

How Is COVID-19 Affecting Pregnant Women?

Series | COVID-19 & response strategy

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[This document is part of a series of discussion notes addressing fundamental questions about COVID-19 and response strategies. These documents are based on the best scientific information available and may be updated as new information comes to light.]

12 February 2021

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“While fear and uncertainty are natural responses to the coronavirus, we must be guided by facts and solid information. We must stand together in solidarity, fight stigma and discrimination, and ensure that people get the information and services they need, especially pregnant and lactating women.”

Dr. Natalia Kanem, Executive Director of the UN Population Fund (UNFPA)

Since the start of the COVID-19 pandemic, pregnant women have been deemed a “vulnerable population” due to their morbidity and mortality in previous epidemics involving other **coronaviruses**, namely **SARS** (2003) and **MERS** (2013)¹. The Spanish Society of Gynaecology and Obstetrics (SEGO) published a series of recommendations based on the experience of the SARS and MERS epidemics, underscoring the association of those infections with severe respiratory problems and even risk

of death during pregnancy². Physiological changes in lung function and adaptation of the immune system during pregnancy may also increase **susceptibility to and clinical severity of COVID-19 pneumonia**³. Moreover, pneumonia arising from any infectious aetiology is among the leading causes of maternal mortality⁴.

The Pan American Health Organisation (PAHO) has warned that **pregnant women are at increased risk of developing**

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¹ Diriba K, Awulachew E, Getu E. The effect of coronavirus infection (SARS-CoV-2, MERS-CoV, and SARS-CoV) during pregnancy and the possibility of vertical maternal-fetal transmission: a systematic review and meta-analysis. *European Journal of Medical Research*. 2020. 25(1), 39.

² Recomendaciones para la prevención de la infección y el control de la enfermedad por coronavirus 2019 (COVID-19) en la paciente obstétrica. Spanish Society of Gynaecology and Obstetrics (SEGO).

³ Jamieson DJ, Theiler RN, Rasmussen SA. Emerging infections and pregnancy. *Emerging Infectious Diseases*. 2006;12(11):1638-43.

⁴ Castillo P, Hurtado JC, Martínez MJ, Jordao D, Lovane L, Ismail MR, et al. Validity of a minimally invasive autopsy for cause of death determination in maternal deaths in Mozambique: An observational study. *PLOS Medicine*. 2017 Nov;14(11):e1002431.

severe forms of COVID-19 and of being admitted to intensive care units compared to non-pregnant women. They are also at higher risk of requiring mechanical ventilation and of experiencing disease-related adverse effects arising from cardiovascular changes during pregnancy⁶.

Moreover, there is increasing evidence of **mother-to-child transmission of the virus**. Although it happens only rarely, it has been observed that foetuses can become infected with SARS-CoV-2, **especially during the last months of pregnancy**⁷ ●

1. What Care Should Pregnant Women Receive?

“The pandemic’s medium- and long-term consequences on maternal and child health, brought about by the scaling back of in-person prenatal visits, are not yet well understood. In low-income countries, for example, prenatal visits have not been replaced by telephone consultations.”

1.1. Should Pregnant Women Be Screened for SARS-CoV-2?

Should all women be screened for SARS-CoV-2 during their first prenatal visit, or should they only be tested when they are admitted to hospital, usually at the onset of labour?

- Screening pregnant women for SARS-CoV-2 **early in pregnancy** (during prenatal visits) could be beneficial, as it would improve clinical management and prevent possible complications of infection.
- Numerous international obstetric societies recommend screening for SARS-CoV-2 **before delivery or on admission to hospital** for any other reason, with the aim of reducing the risk of transmission to health care staff as well as performing epidemiological surveillance and prioritising health care resources⁸.

• As with many other infectious diseases, the testing of pregnant women during prenatal visits is a means of **monitoring disease transmission** in the general population; it also makes it possible to obtain more precise information about the spread of COVID-19.

• When availability of **diagnostic tests** is limited, pregnant women should be **prioritised** as an **at-risk group**⁹ ●

⁵ Epidemiological Alert: COVID-19 During Pregnancy - 13 August 2020. Pan American Health Organisation (PAHO).

⁶ Kucirka LM, Norton A, Sheffield JS. Severity of COVID-19 in pregnancy: A review of current evidence. *American Journal of Reproductive Immunology*. November 2020;84(5):e13332.

⁷ Kotlyar AM, Grechukhina O, Chen A, Popkhadze S, Grimshaw A, Tal O, Taylor HS, Tal R. Vertical transmission of coronavirus disease 2019: a systematic review and meta-analysis. *American Journal of Obstetrics & Gynecology*. January 2021;224(1):35-53.e3.

⁸ Delgado JL, Suy A, Martínez-Astorquiza T. Documento técnico. Manejo de la mujer embarazada y el recién nacido con COVID-19. Centre for the Coordination of Health Alerts and Emergencies (Directorate General for Public Health, Quality and Innovation). 2020:1-32.

