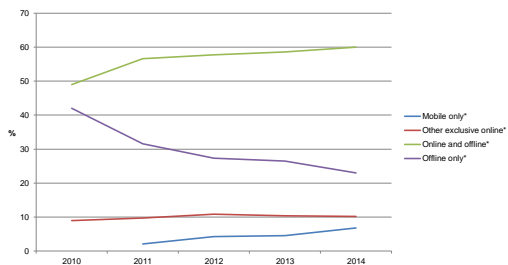


Where men met sex partners – men who used at least one place on list

- Exclusive mobile apps 6.8%, n = 279
- Other exclusive online 10.2%, n = 419
- Online plus other places 60.0%, n = 2470
- No online 23.0%, n = 948



Methods used to meet sex partners - participants that used at least one listed place or method



Bivariate analyses

	Mobile only n (%)	Other exclusive online n (%)	Online and offline n (%)	Offline only n (%)	p
Age (Mean (SD))	31.1 (9.6)	35.8 (11.9)	35.0 (11.0)	41.9 (13.7)	.001
HIV status					.001
Positive	12 (4.4)	35 (8.6)	281 (11.7)	100 (10.9)	
Negative	229 (83.9)	331 (81.3)	1965 (81.6)	729 (79.2)	
Unknown	32 (11.7)	41 (10.1)	162 (6.7)	91 (9.9)	
CAIC	50 (17.9)	112 (26.7)	966 (39.1)	189 (19.9)	.001
HIV test last 12 mths	213 (77.7)	298 (72.9)	1945 (81.1)	590 (64.7)	
Drug use	166 (59.5)	252 (60.1)	1817 (73.6)	569 (60.0)	





Bivariate analyses

	Mobile only n (%)	Other exclusive online n (%)	Online and offline n (%)	Offline only n (%)	p
Number sex partners					<.001
None/one	71 (25.5)	79 (18.9)	66 (2.7)	177 (18.8)	
2-5	153 (55.0)	235 (56.4)	797 (32.5)	404 (42.8)	
6-10	26 (9.4)	66 (15.8)	600 (24.5)	163 (17.3)	
Over 10	28 (10.1)	37 (8.9)	986 (40.3)	199 (21.1)	
Any STI test	218 (78.1)	307 (73.3)	2047 (82.9)	972 (70.9)	.001
STI diagnosis	29 (10.7)	43 (10.8)	536 (22.5)	94 (10.4)	



Multinomial regression model Method of meeting sex partners

Reference group – Online and offline	Mobile only Adjusted OR (95%CI)	Mobile and online Adjusted OR (95%CI)	Offline only Adjusted OR (95%CI)
Age	.98 (.97-1.00)	1.02 (1.01-1.03)	1.06 (1.05-1.06)
Employment	1.20 (0.85–1.70)	.78 (.59-1.02)	.74 (.60-.91)
CAIC	.63 (.44-.91)	1.08 (.83-1.42)	.60 (.49-.75)
Different sex partners			
0-1	28.30 (16.4-48.7)	36.26 (21.75-60.46)	12.57 (8.68-18.20)
2-5	4.94 (3.20-7.65)	7.58 (5.12-11.20)	2.27 (1.82-2.84)
6-10	1.12 (.63-2.00)	2.87 (1.84-4.46)	1.26 (.98-1.64)
10+	Reference		
Recent HIV test	1.50 (.93-2.42)	1.13 (.78-1.62)	.58 (.45-.75)
Recent STI test	.81 (.52-1.27)	.67 (.47-.96)	.97 (.74-1.27)
STI diagnosis	.70 (.45-1.08)	.68 (.47-.98)	.73 (.56-.96)



Multinomial regression model Method of meeting sex partners

Reference group – Online and offline	Mobile only Adjusted OR (95%CI)	Mobile and online Adjusted OR (95%CI)	Offline only Adjusted OR (95%CI)
HIV status positive	.42 (.19-1.00)	.82 (.45-1.50)	.83 (.53-1.30)
negative	.68 (.41-1.15)	.95 (.61-1.49)	1.01 (.71-1.43)
unknown/untested	reference		
Illicit drug use			
Sydney	.81 (.61-1.08)	.81 (.64-1.04)	.72 (.60-.87)
Melbourne	1.09 (.79-1.51)	1.03 (.77-1.37)	.64 (.52-.79)
Brisbane	.93 (.60-1.45)	1.13 (.80-1.59)	.64 (.49-.83)
Adelaide	1.25 (.78-1.99)	.98 (.64-1.50)	.64 (.46-.89)
Perth	.87 (.53-1.42)	1.02 (.68-1.53)	.64 (.46-.90)



