CHAMPS Webinar: May 13th, 2020

First, Do No Harm: Evidence for Exclusive Breastfeeding in the First Week

Presenters:

Lori Feldman-Winter, MD, MPH, FAAP, FABM, Physician Lead, CHAMPS,
Professor of Pediatrics, Cooper University Health Care

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Medical Director of Lactation Services, UNC Health Care

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Professor of Pediatrics and Director of Breastfeeding Medicine, UVA Children's

ZOOM Meeting Info:

https://bostonmedicalcenter.zoom.us/j/97936423551

Meeting ID: 979 3642 3551

Dial-in by your location: +1 646 558 8656 US, +1 301 715 8592 US, +1 346 248 7799 US

Use the chat box for questions during the presentation.

Upcoming CHAMPS Webinars

Webinars are held in collaboration with the Mississippi State Department of Health and the Bower Foundation, and are scheduled on Wednesdays from 12-1p CST

CHAMPS COVID-19 Response Webinar Series

- **May 20th:** Community Support (Re)Structures during COVID-19, from New York and Boston
  - *Presented by Theresa Landau, MS, RD, CDN, and Jenny Weaver, RN, IBCLC, joined by a team of Boston Breastfeeding Coalition Peer Counselors*
- **May 27th:** NeoQIC and CHAMPS COVID-19 Updates and Discussion
  - *Presented by Meg Parker, MD, MPH, Lauren Hanley, MD, IBCLC, and Anne Merewood, PhD, MPH*
- **June 3rd:** CHAMPS Updates: Celebrating Mississippi's Achievements – What's Next?
  - *Presented by the CHAMPS Team*

If there are topics you would like covered, please email CHAMPSbreastfeed@gmail.com.

For log-in information or for slides and recordings of past webinars, visit: cheerequity.org/webinars.html

CHAMPS COVID-19 RESPONSE WEBINAR SERIES

FIRST, DO NO HARM: EVIDENCE FOR EXCLUSIVE BREASTFEEDING IN THE FIRST WEEK

CHAMPS, in collaboration with the Academy of Breastfeeding Medicine

- Lori Feldman-Winter, MD, MPH, FAAP, FABM, Physician Lead, CHAMPS, Professor of Pediatrics, Cooper University Health Care
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Disclosures

- In the past 12 months, the presenters today have not had a significant financial interest or other relationship with the manufacturer(s) of the product(s) or provider(s) of the service(s) that will be discussed in this presentation.
- This presentation will not include discussion of pharmaceuticals or devices that have not been approved by the FDA.
- The presenters are speaking as individuals and not as spokespersons of an organization in which they may be affiliated, such as ABM, AAP, or otherwise, and will be presenting their personal opinions, not those of any organization(s).

Objectives

1. State how to support exclusive breastfeeding during the COVID-19 outbreak

2. Support exclusive breastfeeding even after mother-baby separation

3. Counsel patients using the LOVE strategy of shared-decision making

The main issues and questions:

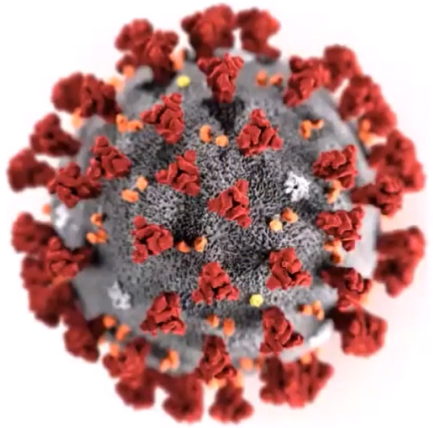
- Direct breastfeeding vs. providing expressed mother's milk vs. donor milk vs. formula
- Rooming-in vs. mother-infant separation
- Skin-to-skin care immediately following birth vs. not
- Bathing the newborn immediately vs. delayed
- Cleansing the breast vs. not

Additional Questions:

- What to do when mom is too sick to directly breastfeed? Support Persons (SPs) banned?
- What to do when baby is in the NICU?
- Who is a PUI? Maternal fever? First or second hand exposure? Mom's occupation? Geography, high risk group?

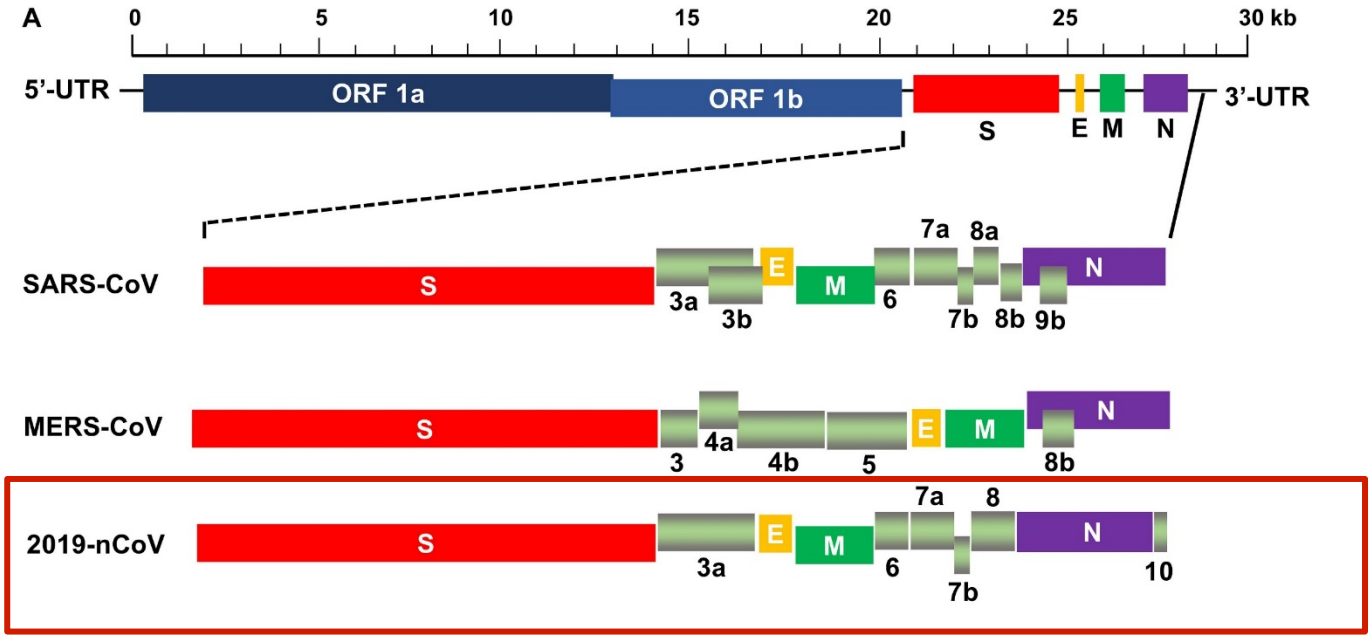
Some Background on SARS CoV-2
Where did this virus come from?
Was it made in a laboratory?

- Coronaviruses are not new, there are common strains that cause colds
- Mammals and Humans (especially bats)
- But "bad actors" periodically emerge
  - SARS
  - MERS
  - **2019 nCoV**
- **This Strain first appeared in China in December, so only around for 4 months.**
- **<u>NOT</u> man made, evolved from strains already around**



Centers for Disease Control and Prevention's Public Health Image Library (PHIL)

Slide courtesy of H Fraimow, MD, Infectious Diseases at Cooper



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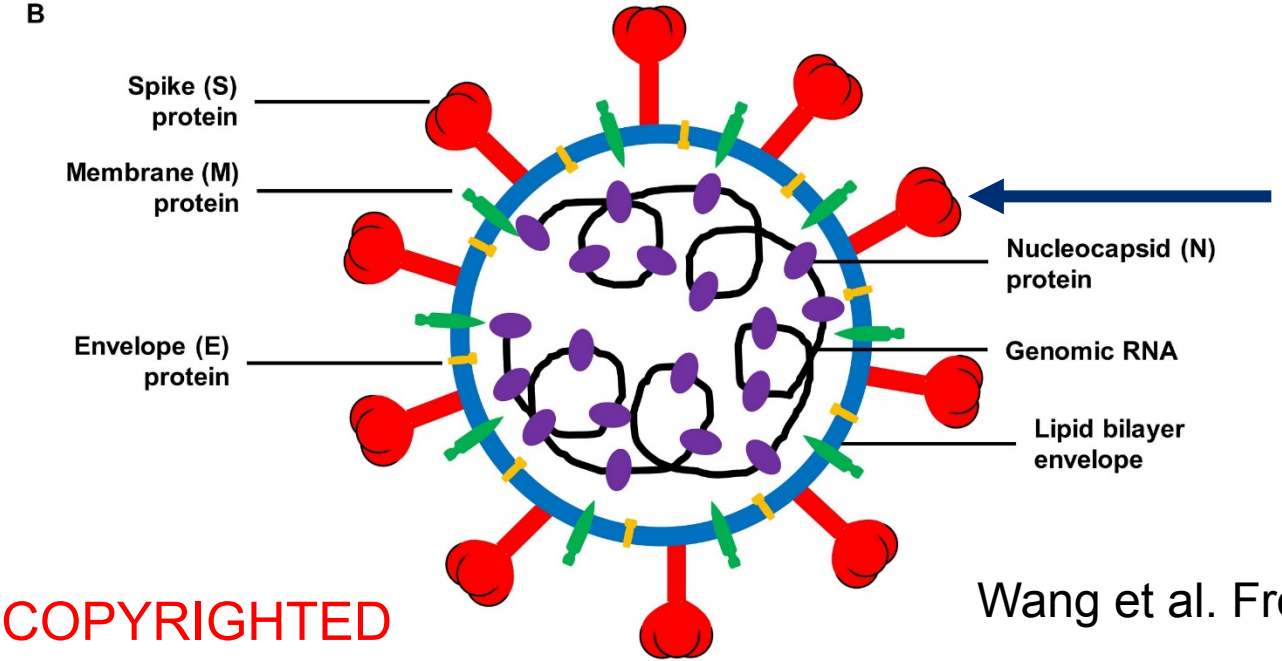
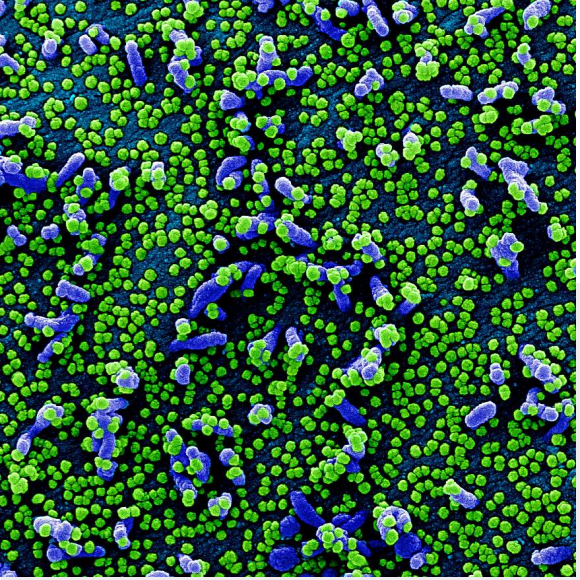


