

## Maternal mortality by COVID-19 in Brazil: updates

Dear editor,

The content of Souza and Amorim's article<sup>1</sup> has immense relevance. Thus, it is important to update information about the panorama of maternal mortality by COVID-19 in the country.

The article provides information about the year 2020, while data from 2021 show an even greater impact on this population. Important new information came from a recently created "*Observatório Obstétrico Brasileiro COVID-19*"<sup>2</sup>: (Brazilian Obstetrics Observatory COVID-19) Pregnant and puerperal women's average weekly deaths by COVID-19 doubled more than in 2021 when compared to 2020. In 2020, 459 pregnant and puerperal women's deaths were registered, with a weekly average of 10.6 deaths. While in 2021, until July 2021, 1.153 deaths were registered, with a weekly average of 44.3 deaths.<sup>2</sup> Although the average weekly deaths in the country's general population also increased in 2021, with an increase of 60.5%,<sup>3</sup> the increase in pregnant and puerperal women group was even higher, reaching an increase of 151%.<sup>2</sup>

In addition, the survey data made by the Observatory states that the main cause of maternal deaths, when infected by the virus, is the lack of access to adequate treatment. In agreement with these statements, Takemoto's study,<sup>4</sup> cited by the article in question,<sup>1</sup> reports that 20% of pregnant and puerperal women hospitalized by Sars-CoV-2 did not have access to the Intensive Care Unit (ICU) and 36% were not intubated.<sup>4</sup> Thus, the lack of ICU and intubation affected a third of maternal deaths during the pandemic, representing the serious failure of the healthcare in Brazil.

In addition, the type of delivery also seems to influence the maternal outcomes of pregnant women

infected by COVID-19. A Spanish study found that cesarean sections are associated with a clinical worsening of asymptomatic or mild symptoms in pregnant women<sup>5</sup>; 21.6% of the women who underwent cesarean sections presented clinical worsening, compared to 4.9% of those who had a vaginal delivery. Added to this, 13.5% of the first group needed to be taken to ICU after surgery, compared to none of those who underwent vaginal delivery. Considering that Brazil is the second country with the highest proportion of cesarean sections in the world,<sup>6</sup> it is essential to reassess the risks and benefits of each type of delivery in pregnant women with COVID-19 in the country, to avoid complications.

In addition to the deaths directly caused by COVID-19 infection, the unfavorable outcomes of pregnancy as an indirect consequence of the virus must also be taken in consideration. In a study carried out with 2,753 Brazilian pregnant and puerperal women, one-third responded that they had reduced their antenatal consultations and exams during the pandemic.<sup>7</sup> More than half of the pregnant women said they were very concerned about leaving their homes to monitor their pregnancy. Adequate prenatal care is effective and necessary to prevent maternal morbidities and deaths, as it tracks and treats infections and maternal nutritional problems.<sup>8,9</sup> In this way, prenatal care performed improperly, due to the pandemic, increases the chances of unfavorable maternal outcomes even for pregnant women who are not infected by the virus.

In this context, the Ministry of Health published a technical note in May, 2021 in which it recommended pregnant women who first had comorbidities to be vaccinated, as well as puerperal, recently gave birth and



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breastfeeding women.<sup>10</sup> Despite the lack of consensus, vaccination was subsequently extended to all pregnant or puerperal women within 45 days of pregnancy.<sup>11</sup> Thus, the prospect of a reduction in the infection and deaths has brought hope to this population who were so affected by the COVID-19 pandemic.

### Authors' contribution

All authors participated in the construction of the letter to the editor and approved the final version.

The authors declare no conflict of interest.

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