Multinomial regression model Method of meeting sex partners

Reference group – Online and offline	Mobile only Adjusted OR (95%CI)	Mobile and online Adjusted OR (95%CI)	Offline only Adjusted OR (95%CI)
Age	.98 (.97-1.00)	1.02 (1.01-1.03)	1.06 (1.05-1.06)
Employment	1.20 (0.85–1.70)	.78 (.59-1.02)	.74 (.60-.91)
CAIC	.63 (.44-.91)	1.08 (.83-1.42)	.60 (.49-.75)
Different sex partners			
0-1	28.30 (16.4-48.7)	36.26 (21.75-60.46)	12.57 (8.68-18.20)
2-5	4.94 (3.20-7.65)	7.58 (5.12-11.20)	2.27 (1.82-2.84)
6-10	1.12 (.63-2.00)	2.87 (1.84-4.46)	1.26 (.98-1.64)
10+	Reference		
Recent HIV test	1.50 (.93-2.42)	1.13 (.78-1.62)	.58 (.45-.75)
Recent STI test	.81 (.52-1.27)	.67 (.47-.96)	.97 (.74-1.27)
STI diagnosis	.70 (.45-1.08)	.68 (.47-.98)	.73 (.56-.96)



Multinomial regression model Method of meeting sex partners

Reference group – Online and offline	Mobile only Adjusted OR (95%CI)	Mobile and online Adjusted OR (95%CI)	Offline only Adjusted OR (95%CI)
HIV status positive	.42 (.19-1.00)	.82 (.45-1.50)	.83 (.53-1.30)
negative	.68 (.41-1.15)	.95 (.61-1.49)	1.01 (.71-1.43)
unknown/untested	reference		
Illicit drug use			
Sydney	.81 (.61-1.08)	.81 (.64-1.04)	.72 (.60-.87)
Melbourne	1.09 (.79-1.51)	1.03 (.77-1.37)	.64 (.52-.79)
Brisbane	.93 (.60-1.45)	1.13 (.80-1.59)	.64 (.49-.83)
Adelaide	1.25 (.78-1.99)	.98 (.64-1.50)	.64 (.46-.89)
Perth	.87 (.53-1.42)	1.02 (.68-1.53)	.64 (.46-.90)



Multinomial regression model Method of meeting sex partners

Reference group – Online and offline	Mobile only Adjusted OR (95%CI)	Mobile and online Adjusted OR (95%CI)	Offline only Adjusted OR (95%CI)
Age	.98 (.97-1.00)	1.02 (1.01-1.03)	1.06 (1.05-1.06)
Employment	1.20 (0.85–1.70)	.78 (.59-1.02)	.74 (.60-.91)
CAIC	.63 (.44-.91)	1.08 (.83-1.42)	.60 (.49-.75)
Different sex partners			
0-1	28.30 (16.4-48.7)	36.26 (21.75-60.46)	12.57 (8.68-18.20)
2-5	4.94 (3.20-7.65)	7.58 (5.12-11.20)	2.27 (1.82-2.84)
6-10	1.12 (.63-2.00)	2.87 (1.84-4.46)	1.26 (.98-1.64)
10+	Reference		
Recent HIV test	1.50 (.93-2.42)	1.13 (.78-1.62)	.58 (.45-.75)
Recent STI test	.81 (.52-1.27)	.67 (.47-.96)	.97 (.74-1.27)
STI diagnosis	.70 (.45-1.08)	.68 (.47-.98)	.73 (.56-.96)





Multinomial regression model Method of meeting sex partners

Reference group – Online and offline	Mobile only Adjusted OR (95%CI)	Mobile and online Adjusted OR (95%CI)	Offline only Adjusted OR (95%CI)
HIV status positive	.42 (.19-1.00)	.82 (.45-1.50)	.83 (.53-1.30)
negative	.68 (.41-1.15)	.95 (.61-1.49)	1.01 (.71-1.43)
unknown/untested	reference		
Illicit drug use	.81 (.61-1.08)	.81 (.64-1.04)	.72 (.60-.87)
Sydney	reference		
Melbourne	1.09 (.79-1.51)	1.03 (.77-1.37)	.64 (.52-.79)
Brisbane	.93 (.60-1.45)	1.13 (.80-1.59)	.64 (.49-.83)
Adelaide	1.25 (.78-1.99)	.98 (.64-1.50)	.64 (.46-.89)
Perth	.87 (.53-1.42)	1.02 (.68-1.53)	.64 (.46-.90)



Conclusions

- Mobile app use to find partners still increasing
- Use of social venues and sex venue decreasing
- Mobile app and online only users have less risk than men who use a wide range of places to meet partners



Acknowledgements

- NSW Health, ACON
- Victorian Department of Health, VAC
- Qld Health, QPP, QAC
- Relationships SA
- WAAC
- Positive Life NSW

