

Factors associated with risky sexual behaviors among men who have sex with men in a large Internet sample from Southeast Asia and Asia-Pacific

Sin How Lim, Ph.D.

Department of Epidemiology and Public Health
National University of Singapore

Coauthors:

Thomas Guadamuz, Chongyi Wei, Roy Chan and Stuart Koe
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Background

- ◆ Alarming increases in HIV prevalence have been reported among MSM communities in Asia
- ◆ hard-to-reach populations
- ◆ Stigma, cultural and legal prohibitions
- ◆ Internet a practical way to collect behavioral data
- ◆ Research Aims:
 - ◆ 1) To quantify the risky sexual behaviors among MSM who use Internet
 - ◆ 2) To identify correlates of risky sexual behaviors

Method-Asian Internet MSM Sex Survey

- ◆ Fridae.com partnered with 40 NGO serving MSM communities from 12 countries
- ◆ Animated web banners and direct emails
- ◆ Anonymous and self-administered
- ◆ 1 January to 28 February 2010
- ◆ 30 minutes
- ◆ English and 9 Asian languages and dialects
- ◆ Written informed consent
- ◆ No incentives
- ◆ Approval from Institutional Review Board of University of Pittsburgh

Inclusion criteria in survey

- ◆ 18 years old and older
- ◆ Self-identified as MSM or transgender

Data selection

Original data, n = 13883

↓ - less than 18 years old

13611

↓ include those who had anal sex, lifetime & at least 1 male sex partner past 6 mths

10861

↓ - MSM who had only commercial sex partners

10413

Measures

- ◆ Gay Community Periodic Survey (Australia)
- ◆ Dependent variable: URAIE (unprotected receptive anal intercourse with internal ejaculation)
- ◆ *"In the past 6 months, did you do the following? He fucked me without a condom and came inside"?*
- ◆ Independent variable: age, marital status, education, employment status, sexual orientation
- ◆ Behavioral risk factors: recreational drug use before sex in the past 6 months, drinking before sex in the past 6 months
- ◆ Psychosocial: perceived risk of HIV (1:very low-5:very high)
- ◆ HIV testing and self-reported HIV status
- ◆ Main way to meet casual partners in the past 6 months, "internet" versus "off-line"

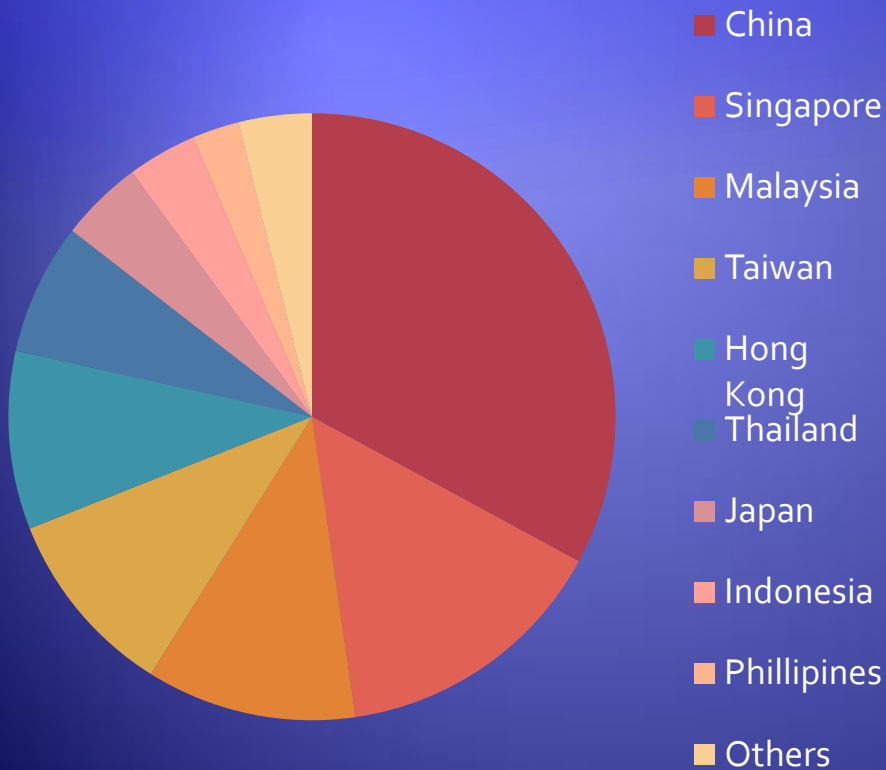
Statistical Analysis

- ◆ Descriptive analysis
- ◆ Chi-square or t-test
- ◆ Simple logistic regression using URAIE as outcome
- ◆ Multivariable logistic regression