⁹ Epidemiological Alert: COVID-19 During Pregnancy - 13 August 2020. Pan American Health Organisation (PAHO).



Box 1. The Importance of Quality Information.

ISGlobal’s Maternal, Child and Reproductive Health Initiative is leading the only **clinical trial of a drug** to prevent SARS-CoV-2 infection and COVID-19 in pregnant women (**COVID-Preg**). As a part of this clinical trial, a qualitative study was conducted by carrying out in-depth interviews with 24 pregnant women about their knowledge, perceptions and experiences of COVID-19, as well as their hypothetical participation in a clinical trial. The following “problems and solutions” regarding knowledge of COVID-19 and pregnancy were identified in these interviews.

Problem	Solution
Over the course of the pandemic, the pregnant women interviewed have received contradictory information. They also doubt the truthfulness of some content they have seen in the media. In general, the women are dissatisfied with the information they have received from the media, health personnel and official sources about the effect of infection during pregnancy. They perceive this information as insufficient, confusing and untruthful.	Health workers, official sources and the media need to improve their communication with pregnant women regarding the effects of COVID-19 during pregnancy.
Many interviewees have experienced anxiety and fear of infection, which can lead to isolation—even from partners and close family members—and less interaction with the health system, given that in-person visits to health centres have been scaled back.	Better communication could help to prevent mental health problems, anxiety, insomnia, etc. Psychosocial support should also be provided to pregnant women who are experiencing distress during the pandemic.
Many women say they had to give birth alone and that various group activities, including childbirth education classes and breastfeeding support groups, have been cancelled.	During the pandemic, pregnant women should be allowed to be accompanied during all prenatal visits and during childbirth, as long as safety measures are followed. During strict lockdown periods, childbirth-education classes, breastfeeding support groups, etc., should be conducted virtually.

Moreover, a **study in Colombia** has shown that 50% of the 1,021 pregnant women surveyed suffered from anxiety and insomnia, followed by irritability in 35% of cases, as well as depression and uncontrolled crying in another 25%¹⁰. In addition, various articles in the media have described how COVID-19 has affected the emotional health of pregnant women¹¹. It is important to listen to pregnant women and understand their concerns in order to improve medical care and psychosocial follow-up throughout the process (pregnancy, childbirth and postpartum period).

¹⁰ Parra-Saavedra M, Villa-Villa I, Pérez-Olivo J, et al. Attitudes and collateral psychological effects of COVID-19 in pregnant women in Colombia [advance online publication, 16 August 2020]. *International Journal of Gynecology & Obstetrics*. 2020.

¹¹ Mora M. Cuideu les embarassades. *Critic*. 15 May 2020.

1.2. Consequences of Scaling Back In-Person Prenatal Visits and Access to Reproductive Health Programmes

- The pandemic's medium- and long-term consequences on maternal and child health, brought about by the **scaling back of in-person prenatal visits**, are not yet well understood. In **low-income countries**, for example, prenatal visits have not been replaced by telephone consultations, resulting in potential negative consequences for prenatal and child health¹². In Spain, as in other **high-income countries**, most obstetric visits have been replaced by telephone consultations; however, access to sexual and reproductive health services has been scaled back¹³.
- In relation to **reproductive health** during the pandemic, there are two distinct scenarios in different countries and regions throughout the world. Low-income countries have seen an increase in unwanted pregnancies—including adolescent pregnancies—due to reduced access to family-planning services and an increase in gender-based violence¹⁴. It has been predicted that **7 million unintended pregnancies** will occur during the COVID-19 pandemic, accompanied by an increase in maternal mortality associated with **unsafe abortions** as well as girls and adolescents **dropping out of school**, among other consequences¹⁴. Eighty-nine percent of pregnancies occur in low-income countries, where rates of maternal and neonatal morbidity and mortality (prematurity, low birth weight, pre-eclampsia, anaemia) are higher¹⁵. In short, COVID-19 is widening the maternal and child health gap between countries¹⁵.

During the 2014 Ebola virus outbreak, **pre-natal visits** and use of **family-planning methods** declined by 50% in the affected countries. Sexual and reproductive health programmes have been similarly scaled back since 2020¹⁵. The impact of COVID-19 on the health of mothers and children in low- and middle-income countries, and their capacity to recover afterwards, is therefore of greater concern.

1.3. Meanwhile, in High-Income Countries: Falling Birth Rates

In contrast, **high-income countries** have seen a **decline in birth rates** due to a **decrease in the use of assisted reproduction processes** (which account for 9% of all pregnancies in Spain), as a result of financial hardship and changes in families' reproductive priorities, among other reasons¹⁶ ●

¹² Menendez C, González R, Donnay F, Leke R. [Avoiding indirect effects of COVID-19 on maternal and child health](#). *The Lancet*. July 2020. Global Health, 8(7), e863–e864.

¹³ Maroto G, García Calvente MM. [COVID-19 y Salud Sexual y Reproductiva \(I\): ¿Mantener la salud sexual en época de pandemia?](#) Andalusian School of Public Health. April 2020.

