

COVID-19 and Maternal, Child Health and Nutrition  
COVID-19 and Breastfeeding/Infant feeding and Breast milk  
Scientific repositories  
*Users' Survey results*

**Mija Ververs** (Steering Committee COVID-19 and Infant Feeding (CIF))

9 April 2021

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## COVID-19, Maternal and Child Health, Nutrition

### COVID-19, Maternal and Child Health, Nutrition - what does the science tell us?

A Repository

COVID-19, Maternal, and Child Health, Nutrition - what does the science tell us? is compiled by the Johns Hopkins Center for Humanitarian Health and provides an overview of what peer-reviewed journal articles currently state on COVID-19, maternal and child health (including infants), and nutrition. As the pandemic is ongoing more and more research results are published. With this service, we aim to provide the user with a snapshot of what is published with updates every few days. We hope that you will learn and benefit from the articles presented here.

## NEWS



**6 Solutions To Beat COVID-19 In Countries Where The Usual...**

## COVID-19, Breastfeeding, Infant Feeding, and Breast Milk



What Does the Science Tell Us?

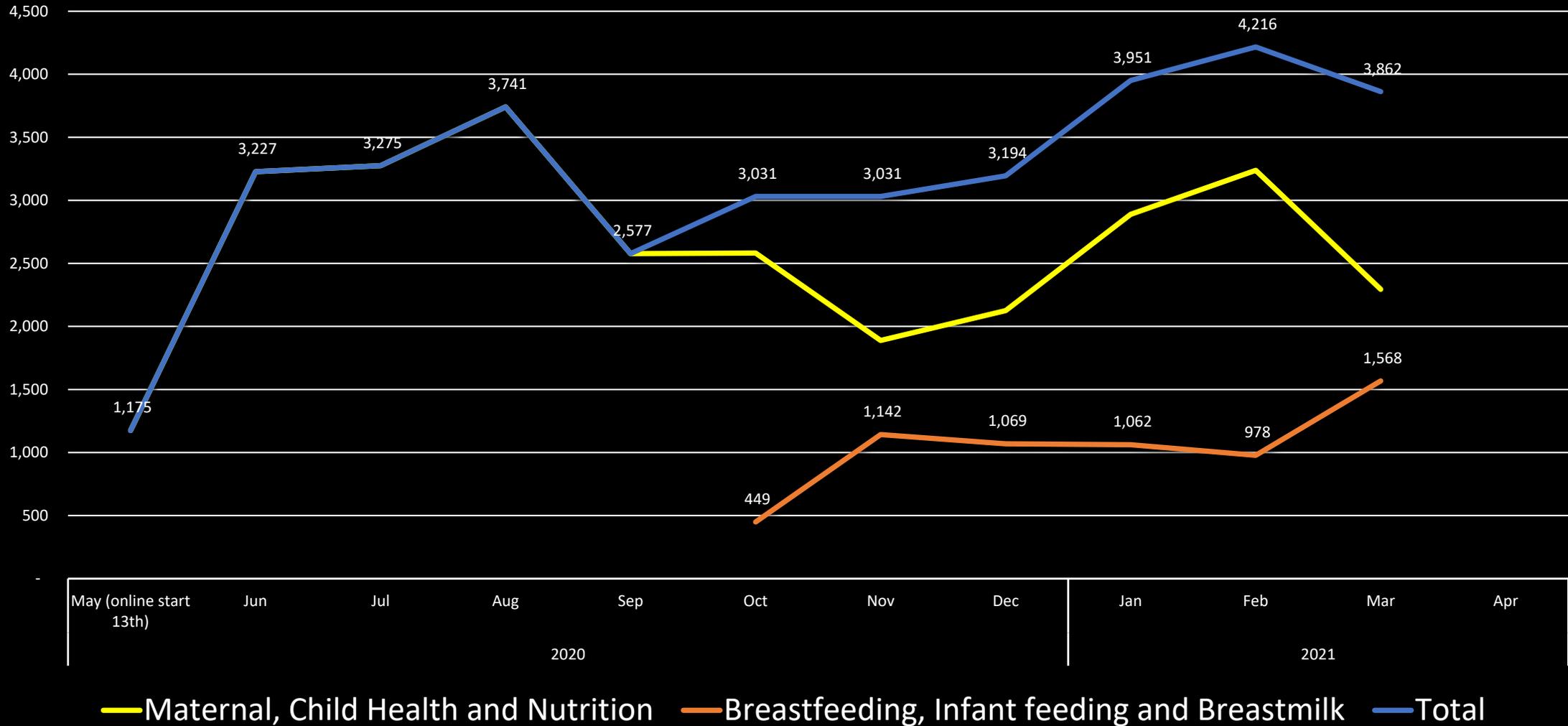
This repository is compiled by the Johns Hopkins Center for Humanitarian Health and provides an overview of what peer-reviewed journal articles currently state on COVID-19,

Two scientific repositories – publications 1 Feb 2020 - present

<http://hopkinshumanitarianhealth.org/empower/advocacy/covid-19/covid-19-children-and-nutrition/>

<http://hopkinshumanitarianhealth.org/empower/advocacy/covid-19/covid-19-children-and-nutrition/covid-19-breastfeeding-infant-feeding-and-breast-milk/>

