

# Ensuring Optimal Infant and Young Child Feeding Practices during Covid – 19

**Dr. JP Dadhich MD (Paediatrics), FNNF  
National Coordinator and Technical Director,  
Breastfeeding Promotion Network of India (BPNI)**

**Awareness Programme on Ensuring Optimal Infant and Young  
Child Feeding Practices during Covid – 19**

**10<sup>th</sup> August, 2020  
NIPCCD, New Delhi**



**Should a Covid-19 suspected or  
positive mother practice  
breastfeeding?**

**YES**

# Breastfeeding saves lives!

## RESULTS OF INADEQUATE BREASTFEEDING: INDIA (ANNUALLY)

### Preventable Child Deaths

**100,000**

Cases of Diarrhoea  
**34,791,524**

Cases of Pneumonia  
**2,470,429**

Cases of Obesity  
**40,382**



Cases of Breast Cancer  
**7,976**

Cases of Ovarian Cancer  
**1,748**

Cases of Type II Diabetes  
**87,855**

### Health Care Costs

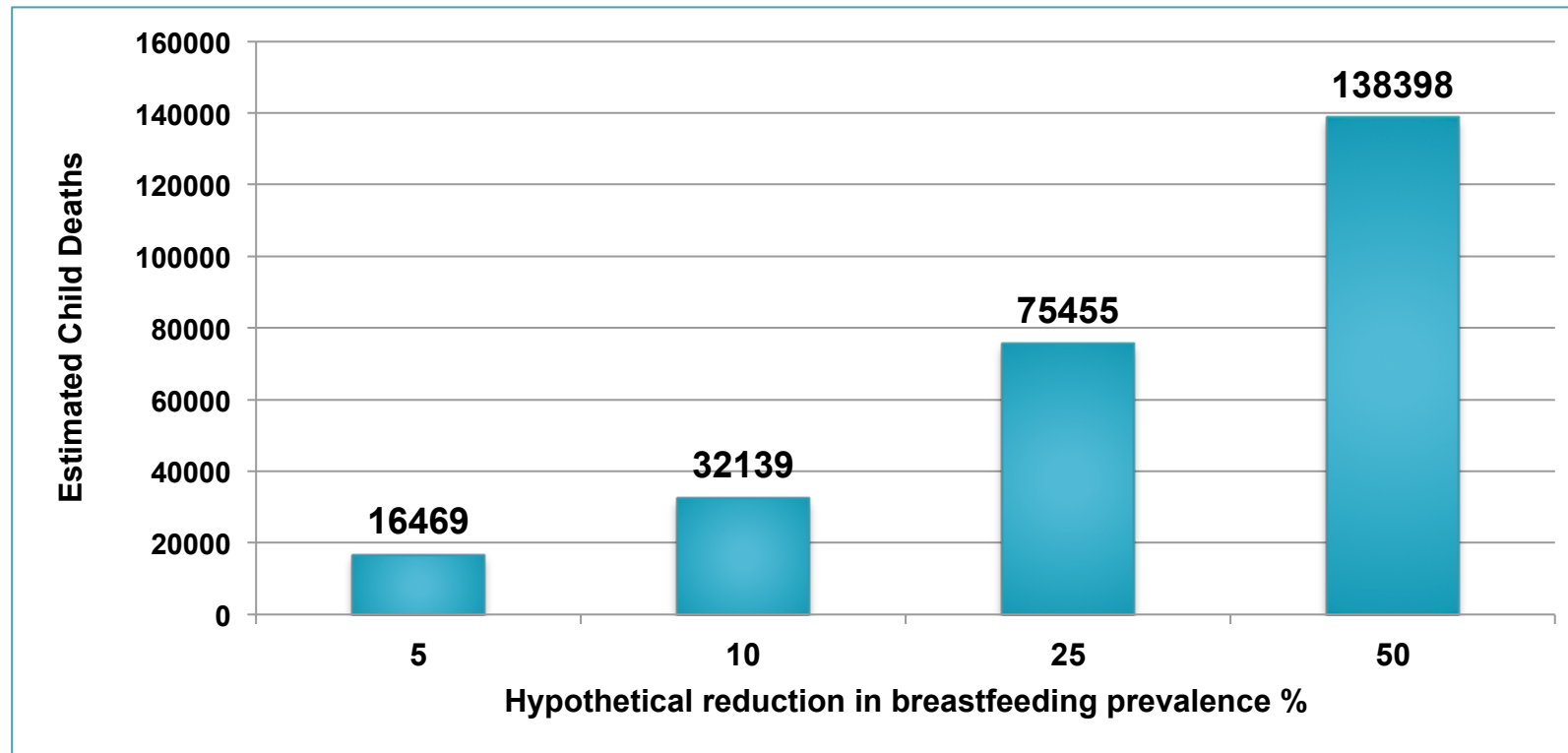
**₹ 727.18 crores\***

### Household Costs of Formula Feeding

**₹ 25393.77 crores\***

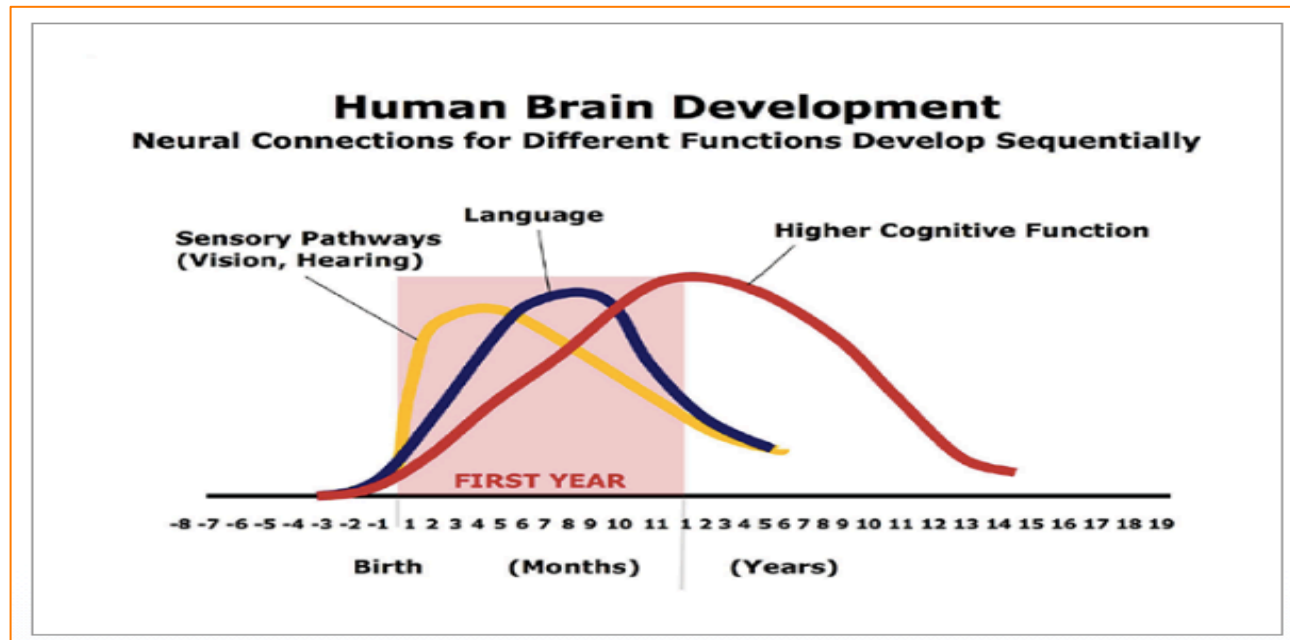
\* Extrapolated from the tool, 'The Cost of Not Breastfeeding Tool' (1 US\$ = INR 68.5672 as on 16 July 2019)

# Estimated child deaths due to reduction in breastfeeding prevalence



Busch-Hallen et al. [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)

