COVID-19 AND PREGNANCY

Secretary’s Advisory Committee on Infant Mortality, January 2021

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Investigating the Impact of COVID-19 During Pregnancy

Pregnancy and Infant Linked Outcomes Team (PILOT)

- Better understand the epidemiology of COVID-19 among pregnant women and infants
- Coordinate work across agency on COVID-19 during pregnancy
- Inform clinical guidance for obstetric and infant settings

To learn more about what CDC is doing to respond to COVID-19, visit: CDC in Action

COVID-19 & Pregnancy

• Pregnant women **ARE** at increased risk for severe illness from COVID-19

• Severe disease has been associated with other viral respiratory infections during pregnancy

• Pregnant women with COVID-19 might have an increased risk of adverse pregnancy outcomes, such as preterm birth

• Hispanic and non-Hispanic Black pregnant women appear to be disproportionately affected by COVID-19 infection during pregnancy.

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For more information, visit:
- If You Are Pregnant, Breastfeeding, or Caring for Young Children | COVID-19 | CDC
Pregnancy complications and adverse outcomes

• **COVID-19 disease**
  • More severe with COVID symptoms at admission
  • Preterm birth

• **Coagulopathy**
  • SARS-CoV-2 associated with a prothrombotic state

• **Pre-eclampsia**
  • Observational study showing high rates of pre-eclampsia like syndrome with severe COVID-19

1NIH COVID-19 Treatment Guidelines https://www.covid19treatmentguidelines.nih.gov/
2Mendoza M et al. Pre-eclampsia-like syndrome induced by severe COVID-19: a prospective observational study. BJOG. 2020
## Outcomes of Interest

<table>
<thead>
<tr>
<th>Outcomes of Interest</th>
<th>Symptomatic Pregnant women with COVID-19 (N = 23,434)</th>
<th>Symptomatic Nonpregnant women with COVID-19 (N = 386,028)</th>
<th>Crude RR (95% CI)</th>
<th>aRR (95% CI) †</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ICU Admission</strong></td>
<td>245 (1.1)</td>
<td>1,492 (0.4)</td>
<td>2.7 (2.4-3.1)</td>
<td>3.0 (2.6-3.4)</td>
</tr>
<tr>
<td><strong>Invasive Ventilation</strong></td>
<td>67 (0.3)</td>
<td>412 (0.1)</td>
<td>2.7 (2.1-3.5)</td>
<td>2.9 (2.2-3.8)</td>
</tr>
<tr>
<td><strong>ECMO§</strong></td>
<td>17 (0.1)</td>
<td>120 (0.0)</td>
<td>2.3 (1.4-3.9)</td>
<td>2.4 (1.5-4.0)</td>
</tr>
<tr>
<td><strong>Death</strong></td>
<td>34 (0.2)</td>
<td>447 (0.1)</td>
<td>1.3 (0.9-1.8)</td>
<td>1.7 (1.2-2.4)</td>
</tr>
</tbody>
</table>

* Percentages calculated among total in pregnancy status group; those with missing data on outcomes were counted as not having the outcome

† Adjusted for age, race/ethnicity, and presence of underlying conditions. Nonpregnant women are the referent group.

§ Extracorporeal membrane oxygenation


DOI: http://dx.doi.org/10.15585/mmwr.mm6944e3.
Disease severity among Infants

- Current evidence suggests that SARS-CoV-2 infections in neonates (≤ 28 days) are uncommon.
  - Majority of these infections are either asymptomatic or result in mild disease
- Limited data suggest infants (≤ 1 year) may be at higher risk of developing severe illness than older children

2. CDC. MMWR. Coronavirus Disease 2019 in Children — United States, February 12–April 2, 2020
3. Walker et al. Maternal transmission of SARS-COV-2 to the neonate, and possible routes for such transmission: a systematic review and critical analysis
COVID-19 Vaccine & Pregnancy

- At this time, healthcare personnel are among the first to receive the vaccine
- Healthcare personnel who are pregnant may choose to be vaccinated
- Data about safety of COVID-19 vaccines for people who are pregnant is currently limited

For all vaccine recipients, regardless of age or pregnancy status -

- Some side effects post vaccination are expected, particularly after the 2nd dose
- All vaccine recipients should continue to follow guidelines to prevent spread of COVID-19

Health Disparities

**Health Disparity** =df. A particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage

**Factors that contribute to disparities:**
- Discrimination and systemic racism
- Healthcare access and quality
- Education access and quality
- Social and community context
- Economic stability
- Neighborhood and built environment
WHERE TO FIND MOST UP TO DATE INFORMATION ON COVID-19 IMPACT ON MCH
Public Reporting

Weekly Reporting of Pregnant Cases
Data on COVID-19 during Pregnancy: Severity of Maternal Illness

Pregnant women1 with COVID-19, United States, January 22, 2020 - January 11, 2021

<table>
<thead>
<tr>
<th>TOTAL CASES</th>
<th>TOTAL DEATHS</th>
</tr>
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<tbody>
<tr>
<td>55,154</td>
<td>66</td>
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</table>

Pregnant women with COVID-19 by age, United States, January 22, 2020 - January 11, 2021
Data were collected from 55,154 women, and age was available for 55,154 (100%) women.

Monthly Reporting of Birth and Infant Outcomes
Map of Jurisdictions Reporting Birth and Infant Outcome Data as of December 2020

Total women with completed pregnancies and optional supplementary data reported, 17 Jurisdictions, [March 29-December 8, 2020]

6,895

THANK YOU.