

Prevalence and factors associated with HIV testing among sexually experienced 18-49-year-old Hong Kong residents

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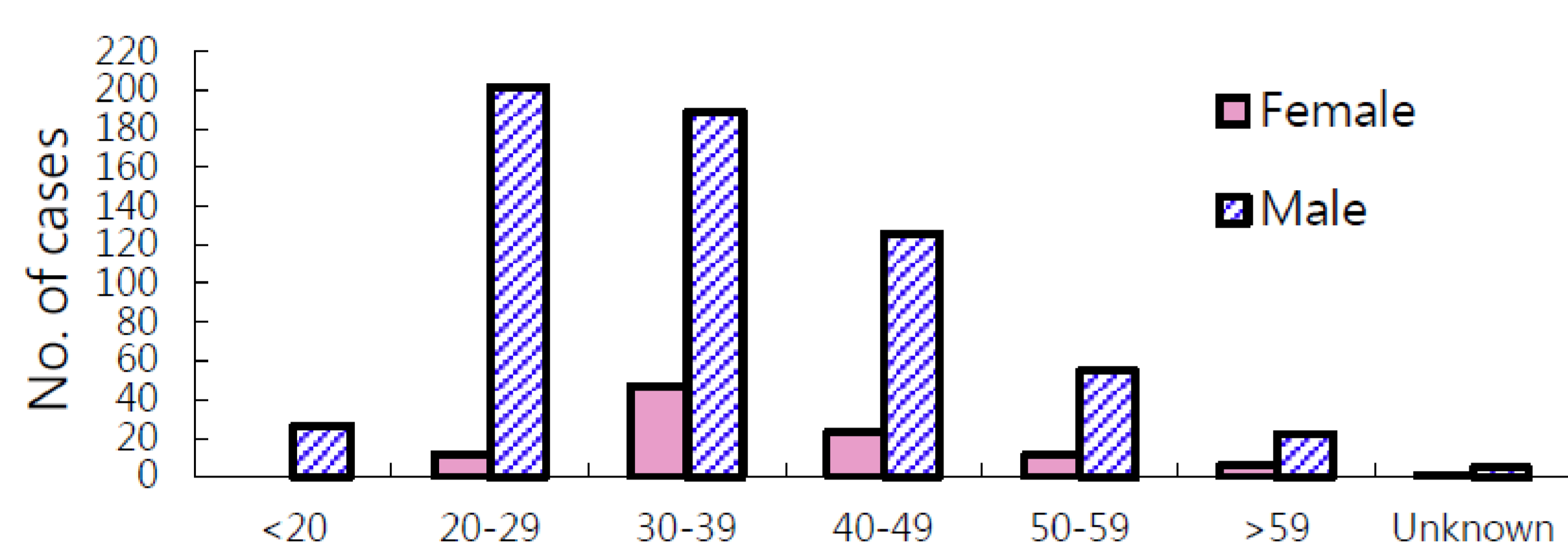


Introduction

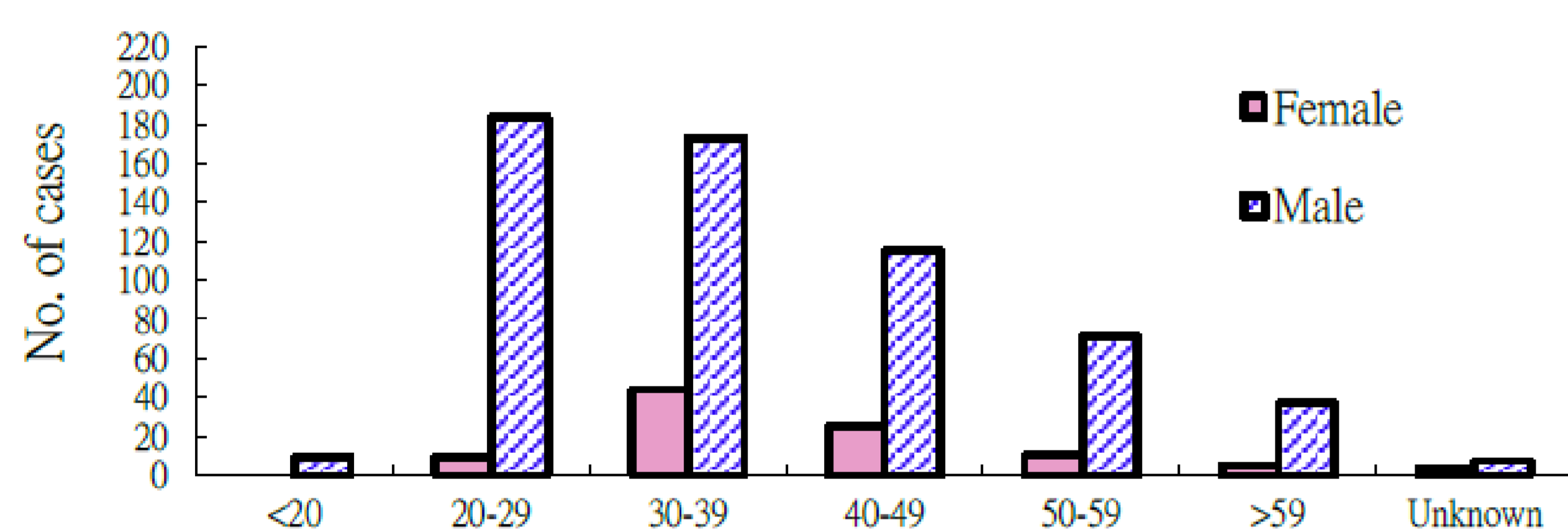
The main mode of HIV transmission in Hong Kong is sexual contact, accounting for 83% of the 2016 infections and 79% of the 2015 infections¹⁻³.