Vaccine Target

Wang et al. Frontiers in Microbiology. 2020

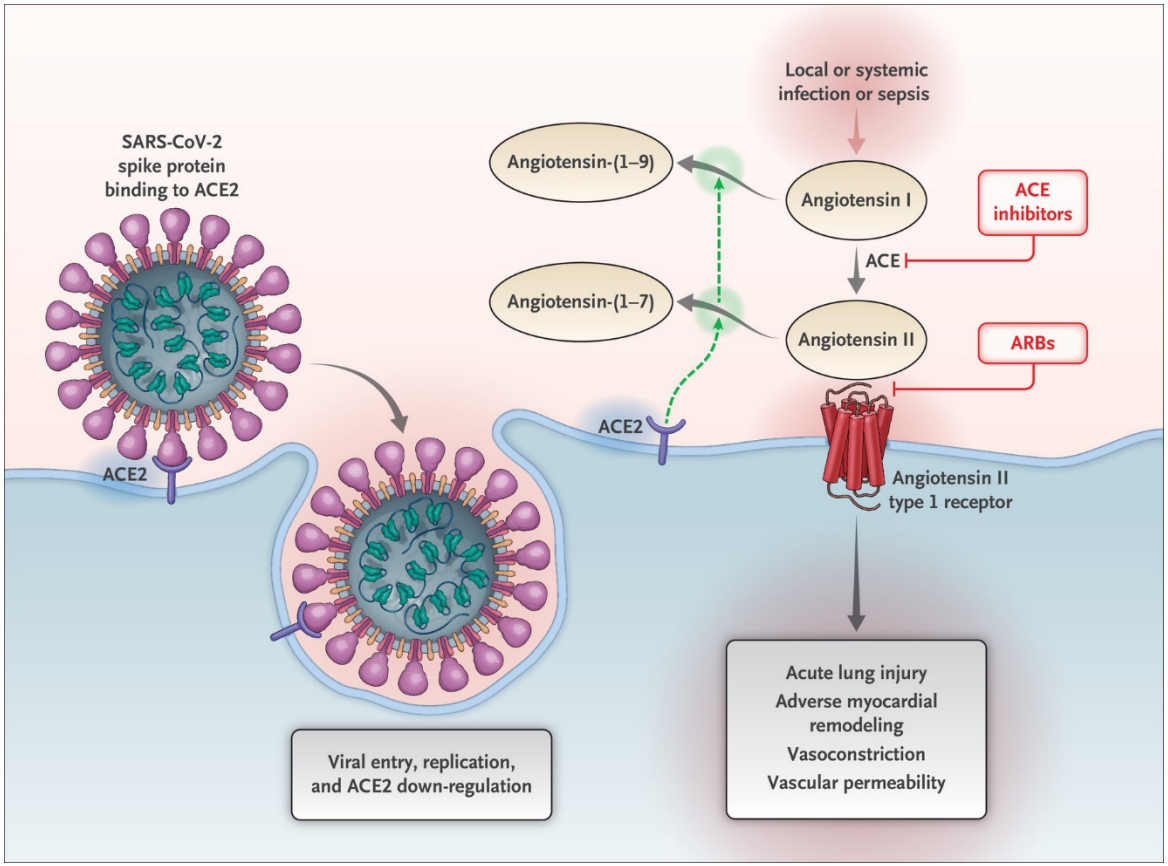


Why is this so much worse than the flu?

1. It is probably at least 3-5X as deadly as the flu
2. No-one is immune or vaccinated against it, so if exposed to it **you will get it.**
3. People may be the most infections **the day they become sick or the day before.**
4. Many people who are infected have **no symptoms at all** and may be spreading it
5. So avoiding only sick people is NOT going to keep you safe

Slide courtesy of H Fraimow, MD, ID at Cooper

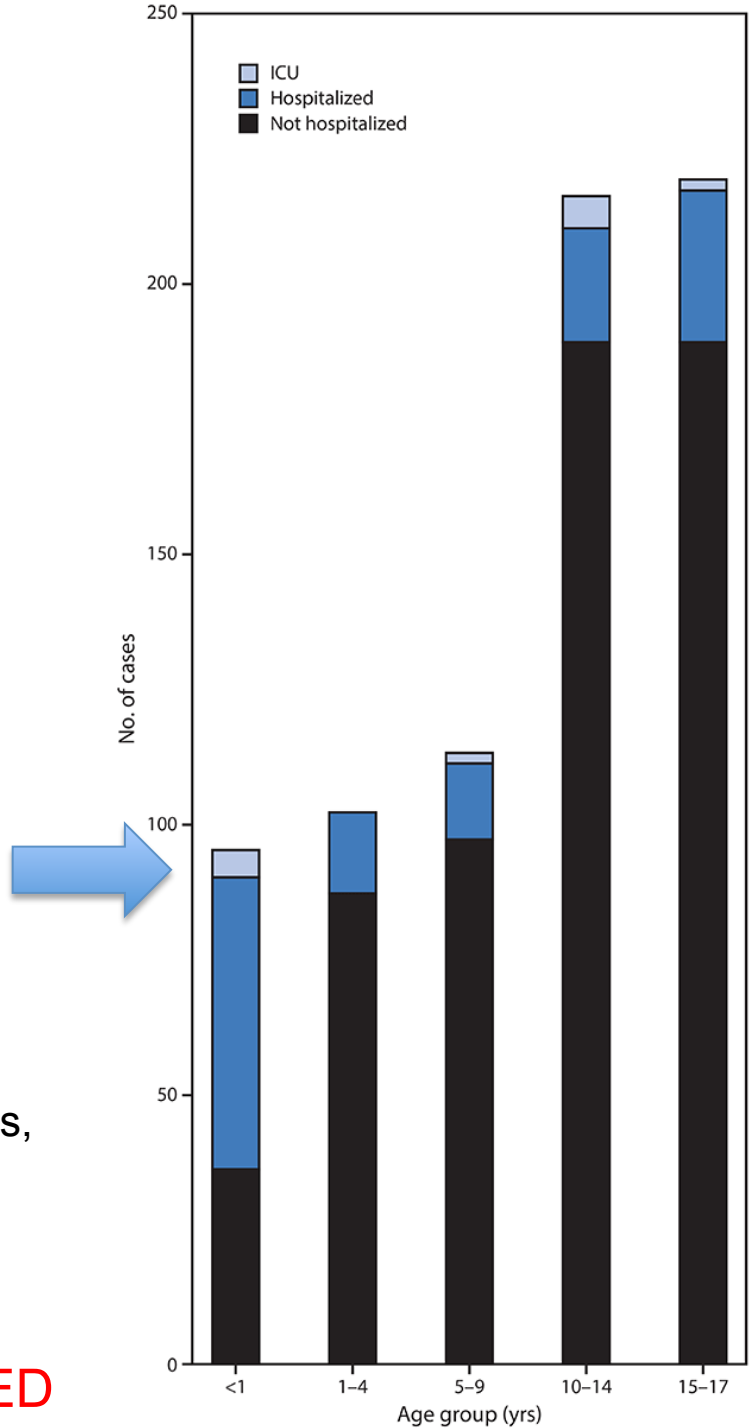
Why Are Children Less Likely to Get Ill?