# Breastfeeding imparts long-term neuro-developmental benefits to children



<https://developingchild.harvard.edu/resources/inbrief-science-of-ecd/>

Adds up to 3 IQ points across all income levels

- Improved academic performance
- Increased long-term earnings
- Increased productivity

Lancet Series on Breastfeeding, 2016

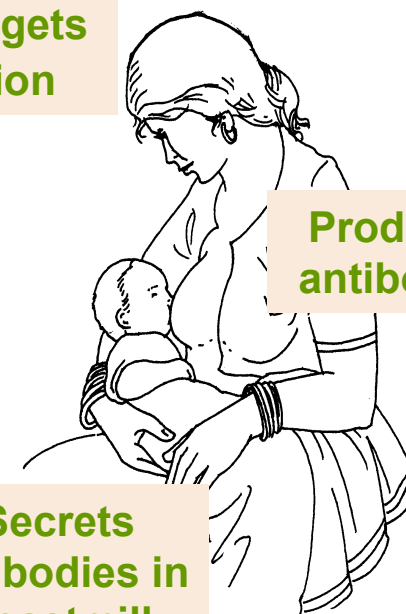
# Breastmilk is more than nutrition !

<b>Antimicrobial factors</b>	Secretory IgA, IgM, IgG, Oligosachharides, Lysozyme, Leucocytes
<b>Cytokines &amp; anti-inflammatory factors</b>	Interleukins, Prostaglandins, TNF

Mother gets infection

Produces antibodies

Secrets antibodies in breastmilk



Ann Prentice. Constituents of human milk. <http://archive.unu.edu/unupress/food/8F174e/8F174E04.htm>

# Does the COVID-19 Virus Transmit Through Breastmilk?

## Breastfeeding and COVID-19

Scientific brief

23 June 2020



### Introduction

Breastfeeding is the cornerstone of infant and young child survival, nutrition and development and maternal health. The World Health Organization recommends exclusive breastfeeding for the first 6 months of life, followed by continued breastfeeding with appropriate complementary foods for up to 2 years and beyond.<sup>1</sup> Early and uninterrupted skin-to-skin contact, rooming-in<sup>2</sup> and kangaroo mother care<sup>3</sup> also significantly improve neonatal survival and reduce morbidity and are recommended by WHO.

- **No. of breastmilk samples tested for Covid-19 virus – 46**
- **No. of breastmilk samples negative for Covid-19 virus – 43**
- **No. of samples having viral particles (not live virus) - 03**

# Anti-Covid-19 antibodies in breastmilk

medRxiv preprint doi: <https://doi.org/10.1101/2020.05.04.20089995>; this version posted May 8, 2020. The copyright holder for this preprint (which was not certified by peer review) is the author/funder, who has granted medRxiv a license to display the preprint in perpetuity. It is made available under a [CC-BY-NC-ND 4.0 International license](#).

## Evidence of a significant secretory-IgA-dominant SARS-CoV-2 immune response in human milk following recovery from COVID-19

Alisa Fox<sup>1</sup>, Jessica Marino<sup>2</sup>, Fatima Amanat<sup>3</sup>, Florian Kramer<sup>3</sup>, Jennifer Hahn-Holbrook<sup>2</sup>, Susan Zolla-Pazner<sup>1</sup>, and Rebecca L. Powell<sup>1\*</sup>

<sup>1</sup>Department of Medicine, Division of Infectious Diseases, and <sup>3</sup>Department of Microbiology, Icahn School of Medicine at Mount Sinai, New York, NY, USA;

<sup>2</sup>Department of Psychology, University of California Merced, Merced, CA, USA