About 80% of those infected were identified between 20 and 49 years of age.

HIV reports by age and gender (2015)²



HIV reports by age and gender (2016)³



Methodology

Study design

A Comprehensive population-based investigation which involves
A computer-assisted personal interview
And On-site Rapid Syphilis Testing
And Concomitant Gonorrhoea and Chlamydia Testing

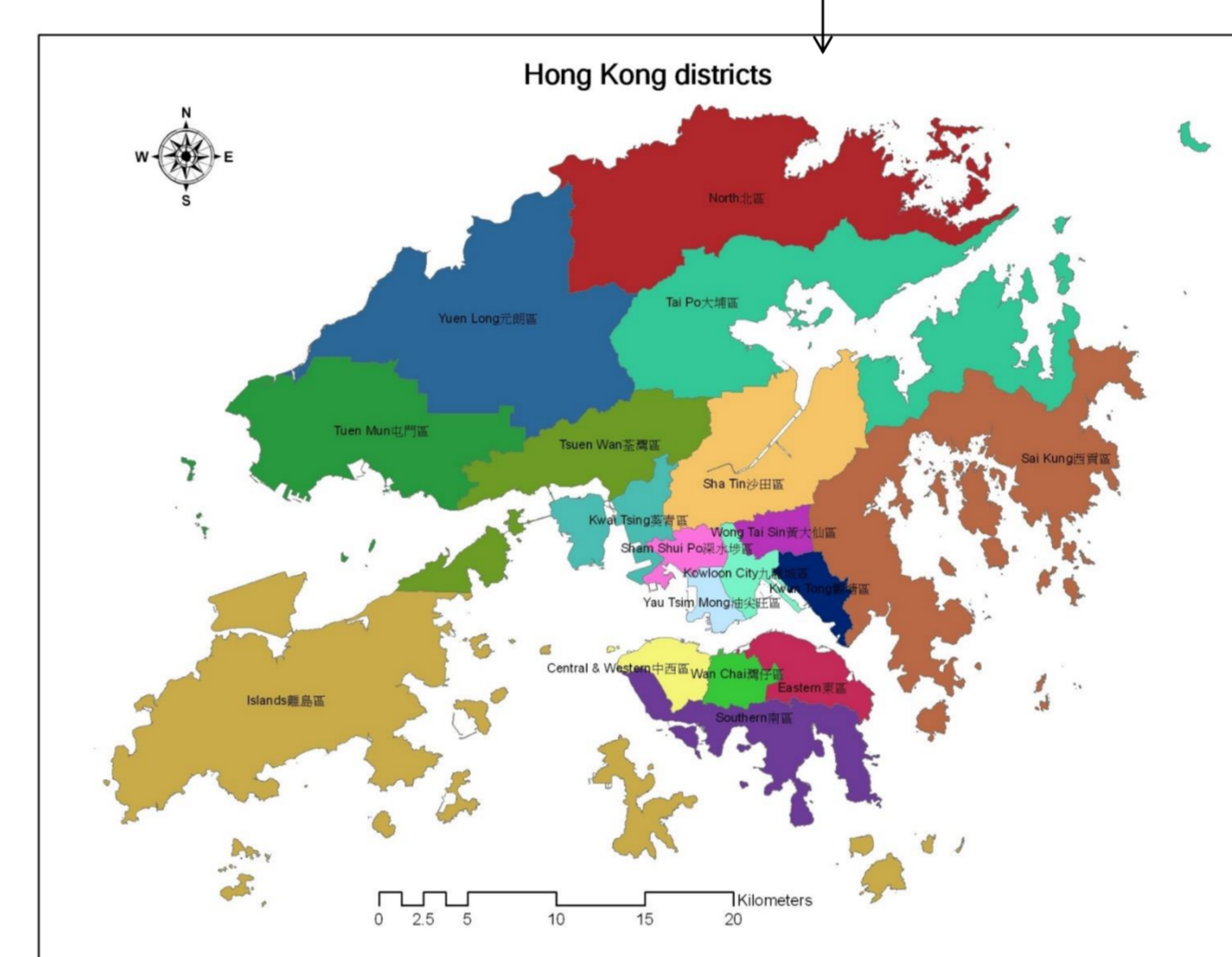