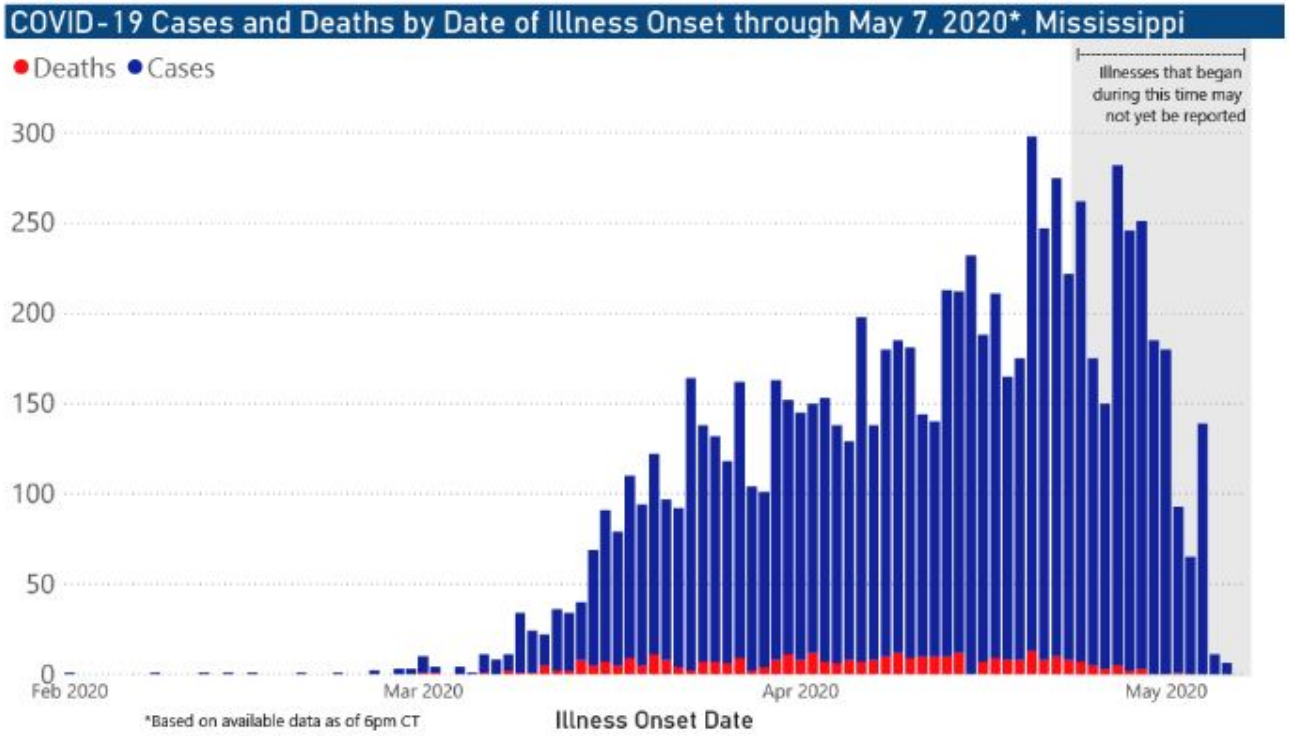
Vaduganathan M NEJM March 2020

- **COVID-19 cases among children* aged <18 years, among those with known hospitalization status (N = 745),† by age group and hospitalization status — United States, February 12-April 2, 2020**

- †Number of children missing hospitalization status by age group: <1 year (303 of 398; 76%); 1–4 years (189 of 291; 65%); 5–9 years (275 of 388; 71%); 10–14 years (466 of 682; 68%); 15–17 years (594 of 813; 73%).

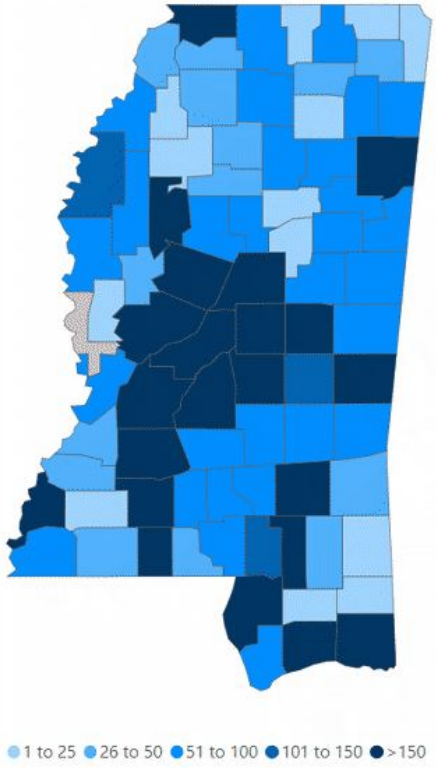


Coronavirus Disease 2019 in Children — United States, February 12–April 2, 2020. MMWR Morb Mortal Wkly Rep 2020;69:422–426. DOI: http://dx.doi.org/10.15585/mmwr.mm6914e4



Note: Values up to two weeks in the past on the Date of Illness Onset chart above can change as we update it with new information from disease investigation.

Mississippi COVID-19
Cases and Deaths by Race with Ethnicity
as of 6 pm CT, May 7, 2020



Total Cases

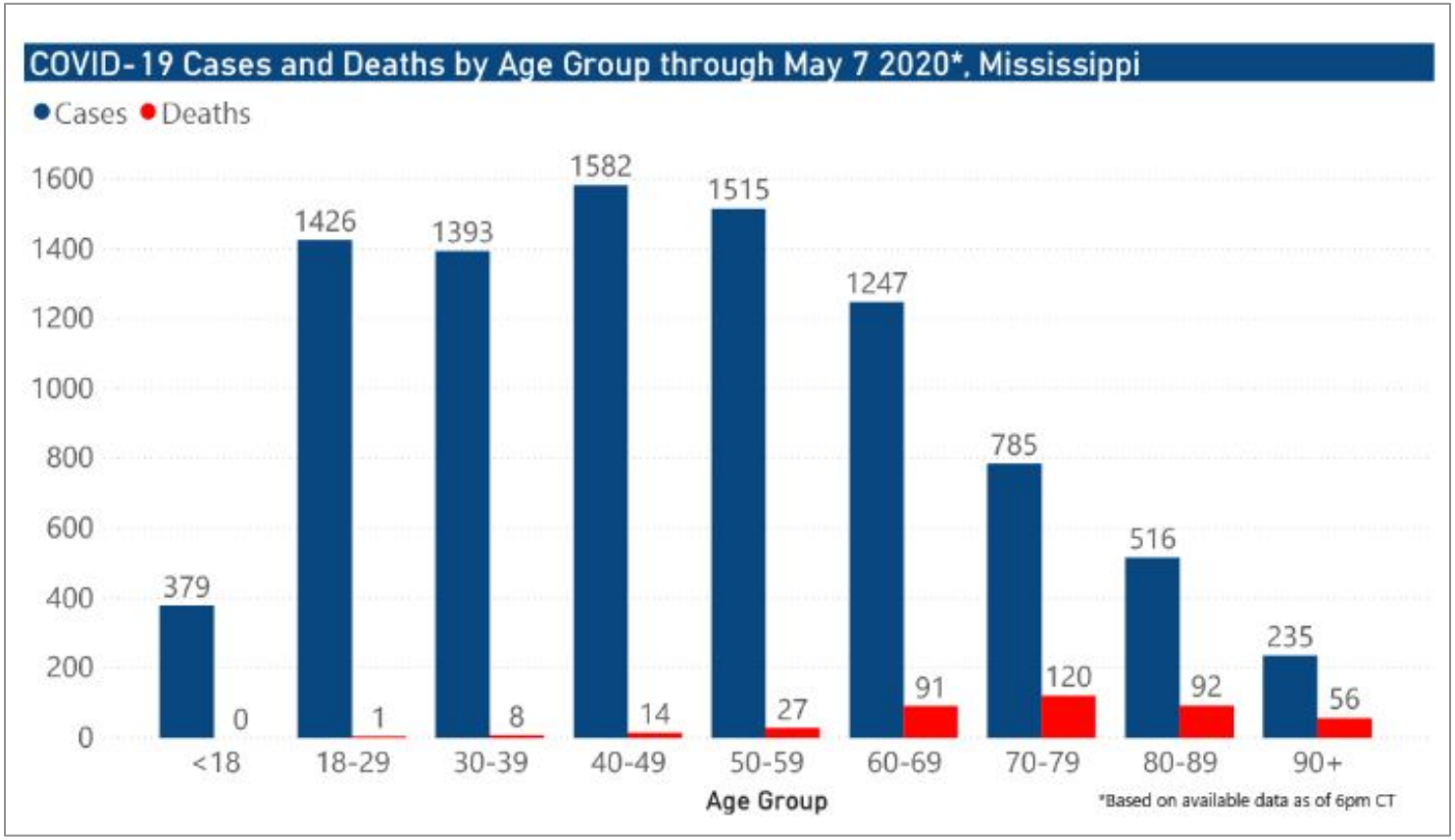
9,090

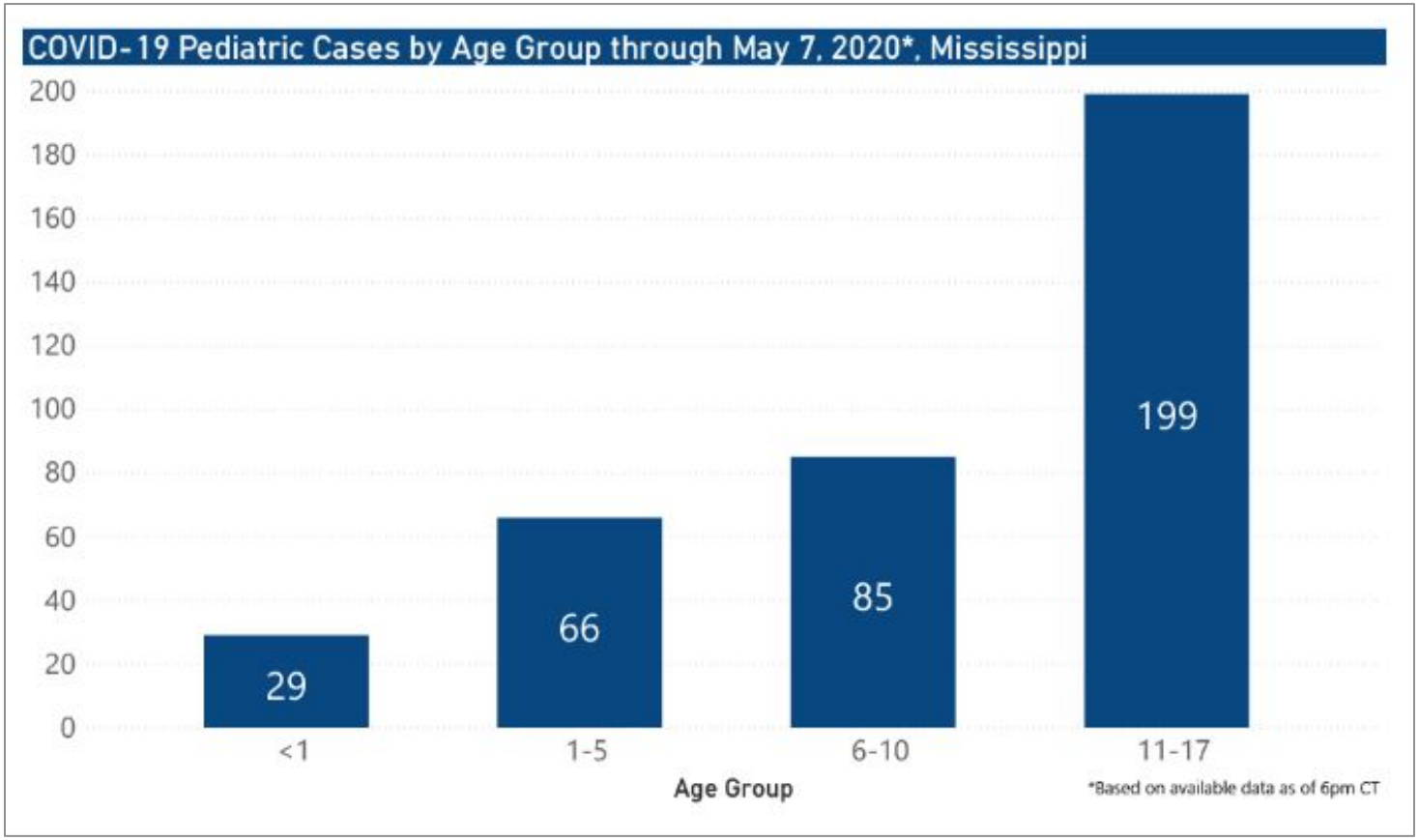
	American Indian or Alaska Native	Asian	Black	White	Other	Unknown
Non Hispanic	63	25	4219	2447	183	15
Hispanic	2	0	14	112	342	10
Unknown Ethnicity	168	6	510	425	147	402