\*Corresponding Author

### Abstract

SARS-CoV-2, commonly termed COVID-19 for the illness it causes, has infected >3.2 million people, including >220,000 deaths. Human milk IgG originates mainly from blood, therefore a SARS-CoV-2-reactive antibody (Ab) response in milk would be expected (1). However, IgG comprises only ~2% of milk Ab, with most milk Abs originating from mucosa-associated lymphatic tissue (1). Therefore, the extent of the milk immune response to SARS-CoV-2 is unknown (2). This response is critical for infants and young children, who tend not to suffer greatly from COVID-19 pathology but are likely responsible for significant virus transmission (3-5). Perhaps even more significant is the fact that milk Abs could be purified and used as a COVID-19 therapeutic, given they would likely be of the secretory (s) class and highly resistant to proteolytic degradation in the respiratory tissue (2, 6). In this preliminary report, 15 milk samples obtained from donors previously-infected with SARS-CoV-2 as well as 10 negative control samples obtained prior to December 2019 were tested for reactivity to the Receptor Binding Domain (RBD) of the SARS-CoV-2 Spike protein by ELISAs measuring IgA, IgG, IgM, and secretory Ab. Eighty percent of samples obtained post-COVID-19 exhibited IgA reactivity, and all these samples were also positive for secretory Ab reactivity, suggesting the IgA is predominantly sIgA. COVID-19 group mean OD values of undiluted milk were significantly greater for IgA ( $p < 0.0001$ ), secretory-type Abs ( $p < 0.0001$ ), and IgG ( $p = 0.017$ ), but



# WHO and UNICEF Recommendations

## Clinical management of COVID-19

Interim guidance  
27 May 2020



- **Standard/recommended infant feeding practices**
- **Infection prevention and control (IPC)**



### INFANT & YOUNG CHILD FEEDING IN THE CONTEXT OF COVID-19

Brief No. 2 (v1)  
(March 30th, 2020)

To support implementers on how to prepare and respond to the COVID-19 pandemic, a series of evidence-informed guidance briefs will be produced and updated every ten (10) days as new information and evidence emerges. This Brief is meant to provide information specific to infant and young child feeding (IYCF) in the context of COVID-19. This Brief does not cover wider mitigation and response measures available in other guidance. As a nutrition community, we will continue to develop our understanding on practical solutions to deliver programming in the context of COVID-19. Documenting and disseminating these lessons and emerging evidence will be key to implementing the most appropriate and effective responses in the face of this pandemic.

This brief consolidates recommendations on Infant and Young Child Feeding in the context of the COVID-19 pandemic. The recommendations align with WHO's interim guidance on *Home Care for Patients with COVID-19 presenting with mild symptoms and management of contacts* (17 March 2020), the *Clinical Management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected* (13 March 2020) and *Operational guidance on infant feeding in emergencies* (2017).

#### KEY MESSAGES AND PRIORITIES

1. **Programmes and services to protect, promote and support optimal breastfeeding (early and exclusive) and age-appropriate and safe complementary foods and feeding practices should remain a critical component of the programming and response for young children in the context of COVID-19.**
- **Expressed breastmilk/donor human milk/wet nursing/re-lactation/BMS**
  - **Skin – to – Skin and KMC and Rooming-in**

# Guidance note on RMNCAH+N by MOHFW, Government of India

“Mother and baby to be nursed together as far as possible and breastfeeding to be initiated within 1 hour of delivery, irrespective of COVID status. However, she should put on a facemask and practice hand hygiene before each feeding.”

## Guidance Note on Provision of Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition (RMNCAH+N) services during & post COVID-19 Pandemic

### Introduction

In India, with the second largest global population, the growing epidemic of Coronavirus requires that special efforts have to be made to continue the essential routine RMNCAH+N services. With more than 2.5 crore pregnancies each year in the country, it is important to ensure the availability of services during this period as any denial of services can have an impact on maternal and newborn mortalities, morbidities as well as the health care costs. Also unwanted pregnancies have negative impact on maternal and new born health. Regulating fertility is thus a necessity. There is need to enhance provision of safe abortion services besides post-partum and post abortion contraception.

India also has the largest adolescent and youth population. Therefore, in addition to the current priority for COVID 19 for the health facilities and health workers, it is also vital that essential health services for vulnerable population like this segment are continued during the pandemic.