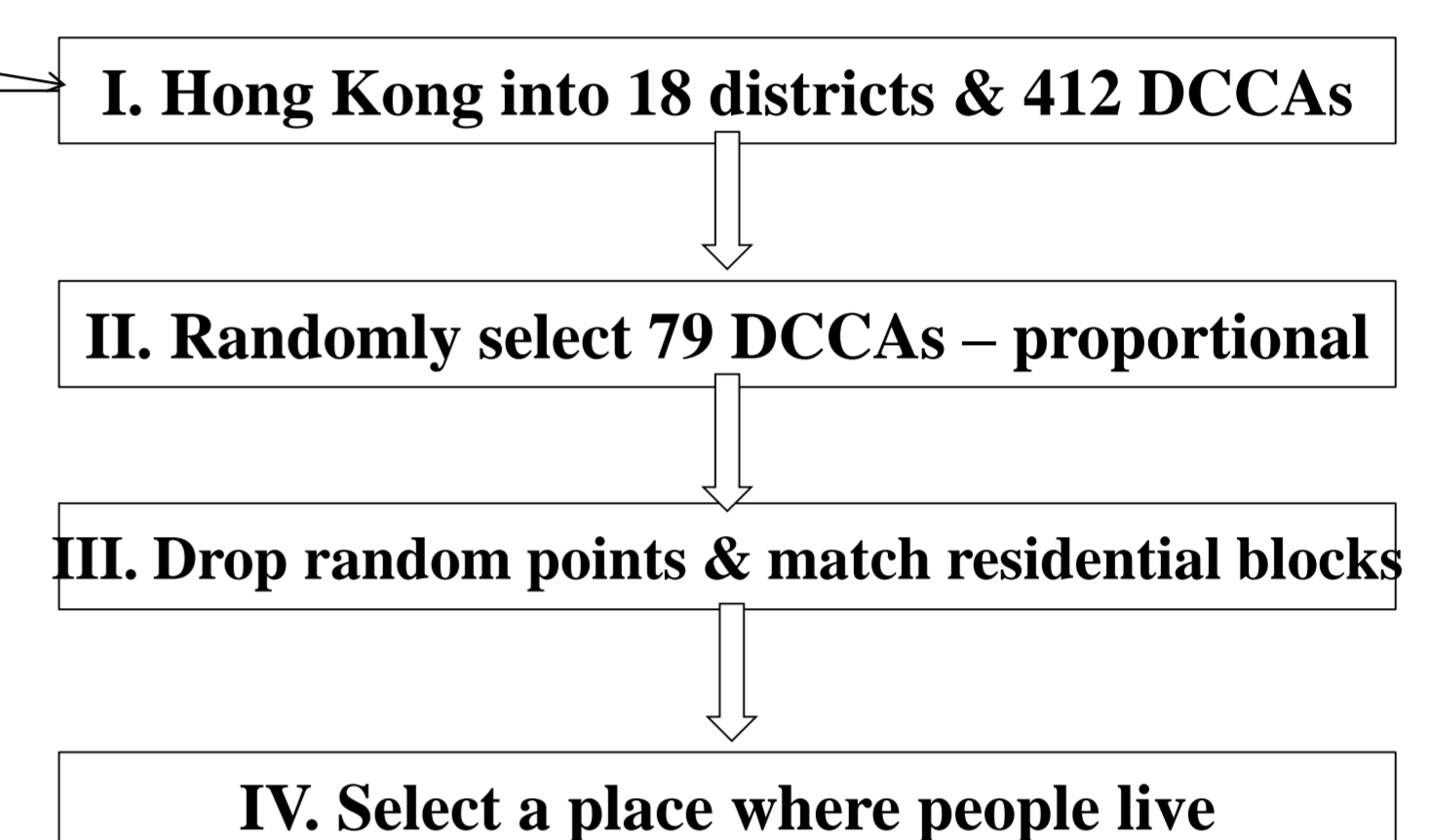
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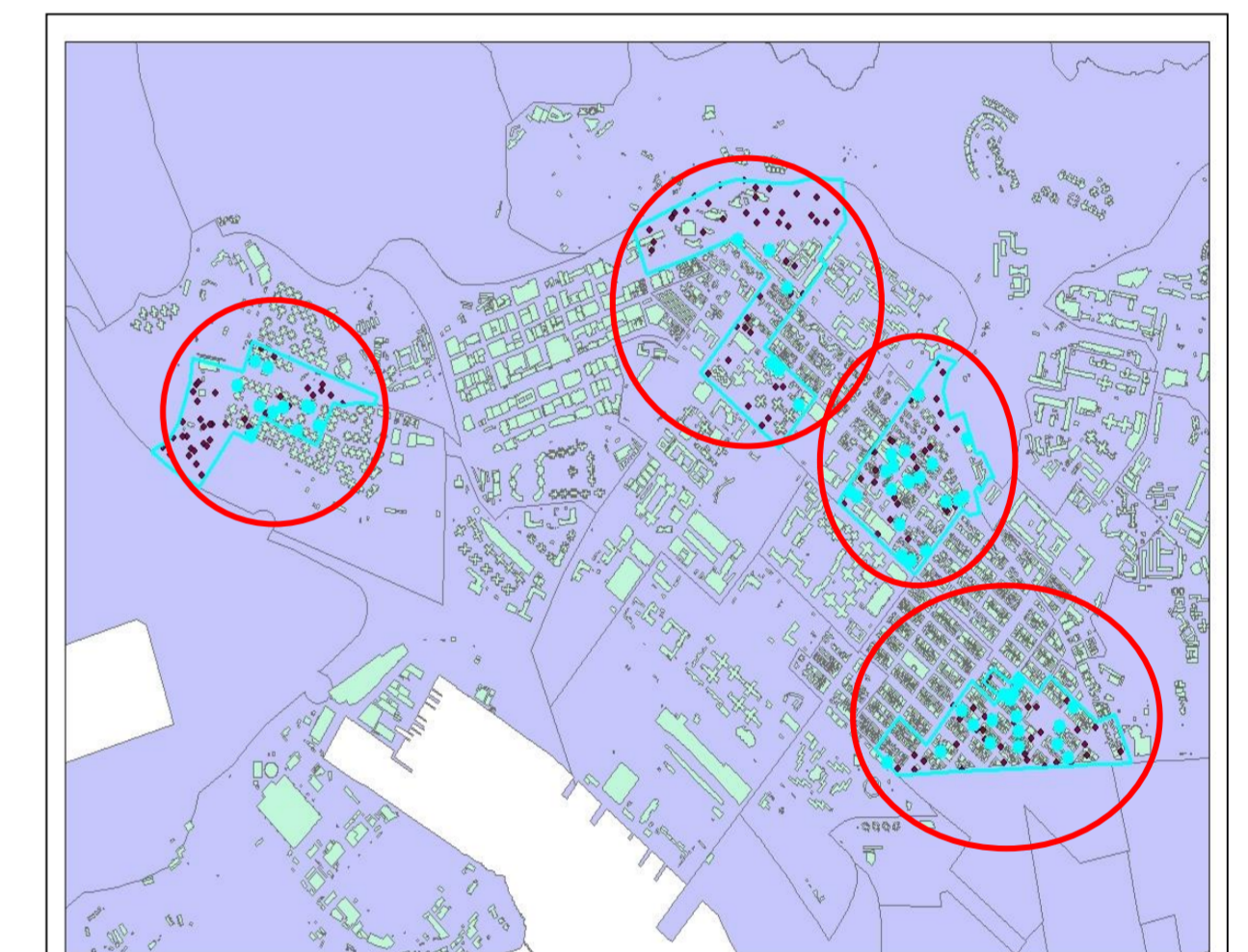
Urine-based nucleic amplification tests