Total Deaths

409

	American Indian or Alaska Native	Asian	Black	White	Other	Unknown
Non Hispanic	5	0	195	143	1	0
Hispanic	0	0	1	2	2	0
Unknown Ethnicity	3	0	28	29	0	0





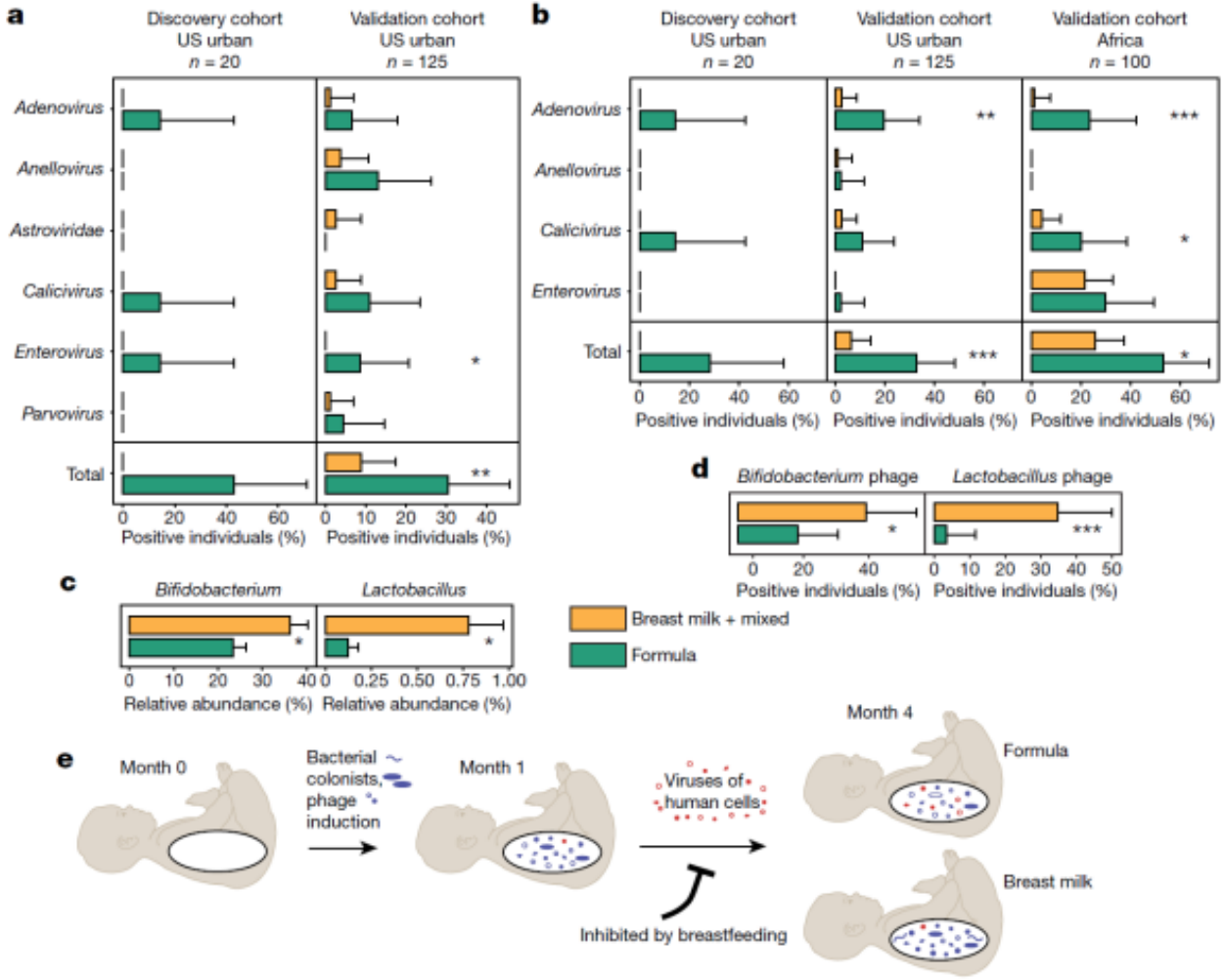
Exclusive breastfeeding matters for both short and long-term health outcomes

- Some breastfeeding benefits are more apparent in exclusively breastfed infants than in mixed fed infants (e.g. protection against ear infections)
- Other benefits rely on exclusive breastfeeding (e.g. lower respiratory tract infections and serious persistent diarrhea)
- **Some benefits are associated with direct breastfeeding** (e.g. obesity prevention, and possible reduced chance of allergy)

Why is Exclusivity So Important- Especially during a Viral Pandemic?

- Exclusive breastfeeding is essential to establish a health gut microbiome, and resist dysbiosis
- The microbiota and bioactive factors play a role in establishing an effective and fully functioning immune system
- **NEW EVIDENCE**: the neonatal virome is modulated by breastfeeding
  - While multiple viruses are able to populate an infant's intestine by infecting human cells, human milk eradicates these viruses via antibodies, HMO's, lactoferrin, and bioactive human milk proteins

Stepwise Assembly of Neonatal Virome Modulated by Breastfeeding



Breastfeeding and viral colonization of the infant gut.

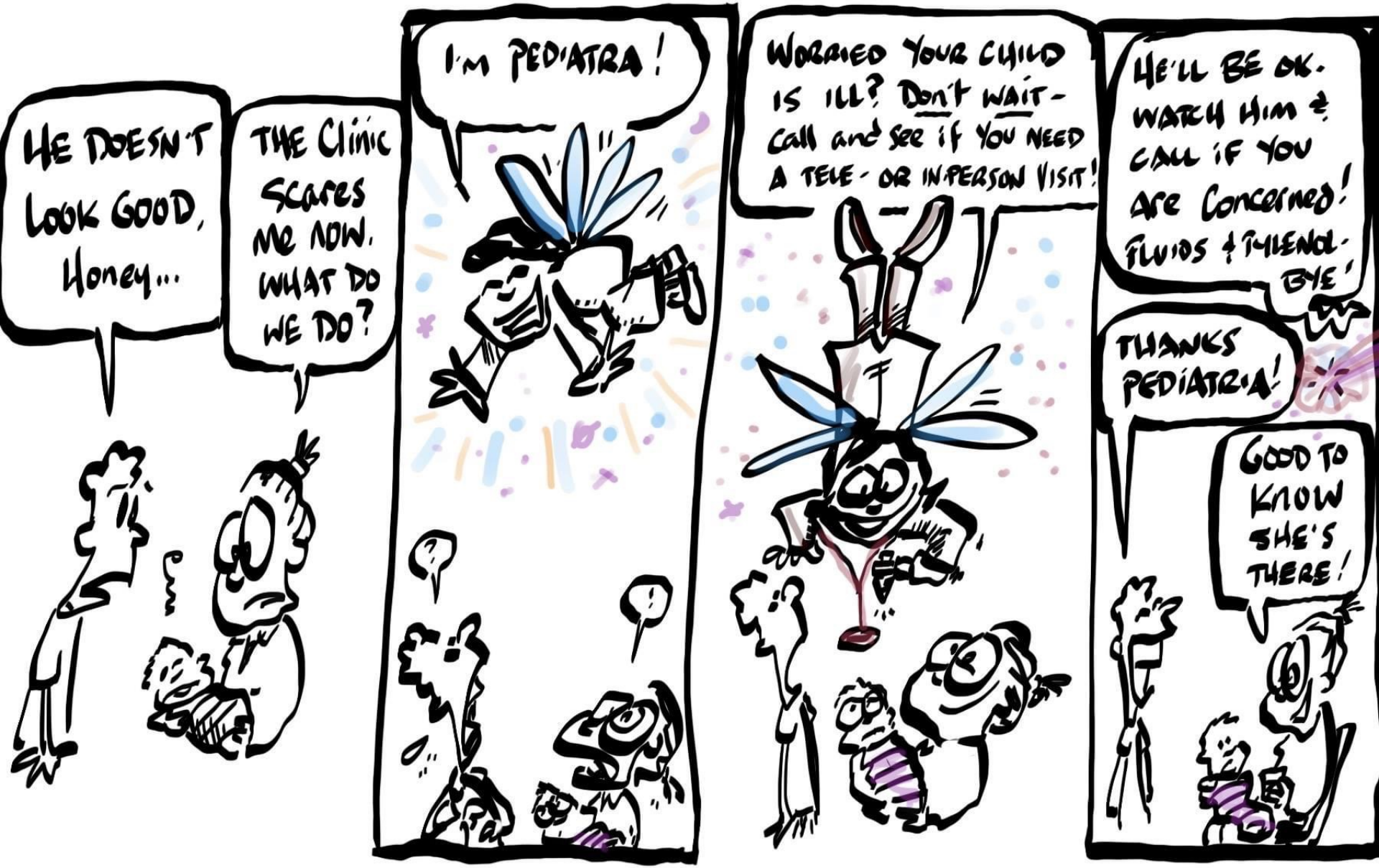
Liang G et al. Nature 2020

Setting the Stage for Exclusive Breastfeeding/Breast Milk Feeding

- Prenatal education and support
  - Is mom COVID exposed, COVID +, or in high risk area?
- Maternity care practices: the Ten Steps (?)
- Community and Partner Support (if mom + no SP?)
- Prenatal and Intra-partum breastfeeding assessment
- Coordination of care
  - Who will see dyad after D/C
  - Who takes baby home?