## Number of Monthly Page Views for the COVID-19 Repositories (since launch online)



# Geographical location

Today.... Over 150 countries

In total 35,000 – 40,000 page views

May 13, 2020 - 31 March, 2021

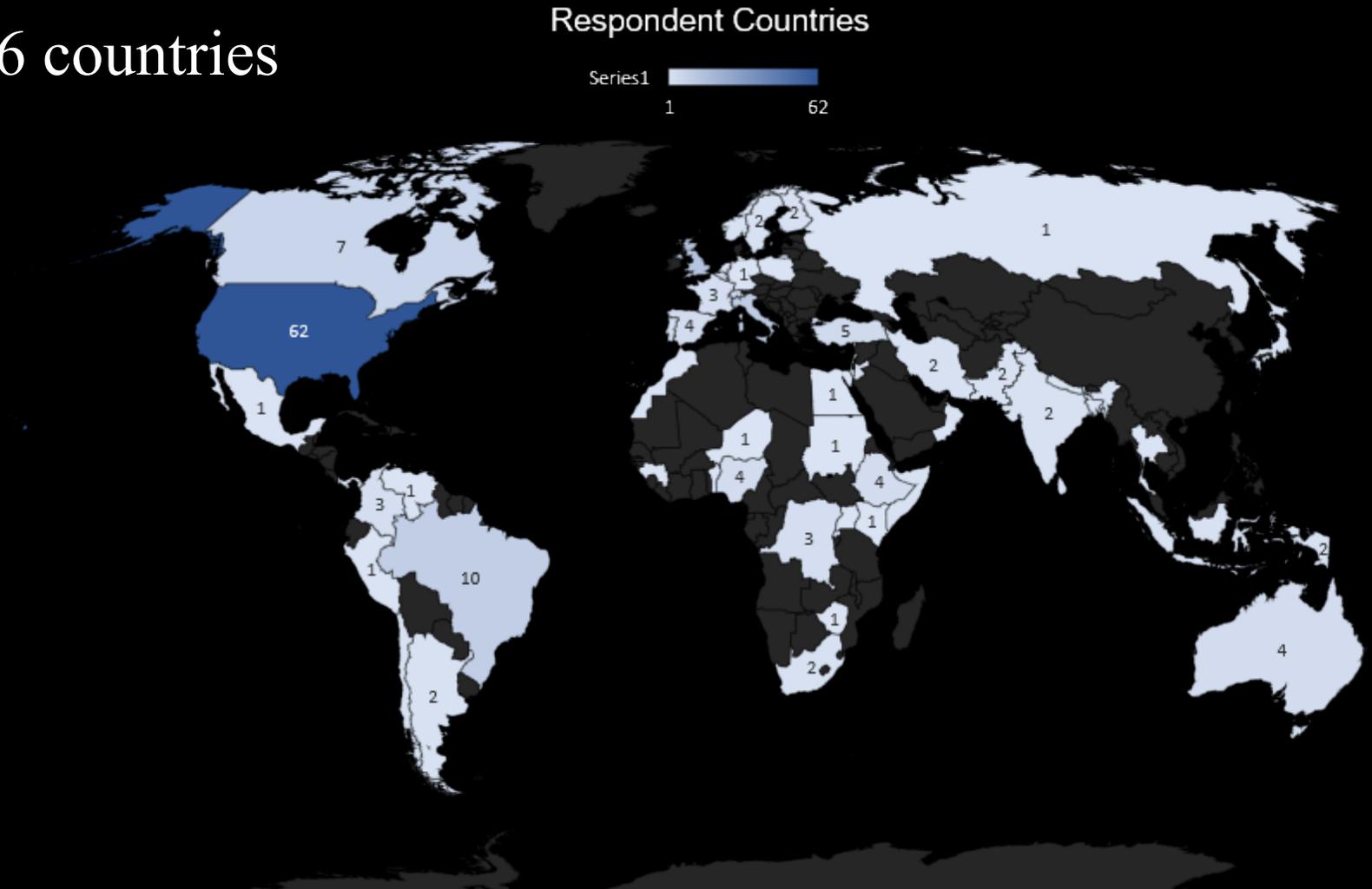
Source: Google Analytics, Mija Ververs

Powered by Bing  
© GeoNames, Microsoft, NavInfo, TomTom, Wikipedia

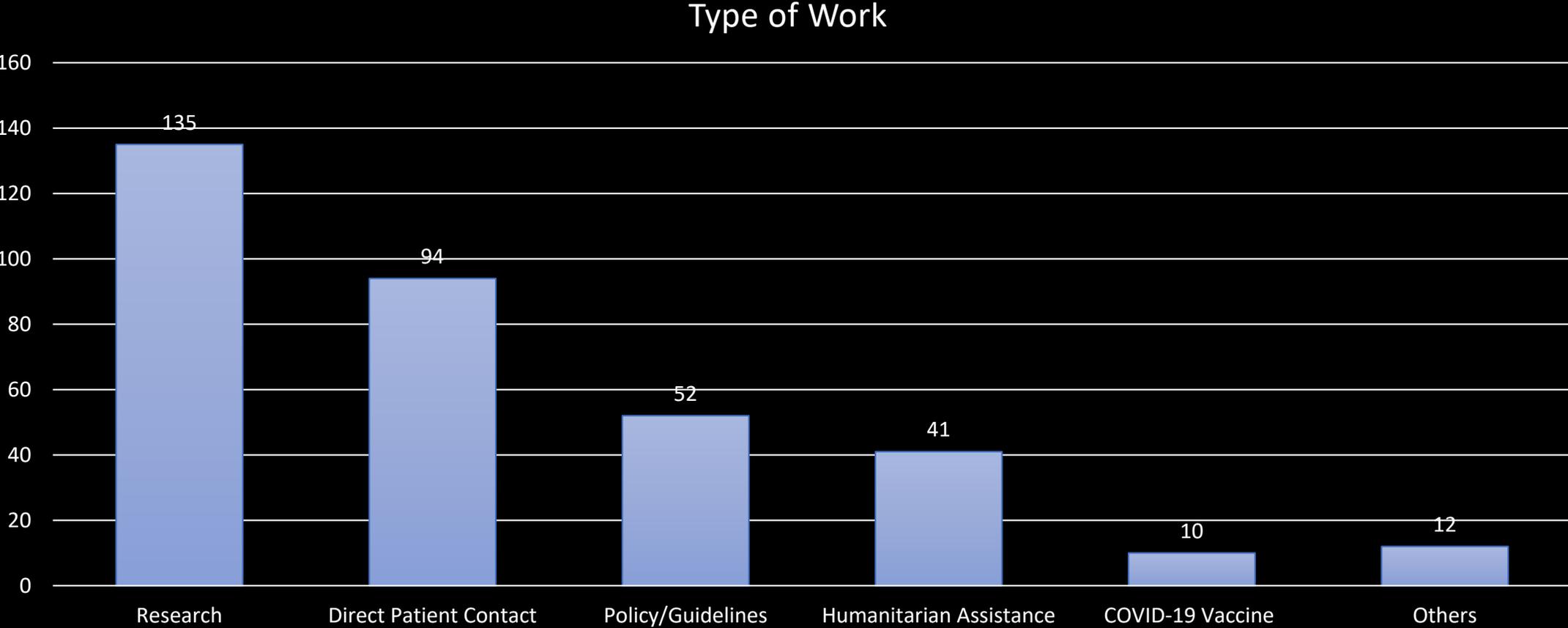


# Survey among Users

- Online - February 12 to March 10, 2021
- 198 respondents from 56 countries

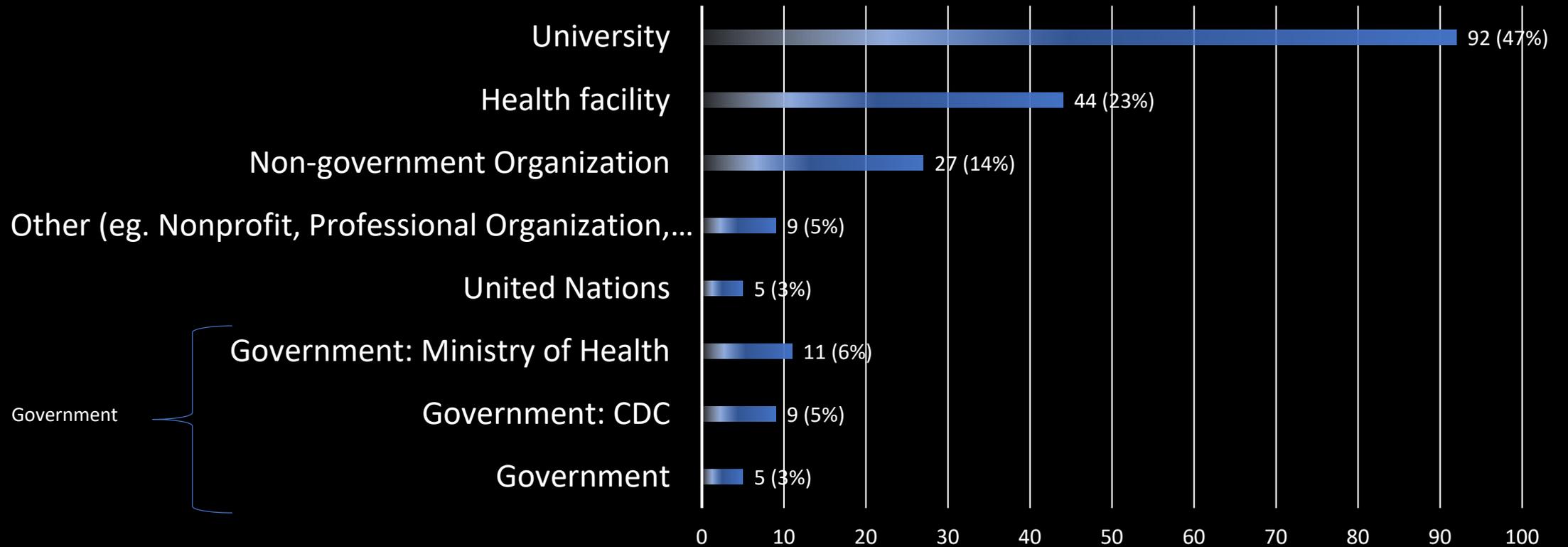


# Majority of the respondents work in research settings (67.7%) and direct patient care (47%)

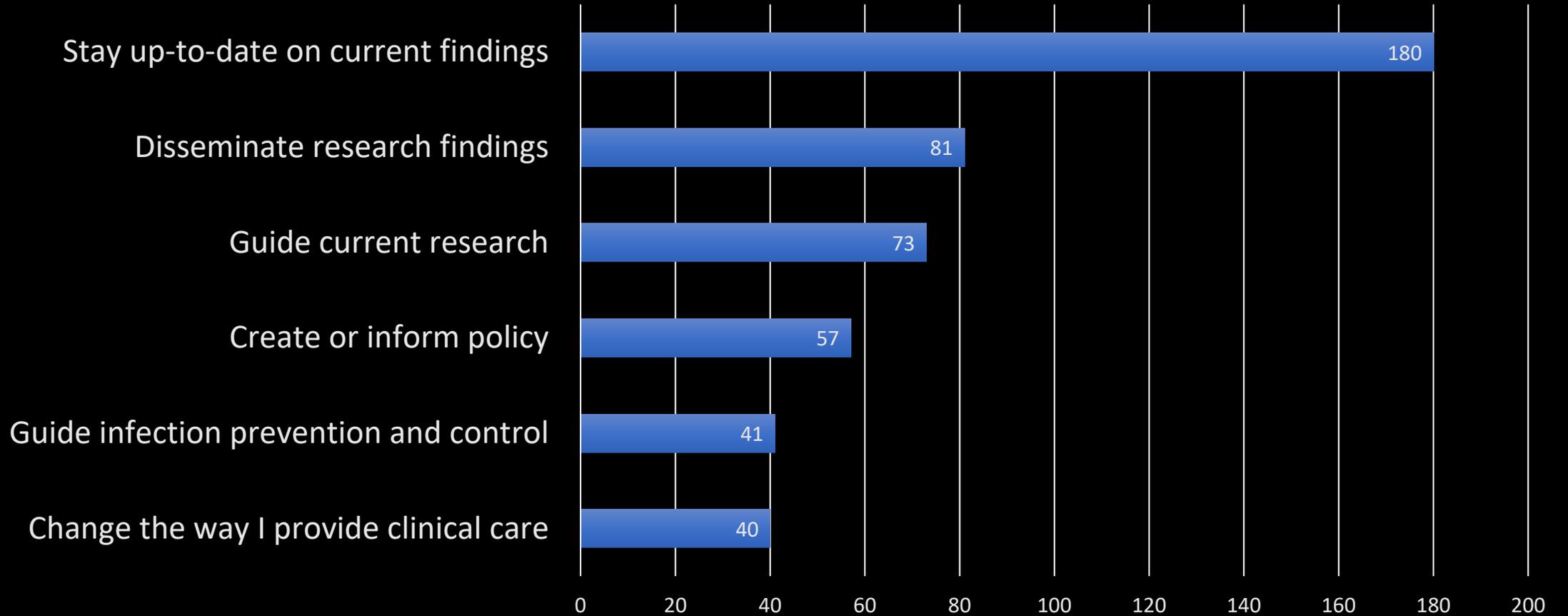


Specialty areas included: newborn health (58.1%), maternal health (56.6%), pregnancy (56.1%), and child health (52%).

# What Organizations/Agencies the Respondents Work For

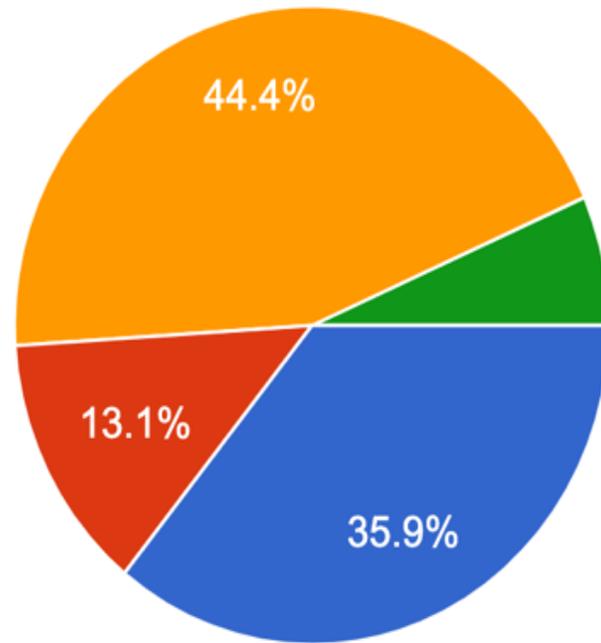


# How the repository is used



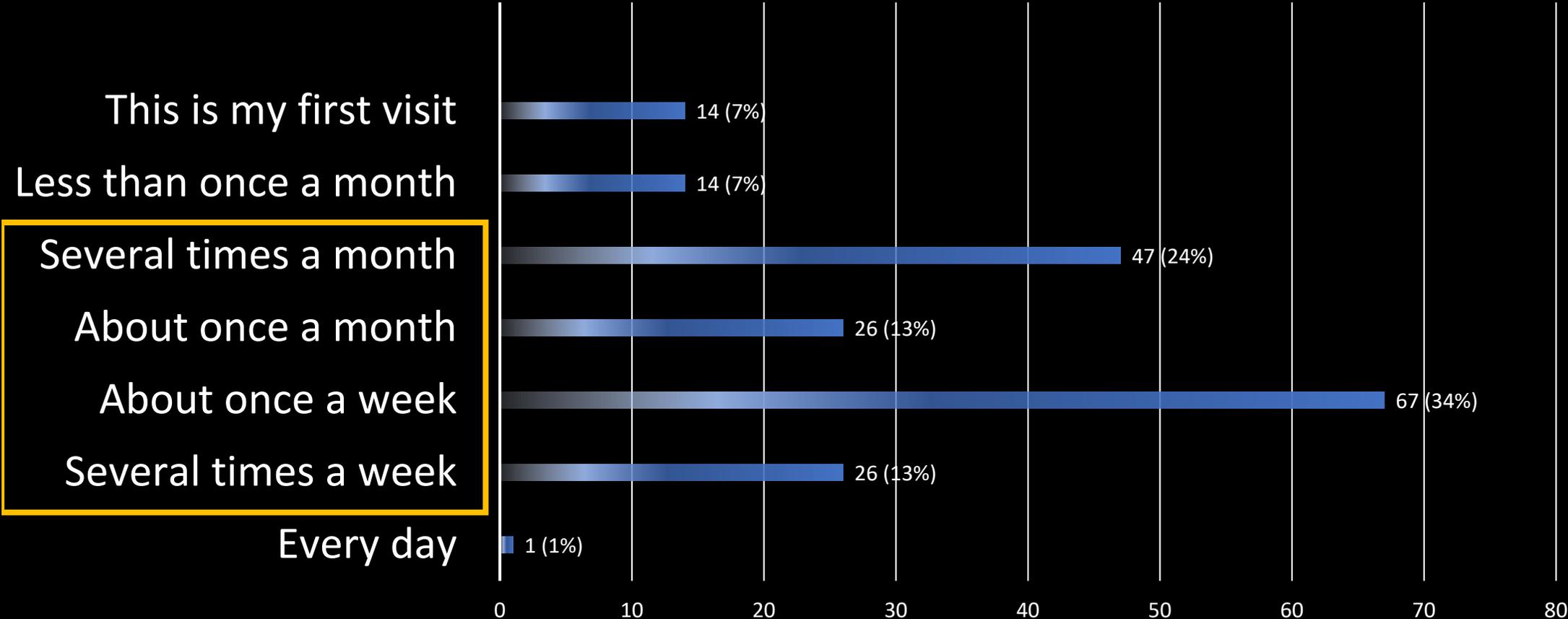
## 8. Which repository are you using?

198 responses

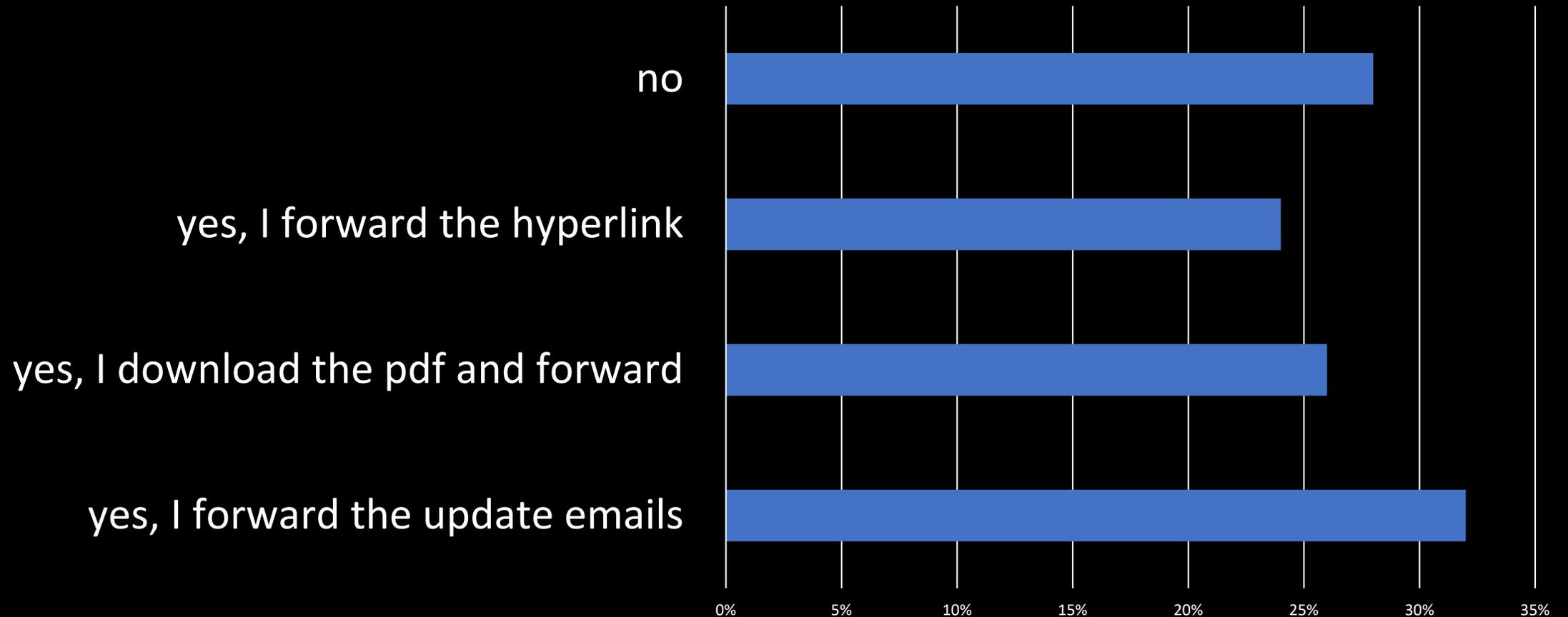


- The COVID-19, Maternal and Child Health, and Nutrition repository
- The COVID-19, Breastfeeding, Infant Feeding, and Breast Milk repository
- Both
- Neither