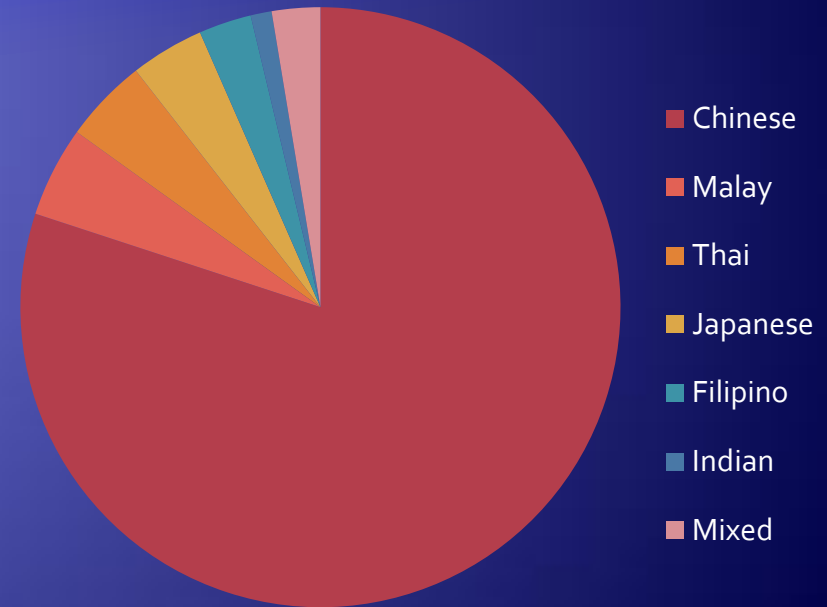
Results: Demographics

- ◆ Age, mean 31.9 (sd=9.4)