MoHFW released the guidelines on “*Enabling Delivery of Essential Health Services during the COVID 19 Outbreak*” dated 14th April 2020<sup>1</sup> for provision of essential services

The guidelines outlined the following services as essential:

- ✓ Services related to pregnancy care and management
- ✓ New-born care and childhood illness management
- ✓ Immunization Services
- ✓ Management of SAM children
- ✓ Family Planning Services
- ✓ Comprehensive Abortion Care Services
- ✓ Adolescent Health services

# Should COVID-19 Suspected or Confirmed Mothers Breastfeed?

## Breastfeeding

- Absence of replicative and infection causing active virus in breastmilk so far
- Presence of secretory IgA antibodies against Covid-19 virus in the breastmilk of mothers with previous infection with the virus
- Recommendations of WHO, Unicef and GOI

## Not Breastfeeding

- Enhanced morbidity, especially Infections
- Enhanced Mortality

**The benefits of breastfeeding substantially outweigh the potential risks for transmission**

# COVID-19 Suspected or Confirmed Mothers – Breastfeeding At Birth

**bpni**  
putting child nutrition  
at the forefront  
of social change

**Healthcare workers can build the confidence of the mother and help her by**

- Breastfeeding counselling during ANC check-up
- Appropriate support at birth
- Counselling at discharge on how to breastfeed exclusively for 6 months

#BREASTFEEDING #COVIDTIMES

**bpni**  
putting child nutrition  
at the forefront  
of social change

**Keeping mother and baby together helps in**

- Better temperature control in the baby
- Less stress for the mother
- Successful breastfeeding