# How Frequently Respondents Visit the Repository Website

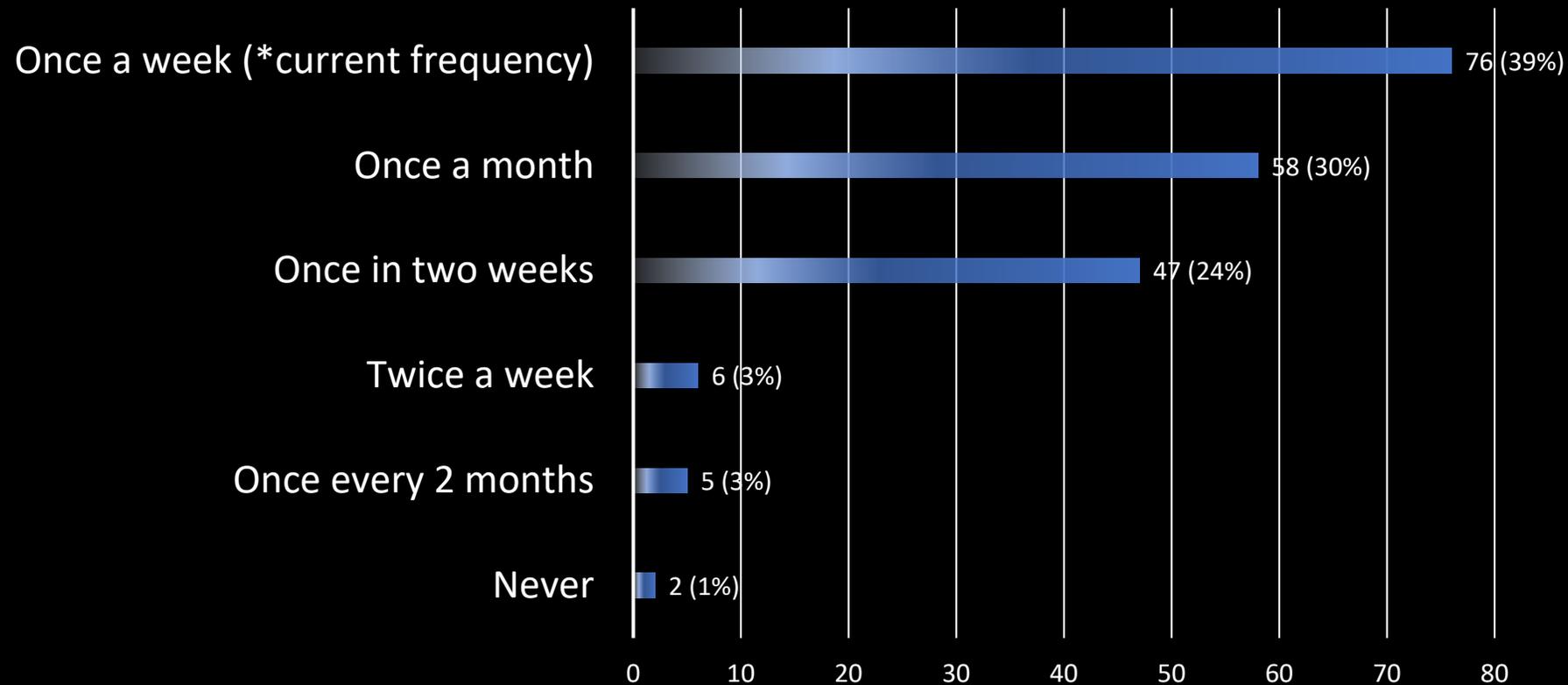


# Do you share the repository with peers?

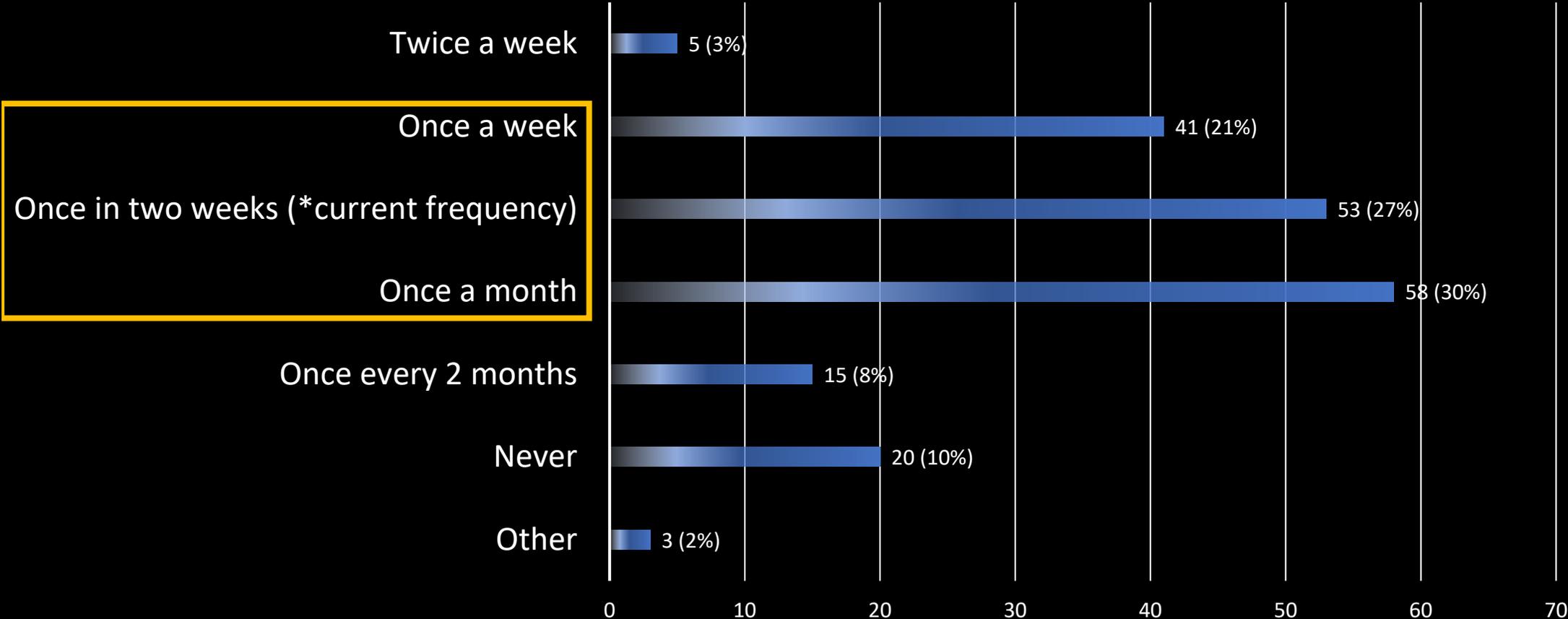


Number of people forwarded to: Range 1 - 2200

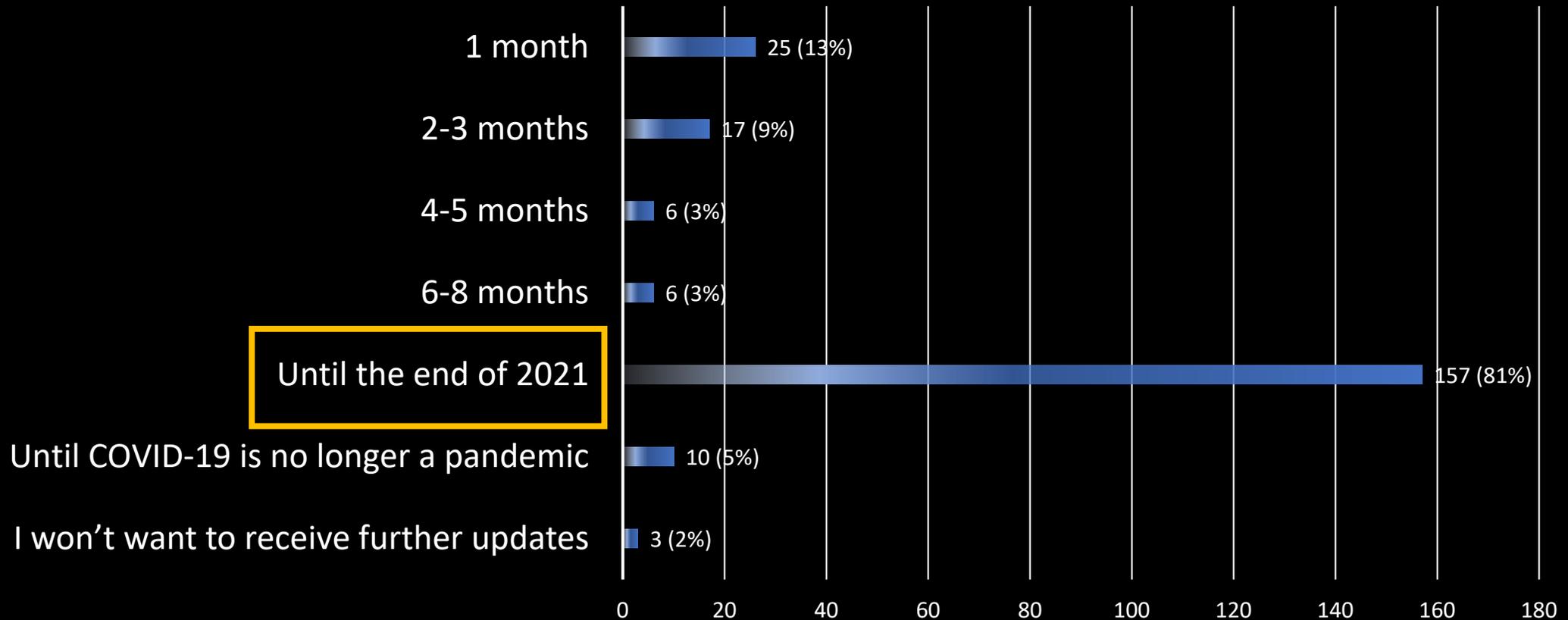
# Preferred Frequency of Email Updates for Maternal, Child Health, Nutrition Repository



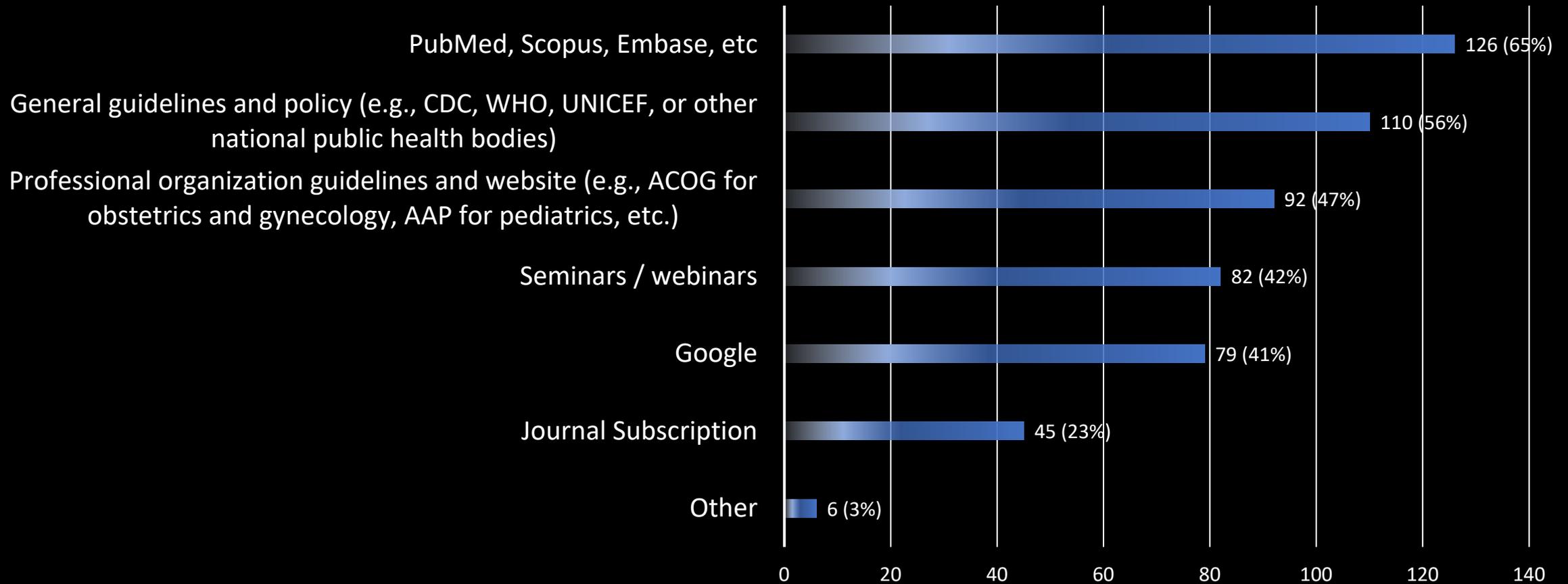
# Preferred Frequency of Email Updates for Breastfeeding, Infant feeding and Breast milk Repository



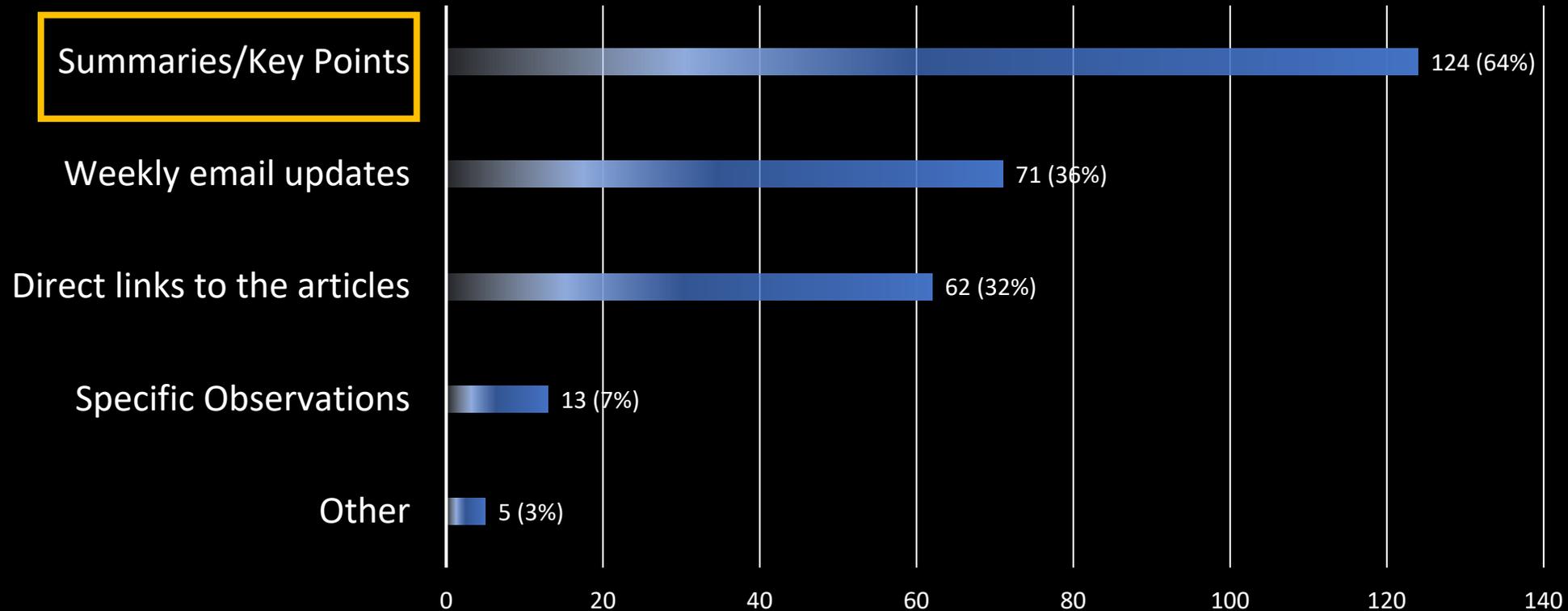
# If the repository is continued beyond April 30, 2021, for how much longer would you like to receive MCHN Repository Updates?