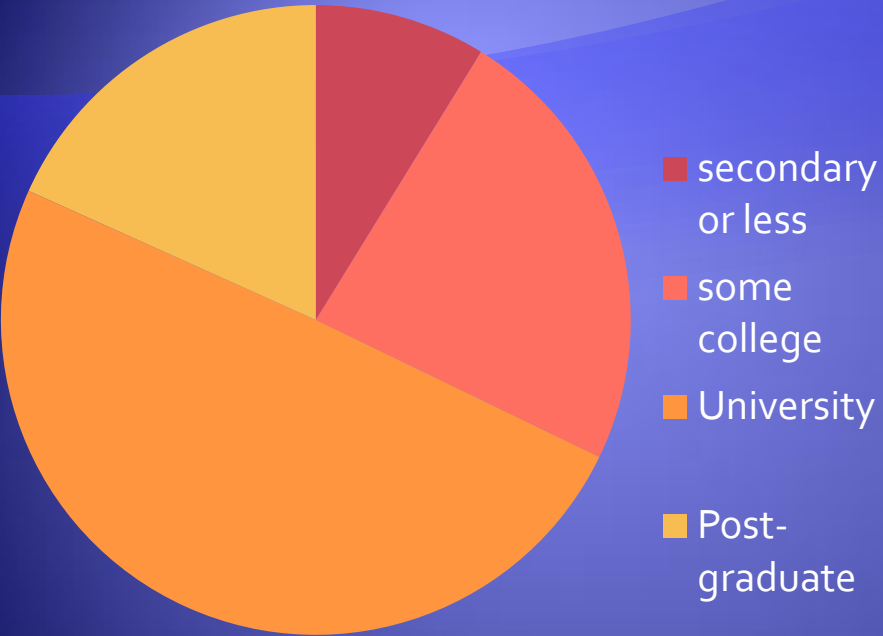
Country of residence



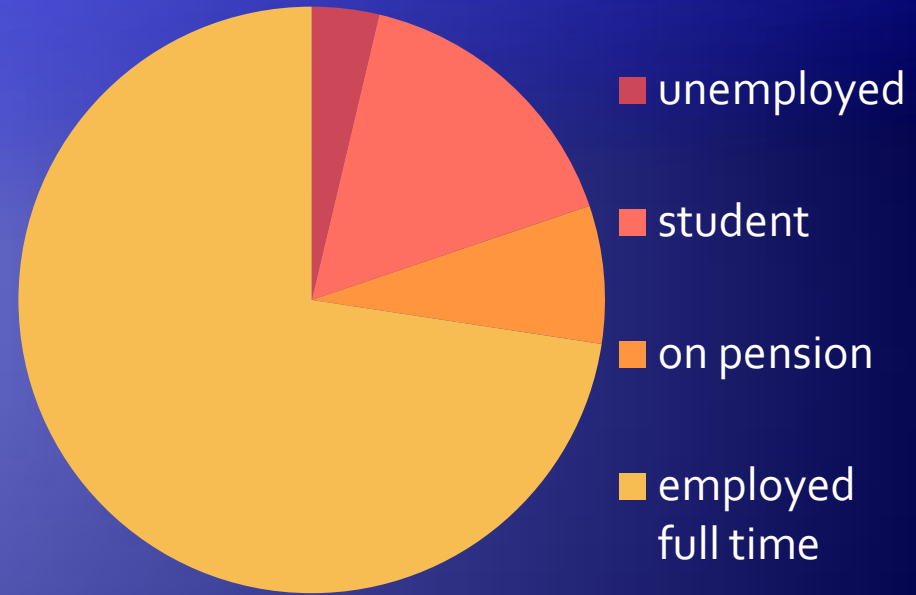
Ethnicity



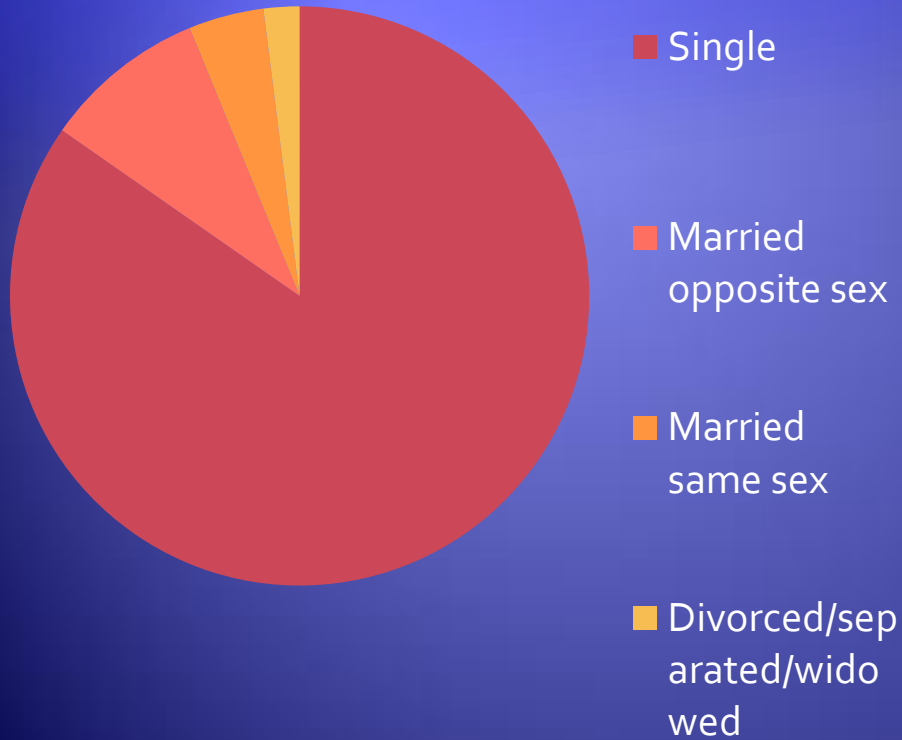
Education