#BREASTFEEDING #COVIDTIMES

**Institutions should develop and communicate the SOPs for breastfeeding to all care givers, mothers and families.**

# Covid-19 suspected or confirmed mothers – Breastfeeding infants and young children

## Infants < 6 months

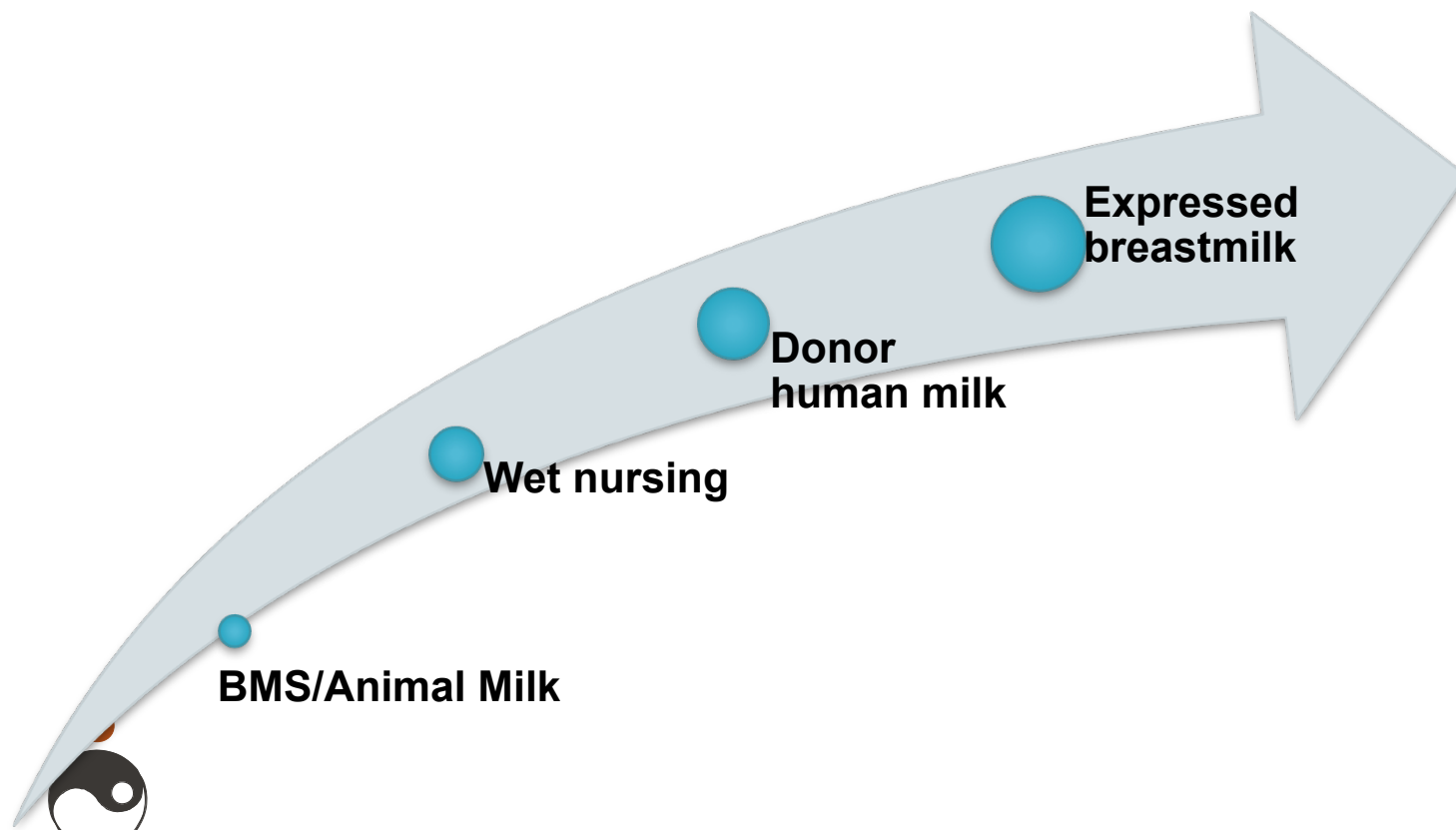
- Exclusive breastfeeding

## Infants and young children > 6 months up to 2 years of age and beyond

- Continue breastfeeding
- Appropriate complementary foods

- Infection Prevention and Control measures
- Logistic support
- Counselling and skilled support