# If discontinued, where Respondents will get Information

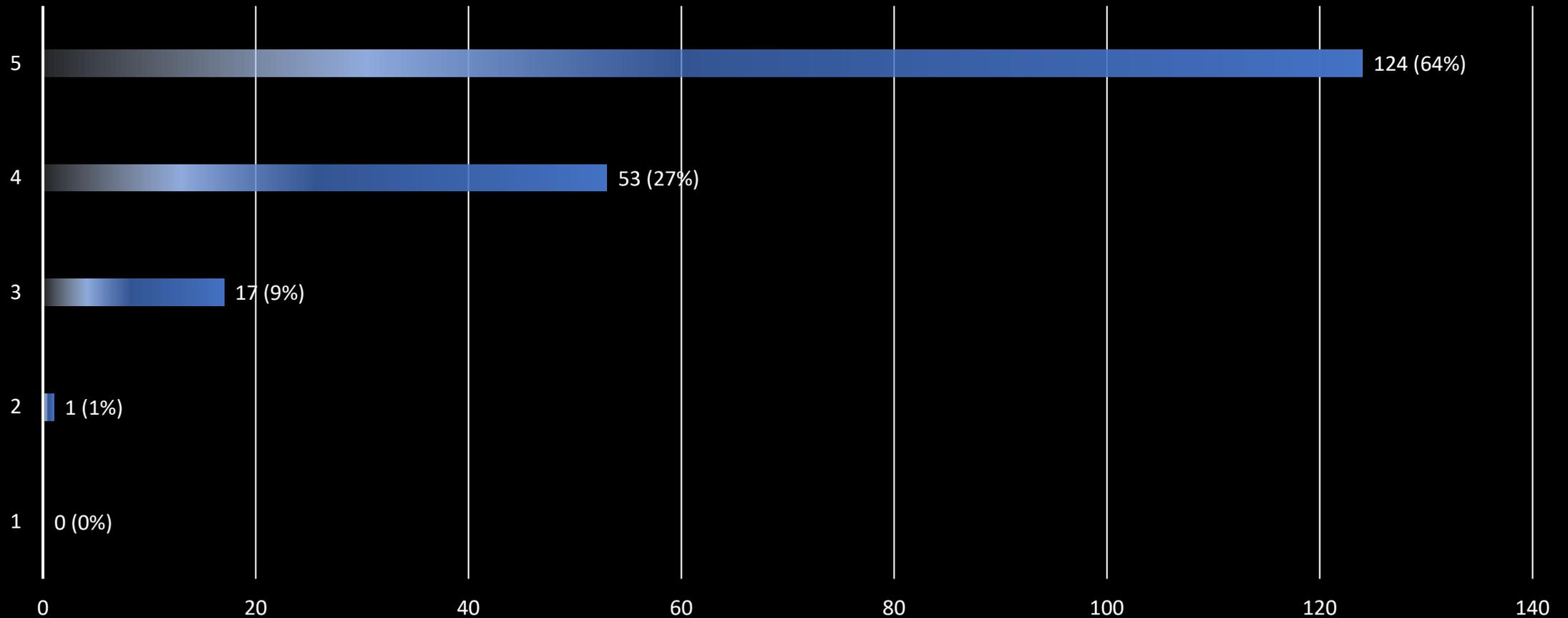


# Which Part of the Repository Respondents will Miss the Most



# Overall Satisfaction with the Repository

(1 = Very Unsatisfied, 5 = Very Satisfied)





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**NEWS**



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**COVID-19, Breastfeeding, Infant Feeding, and Breast Milk**



**What Does the Science Tell Us?**

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Thank you!

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<http://hopkinshumanitarianhealth.org/empower/advocacy/covid-19/covid-19-children-and-nutrition/covid-19-breastfeeding-infant-feeding-and-breast-milk/>

# Effects of COVID-19 on Maternity Practices and Breastfeeding Rates in Mississippi Birthing Hospitals

**Presented by: Laura Burnham, MPH**

Project Director, Center for Health Equity, Education, & Research,  
Boston Medical Center and Boston University School of Medicine



# Conflicts of Interest

- I have no actual or potential conflict of interest in relation to this presentation
- This project was funded by grants from the W.K. Kellogg Foundation and the Bower Foundation



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# Background

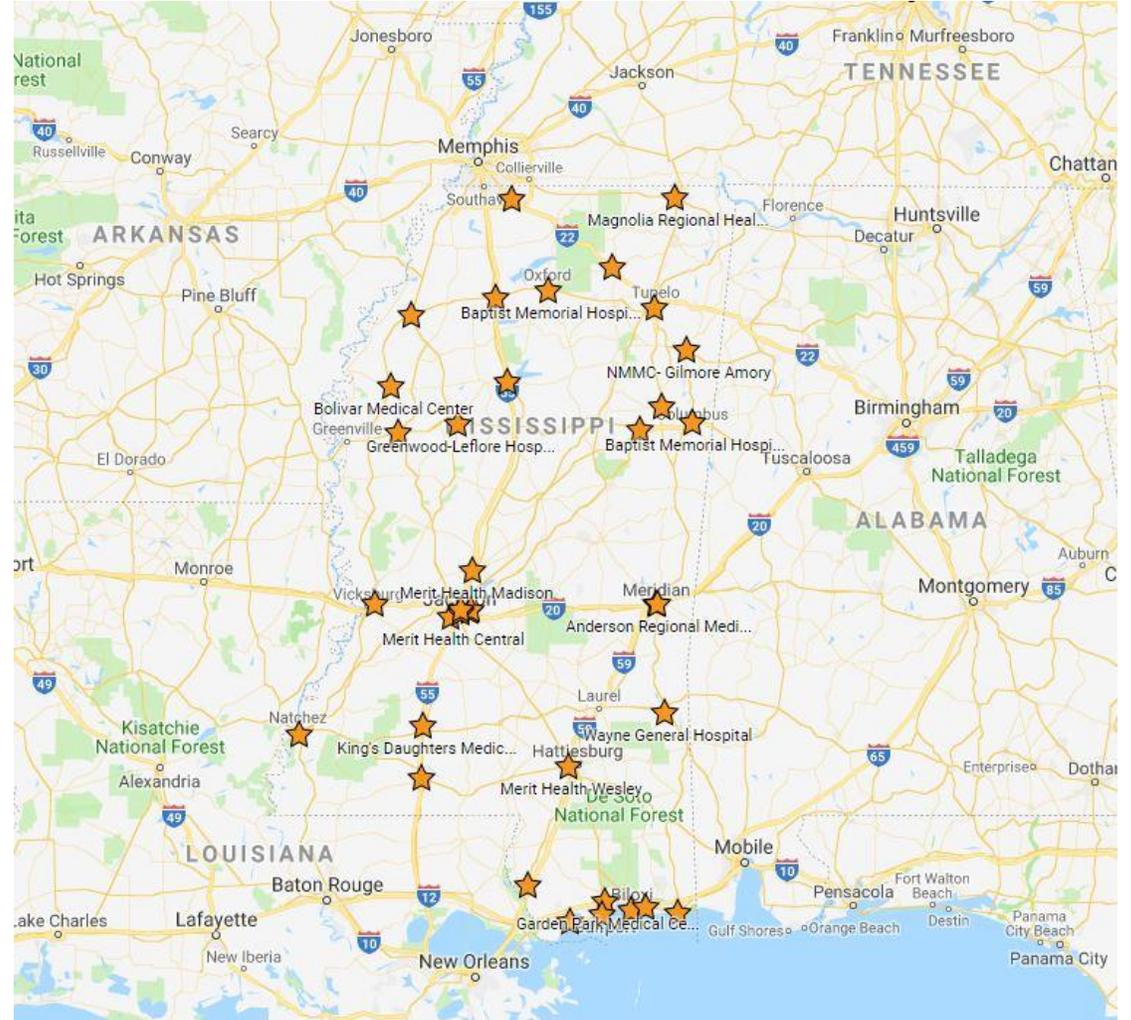
- Guidance on caring for postpartum mothers and newborns during COVID-19 is evolving, and sometimes conflicting
  - For example: the initial CDC and AAP guidance did not recommend skin-to-skin and rooming-in for COVID+ mothers, whereas the WHO did
- Recommendations can influence breastfeeding, which is an important preventive strategy during epidemics



Mother wearing a mask while nursing

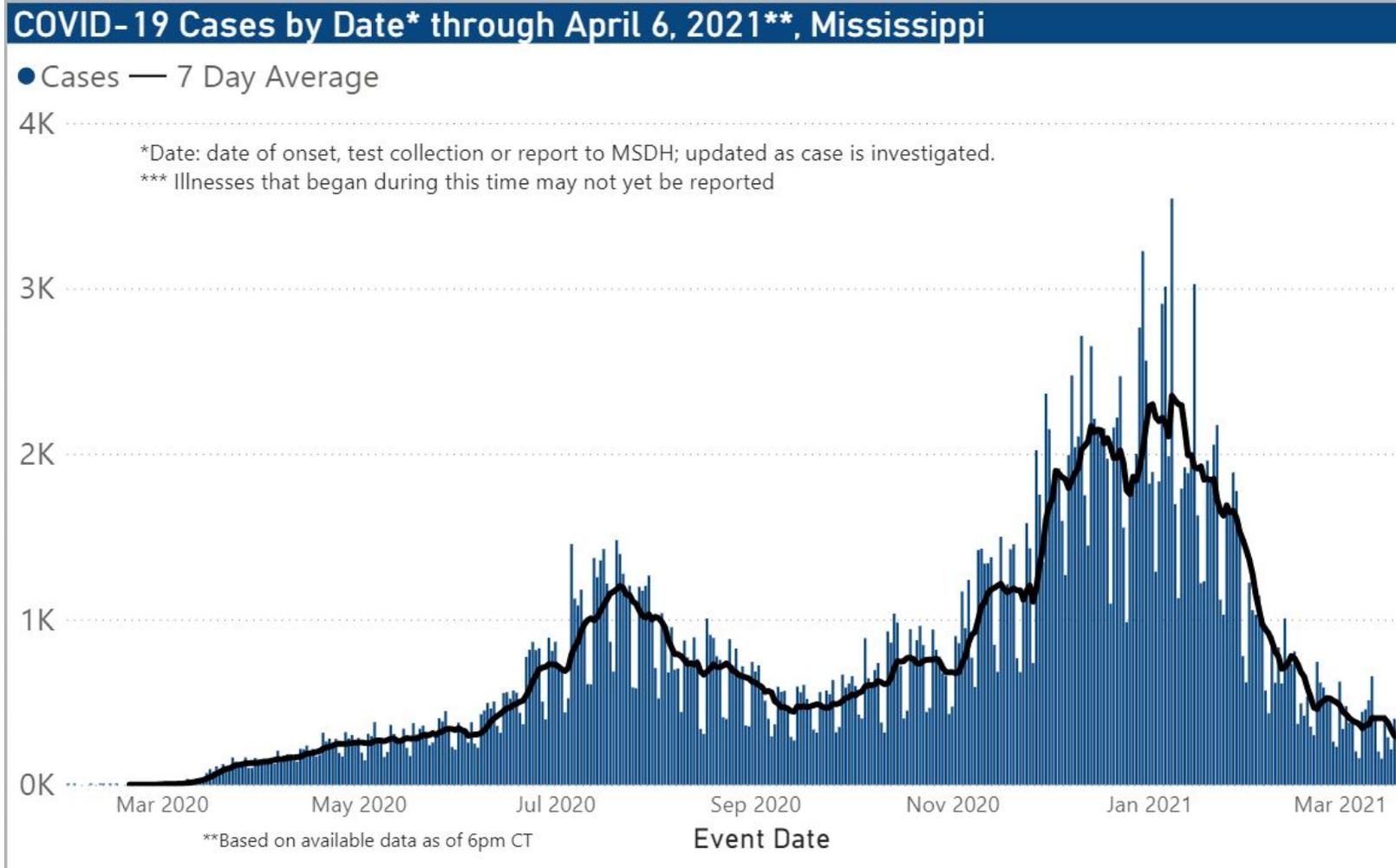
# Background

- Communities and Hospitals Advancing Maternity Practices (CHAMPS) works with hospitals to improve breastfeeding through adopting evidence-based maternity care practices and achieving WHO's Baby-Friendly designation
- CHAMPS started in 2012 and began in Mississippi in 2014
- Currently, 41 birthing hospitals in Mississippi, 37 are enrolled in CHAMPS
- First COVID-19 case in Mississippi identified on March 11, 2020