Sampling in four steps

Sample size estimation = $Z^2 * (p) * (1-p) / c^2$
The sample size as 863.



Hong Kong's 18 districts



Example: Sham Shui Po District & 4 randomly selected DCCAs

Objectives & setting

Objective 1 prevalence

In this study, we first explored the prevalence of HIV testing among 18 to 49 years old residents in Hong Kong.

Objective 2 factors associated with HIV testing

As the second objective, we tested the different factors associated with HIV testing among the 18 to 49 years old residents in Hong Kong.

Setting

This study was embedded in the first population-based STI prevalence project in Hong Kong - Territory-wide STI and Sexual Health Survey between November 2014 and March 2016⁴. The methodology will be covered later.

Note

Prevalence data was weighted according to the 2011 Hong Kong census and factors identified through logistic regression.

References:

- Centre for Health Protection. CHP reviews local HIV/AIDS situation in first quarter of 2018. Hong Kong: Centre for Health Protection, 2018.
- Centre for Health Protection. HIV/AIDS Situation in Hong Kong 2015. Hong Kong: Centre for Health Protection, 2016.
- Centre for Health Protection. HIV/AIDS Situation in Hong Kong 2016. Hong Kong: Centre for Health Protection, 2017.
- Wong WC, Zhao Y, Wong NS, et al. Prevalence and risk factors of chlamydia infection in Hong Kong: A population-based geospatial household survey and testing. PLoS One 2017;12(2):e0172561.

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Your comments are more than welcome! Contact: zhaohelen@connect.hku.hk

Results: prevalence of HIV testing

	All (n=881) (95% CI)	Sexually experienced ¹ (N _e =733) 95% CI	Sexually active ² (N _a =566) (95% CI)
Prevalence of HIV testing	16.7% (13.6-20.3)	19.5% (16.1-23.5)	21.0% (17.2-25.3)
Male (n=346)			
18-26	6.0% (2.8-12.5)	10.0% (4.5-20.5)	12.2% (5.0-27.1)
27-39	25.0% (18.1-33.4)	29.4% (21.1-39.2)	29.3% (21.1-39.2)
40-49	16.8% (9.6-27.8)	16.6% (9.5-27.3)	18.1% (10.1-30.2)
Female (n=535)			
18-26	5.5% (2.4-12.0)	7.1% (3.0-16.0)	11.6% (5.0-24.8)
27-39	29.1% (23.3-35.5)	32.0% (25.8-38.9)	31.3% (24.2-39.4)
40-49	10.3% (6.8-15.2)	10.8% (7.2-16.0)	10.0% (6.0-16.3)

1. Sexually active: reported having sex in the last 12 months

2. Sexually experienced: admitted having sex in the last 12 months and those who indicated sex experience beyond the last 12 m.

Results: factors associated with HIV testing

Variables	Sexually experienced		Sexually experienced		Sexually experienced	
	Unweighted Observations	Weighted Distributions	Crude OR	CI	aOR	CI
Female	468	54.91%	1		1	
Male	265	45.09%	1.09	(0.76-1.57)	1.08	(0.68-1.73)
Live with only sexual partner	407	63.00%	1		1	
Not live with only sexual partner	220	37.00%	1.65	(1.10-2.48)*	1.59	(0.73-3.50)
18-26yrs	129	17.77%	1		1	
27-39yrs	282	40.13%	4.84	(2.47-9.47)**	1.56	(0.58-4.21)
40-49yrs	322	42.10%	1.69	(0.86-3.32)	0.46	(0.16-1.31)
Sex frequency with MSP:						
< 1/ week	429	65.80%	1		1	
>= 1/week	221	34.20%	1.88	(1.14-3.12)*	1.70	(0.99-2.92)+
No other sexual partners during time with main sexual partner	545	83.33%	1		1	
>=1 other sexual partners during time with main sexual partner	98	16.67%	1.70	(1.06-2.75)*	1.86	(1.07-3.21)*
Single	235	35.50%	1		1	
Married/co-habit/widowed/separated	498	64.50%	2.09	(1.35-3.22)**	5.94	(2.12-16.61)**

** p<0.01, * p<0.05, + p<0.1

Implications & recommendations

HIV testing among Hong Kong residents is comparatively low, especially among young residents between 18 and 26 years. Those with concurrent sexual partners and those married or with marital history, or co-habit are more likely to be tested, but the single are less likely to be tested. Those with risky behavior such as anal sex behaviors, non-consistent condom use do not associate with more HIV testing. More HIV testing campaign and awareness raising shall be targeted towards people with at-risk behaviors.