# What to do if breastfeeding is not possible due to mother's sickness

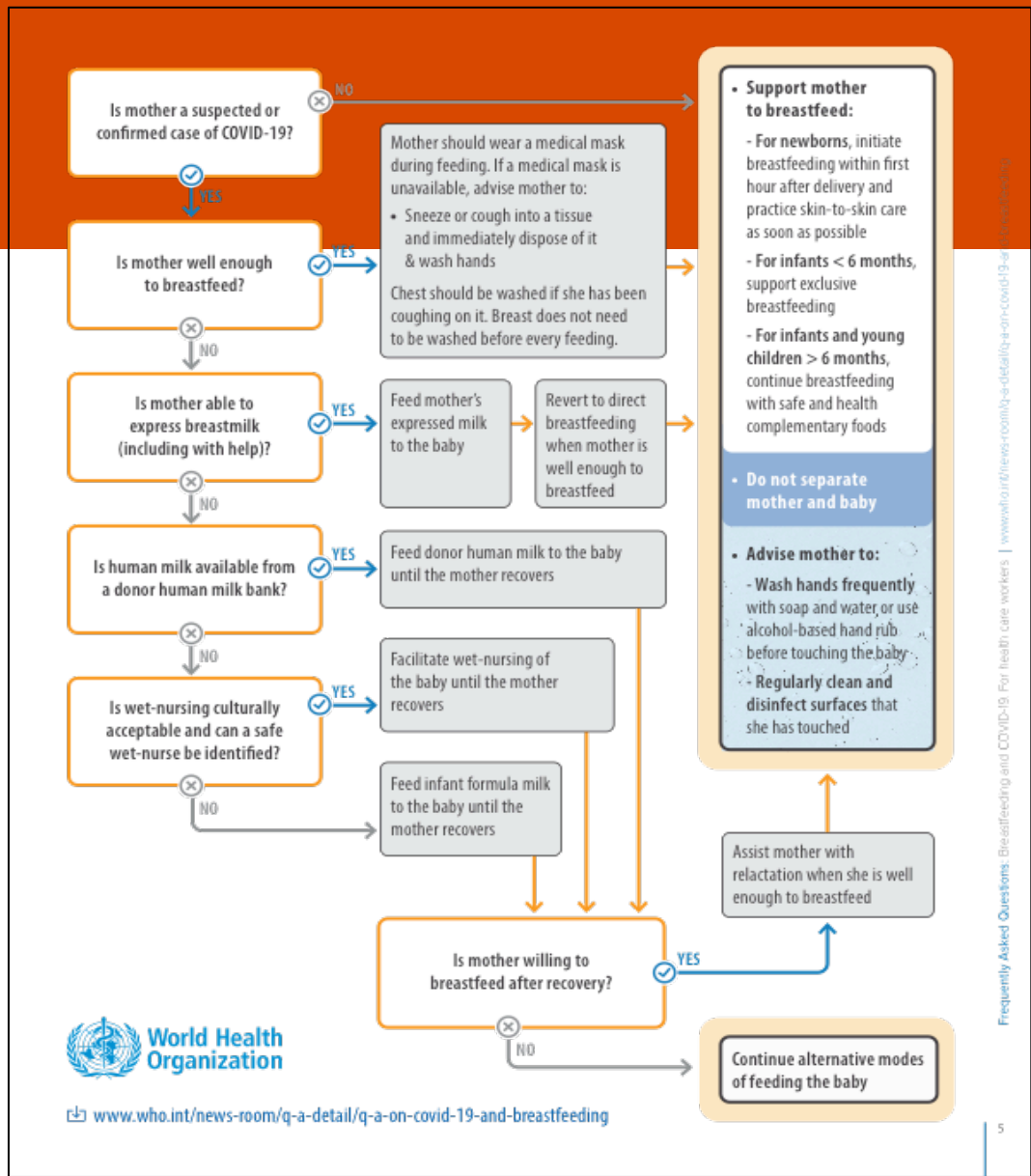


# Infection Prevention and Control (IPC) measures by COVID-19 Suspected or Confirmed mother

- Hand Hygiene: Wash hands with soap and water or use alcohol-based hand rub, especially before touching the baby
- Wear a medical mask
- Respiratory hygiene:
  - Use a tissue for sneeze and cough
  - Dispose the tissue in a closed bin
  - Hand hygiene
- Clean and disinfect surfaces



**DECISION TREE**  
for breastfeeding in context of COVID-19:  
Guidance for health care and community settings





# Challenges for breastfeeding mothers during Covid -19

- Limitations in the provision and use of health services
- Disruptions to the enabling environment
  - Exploitation of the Covid -19 pandemic by Baby food companies
- Limitations in the availability of skilled health workers
- Increased reluctance by women to use the health system
  - Lower coverage of antenatal care
  - Postnatal care,
  - facility and community based lactation support and counselling
- Health facilities
  - Inappropriately separating newborn babies from mothers
- Discouraging breastfeeding because of unfounded fears of transmission of COVID-19 through breastmilk.

# Risk of increased child malnutrition

THE LANCET

COMMENT | [ONLINE FIRST](#)

## Child malnutrition and COVID-19: the time to act is now

[Henrietta H Fore](#) ✉ • [Qu Dongyu](#) • [David M Beasley](#) • [Tedros A Ghebreyesus](#)

Published: July 27, 2020 • DOI: [https://doi.org/10.1016/S0140-6736\(20\)31648-2](https://doi.org/10.1016/S0140-6736(20)31648-2)

 Check for updates

# Baby food and feeding bottle companies are exploiting the situation

- Baby food companies are using the Covid-19 situation to increase their profits by direct and indirect promotional activities
  - organising online seminars for doctors
  - media campaigns to increase brand visibility
  - free distribution of baby foods in the name of relief work
  - contacting mothers through social media etc.