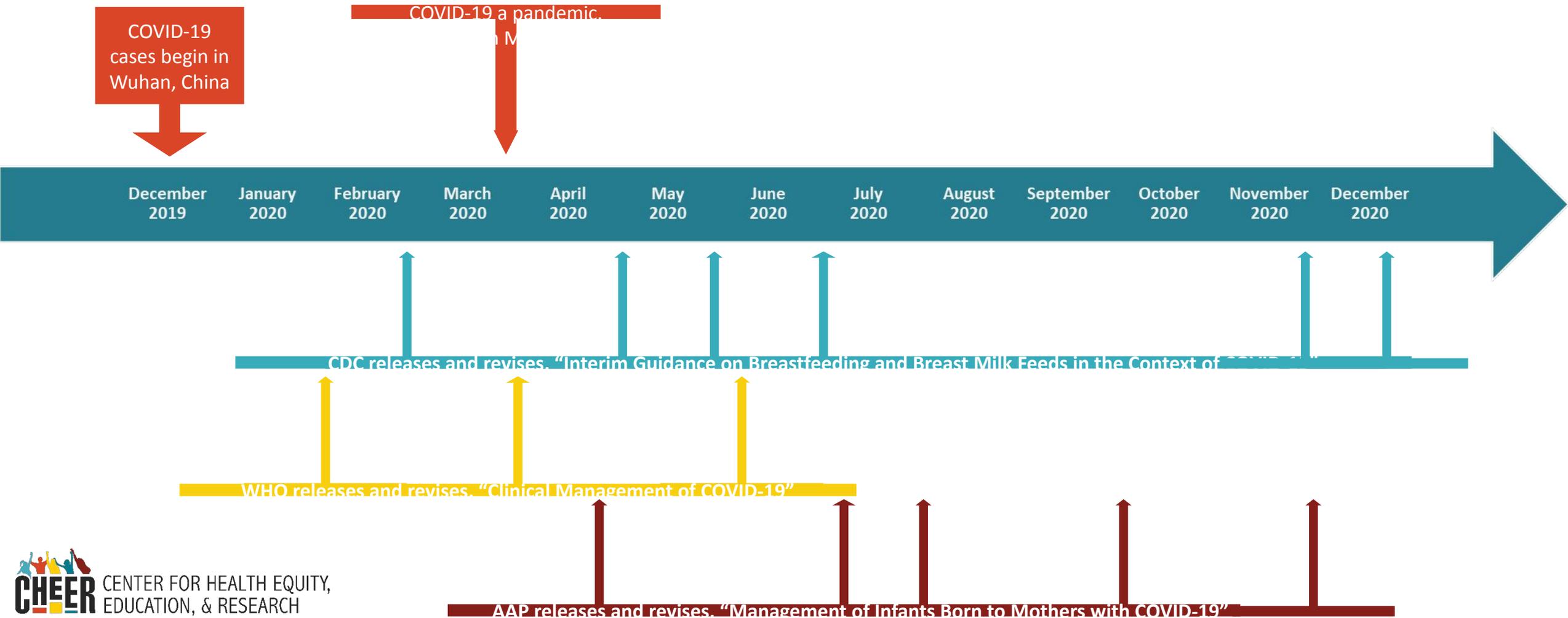
Map of Mississippi birthing hospitals enrolled in CHAMPS

# Background



Mississippi State Department of Health

# Background: Timeline of COVID-19 Guidelines for Breastfeeding and Postpartum Care



# Aims

1. Assess changes in maternity care policies/guidelines in the Mississippi CHAMPS cohort
2. Compare breastfeeding initiation and exclusivity rates, skin-to-skin, and rooming-in practices before and during the COVID-19 pandemic



*Image Credit: Victor J. Blue for The New York Times*

A Mother in the hospital seeing her infant over video

# Methods: Survey on Hospital Policy

- Surveyed Mississippi CHAMPS hospitals in the spring (May/June) and fall (Sept/Oct) of 2020 about the effects of COVID-19 on maternity care practices
- Questions grouped into 3 categories:
  1. Number of suspected and/or confirmed COVID-19 cases
  2. Screening and testing questions
  3. Practice-related questions:
    - Skin-to-skin care
    - Rooming-in
    - Breastfeeding



*Image Credit: Dario Sintoni*

Mother in a mask experiencing skin-to-skin with newborn after birth

# Methods: Monthly Hospital Data

- Hospitals were already submitting monthly aggregate data by race/ethnicity to CHAMPS
- **Measures**
  - Breastfeeding initiation: infant receiving any breast milk during the initial hospital stay
  - Exclusive breastfeeding: infant receiving only breast milk
  - Skin-to-skin: infant being placed on the mother's chest immediately after birth (as soon as mother is responsive and alert after cesarean), and remaining there through the first breastfeed or for at least one hour if formula feeding
  - Rooming-in: infant remaining with the mother in the same room, from birth until discharge, unless separation is medically necessary
- **Analysis**
  - Compared rates before COVID-19 (Jan 2015-Jan 2020) to during the pandemic (Apr 2020-Oct 2020)
  - Used a fuzzy interrupted time series design with generalized linear models
  - Data were pooled and then stratified by race

# Results: Survey on Hospital Policy

- Of the 37 hospitals surveyed:
  - 31 responded to the spring survey
  - 30 responded to the fall survey
  - 70% (26 hospitals) responded to both surveys

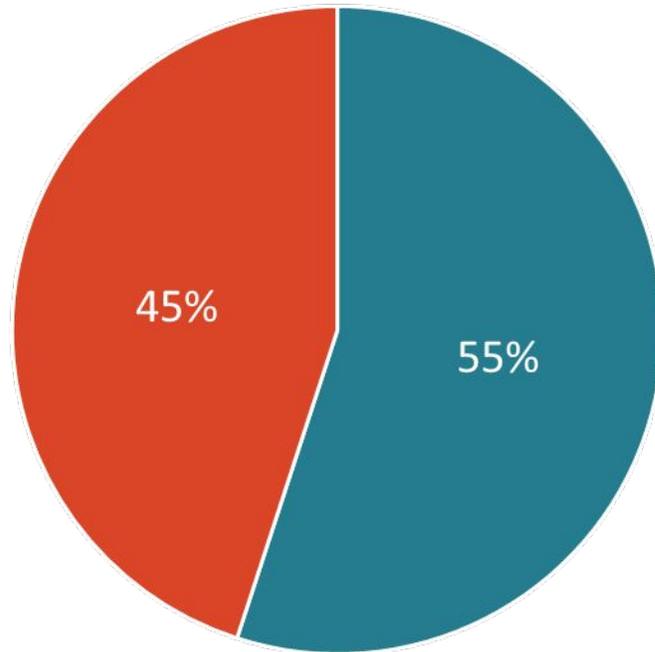


*Image Credit: UW Medicine*

# Results: Survey on Hospital Policy

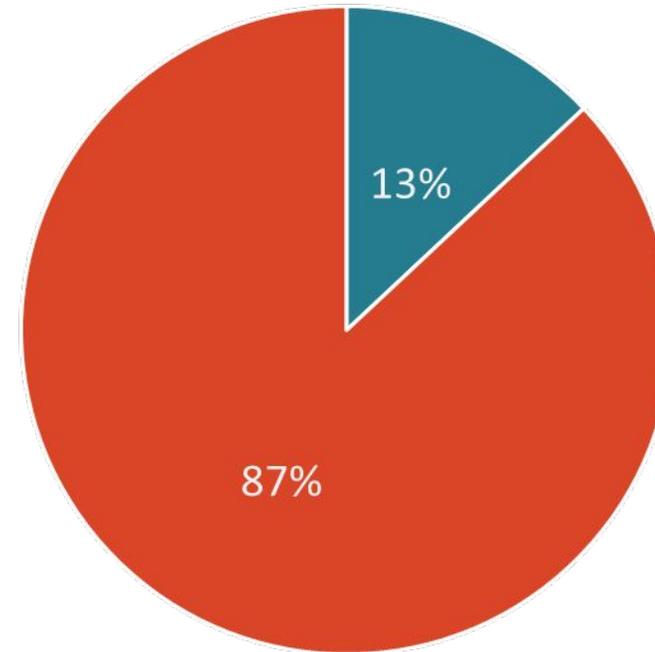
## Hospitals with a PUI/COVID+ Patient Who Gave Birth

Spring Survey



■ No ■ Yes

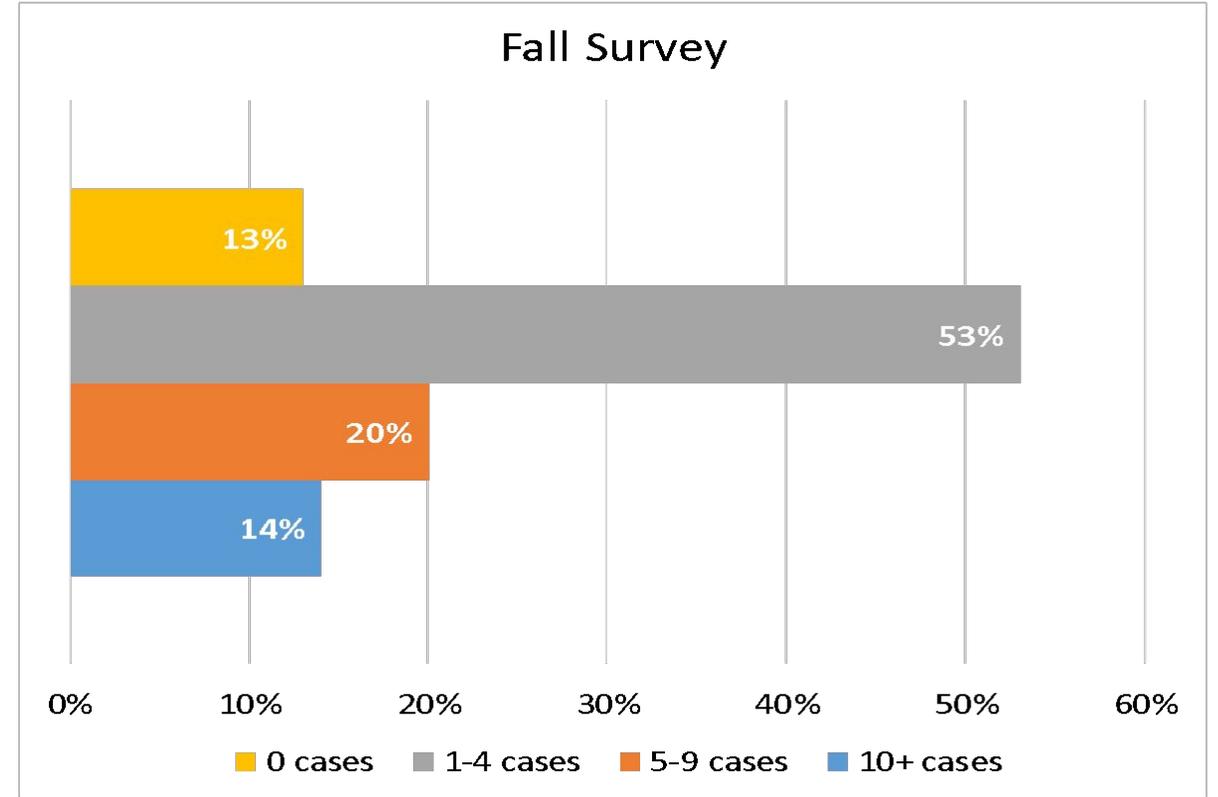
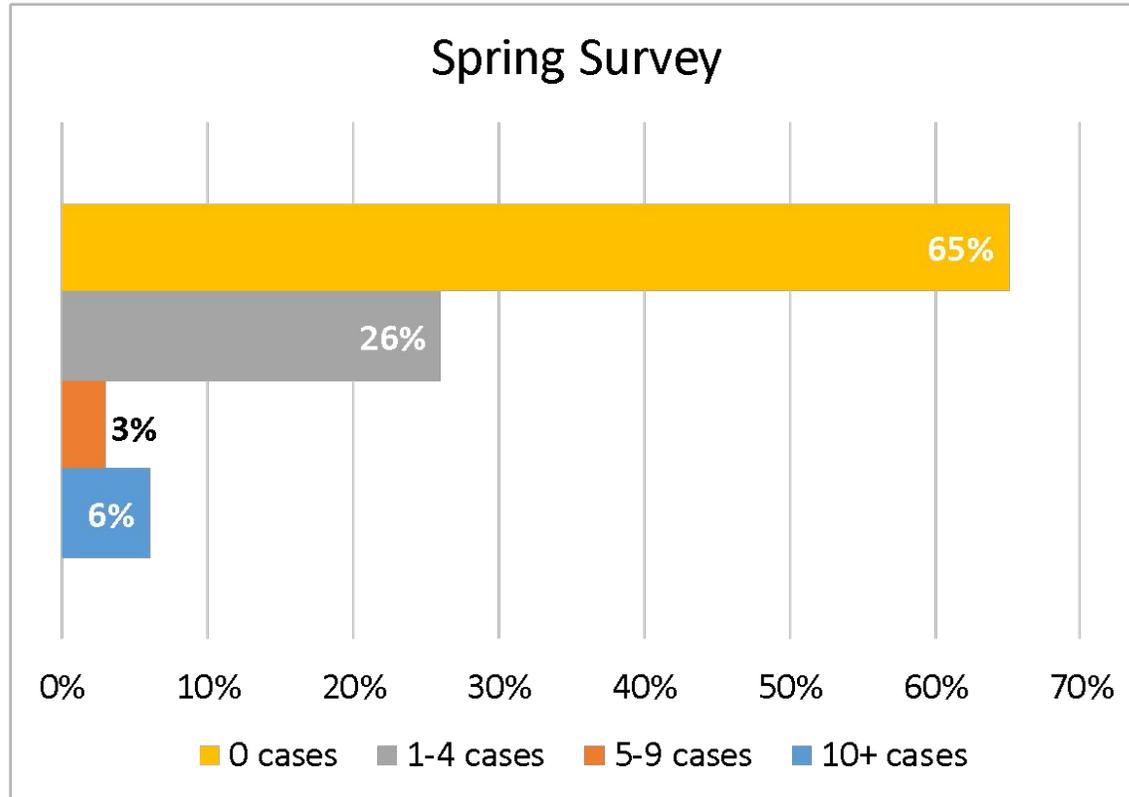
Fall Survey



■ No ■ Yes

# Results: Survey on Hospital Policy

## Number of COVID+ Patients Giving Birth at Each Hospital



# Results: Testing and Screening

Testing and Screening Questions	Spring Survey	Fall Survey
	%	%
<b>Is your hospital <u>SCREENING</u> women who give birth at your hospital for COVID-19?</b>		
We screen all maternity care patients	100%	100%
<b>Is your hospital <u>TESTING</u> maternity care patients for COVID-19?</b>		
We test all maternity care patients	45%	53%
We test women whose screen reveals positive risk factors	19%	37%
We are not testing any maternity care patients at this time	23%	3%

## Definitions

**Screening:** Assessing symptoms or exposure, such as cough, fever, or contact with other COVID-19 cases

**Testing:** Obtaining a biological sample and testing it in the laboratory to confirm or rule out infection

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# Results: Skin-to-Skin Hospital Policy



*Image Credit: Dario Sintoni*

# Results: Skin-to-Skin Hospital Policy

Skin-to-Skin Hospital Policy Questions	Spring Survey	Fall Survey
	%	%
<b>How does your unit manage STS in the 1<sup>st</sup> hour after birth for <b>HEALTHY</b> mothers and babies?</b>		
We adhere to our normal STS practices	71%	83%
We encourage STS along with new practices to prevent infection	13%	17%
We use a “shared decision making” approach to STS	13%	0%
<b>How does your unit manage/plan to manage STS in the 1<sup>st</sup> hour after birth for <u>COVID+/PUIs</u> mothers?</b>		
We encourage STS along with new practices to prevent infection	23%	57%
We use a “shared decision making” approach to STS	29%	13%
We do not allow STS/we counsel mothers against STS	29%	20%