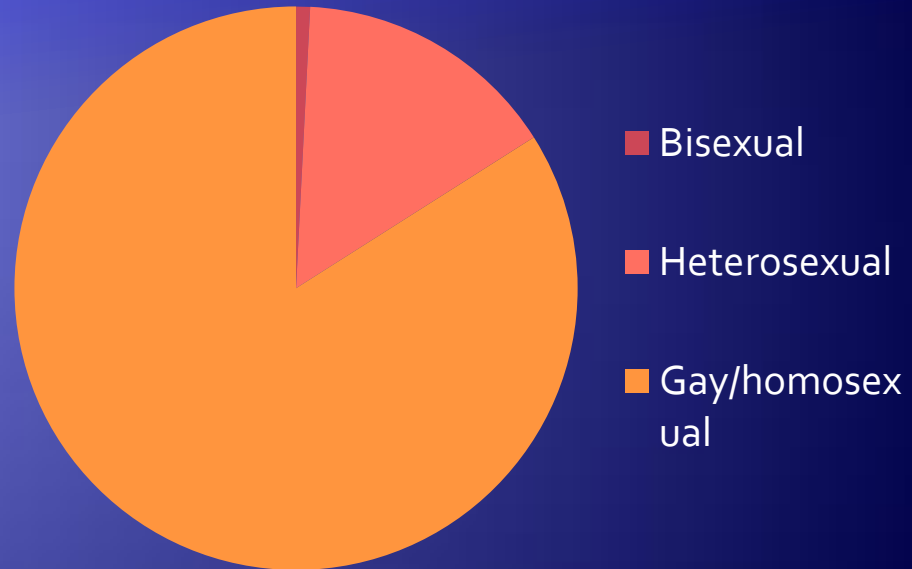
Employment



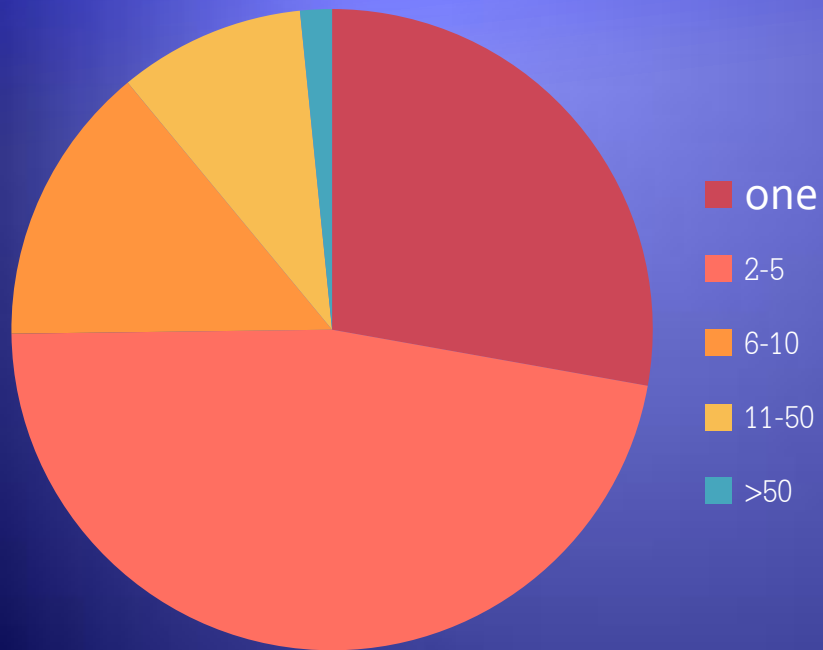
Marital Status



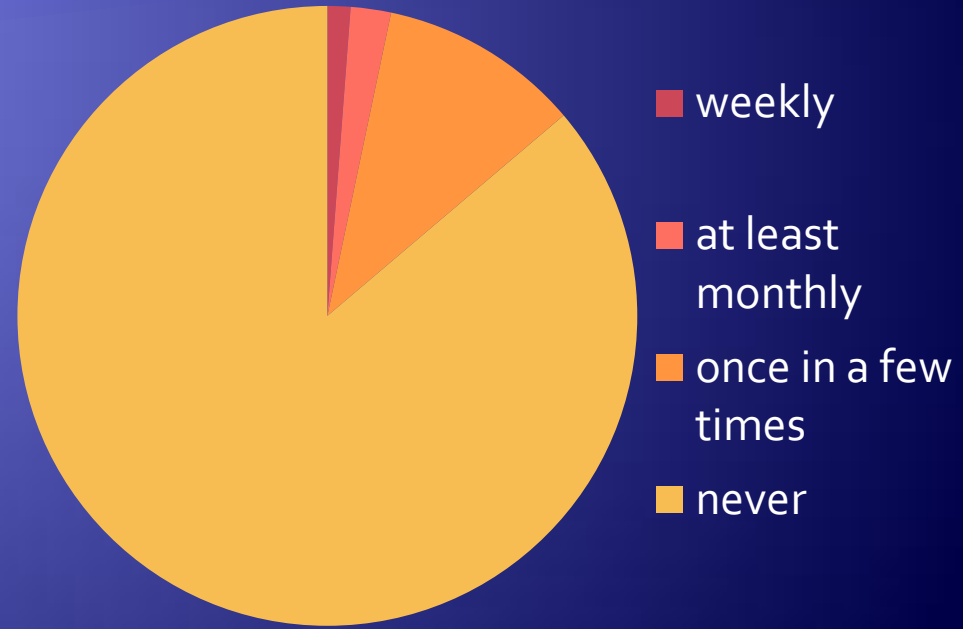
Sexual Orientation



