of work documentation were cited as exclusionary factors for access to alternative jobs or government relief. Sex workers had experienced an increase in food insecurity (57.3%), housing insecurity (32.8%), and sexual violence and compromise (8.2%), as well as a decrease in access to medical services (16.4%). Being transgender female was positively associated with increased food insecurity (aPR=1.23, 95%CI [1.08, 1.41]), housing insecurity (aPR=1.28, 95%CI [1.03, 1.60]) and decreased access to medical services (aPR=1.74, 95%CI [1.23, 2.46]), being a venue-based sex worker was positively associated with increased food insecurity (aPR=1.46, 95%CI [1.00, 2.13]), and being a non-Singaporean citizen or permanent resident was positively associated with increased housing insecurity (aPR=2.59, 95%CI [1.73, 3.85]).

Conclusions Our findings suggest that COVID-19 has led to a loss of income for sex workers, leading to a worsening of social and health conditions for sex workers. A lack of access to government relief among sex workers exacerbated such conditions.

004.2 THE IMPACT OF COVID-19 AND ASSOCIATED RESPONSE MEASURES ON STI TRANSMISSION AMONG MSM: A MATHEMATICAL MODELLING STUDY

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Background Fear of COVID-19 infection and the response measures have affected sexual behaviours of men who have sex with men (MSM) and access to care for sexually transmitted infections (STI). We investigated whether these changes resulted in increased or decreased STI transmission among MSM.

Methods We developed a mathematical transmission model for chlamydia and gonorrhoea among MSM. We accounted for 15–35% reduction in the number of casual partners and 50–80% reduction in STI testing during lockdowns (March–May 2020; October 2020 to February 2021); these reductions were 0–10% and 20–35%, respectively, in periods with less restrictive COVID-19 measures (June–September 2020, March–August 2021). Reductions until August 2020 were estimated from Dutch data; other reductions were based on expert opinion. We assumed no changes after August 2021. Two scenarios were examined: with home-testing (in 25% of cases not tested at healthcare facilities) and without home-testing. We calculated the percentage change in prevalence due to COVID-19 associated changes, compared to prevalence in the same year without changes due to COVID-19.

Results From the model, we estimated an increase of 8.4% (interquartile range (IQR), 7.6–9.4%) in chlamydia prevalence and an increase of 7.5% (IQR, 6.0–8.9%) in gonorrhoea

prevalence at the end of 2020 without home-testing, compared to the prevalence without COVID-19 associated changes. The increase subsided in 2021, but chlamydia and gonorrhoea prevalence remained higher than without COVID-19 until 2025. With home-testing, the percentage increase in 2020, compared to the scenario without COVID-19, was 5.3% (IQR, 4.6–5.9%) for chlamydia and 3.5% (IQR, 2.6–4.4%) for gonorrhoea prevalence.

Conclusion The COVID-19 pandemic may have resulted in an increase in chlamydia and gonorrhoea prevalence in 2020. The increase can be smaller after 2020, if STI testing at healthcare facilities and/or at home increases. The findings emphasize the importance of facilitating STI (self) care in times of crisis.

004.3 THE IMPACT OF THE COVID-19 PANDEMIC ON STI SERVICES IN THE EASTERN CAPE PROVINCE OF SOUTH AFRICA

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Background The coronavirus disease-2019 (COVID-19) pandemic has severely impacted South Africa. Healthcare service provision and utilisation have been affected by socio-economic factors, reduced mobility, and reprioritisation as well as interruption of services. The impact of the COVID-19 pandemic on STI services is unclear.

Methods In this non-randomised study, we used the male urethritis syndrome (MUS) quarterly data from the clinical surveillance sites in the Eastern Cape (EC) province of South Africa. MUS is the main proxy measure of STI services in South Africa. MUS data were compared for a 12-month period before COVID-19 (April 2019–March 2020) and a 9-month period during the COVID-19 epidemic (April–December 2020) in each of the 8 districts. MUS data were related to the magnitude of the COVID-19 epidemic at the end of December 2020 as defined by the number of laboratory-confirmed COVID-19 cases over the population size.

Results The quarterly number of MUS cases dropped by 30% overall in the EC province, from 13072 before COVID-19 to 9142 cases during the COVID-19 epidemic ($p < 0.001$). The reduction in quarterly MUS cases varied between districts, with 11% for the smallest and 45% for the largest reduction. The COVID-19 burden ranged from 0.72% to 4.19% between districts. There was a clear positive association of reduction in reported MUS cases and the burden of COVID-19, with districts with the largest COVID-19 burden showing the largest reductions in MUS cases (R-square 0.83, $F_{30.057}$, $p = 0.002$).

Conclusion These data demonstrate a clear reduction in STI services resulting from the COVID-19 epidemic in the rural Eastern Cape Province of South Africa. Although underreporting may have occurred, taking reports of higher population vulnerability and increased rates of unprotected sex into