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# Results: Rooming-in Hospital Policy



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Rooming-in Hospital Policy Questions	Spring Survey	Fall Survey
	%	%
<b>How does your unit manage rooming-in for <u>HEALTHY</u> mothers and babies?</b>		
We adhere to our normal rooming-in practices	71%	53%
We are strengthening our rooming-in recommendations	29%	47%
<b>How does your unit manage or plan to manage rooming-in for a <u>PUI</u> mother?</b>		
We encourage rooming-in with new practices to prevent infection	32%	67%
We use a “shared decision making” approach to rooming-in	26%	10%
We do not allow rooming-in	19%	13%
<b>How does your unit manage or plan to manage rooming-in for a <u>COVID+</u> mother?</b>		
We encourage rooming-in with new practices to prevent infection	16%	60%
We use a “shared decision making” approach to rooming-in	23%	13%
We do not allow/we counsel mothers against rooming-in	42%	20%

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# Results: Breastfeeding Guidance

Breastfeeding Guidance Questions	Spring Survey	Fall Survey
	%	%
<b>What is your unit recommending as a feeding plan for mothers who are <u>COVID+/PUIs</u>? (Check all that apply)</b>		
Direct, exclusive breastfeeding	16%	20%
Direct, exclusive breastfeeding, and advising mothers to wash their hands and wear a mask while breastfeeding	29%	63%
Direct, exclusive breastfeeding, and advising mothers to clean the breast before breastfeeding	13%	20%
Feeding expressed milk to the baby instead of direct breastfeeding	52%	27%
My hospital advises formula feeding	3%	7%

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# Results: Guideline Development

Guideline Development Questions	Spring Survey	Fall Survey
	%	%
<b>What guidance did you use to create your practice guidelines for COVID+/PUI patients? (Check all that apply)</b>		
Centers for Disease Control and Prevention	84%	73%
American Academy of Pediatrics	61%	80%
World Health Organization	45%	27%
Academy of Breastfeeding Medicine	10%	10%
<b>Have you changed your COVID-19 Practice Guidelines over the course of the epidemic?</b>		
Yes	NA	80%
No	NA	13%

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No	NA	13%

# Results: Monthly Hospital Data

- 38 hospitals contributed monthly data (including all that answered the survey)
- Compliance with skin-to-skin and rooming-in dropped in response to the COVID-19 pandemic
- No statistically significant changes in rates of any or exclusive breastfeeding
- No differential impacts by race

## Response to COVID-19 Pandemic: Monthly Hospital Data Before and During the Pandemic\*

	All Births		Black Dyads		White Dyads	
	Rate Ratio	95% CI	Rate Ratio	95% CI	Rate Ratio	95% CI
Any Breastfeeding	0.96	(0.906 to 1.021)	0.95	(0.857 to 1.044)	0.98	(0.913 to 1.043)
Exclusive Breastfeeding	0.93	(0.85 to 1.01)	0.91	(0.767 to 1.091)	0.93	(0.856 to 1.017)
Skin-to-Skin Vaginal	<b>0.87</b>	<b>(0.803 to 0.947)</b>	<b>0.84</b>	<b>(0.75 to 0.938)</b>	<b>0.90</b>	<b>(0.829 to 0.977)</b>
Skin-to-Skin C-Section	<b>0.79</b>	<b>(0.677 to 0.917)</b>	<b>0.79</b>	<b>(0.668 to 0.926)</b>	<b>0.84</b>	<b>(0.708 to 0.985)</b>
Rooming In	<b>0.77</b>	<b>(0.672 to 0.886)</b>	<b>0.76</b>	<b>(0.664 to 0.874)</b>	<b>0.78</b>	<b>(0.674 to 0.903)</b>

\*Statistically significant results appear in **bold** text

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- 38 hospitals contributed monthly data (including all that answered the survey)
- Compliance with skin-to-skin and rooming-in dropped in response to the COVID-19 pandemic
- No statistically significant changes in rates of any or exclusive breastfeeding
- No differential impacts by race

## Response to COVID-19 Pandemic: Monthly Hospital Data Before and During the Pandemic\*

	All Births		Black Dyads		White Dyads	
	Rate Ratio	95% CI	Rate Ratio	95% CI	Rate Ratio	95% CI
Any Breastfeeding	0.96	(0.906 to 1.021)	0.95	(0.857 to 1.044)	0.98	(0.913 to 1.043)
Exclusive Breastfeeding	0.93	(0.85 to 1.01)	0.91	(0.767 to 1.091)	0.93	(0.856 to 1.017)
Skin-to-Skin Vaginal	<b>0.87</b>	<b>(0.803 to 0.947)</b>	<b>0.84</b>	<b>(0.75 to 0.938)</b>	<b>0.90</b>	<b>(0.829 to 0.977)</b>
Skin-to-Skin C-Section	<b>0.79</b>	<b>(0.677 to 0.917)</b>	<b>0.79</b>	<b>(0.668 to 0.926)</b>	<b>0.84</b>	<b>(0.708 to 0.985)</b>
Rooming In	<b>0.77</b>	<b>(0.672 to 0.886)</b>	<b>0.76</b>	<b>(0.664 to 0.874)</b>	<b>0.78</b>	<b>(0.674 to 0.903)</b>

\*Statistically significant results appear in **bold** text

# Results: Monthly Breastfeeding Data

- Time trend analyses showed a statistically significant monthly decline (1-3 percentage points per month) for skin-to-skin and rooming-in practices

## Time Trend during the COVID-19 Pandemic: Monthly Hospital Data\*

	All Births		Black Dyads		White Dyads	
	Rate Ratio	95% CI	Rate Ratio	95% CI	Rate Ratio	95% CI
Any Breastfeeding	1.00	(0.983 to 1.009)	0.98	(0.958 to 1.006)	1.00	(0.995 to 1.014)
Exclusive Breastfeeding	1.00	(0.98 to 1.013)	0.98	(0.94 to 1.015)	1.01	(0.989 to 1.021)
Skin-to-Skin Vaginal	<b>0.99</b>	<b>(0.975 to 0.995)</b>	1.00	(0.98 to 1.01)	<b>0.99</b>	<b>(0.977 to 0.998)</b>
Skin-to-Skin C-Section	<b>0.97</b>	<b>(0.947 to 0.985)</b>	<b>0.95</b>	<b>(0.923 to 0.981)</b>	<b>0.98</b>	<b>(0.959 to 0.998)</b>
Rooming In	<b>0.97</b>	<b>(0.954 to 0.984)</b>	<b>0.97</b>	<b>(0.95 to 0.982)</b>	<b>0.97</b>	<b>(0.956 to 0.989)</b>

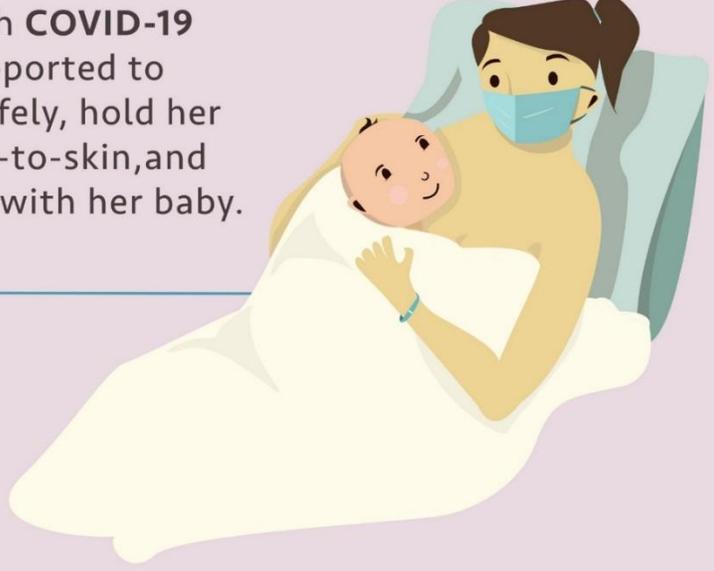
\*Statistically significant results appear in **bold** text

# Discussion

- The hospitals varied significantly in their approach and practice in the early stages of the pandemic when guidance from national and international authorities was inconsistent
- By the fall, more hospitals had cared for mothers with COVID-19
- In the fall survey, for PUI/COVID+ mothers, hospitals were more likely to recommend:
  - Skin-to-skin
  - Rooming-in
  - Direct breastfeeding
  - \* Oftentimes with extra safety precautions

**Skin-to-skin care and early, exclusive breastfeeding helps a baby to thrive**

A woman with **COVID-19** should be supported to breastfeed safely, hold her newborn skin-to-skin, and share a room with her baby.



The illustration shows a woman with dark hair tied back, wearing a light blue surgical mask and a yellow long-sleeved shirt. She is sitting in a hospital bed, holding a newborn baby wrapped in a white blanket. The baby is looking towards the viewer. The background is a light purple wall.

 World Health Organization  
Western Pacific Region

# Discussion

- Rates of breastfeeding initiation and exclusivity remained consistent in this cohort of hospitals
- Skin-to-skin and rooming-in practices dropped in response to the pandemic
- Changes in practice could be due to the initially more restrictive national COVID guidelines (e.g. AAP & CDC)
- Maintenance of breastfeeding rates could be due in part to this cohort's commitment to BFHI
- It will be important to continue to follow changes in breastfeeding and maternity practice rates as time goes on

## Breastfeeding mothers and COVID-19



If you are sick with COVID-19 or think you might have it, follow these steps when breastfeeding:



Use a medical mask when near your child



Wash your hands thoroughly with soap or sanitizer before and after contact with your child



Routinely clean and disinfect any surfaces you touch



#COVID19  
#CORONAVIRUS

# Conclusion

- Interpreting and adapting COVID-19 guidelines happens at a local level by individual hospitals
  - Mississippi maternity hospitals adopted a range of COVID-19 policies
- Rates of breastfeeding, an important protective factor in emergencies, have not changed significantly



King's Daughters Medical Center Baby-Friendly Team



Highland Community Hospital Baby-Friendly Team

# Contact Information

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Mississippi CHAMPS Team, Fall 2019

# Providing Breastfeeding Support During COVID-19: A Survey of Staff Experiences

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# Disclosures

Investigator/Resource	Funding Source
<p>Rachel Hoying, BS</p>  <p>(Good luck Rachel!)</p>	<ul style="list-style-type: none"> <li>• Area of Scholarly Concentration Program, Northwestern University Feinberg School of Medicine</li> <li>• Division of Neonatology, Lurie Children's Hospital; Department of Pediatrics, NUFSM</li> </ul>
<p>REDCap Survey Instrument</p>	<ul style="list-style-type: none"> <li>• REDCap is supported by the Northwestern University Clinical and Translational Science (NUCATS) Institute and thereby, in part, by the National Institutes of Health's National Center for Advancing Translational Sciences, Grant Number UL1TR001422</li> </ul>

# Background

- Mother's milk remains the recommended form of nourishment for newborns and infants during the COVID-19 pandemic
- Women's experiences surrounding lactation:
  - Difficulties staying up to date
  - Missed time with families
  - Experience guilt, stress, additional concerns
- Novel infectious outbreaks, including COVID-19, create disruptions to workflows for healthcare providers
- Consensus: women should be provided access to lactation support



# Knowledge Gap, Objective and Aim

- Knowledge gap:
  - Experiences of providing in-hospital lactation support during the COVID-19 pandemic
- Objective:
  - Identify modifiable components of workflow surrounding lactation support
- Aim
  - Characterize lactation support during the early period of the COVID-19 pandemic as experienced by healthcare providers

# Prentice Women's Hospital of Northwestern Memorial

- Downtown Chicago, IL, USA
- 5<sup>th</sup> largest maternity hospital in the United States
  - Annual delivery volume of ~11,000
- Approximately 40% of women publicly insured
- All women have access to lactation support postpartum
  - Staff nurse, breastfeeding counselor, IBCLC



Quality metrics	September 2019-February 2020	March 2020-June 2020 (period of interest)
Breastfeeding initiation	86.8 ± 1.2 %	82.0 ± 2.5 %
Exclusive mother's milk feeds	44.2 ± 2.9 %	47.9 ± 0.46 %

Note: mothers of infants in the NICU not included; exclusive milk feedings measured from birth through infant discharge



## Clinical Setting Prior to Pandemic



- Postpartum medical care:
  - Women: obstetrical provider
  - Newborns: pediatrician, either hospital-employed or private practice



- Room-in encouraged
  - Postpartum nursing staff provide care for dyad



- Maternal support:
  - Primary support person 24 hours/day
  - 4 visitors during visitation hours



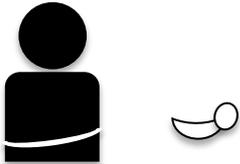
- Lactation support (direct breastfeeding or milk expression) within 1 hour postpartum



## Clinical Setting At Early Recognition of Pandemic, March 2020



- Establishment of a COVID-19 unit
  - Pregnant, laboring or postpartum women:
    - Positive test for SARS-CoV-2
    - Pending test, or negative test with symptoms consistent with COVID-19
  - Select providers recruited to work on this unit



- Newborns separated from mothers in COVID-19 unit
  - Stop separation if pending test → negative test and no symptoms



- Maternal support:
  - Primary support person 24 hours/day, unless SARS-CoV-2 (+)
  - No visitors



- Lactation support available

# Measuring effects of COVID-19 on healthcare workers providing lactation support (Methods)

- Prospective, cross sectional survey
  - Eligible: 108 providers who worked in the COVID-19 unit March-June 2020
- REDCap survey (secure, electronic research instrument)
  - Complied with IRB guidelines of limited contact
  - Iterative process for survey development
    - Pilot testing and stepwise editing amongst investigators
    - Pilot testing amongst 3 providers who did not work in COVID-19 unit
  - Survey distributed June 2020-July 2020 with 5 email reminders
    - \$5 Starbucks gift card for responses

## **DEFINITIONS:**

**Women affected by COVID-19:** women with a positive COVID-19 test, a pending COVID-19 test, or women presumed to have COVID-19 even with negative testing.