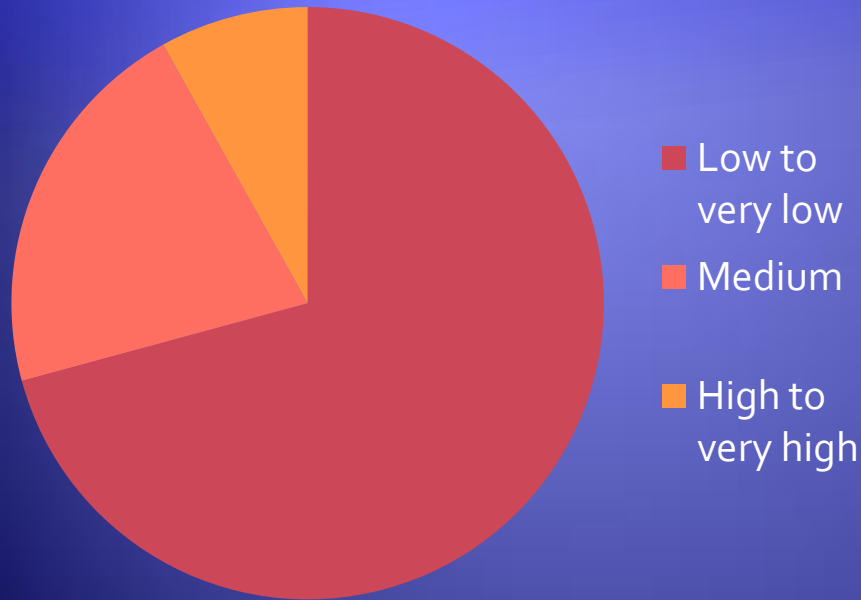
number of sex partners in the past 6 months



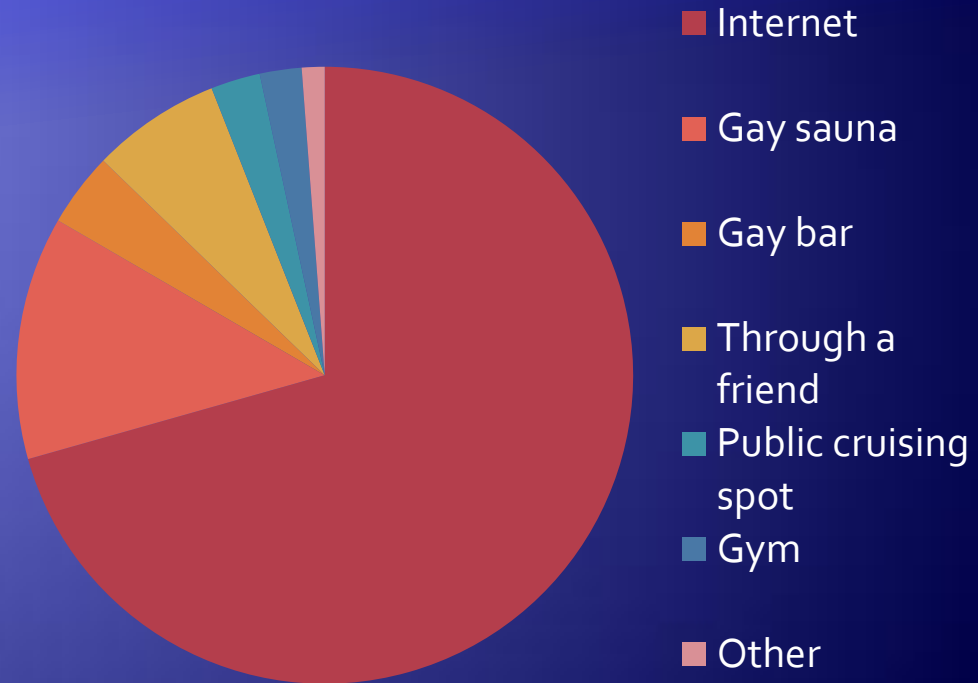
Recreational drug before sex in the past 6 months



