



USAID
FROM THE AMERICAN PEOPLE

Transmission of Novel Coronavirus (SARS-CoV-2) through Breast Milk and Breastfeeding

Key message: Current evidence suggests that breast milk from mothers with COVID-19 is safe to consume.

At present, there is limited information on the potential for mother-to-child transmission of SARS-CoV-2, the novel coronavirus that causes COVID-19, through human milk. A review team comprising authors from Cornell University and the World Health Organization (WHO) has been working on a living systematic review (1) of existing literature since February 2020. This review aims to continually identify evidence regarding human milk and SARS-CoV-2. Additionally, studies reporting on breastfeeding-related outcomes are included in an online repository maintained by researchers at Johns Hopkins University (2).

The current search reported in the living review includes studies published until July 7, 2020 (3). The review currently includes 37 articles discussing 68 analyzed human milk samples from different mothers with COVID-19. Nine of those samples were positive for SARS-CoV-2 RNA; six of those women reported their feeding modality and in four of those cases the infants both received breast milk and tested positive for COVID-19. It is important to note that viral RNA detection in human milk does not necessarily indicate the ability of the virus to replicate and infect other cells, and other tests will be necessary to determine if there are virus particles in the human milk that can be infectious once ingested. In summary, there is currently no evidence of infective SARS-CoV-2 in human milk, and there have been no cases of clinically apparent disease via SARS-CoV-2 transmission through human milk. Studies are needed with longer follow-up periods in diverse populations and serial samples that focus on the determination of viral loads if active virus is detected, viral culture, and the presence of antibodies and other antiviral components of human milk. WHO has determined that the numerous benefits of breastfeeding substantially outweigh the risks of infection and of illness due to infection from the coronavirus (4).

Key message: Breastfeeding is essential for a healthy start in life. Breastfeeding is even more critical in this current time given the anticipated negative impacts of the ongoing COVID-19 pandemic on child nutrition and health.

Breastfeeding is the cornerstone for a healthy start in life (5). Recent reports show that even a 5 percent reduction in the prevalence of breastfeeding in low- and middle-income countries can lead to over 16,000 additional child deaths globally in just one year (6). While it is critical to determine the safety of human milk intake with the potential presence of SARS-CoV-2, given the compounding effects of the ongoing COVID-19 pandemic on child malnutrition, including a reduction in nutrition services (7), it is also critical to estimate the number of infant and child lives that will be lost if breastfeeding and mother-infant contact are avoided. Comparatively, mortality due to COVID-19 in young infants has been very rare.

Key message: When COVID-19 is suspected or confirmed, preventive measures and precautions including frequent hand washing and wearing a face mask while breastfeeding and caring for infants are important to maintain a low risk of transmission.

Although there is no evidence of infective SARS-CoV-2 transmission through human milk to date, the possible transmission through respiratory droplets or droplet transmission due to close contact with the

infant or young child via close exposure or airborne transmission cannot be disregarded, and that risk should be mitigated where caregivers have suspected or confirmed infection. To help counselors and caregivers mitigate risk, UNICEF and USAID Advancing Nutrition, with the support of the Infant Feeding in Emergencies (IFE) Core Group, developed a counseling package, *Infant and Young Child Feeding Recommendations when COVID-19 is Suspected or Confirmed* (8). The package includes *10 Counselling Cards* and a *Recommended Practices Booklet* and provides easy-to-understand recommended practices and user-friendly graphics that can be used with low-literacy communities in different contexts. The materials have been translated into multiple languages. WHO also has other resources available including a FAQ, scientific brief, and Q&A on breastfeeding and COVID-19 (4, 9, and 10).