**Newborns:** neonates born to women affected by COVID-19

# Quantitative measures

## COMMUNICATION

- Forms of communication
- Comparison to other COVID-19 policies

## EXPERIENCES

- Perceived stress in completing tasks
- Perceived difficulty completing tasks

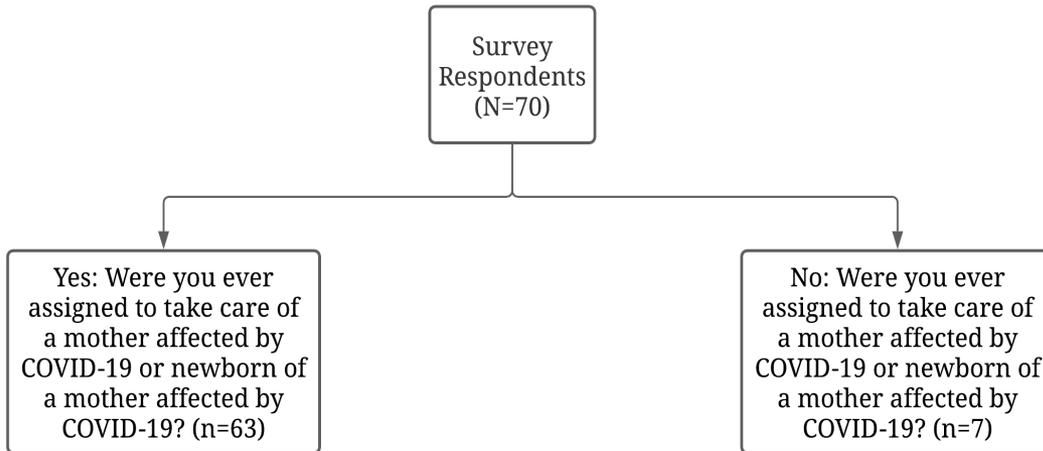
## POLICY & PROCEDURES

- Adherence: frequency of completing procedures as delineated in policy

# Qualitative measures

- “Name 3 aspects of providing care that most affected [providing] lactation support”
- Constant comparative methods used to identify themes and subthemes
  - Two investigators independently evaluated responses

# Results: Participating healthcare workers



	n (%)
<b>Role</b>	
<b>Registered Nurse</b>	<b>47 (67)</b>
<b>Advanced Practice Nurse</b>	<b>2 (3)</b>
<b>Breastfeeding Counselor</b>	<b>10 (14)</b>
<b>IBCLC</b>	<b>6 (9)</b>
<b>Physician</b>	<b>15 (21)</b>
<b>Midwife</b>	<b>0 (0)</b>
<b>Primary Unit of Practice</b>	
<b>Obstetric</b>	<b>64 (91)</b>
<b>Pediatric</b>	<b>6 (9)</b>
<b>Female sex</b>	<b>68 (97)</b>

# Difficulty or stress while providing lactation support: *compared to providing the same care to women/newborns not affected by COVID-19*

	Breastfeeding support (n=18)	Pumping/hand expression support (n=39)	Providing pumped/expressed milk to newborn (n=24)
	n (%)	n (%)	n (%)
<b>DIFFICULTY OF PROVIDING SUPPORT</b>			
<b>More difficult</b>	14 (77.8)	24 (61.5)	12 (50)
<b>Unchanged</b>	4 (22.2)	14 (35.9)	11 (45.8)
<b>Less stressful</b>	0 (0)	1 (2.6)	0 (0)

Those who recall receiving guidance through shift meetings or email report lower stress scores.

# Adherence: Lower rates of completing hygiene-related tasks when supporting milk expression

Itemized procedures within policy for providing lactation support	Percentage of time completing procedure	
HYGIENE-RELATED	Mean	SD
Ensure patients changed gowns prior to and wore a surgical/procedure mask during pumping	52.5	31.7
Ensure that patients washed hands prior to pumping	60.4	35.1

n=29

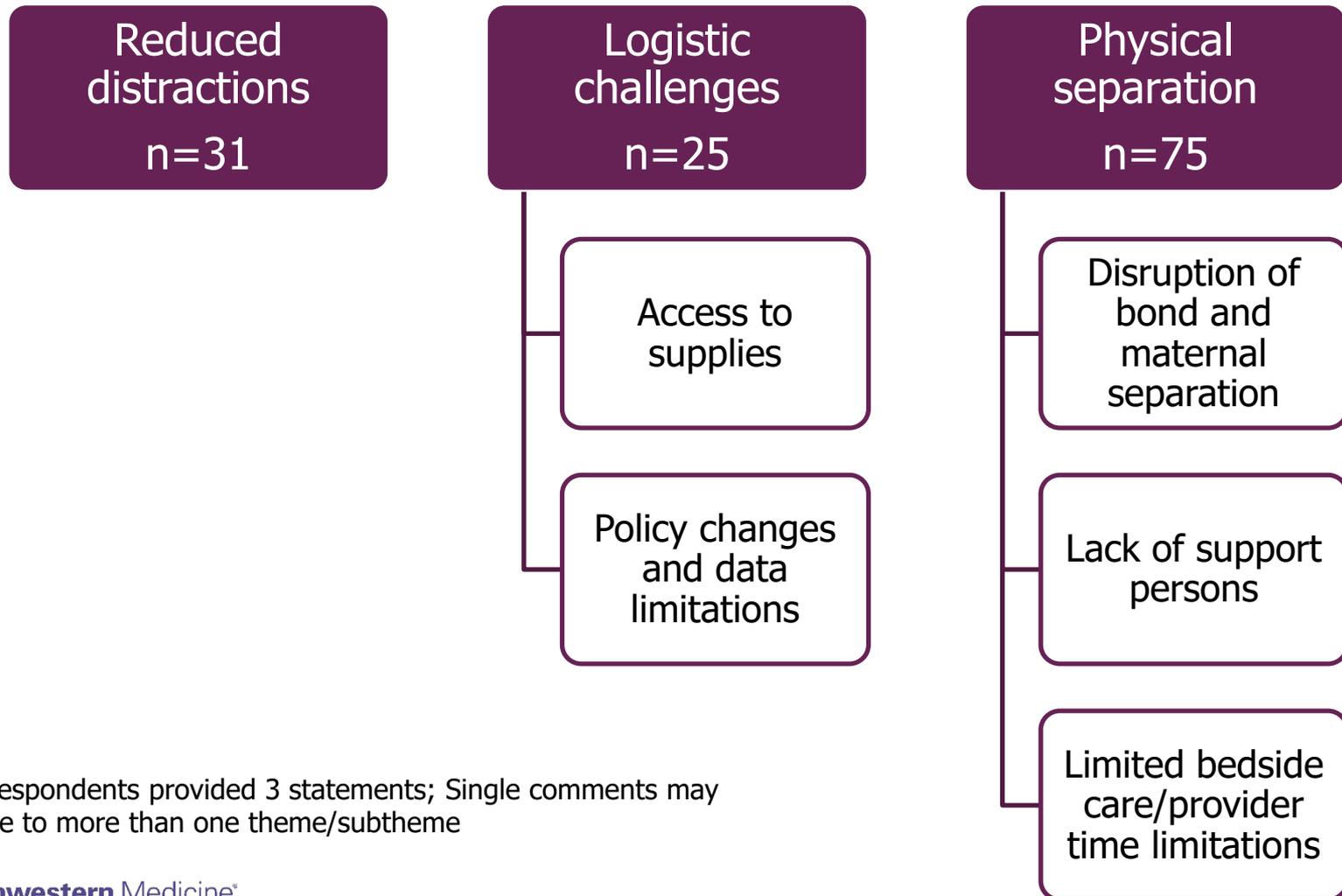
# Lower rates of completing hygiene-related tasks when supporting milk expression

Itemized procedures within policy for providing lactation support	Percentage of time completing procedure	
<b>HYGIENE-RELATED</b>	Mean	SD
Ensure patients changed gowns prior to and wore a surgical/procedure mask during pumping	52.5	31.7
Ensure that patients washed hands prior to pumping	60.4	35.1
<b>EQUIPMENT RELATED</b>		
Ensure all equipment for pumping was readily available for patients	87.0	24.8
After milk pumped, ensure outside of the containers holding the breastmilk wiped with an alcohol swab and allowed to dry.	92.6	22.8

n=29

Stress scores correlate with ensuring equipment availability:  $r=-0.42$ ,  $p=0.02$

Identified themes/subthemes from qualitative responses:  
“Name 3 aspects of providing care that most affected [providing] lactation support”\*



\*Note: Respondents provided 3 statements; Single comments may contribute to more than one theme/subtheme

# Exemplary responses: unanticipated positive responses

Reduced  
distractions

n=31

- “Less [*sic*] visitors give clinicians more time for direct education and support.”
- “Parents more focused on learning and resting/recovering.”
- “Fewer interruptions/distractions with no visitors...no newborn photography...and no VISITORS!”
- In U.S. hospitals, visitors felt to be a key factor in implementing the Ten Steps to Successful Breastfeeding
  - Nickel et al. Midwifery 2013

# Exemplary responses

Access to  
supplies

Policy changes  
and data  
limitations

Disruption of  
bond and  
maternal  
separation

Lack of support  
persons

Limited bedside  
care/provider  
time limitations

- “...extra staff was needed to physically bring milk to baby.”
- “...there were no updates given regarding pumping guideline...”
- “Our recommendations were different compared to CDC and WHO...”
  
- “I feel like we should have given the mothers a choice and consented them to keep babies with them...”
- “...the limitation of guests is a huge interference in breastfeeding education and support.”
- “Wearing a mask made it difficult to speak at long lengths about breastfeeding...”

# Limitations

- Recall bias
- No objective measure of experiences including physiologic markers of stress
  - Experiences of stress leads to burnout West, J Int Med 2018
  - Findings are consistent with other reports of healthcare workers providing care during infectious outbreaks, including COVID-19, that stress is higher Walton Eur Heart J 2020
- Single center

# Take home messages

- While need for lactation support remained during pandemic, healthcare workers reported stressors specific to performing these functions
  - Will likely have relevance during next novel infectious outbreak
- Lower compliance with hygiene-related procedures raises concern and needs attention
- While assumptions were made that changes to workflows would negatively affect lactation support, unanticipated positive effects discovered
- In considering that separation of dyads no longer a practice, opportunity for mitigation appears to be communication

## **KEY TAKEAWAY:**

**THOSE PROVIDING LACTATION SUPPORT DURING COVID-19 NEED SUPPORT!**

# Thank You

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 **Northwestern  
Medicine®**

Prentice  
Women's Hospital



 **Ann & Robert H. Lurie  
Children's Hospital of Chicago®**

# Exemplary responses

Logistic  
challenges  
n=25

Access to  
supplies

Policy changes  
and data  
limitations

- “...extra staff was needed to physically bring milk to baby.”
- “...there were no updates given regarding pumping guideline...”
- “Our recommendations were different compared to CDC and WHO...”

# Exemplary responses

Physical  
separation

n=75

Disruption of  
bond and  
maternal  
separation

Lack of support  
persons

Limited bedside  
care/provider  
time limitations

- “I feel like we should have given the mothers a choice and consented them to keep babies with them...”
- “...the limitation of guests is a huge interference in breastfeeding education and support.”
- “Wearing a mask made it difficult to speak at long lengths about breastfeeding...”

# Infant Feeding during the COVID-19 Pandemic in the U.S.:

Report of a cross-sectional online survey  
March – May 2020

Aunchalee E.L. Palmquist, Cecília Tomori, Carolyn Fox, Stephanie Chung, and  
E.A. Quinn

April 2021

# Disclosures

All authors declare that we do have not received, nor currently receive, any research funds, grants, donations, gifts, honoraria, or sponsorships from manufacturers or distributors (or their trusts, associations, or foundations) of infant and young child feeding products and related products, which are covered in the *International Code of Marketing of Breast-milk Substitutes* (“The WHO Code”) and associated WHA resolutions.

We have no other financial disclosures pertaining to this research.