Risk perception for HIV



Main way to meet sex partners in the past 6 months



- ◆ Anal sex with either regular or casual partner in the past 6 months, 85.8% (8936/10413)
- ◆ Any receptive anal intercourse, 81.8% (7311/8936)
- ◆ URAIE, 47.5% (3474/7311)
- ◆ HIV Testing: never (34.0%), within the past year (43.9%)
- ◆ HIV status: +ve (3.8%), -ve (60.0%), unknown (38.2%)

Variables associated with URAIE in the bivariate analysis:

- ❖ Age
- ❖ country (Indonesia, Philippines)
- ❖ ethnicity (Malay, Filipino)
- ❖ education
- ❖ marital status
- ❖ partner type
- ❖ Risk perception
- ❖ HIV testing
- ❖ HIV status
- ❖ Main way to seek sex partners

Multivariable correlates of URAIE

| | AOR | 95% CI |
|--|-------|--------------|
| Education | | |
| secondary or less | 1.52 | (1.27, 1.82) |
| tertiary | 1.20 | (1.06, 1.36) |
| university | (ref) | |
| post-graduate | 0.92 | (0.81, 1.06) |
| Marital status | | |
| married (opposite sex) | 1.44 | (1.22, 1.70) |
| married (same sex) | 1.16 | (0.89, 1.51) |
| divorced/separated | 1.40 | (0.97, 2.00) |
| single | (ref) | |
| Partner type | | |
| regular only | 2.83 | (2.46, 3.26) |
| casual only | (ref) | |
| both regular and casual | 2.31 | (2.05, 2.60) |
| Consumed recreational drug before sex | | |
| yes | 1.39 | (1.13, 1.48) |
| no | (ref) | |

Multivariable correlates of URAIE (continued)

| | AOR | 95% CI |
|--|-------|--------------|
| HIV testing | | |
| Never | 1.27 | (0.99, 1.62) |
| Within the past year | (ref) | |
| 1-2 year ago | 1.06 | (0.90, 1.24) |
| More than 2 years ago | 1.14 | (0.96, 1.36) |
| HIV status | | |
| Unknown | 1.14 | (0.91, 1.44) |
| Negative | (ref) | |
| Positive | 1.39 | (1.08, 1.80) |
| Risk perception | | |
| Very low to low | (ref) | |
| Medium | 1.25 | (1.11, 1.40) |
| High to very high | 1.63 | (1.35, 1.97) |
| Main way to seek partner in the past 6 months | | |
| Internet | 1.22 | (1.09, 1.36) |
| Offline | (ref) | |

Discussion

- ◆ Higher URAIE in certain countries and ethnic MSM
- ◆ Sociocultural and legal environments
- ◆ Lower education, being in a heterosexual marriage, being in a regular relationship
- ◆ High perception of risk for HIV
- ◆ Reported HIV positive status
- ◆ Use of recreational drugs before sex
- ◆ Use of Internet as a main way to seek sex

Conclusion

- ◆ High prevalence of URAIE
- ◆ Correlates of URAIE-may inform prevention development

Acknowledgement

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