Breastfeeding During the COVID-19 Outbreak

- Maternal
  - Production problem (may be exaggerated if separated)
  - Too sick to breastfeed (or express milk?)
- Dyad- milk transfer
  - Hygiene: hands and breast
  - Problems latching/suckling (if permitted to directly breastfeed)
  - Problems with MER (conditions of stress)
- Infant
  - High demand- sepsis, hypoglycemia, hyperbilirubinemia
  - Excessive weight loss
  - Is the baby sick with COVID-19?

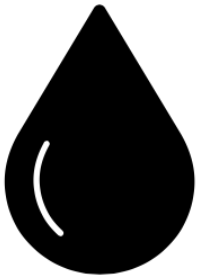


Risks and Benefits of Separation

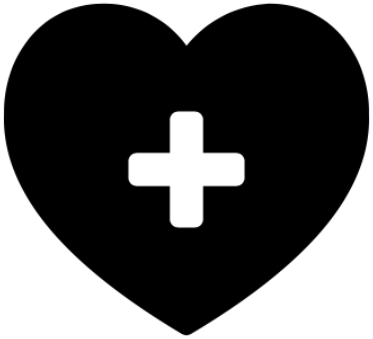
1. Separation may not prevent infection.
2. Interruption of skin-to-skin care disrupts newborn physiology.
3. Separation stresses mothers.
4. Separation interferes with provision of maternal milk to the infant, disrupting innate and specific immune protection.
5. Early separation disrupts breastfeeding, and not breastfeeding increases the risk of infant hospitalization for pneumonia.
6. Separate isolation doubles the burden on the health system.

When skin to skin is disrupted, infants

Wean 64 days earlier



Have glucose levels that are 10.49 mg/dL lower



Experience reduced cardiopulmonary stability

Moore ER, Bergman N, Anderson GC, et al. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev.* Nov 25 2016;11:CD003519.

Separation stresses mothers

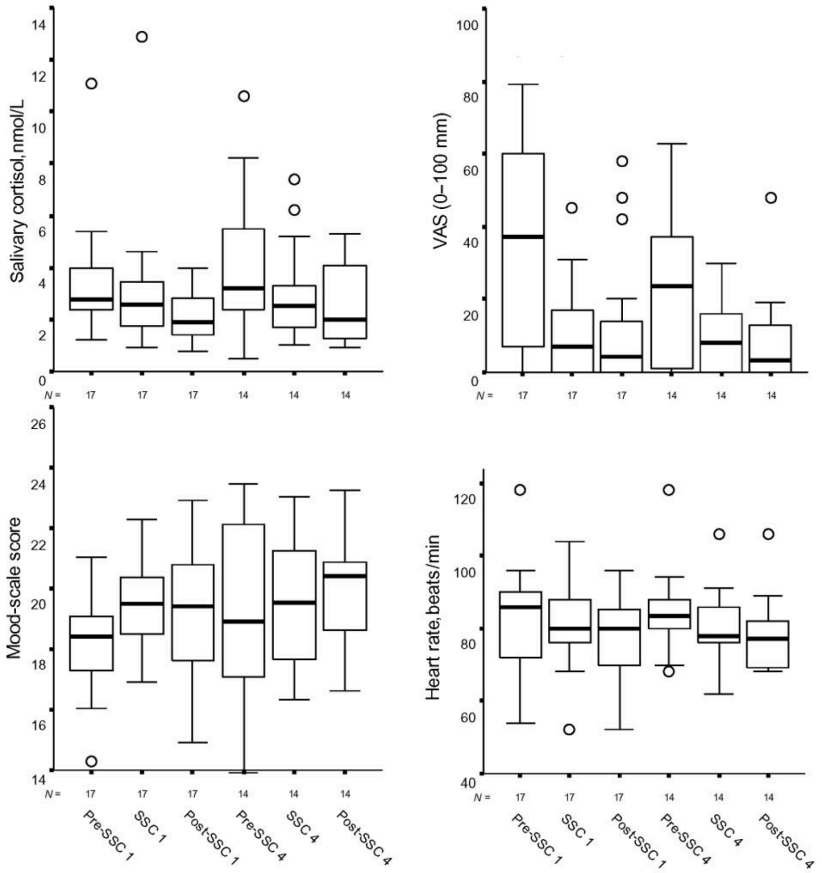


Fig 1. Salivary cortisol, VAS score, total mood scale score, and heart rate for mothers before, during, and after the first and fourth SSCs. ○, outliers.

Morelius E, Theodorsson E, Nelson N. Salivary Cortisol and Mood and Pain Profiles During Skin-to-Skin Care for an Unselected Group of Mothers and Infants in Neonatal Intensive Care. *Pediatrics.* November 1, 2005 2005;116(5):1105-1113.

IgA in human milk

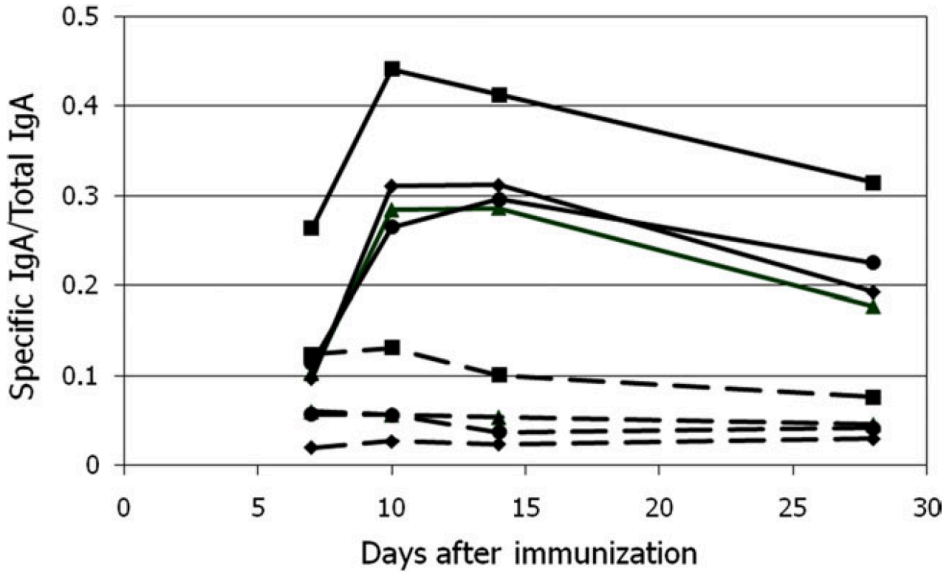


Figure 3. Geometric mean breast milk levels of immunoglobin (Ig) A antibody against pertussis toxoid (squares), filamentous hemagglutinin (triangles), pertactin (circles), and fimbriae 2 and 3 (diamonds) in postpartum women vaccinated with tetanus-diphtheria-acellular pertussis vaccine (solid lines) and in unvaccinated postpartum women (dashed lines).

Halperin BA, Morris A, Mackinnon-Cameron D, et al. Kinetics of the antibody response to tetanus-diphtheria-acellular pertussis vaccine in women of childbearing age and postpartum women. *Clin Infect Dis.* Nov 2011;53(9):885-892.

Artificial feeding and pneumonia risk

Source	Breastfeeding Exposure	Hospitalization for LRTD, n/N Exposed	Unexposed
Ball and Wright[21]	Exclusive ≥4 mo vs none	2/323	3/155
Beaudry et al[22]	Exclusive ≥4 mo vs none	0/49	27/346
Fergusson et al[34]	Exclusive ≥4 mo vs none	1/196	10/226
Hoey and Ware[38]	Exclusive ≥6 mo vs none	1/41	4/107
Howie et al[39]	Total (any) ≥9 mo vs none	1/90	18/246
Nafstad et al[45]	Total (any) ≥9 mo vs none	38/1376	5/27
Oddy et al[46]	Exclusive ≥4 mo vs none	32/1126	10/217
	Summary Relative Risk (95% CI)	**0.28 (0.14-0.54)**	