¹⁴ Cousins S. [COVID-19 has “devastating” effect on women and girls](#). *The Lancet*. August 2020. 396(10247):301-302.

¹⁵ McDonald CR, Weckman AM, Wright JK, Conroy AL, Kain KC. [Pregnant Women in Low- and Middle-Income Countries Require a Special Focus During the COVID-19 Pandemic](#). *Frontiers in Global Women's Health*. September 2020. 1:564560.

¹⁶ Micelli E, Cito G, Cocci A, Polloni G, Russo GI, Minervini A, Carini M, Natali A, Coccia ME. [Desire for parenthood at the time of COVID-19 pandemic: an insight into the Italian situation](#). *Journal of Psychosomatic Obstetrics & Gynecology*. September 2020.41(3):183-190.

2. What Can Be Done to Improve the Health of Pregnant Women During COVID-19?

“Promote the inclusion of pregnant women in clinical trials of pharmaceuticals (including vaccines) for the treatment and prevention of COVID-19, since they are often excluded from said trials.”

2.1. In research:

1. Promote the **inclusion of pregnant women in clinical trials** of pharmaceuticals (including vaccines) for the treatment and prevention of COVID-19, since they are often excluded from said trials.
2. **Include data disaggregated** by sex, age and pregnancy status in epidemiological studies.
3. Answer **key questions** that are important for improving the management and prevention of infection: How common is mother-to-child transmission of SARS-CoV-2? What are the manifestations of COVID-19 in pregnant women and newborns?
4. Conduct qualitative studies to understand the **effects** of COVID-19 on **emotional health** as well as the **social impact** of the infection during pregnancy.

2.2. In public health:

1. Establish **COVID-19 prevention guidelines** for pregnant women and their milieu (partner, family, etc.) to prevent infection.
2. **Prioritise pregnant women for COVID-19 diagnostic testing.**
3. Record pregnancy status in **contact tracing** for early identification of pregnant women exposed to the virus.
4. Depending on the level of community spread, adapt the **frequency of in-person prenatal visits** and complement them with virtual follow-up care throughout pregnancy.
5. As long as hygiene and safety measures are followed, we recommend that pregnant women be allowed to be **accompanied** by their partner or other family members during prenatal visits and childbirth.

6. Enable **childbirth education classes and breastfeeding support groups** to keep meeting virtually in order to maintain the benefit of sharing experiences and feeling supported.

7. **Adapt lockdown**, reopening and other public health measures to take pregnant women into account as a vulnerable group.

8. Allow pregnant women **priority access** to indoor environments that may pose an increased risk of infection (e.g. supermarkets, public transport and administrative institutions) to minimise their contacts.

9. Prioritise women’s **mental health** during pregnancy to minimise the negative effects of pandemic-related measures.

10. To prevent unwanted pregnancies, guarantee **access to family-planning methods**, emergency contraception and voluntary termination of pregnancy, even during the pandemic.

2.3. In communication:

1. Publish news on COVID-19 and pregnancy to improve knowledge of how the disease affects reproductive health in the general population and to ensure that women have an **appropriate perception of risk** that reflects reality.

2. Increase the dissemination of COVID-19-related news of interest to **specific groups** such as pregnant women, particular age brackets, etc.

3. Promote **open dialogue** by airing interviews with experts in various fields—obstetrics, paediatrics, public health, psychology, anthropology, etc.—so that families can have access to quality information ●

Box 2. Examples of Inspiring Experiences.



In some hospitals and/or countries, mass screening is performed on all women who go into labour.



The **Australian government** has published a web page containing accessible and educational information on pregnancy and COVID-19. The page includes an online prenatal guide, a hotline for pregnant women and various other resources.



In **Can Ruti, Badalona**, digital workshops led by midwives are offered to small groups of pregnant women.



In **Madagascar**, pregnant women were offered free transport to prenatal visits during lockdown.



In Ranchi district, in the state of Jharkhand, **India**, the government set up an exclusive telephone helpline for pregnant women to provide prenatal care during lockdown.



In Spain, there are various **associations and support platforms** that promote better care during pregnancy, childbirth and the postpartum period, as well as breastfeeding. Examples: e-lactancia, El Parto es Nuestro and Amamanta.




Unlike other regions, where in-person visits are mandatory for women seeking **voluntary termination of pregnancy**, Catalonia and Galicia have allowed these consultations to be conducted remotely.

TO LEARN MORE

- [Información y pautas generales para mujeres embarazadas en situación de confinamiento](#). Spanish Ministry of Health.
- [COVID-19 and pregnancy](#). Centers for Disease Control and Prevention (CDC). December 2020.
- [La OMS asegura que el riesgo de transmitir el COVID-19 al bebé a través de la lactancia es “muy bajo”](#). RTVE. June 2020.
- Núñez R. [Covid-19 y embarazo: mucho por aclarar](#). *El Mundo*. July 2020.

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