# How mothers with Covid-19 can be supported to breastfeed?

# What can hospitals, doctors and nurses do?

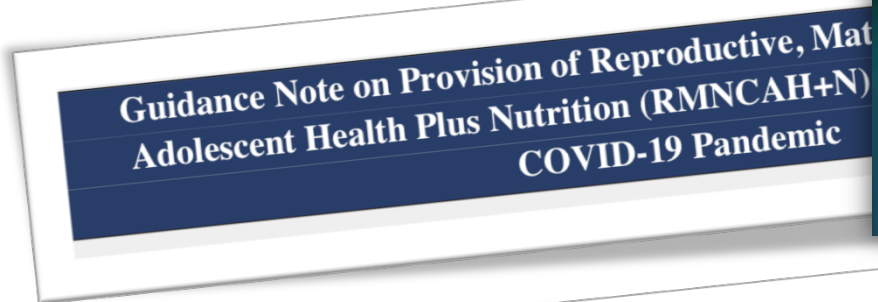
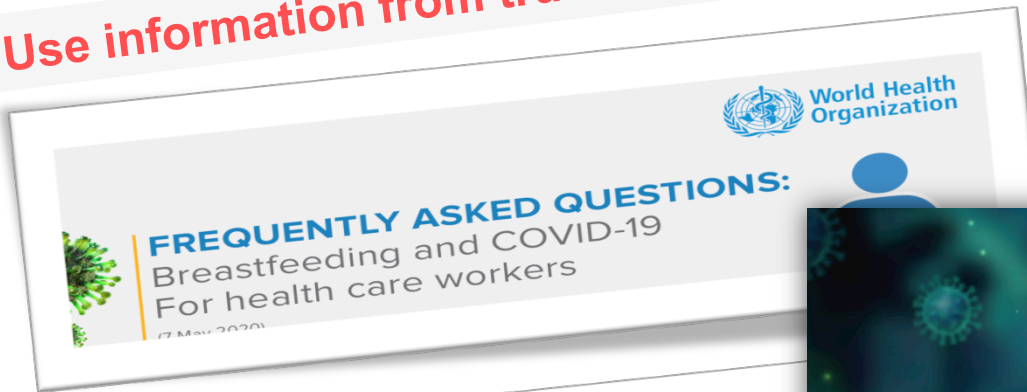
- Ensure that their hospital is practicing Ten Steps to successful breastfeeding
- Minimise use of powdered infant formula for indications as prescribed by WHO.
- Support women with face to face counselling on breastfeeding during
  - pregnancy
  - at birth
  - during hospital stay
  - follow-up visits

# What can civil society, and breastfeeding advocates do?

- Pursuade the hospitals with maternity services for breastfeeding friendly practices like
  - early initiation of breastfeeding
  - avoiding separation of baby and mother
  - not giving prelacteal feeds
  - practicing exclusive breastfeeding and
  - using infant formula only if there is medical indication as suggested by WHO
- Keep a watch on the direct and indirect promotional activities of the baby food and feeding bottle manufacturers like
  - organising seminars
  - media campaigns
  - free distribution of baby foods
  - contacting mothers through social media etc.


# What a concerned citizen can do?

Use information from trusted sources




# BPNI Covid-19 and breastfeeding resources


<https://www.bpni.org/covid-19-and-breastfeeding-resources/>




**COVID-19**  
does not transmit through breastmilk\*




\*Reference: World Health Organization (12 May 2020) #BREASTFEEDIN



The WHO recommends  
breastfeeding for all mothers  
irrespective of their  
COVID-19 status




Suspected/confirmed  
with COVID-19




Without COVID-


#BREASTFEEDING #




The best time to begin  
complementary foods is after 6 months  
along with continued breastfeeding  
for 2 years and beyond



+



+



#BREASTFEEDING #COVIDTIMES



# Key Messages

- Covid-19 virus is not transmitted in breastmilk
- All mothers irrespective of their Covid-19 status should be supported to practice optimal breastfeeding
- Covid-19 suspected or confirmed mother and her baby should not be separated unless required due to sickness
- Covid-19 suspected or confirmed mothers should observe appropriate IPC measures
- If mother is too sick to breastfeed, best options are expressed breastmilk followed by donor human milk
- Mother needs support to avail optimal health care and protection from misinformation.

• Health care system, civil society and citizens can play an important role in supporting the mother to practice successful breastfeeding.

**Thanks!!!**

[jpdadhich@bpni.org](mailto:jpdadhich@bpni.org)