References

1. Centeno-Tablante, Elizabeth, Melisa Medina-Rivera, Julia Finkelstein, Pura Rayco-Solon, Maria Nieves Garcia-Casal, Kate Ghezzi-Kopel, Lisa Rogers, Juan Pablo Peña-Rosas, Saurabh Mehta. April 2020. "Transmission of novel coronavirus-19 through breast milk and breastfeeding. A living systematic review of the evidence." *PROSPERO 2020 CRD42020178664* [Internet]. Found at: https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020178664.
2. Johns Hopkins University. 2020. "COVID-19, Breastfeeding, Infant Feeding, Breast Milk – Literature Repository. Center for Humanitarian Health." Baltimore: Johns Hopkins University. Found at: <http://hopkinshumanitarianhealth.org/empower/advocacy/covid-19/covid-19-children-and-nutrition/>
3. Centeno-Tablante, Elizabeth, Melissa Medina-Rivera, Julia Finkelstein, Pura RaycoSolon, Maria Nieves Garcia-Casal, Lisa Rogers, Kate Ghezzi-Kopel, Pratiwi Ridwan, Juan Pablo PeñaRosas, and Saurabh Mehta. August 2020. "Transmission of SARS-CoV-2 through breast milk and breastfeeding: a living systematic review." *Ann. N.Y. Acad. Sci.* Found at: <https://nyaspubs.onlinelibrary.wiley.com/doi/full/10.1111/nyas.14477>
4. World Health Organization. 2020. *Frequently Asked Questions: Breastfeeding and COVID-19 for Health Care Workers*. Geneva: WHO. Found at: <https://apps.who.int/iris/handle/10665/332719>
5. C. Victora, R. Bahl, A Barros, G.V.A Franca, S. Horton, J. Krusevec, S. Murch, M. J. Sankar, N. Walker, and N. C. Rollins. 2016. "Breastfeeding in the 21st Century: Epidemiology, Mechanisms and Lifelong Effect." *The Lancet* 387 (10017):475-490. Found at: <https://www.who.int/features/factfiles/breastfeeding/en/>
6. Busch-Hallen J, Walters D, Rowe S, Chowdhury A, Arabi M. 2020. "Impact of COVID-19 on maternal and child health. *Lancet Glob Health* 2020." Found at: [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(20\)30327-2/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30327-2/fulltext)
7. UNICEF. 2020. "UNICEF estimated a 30% overall reduction in essential nutrition services coverage, reaching 75–100% in lockdown contexts, June, 2020." *Situation tracking for COVID-19 socio-economic impacts*. New York: UNICEF. Found at: <https://data.unicef.org/resources/rapid-situation-tracking-covid-19-socioeconomic-impacts-data-viz/>
8. UNICEF and USAID Advancing Nutrition. 2020. *Infant and Young Child Feeding Recommendations When COVID-19 is Suspected or Confirmed*. Washington, DC: USAID Advancing Nutrition. Found at: <https://www.advancingnutrition.org/what-we-do/social-and-behavior-change/iycf-recommendations-covid-19>
9. World Health Organization. 2020. *Breastfeeding and COVID-19, June 2020*. Geneva: WHO. Found at: https://apps.who.int/iris/bitstream/handle/10665/332639/WHO-2019-nCoV-Sci_Brief-Breastfeeding-2020.1-eng.pdf?sequence=1&isAllowed=y
10. World Health Organization. 2020. "Q&A: Breastfeeding and COVID-19, May, 2020." Geneva: WHO. Found at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-on-covid-19-and-breastfeeding>.



USAID ADVANCING NUTRITION

Implemented by:
JSI Research & Training Institute, Inc.
2733 Crystal Drive
4th Floor
Arlington, VA 22202

Phone: 703-528-7474
Email: info@advancingnutrition.org
Web: advancingnutrition.org

September 2020

This document was prepared on behalf of the COVID-19 Infant Feeding Working Group. Members of the working group include representatives from the American Academy of Pediatrics, Bill & Melinda Gates Foundation, University of Texas-Austin, Eunice Kennedy Shriver National Institute of Child Health and Human Development, Human Milk Banking Association of North America, Johns Hopkins University, Mothers' Milk Bank at Austin, National Institutes of Health, PACT, PATH, UNICEF, USAID, USAID Advancing Nutrition, University of Idaho, University of Washington, and the World Health Organization. The contents do not necessarily reflect the views of the CIF WG members or their organizations.

This document was produced for the U. S. Agency for International Development. It was prepared under the terms of contract 7200AA18C00070 awarded to JSI Research & Training Institute, Inc. The contents are the responsibility of JSI and do not necessarily reflect the views of USAID or the U.S. Government.