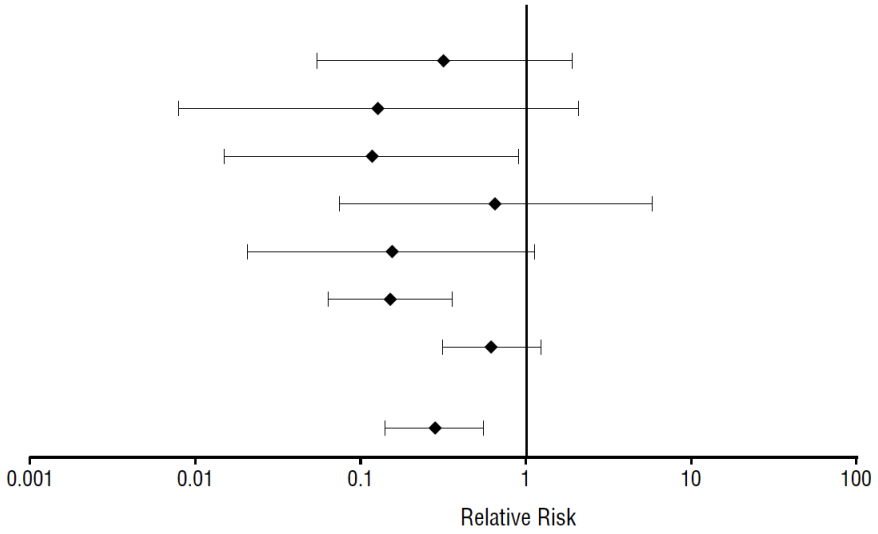
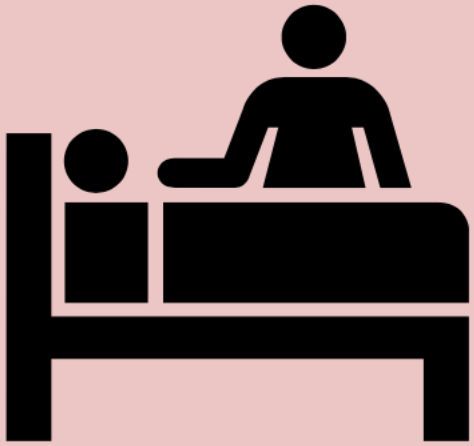


Figure 1. The risk of hospitalization for lower respiratory tract disease (LRTD) and breastfeeding exposure measures for 7 cohort studies. Breastfeeding diminishes the risk of hospitalization for respiratory disease.

Bachrach VR, Schwarz E, Bachrach LR. Breastfeeding and the risk of hospitalization for respiratory disease in infancy: a meta-analysis. *Arch Pediatr Adolesc Med.* Mar 2003;157(3):237-243.

Twice the PPE



Academy of Breastfeeding Medicine

In Hospital:

The **choice to breastfeed** is the mother's and families.

If the mother is well and has only been exposed or is a PUI with mild symptoms, breastfeeding is a very reasonable choice and diminishing the risk of exposing the infant to maternal respiratory secretions with use of a mask, gown and careful handwashing is relatively easy.

If the mother has COVD-19, there may be more worry, but it is still reasonable to choose to breastfeed and provide expressed milk for her infant. Limiting the infant's exposure via respiratory secretions may require more careful adherence to the recommendations depending on the mother's illness.

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There are several choices in the hospital concerning housing for a breastfeeding mother and her infant.

Rooming-in: with the infant kept in a bassinet 6 feet from the mother's bed, taking precautions to avoid spreading the virus to her infant, including washing her hands before touching the infant and wearing a face mask, for direct contact with the infant and while feeding at the breast. Ideally, there should be another well adult who cares for the infant in the room.

Temporary separation – primarily because the mother is sick with the COVID-19 infection and needs medical care for herself in the hospital.

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If there is separation

- Mothers who intend to breastfeed / continue breastfeeding should be encouraged to express their breast milk to establish and maintain milk supply.
- If possible, a dedicated breast pump should be provided.
- Prior to expressing breast milk, mothers should practice hand hygiene.
- After each pumping session, all parts that come into contact with breast milk should be thoroughly washed and the entire pump should be appropriately disinfected per the manufacturer's instructions.
- This expressed breast milk should be fed to the newborn by a healthy caregiver.

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Our Values

- Health information should be honest, accurate, clear, high quality, and based on the most current science.
- Women are resilient, strong and capable of making quality decisions for themselves and their families.
- Communities and health systems should care for the mother, rather than demanding that she access care.

COVID-19 for New Moms

The coronavirus disease (COVID-19) is currently a problem across the world. Many of us have had to change plans. Going from pregnancy through the early weeks and months postpartum has always been challenging, and for now, it's harder. We see you moms and other caregivers. We also see and are grateful for health care providers.

We are in this together, and we will get through it. Parents are great at adapting to changing needs. Here, you'll find information about COVID-19 and staying well emotionally and physically.

LEARN MORE

Expert-written resources and information for families

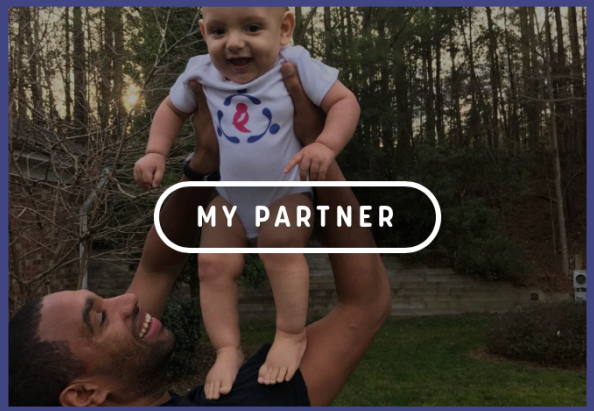
I'M LOOKING FOR INFORMATION ON...

Search

Building my village

What does support and care look like for you?

You deserve support during this important time. People in your life can build on your strengths and help you in many ways. What do you want them to know so they can better understand and care for you? We are here to help you with exploring topics and making plans to meet your goals.



Breast Hygiene

- Many hospital protocols recommend/ require washing the chest/breast skin to "remove virus" that could be ingested.
- No indication of either vertical transmission or transmission via breastfeeding
- Consider risks of soaps (peeling agents, acids, allergens, microbiome) with benefits of exercising caution
- What if the mother is POD 0 and has not gotten out of bed, increased burden on staff?

Discharge to Home: Two Approaches

- Dyad together with hand washing and mask
- Involve support system
- Direct breastfeeding
- Follow up in person 24-48 hours after going home to check weight, baby's PE, risk for jaundice
- Follow up tele-lactation visits video or phone
- Use labs or homecare for bilirubin check and/or Wt.

- Discharge separately, baby to well caregiver, mom to home until well
- 72 hours no fever without Tylenol; and >7 days since symptoms started
- Express milk using hygiene and provide milk to baby (needs to get there!)
- Who will care for mom?
- Does person caring for baby have experience: newborn issues, safe sleep, etc.?

Hospital Follow Up

- Need to find pediatric practices open to do face-to-face visits
- Newborn weight is needed
- Physical exam
- If directly breastfeeding, observe for comfort and milk transfer
- Can do subsequent visits by tele-lactation

Bfing Support via Telemedicine

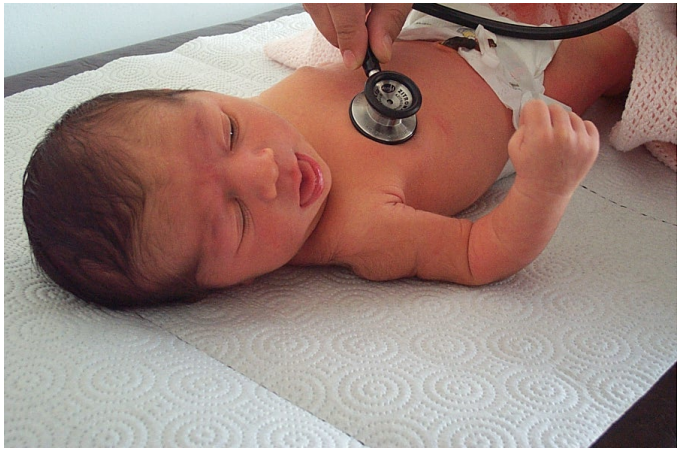
- "Easy: Prenatal, back to work guidance, pump use, recurrent plugged ducts or mastitis, low milk supply, high milk supply, rashes, nipple/breast pain
- Harder: Anytime weight gain is not known, ?under 2 or 4 weeks?, plugged duct, baby under one week with latch issues"

--Kathy Leeper, MD 'Milk Works' Breastfeeding Medicine practice in Nebraska

- Food grade scales can be really helpful!
- Follow-up check-in phone calls

Newborn Visits are "Essential"

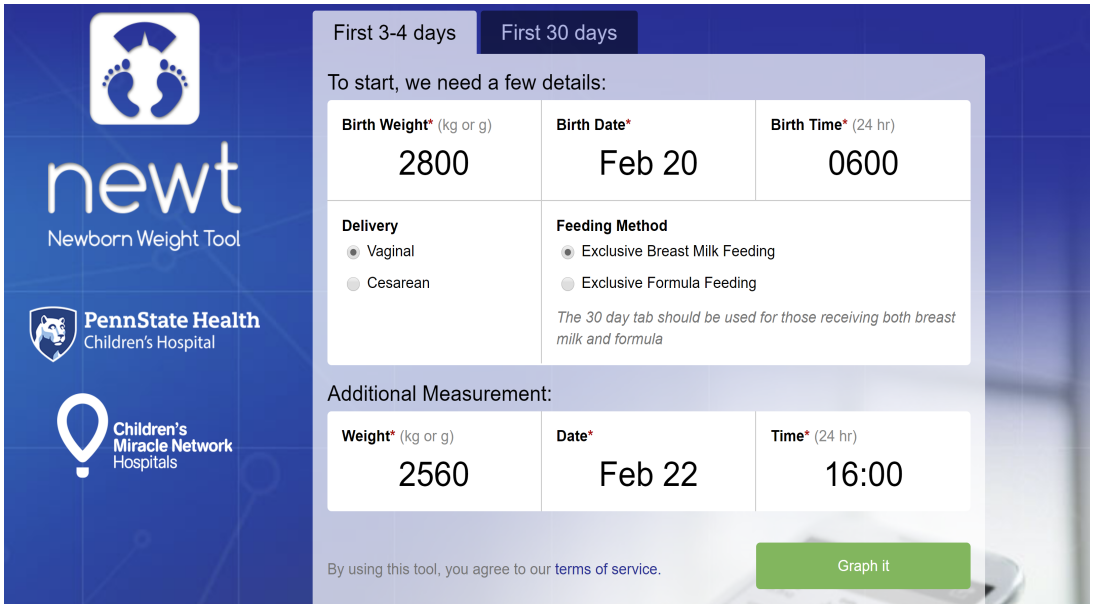
- From the CDC--
  - "Healthcare providers are encouraged to **prioritize newborn care and vaccination** of infants and young children (through 24 months of age) when possible.
  - Given the potential challenges related to breastfeeding in the context of COVID-19, the need for weight checks and visual or laboratory assessment for jaundice, and the stressors of social distancing, **every effort should be made to conduct newborn follow-up visits in person.**
  - Healthcare providers should consider how to minimize exposure to the SARS-CoV-2 virus for patients, caregivers, and staff in the context of their local COVID-19 epidemiology and practice environment."

