Epidemiological trends in notified syphilis diagnoses during the COVID-19 pandemic in Brazil

How the COVID-19 pandemic is affecting the incidence of syphilis remains unclear.1–4 We extracted data from the Brazilian Unified Health System public disease notification database to compare the mean number of syphilis cases reported from March to December 2017–2019 with those reported in the same period of 2020. In all Brazilian macroregions, the incidence rates of syphilis per million population increased significantly during the COVID-19 pandemic, reaching +157% in the Southeast (table 1). The mean increase was +78% overall, corresponding to an additional 161 incident cases per million population.

The data suggest that the social distancing measures adopted during the pandemic were not capable of interfering with general sexual behaviours in Brazil. The observed increase in the number of syphilis cases should be further investigated to assist with decision-making processes and the programming of health measures.

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Table 1 Incident cases of syphilis (per million population) reported by the Brazilian public health system between March and December of 2017, 2018 and 2019 (reported as mean incidence rate) and in the same period of 2020

<table>
<thead>
<tr>
<th>Regions of Brazil</th>
<th>Mean incidence rate in 2017–2019 (95% CI)</th>
<th>Incidence rate in 2020 (95% CI)</th>
<th>Difference in incidence rate*</th>
<th>Incidence rate ratio</th>
<th>P value†</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>253 (245 to 270)</td>
<td>468 (458 to 478)</td>
<td>+215 (+85)</td>
<td>1.8</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Northeast</td>
<td>191 (188 to 195)</td>
<td>251 (247 to 255)</td>
<td>+60 (+31)</td>
<td>1.3</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Southeast</td>
<td>141 (138 to 143)</td>
<td>361 (358 to 366)</td>
<td>+220 (+157)</td>
<td>2.6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>South</td>
<td>326 (319.2 to 332.3)</td>
<td>441 (433 to 448)</td>
<td>+115 (+35)</td>
<td>1.4</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Midwest</td>
<td>270 (261.1 to 277.6)</td>
<td>555 (544 to 567)</td>
<td>+285 (+106)</td>
<td>2.1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Total</td>
<td>206 (203.3 to 207.6)</td>
<td>367 (364 to 369)</td>
<td>+161 (+78)</td>
<td>1.8</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Source: elaborated by the author.

*Mean incidence rate in 2017–2019 was compared with the incidence rate in 2020 by a ‘test-based method’ with the Medcalc statistical software.

†P value obtained by χ² statistic.