

infected individuals; J2 – infected with HIV and LTB; J3 – infected with HIV and active TB; A – AIDS patients. Graphs of the population groups vs. Time dependence for each territory were plotted. The results obtained in the SEIR model graphs of the number of HIV/TB infected and TB patients are similar to real-world data.

Discussion: The study results will help predict the direction of the epidemic process HIV/TB, the number of diseased and recovered individuals in the next 3–5 years and allows estimating workload on the health system in each time period.

Conclusion: The study yielded the SEIR model that can be used for short-term prediction of the epidemic of HIV/TB in the Russian territories with low TB burden.

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CORRELATES OF STI/HIV TESTING BEHAVIOURS IN HETEROSEXUAL MEN IN A COMMUNITY SURVEY

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Intro: Early identification and timely treatment are crucial for controlling sexually transmitted infections (STI) and HIV. Understanding STI/HIV testing experiences and testing behaviours are important for informing testing programme development. This study aims at investigating the coverage and factors associated with STI/HIV testing among heterosexual males.

Methods: Sexually experienced adults in Hong Kong were invited by post to participate in a territory-wide population study. Socio-demographics, history of STI/HIV testing and diagnosis, related service usage and testing preferences were inquired through an online questionnaire. Factors associated with ever testing for STI and HIV were examined in multiple logistic regression analyses respectively using SPSS.

Findings: Of 1147 participants recruited in 2021–2022, 412 (36%) heterosexual males were included in the analysis. Overall, 15% (60/412) had ever undergone testing for STI, of which 20% (12/60) were tested in past 1 year. Among the 19% (79/411) having tested for HIV, 25% (20/79) were tested in past 1 year. Over half (63%–64%) did not know where to test for STI/HIV. About 35% were unwilling to pay for test, while 8% were unwilling to test even if it's free. Those who had more sex partners in lifetime (1 partner as reference, 2 partners=4.806, 95%CI=1.085–21.298; over 3 partners=11.519, 95%CI=3.365–39.428) and ever had STI symptoms (aOR=10.725, 95%CI=5.598–20.545) were more likely to have undergone STI testing. Having over 3 sex partners in lifetime (1 partner as reference, aOR=2.701, 95%CI=1.370–5.322), experienced STI symptoms (aOR=5.409, 95%CI=3.026–9.667), and attained post-secondary educational level (aOR=2.451, 95%CI=1.280–4.693) were positively associated with history of HIV testing.

Conclusion: Although heterosexual male perceiving higher risk of STI/HIV infection and had STI symptoms were more likely to go for testing, their awareness and willingness to pay for STI/HIV testing in Hong Kong was low. Promotion of testing services should be strategized.

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COVID-19 SEROPREVALENCE STUDY AMONG MALAYSIA'S GENERAL POPULATION UP TO EARLY OCTOBER 2020

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Intro: Coronavirus disease 2019 (COVID-19) began spreading in Malaysia since February 2020. Within months, the epidemic curve was flattened through strict public health measures and the number of confirmed cases remained low. But actual disease burden may be higher due to asymptomatic and undiagnosed COVID-19. This study aimed to determine the seroprevalence of COVID-19 and the proportion of asymptomatic and undiagnosed infections among Malaysia's general population.

Methods: This cross-sectional seroprevalence study was conducted nationwide from 7 August to 11 October 2020. A two-stage stratified random cluster sampling design was used to select representative general populations aged ≥ 1 year-old. Participants provided their history of COVID-19 symptoms and diagnosis. Their blood specimens were tested with Wantai SARS-CoV-2 Total Antibody enzyme-linked immunosorbent assay first, and then GenScript SARS-CoV-2 Surrogate Virus Neutralization Test. Participants with positive results on both tests were defined as having past COVID-19. Prevalence estimates and proportions were computed using complex sampling design analysis with weightage.

Findings: A total of 5131 people participated, representing 30,763,427 of Malaysia's general population. The estimated population with past COVID-19 was 150,857, translating to an overall weighted COVID-19 seroprevalence of 0.49% (95%CI 0.28–0.85). Adults aged ≥ 18 year-old were significantly more likely to be infected ($p=0.003$), with 142,593 estimated past COVID-19 and 0.63% (95%CI 0.36–1.11) weighted prevalence. Among those with past COVID-19, the proportion of asymptomatic and undiagnosed infections was 84.1% (95%CI 58.9–95.1) and 90.1% (95%CI: 67.1–97.6), respectively.

Discussion: COVID-19 seroprevalence in Malaysia up to early October 2020 was low, but higher among adults possibly due to higher mobility. High proportion of asymptomatic and undiagnosed infections pointed to underreporting and justified mass testing strategy using more cost-efficient SARS-CoV-2 antigen rapid test kits.

Conclusion: The actual burden of COVID-19 was low but underreported in Malaysia during the first year of the pandemic. Repeated COVID-19 seroprevalence studies would be required as pandemic progresses.

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