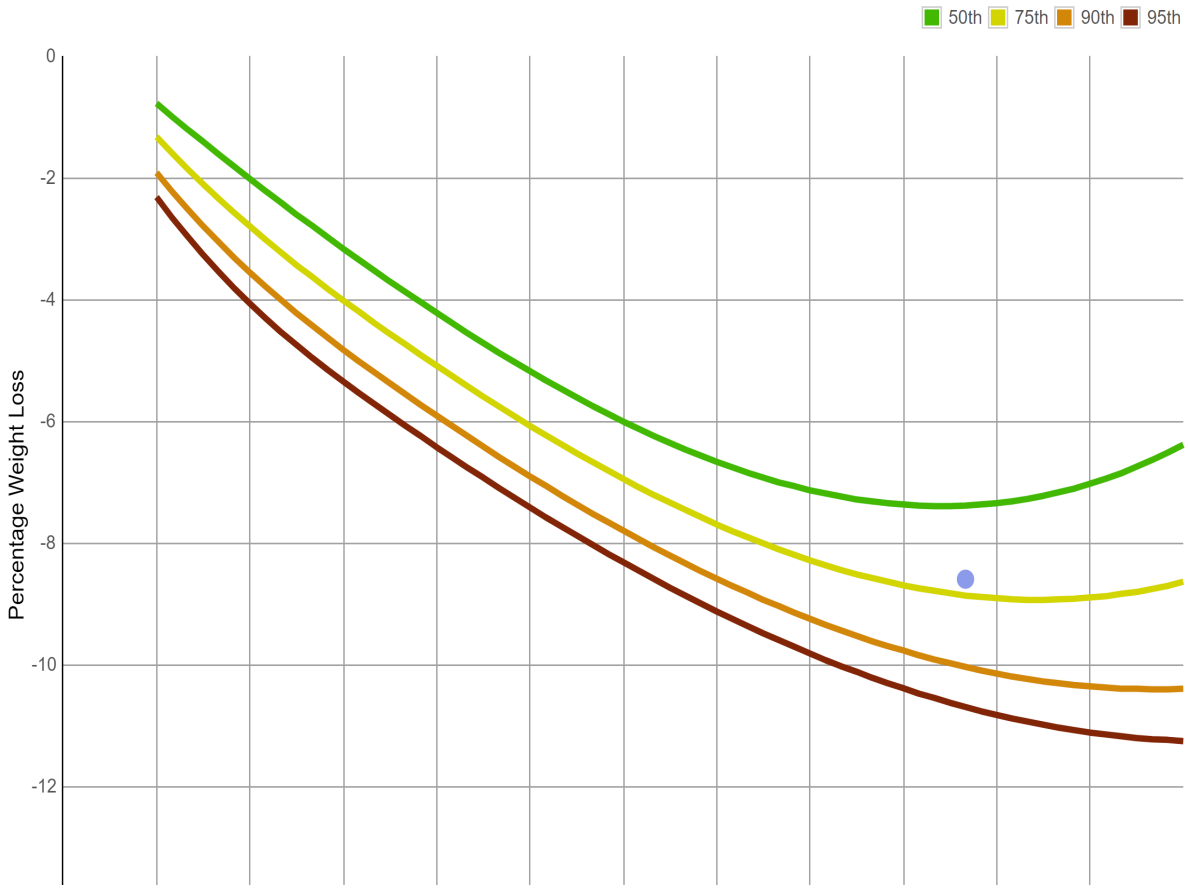


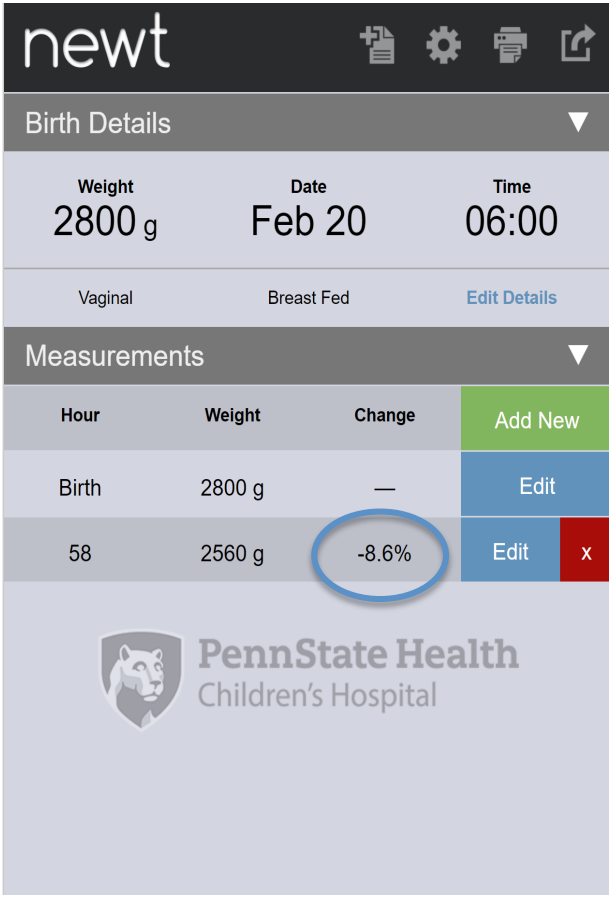
Using the NEWT Curves

Baby Kobe being seen at the 48-hour check

Photo credit: USBC







- 8.6% weight loss; about 70th percentile
- Address milk supply (LII), latch, milk transfer
- Follow up in 1-2 days

Signs of Inadequate Intake/Dehydration in first 4 days

- Lack of bowel movements
- Not settling after feedings
- Urate crystals in diaper
- Dry mucous membranes
- Loss of skin turgor
- Sunken eyes
- Depressed anterior fontanelle
- Thread-y pulse
- Cool extremities
- Moderate to severe jaundice

STAT Feeding Evaluation!

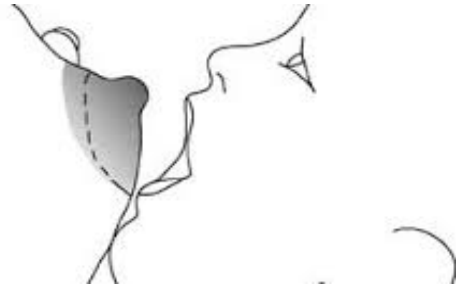
As baby gets older: no change to yellow stools by day 5, continued weight loss after day 4-5, not steadily gaining weight 20-30g/day after day 5, not back to BW by 2-3 weeks of age

First, identify the problem

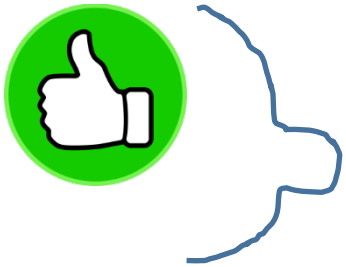
- Maternal
  - Production problem
- Dyad- Milk transfer
  - Problems latching
  - Problems with effectiveness of suckling
  - Problems with MER
- Infant
  - High demand- sepsis, hypoglycemia, hyperbilirubinemia
  - Excessive weight loss

Five second latch assessment

- 60 second LATCH assessment--A breastfeeding Apgar score
  - **L**—lips splayed
  - **A**—audible swallows
  - **T**—type of nipple
  - **C**—comfort of mom (you have to ask!)
  - **H**—hold



Jenson D, Wallace S, Kelsay P (1994). LATCH: A breastfeeding charting system and documentation tool. JOGNN,23(1):29.



Nipple appears “normal” after a feeding

Nipple appears “ski-slope-y or lipstick-y” after a feeding

Nipple appears “smooshed” after a feeding, might see a blanched or white compression “stripe”

Signs of a Latch that Needs Adjustment

- Immediate signs
  - Infant's cheeks indenting during suckling, clicking noises, lips curled inward
  - Frequent movement of the infant's head and lack of swallowing sounds
  - Maternal pain and discomfort
- Later signs
  - Trauma to mother's nipples and pain
  - Poor infant weight gain
  - Low milk supply

NOTE: It's all about the angle!

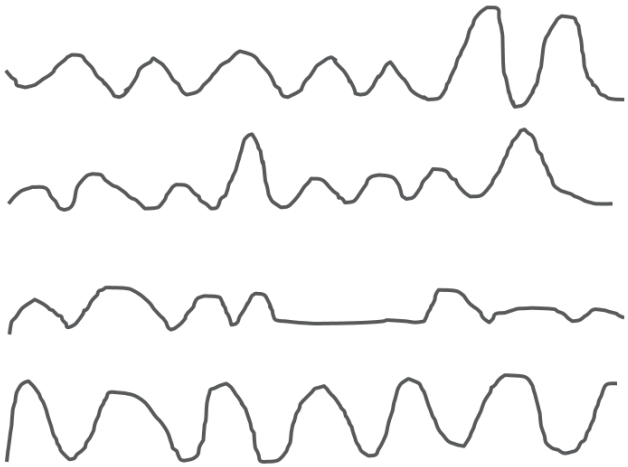
Nipple pain or compression=
Ineffective milk transfer
AND
Ineffective signaling

NOTE: It is more important how it feels to mom than on how it looks from the outside

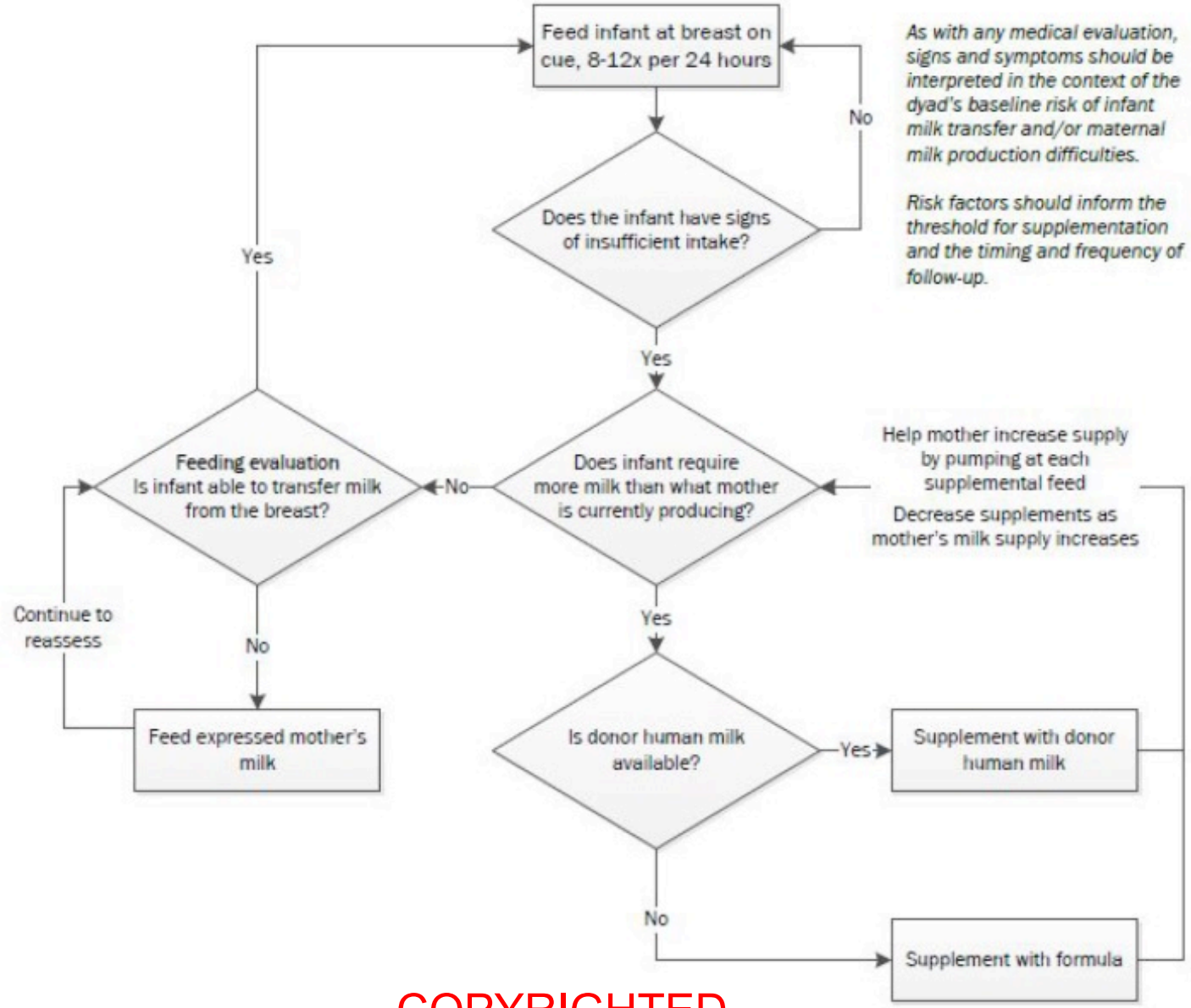
Nipple pain or compression=Ineffective milk transfer AND
Ineffective signaling

Signs of an Effective Latch

- Comfortable, non-painful latch
- Suck/swallow pattern
- "5 second latch fix"
  - Tuck tummy against mom
  - Anterior shoulders and chin touching at rest
  - Nipple near nose, pointing to roof of mouth
  - Chin buried, nose free



Supplementation Decision Algorithm



A Conversations Approach to Shared Decision Making

- Engage families at the speed of trust
- Use open ended questions to begin conversations
- Understand what matters most to the mother and the family
- Provide support for decision and help to bring clarity to any misconceptions
- Promote, protect and support breastfeeding

King J, Moulton B.. *Health Aff (Millwood)*. 2013;32(2):294-302. doi:10.1377/hlthaff.2012.1067

Why Do Mothers Stop Breastfeeding Early?

60% of mothers do not breastfeed as long as they intend

- Issues with lactation and latching
- Concerns about infant nutrition and weight
- Mother's concern about taking medications while breastfeeding
- Unsupportive work policies and lack of parental leave
- Cultural norms and/or lack of family support
- Unsupportive hospital practices and policies

1. Odom EC, Li R, Scanlon KS, Perrine CG, Grummer-Strawn L. Reasons for Earlier than Desired Cessation of Breastfeeding. *Pediatrics*. 2013;131(3):e726–732.
2. Sriraman NK, Kellams A. Breastfeeding: What are the Barriers? Why Women Struggle to Achieve Their Goals. *J Womens Health (Larchmt)*. 2016;25(7):714-22.
3. Perrine CG, Galuska DA, Dohack JL, et al. Vital Signs: Improvements in Maternity Care Policies and Practices That Support Breastfeeding — United States, 2007–2013—United States, 2007-2013. *MMWR Morb Mortal Wkly Rep*. 2015;64(39):1112–1117.

How Can We Become Better Listeners?

- Provide a safe space
- Hearing concerns
- Probing
- Validating feelings
- Filling the knowledge bank
- Dispelling myths without discounting the source
- Acknowledge bias

One Approach to Conversations

L
- Listen to what moms are saying

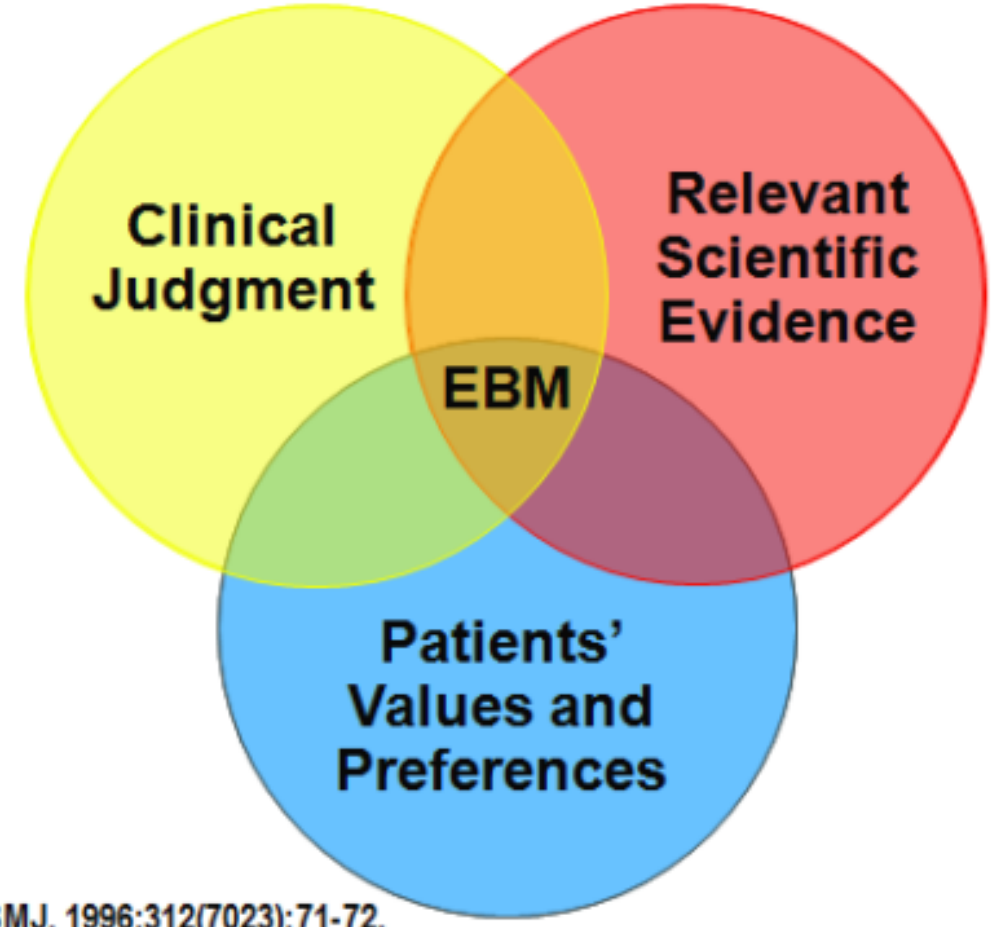
O
- Ask open-ended questions

V
- Validate feelings

E
- Educate on point

Practice Evidence-Based Medicine

What Is Evidence-Based Medicine?



Sackett DL, et al. BMJ. 1996;312(7023):71-72.

Conclusions

- The information about COVID-19 is emerging
- History has confirmed the rationale to support exclusive breastfeeding
- Monitor mothers and babies to be sure they get off to a good start
- “Time Out” for shared decision making

Questions?

Use the chat box to send in any questions you might have

Think of a question after the webinar?

Email the CHAMPS Team at champs.breastfeed@gmail.com!

Thank you for joining!

Tune in on May 20th for the next webinar in the series,
Community Support (Re)Structures during COVID-19,
from New York and Boston

Presenters:

***Theresa Landau**, MS, RD, CDN, Morrisania WIC Program Director, Chairperson, NYC Breastfeeding Leadership Council, Inc., Co-Chairperson, Bronx Breastfeeding Coalition, Chairperson, Baby-Friendly USA*

***Jenny Weaver**, RN, IBCLC, Facilitator at Boston Medical Center BabyCafé, joined by Peer Counselors from the Boston Breastfeeding Coalition*