# Introduction

- Early in pandemic, there was uncertainty about perinatal transmission of SARS-CoV-2<sup>1,2</sup>
- Guidance related to lactation and COVID-19 in the U.S. was not aligned with WHO recommendations initially<sup>2-4</sup>
- Early cessation of breastfeeding is common during public health emergencies and crisis situations<sup>3</sup>

# Context

- U.S. fails to provide parental/family leave and lactation protections
- U.S. fails to provide universal access to health care
- **Structural racism**: Social policies, institutions, and criminal legal systems that protect the health, wealth, and interests of white supremacy\* at expense of other racialized groups<sup>5</sup>
- **Racial capitalism**: Racialized exploitation of labor that leads to accumulation of wealth<sup>6</sup>

# Well-established:

- Black, Native American, Native Hawaiian and Pacific Islander, Latinx, Filipino, and Asian/Asian American people are ***disproportionately working low-paying, high exposure jobs***<sup>6</sup>
- Higher exposures lead to ***overrepresentation of BIPOC in COVID-19 cases and deaths***<sup>7-9</sup>
- COVID-19 perinatal morbidities and severe maternal mortality are ***highest in populations exposed to structural racism***<sup>10-14</sup>

# What is unknown?

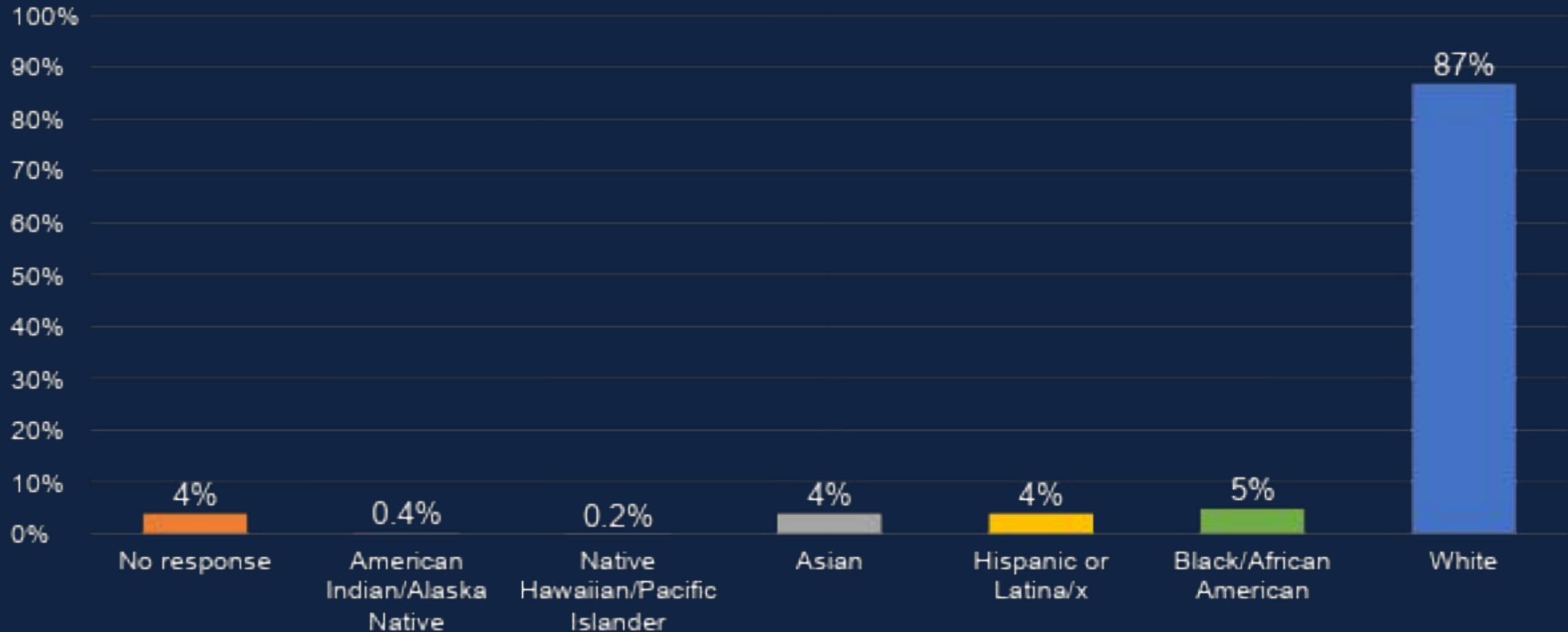
- How did knowledge, attitudes, and COVID-19 mitigation policies and practices affect infant feeding decisions early during the pandemic in the U.S.?
- Does racial capitalism during COVID-19 influence infant feeding practices?

# Methods

- IRB approval Washington University at St. Louis
- Online survey March – May 2020
- Eligibility:  $\geq 18$ , youngest infant  $\leq 1$  yr, US resident
- Variables:
  - Demographic characteristics
  - Age of youngest infant
  - Infant feeding intentions
  - Current infant feeding practices
  - Partner support for infant feeding decisions
  - Knowledge, attitudes, and perceptions of COVID-19 and breastfeeding
  - Weaning decision-making
- Descriptive analysis, linking findings to broader literature

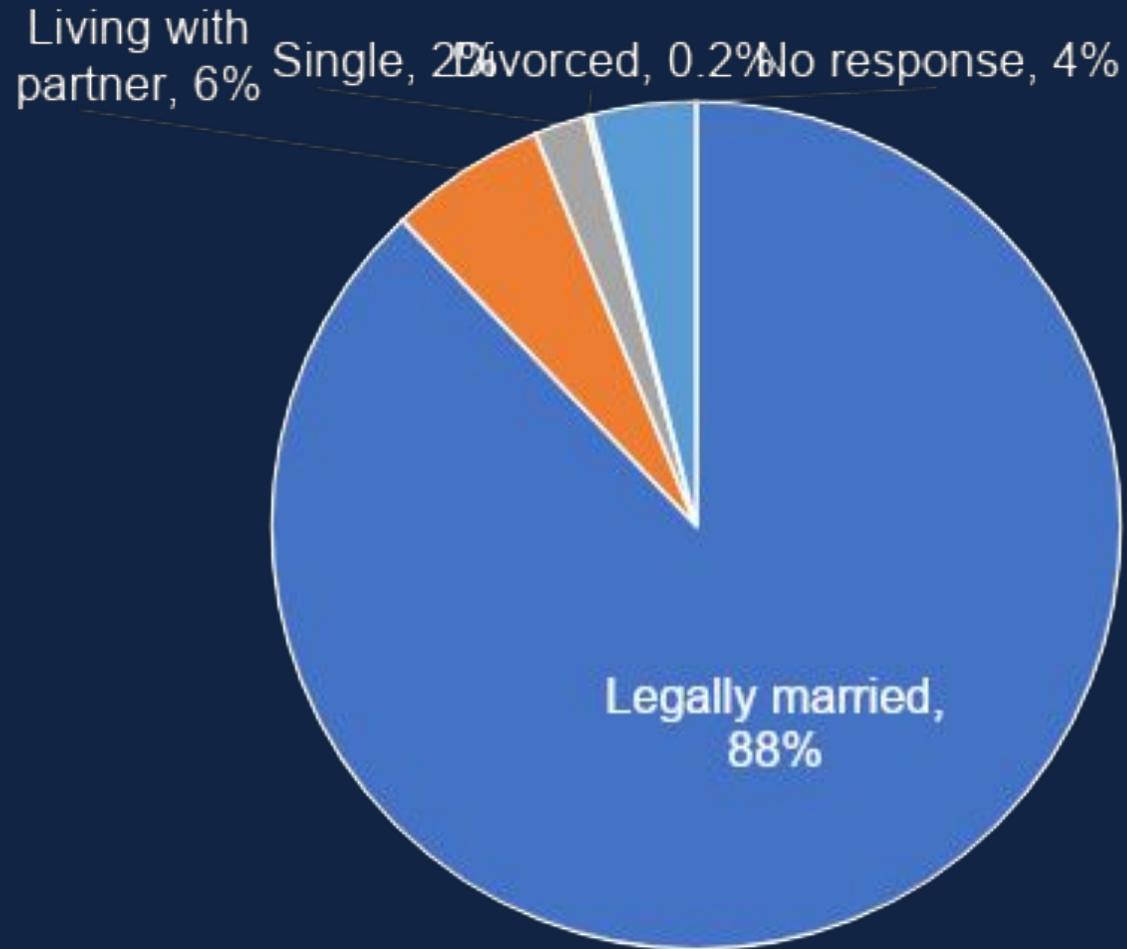
# Respondent Characteristics (n=1437)

## Census Race/Ethnicity categories



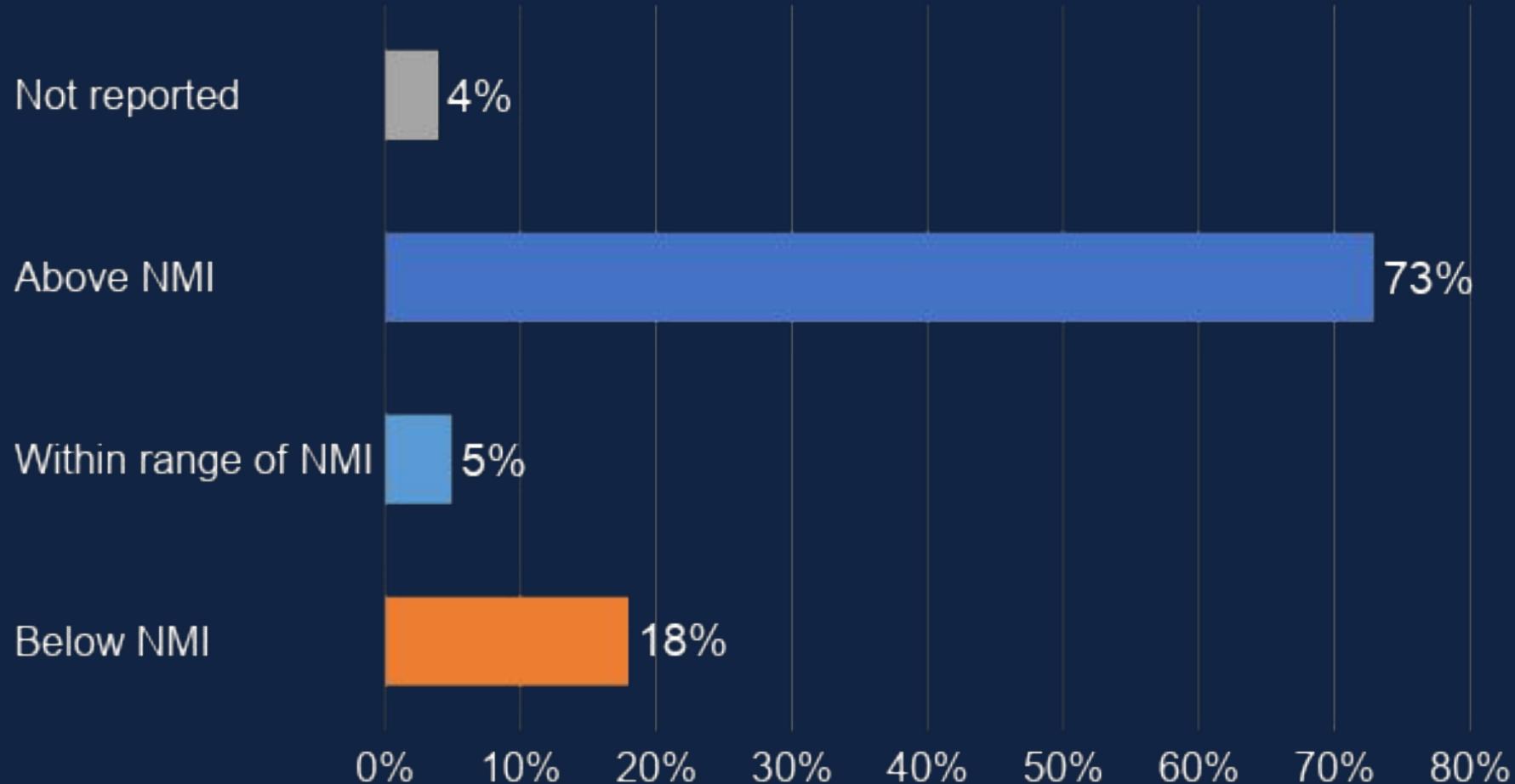
# RESPONDENT CHARACTERISTICS

## Partnership



# RESPONDENT CHARACTERISTICS

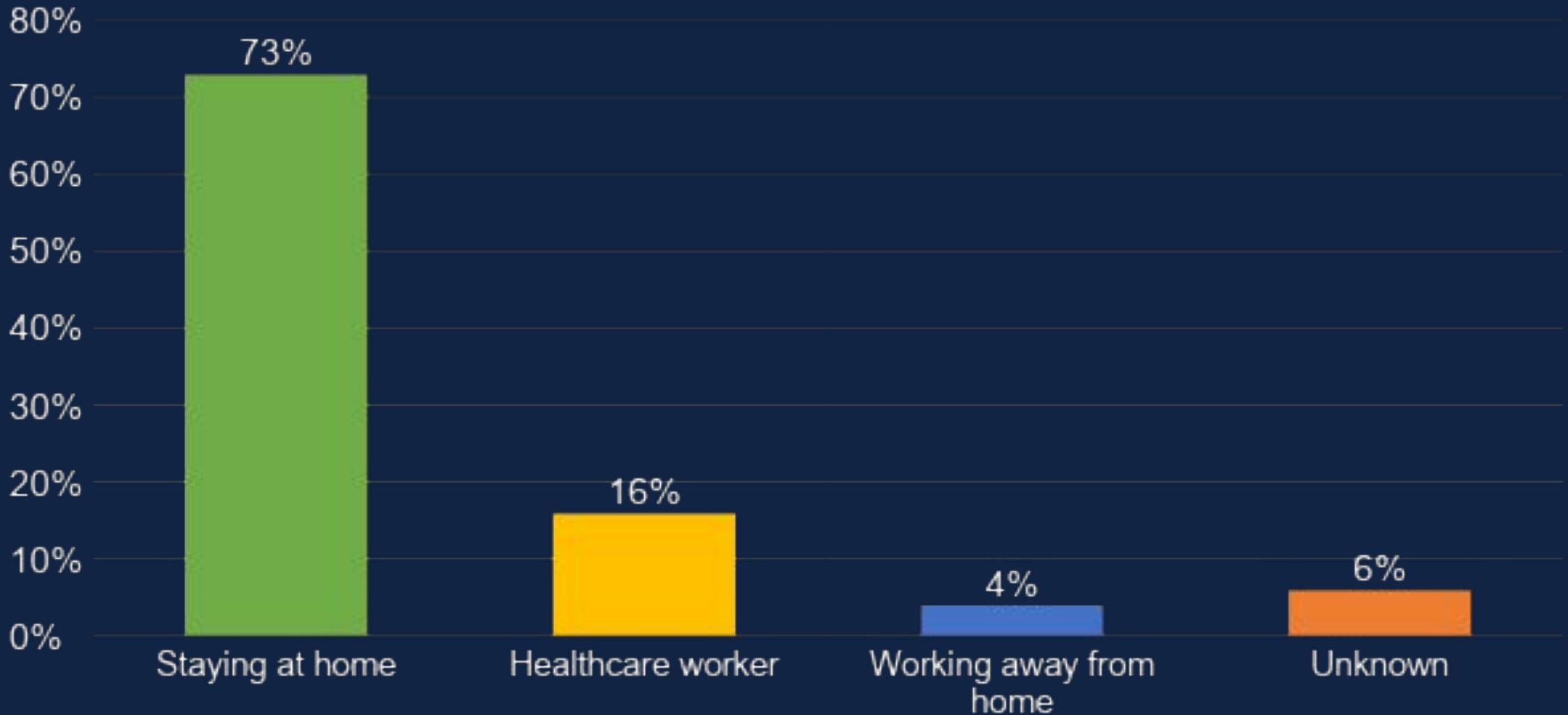
## Household income relative to national median income (NMI) 2019



These are unpublished data - please do not photograph or share on social media

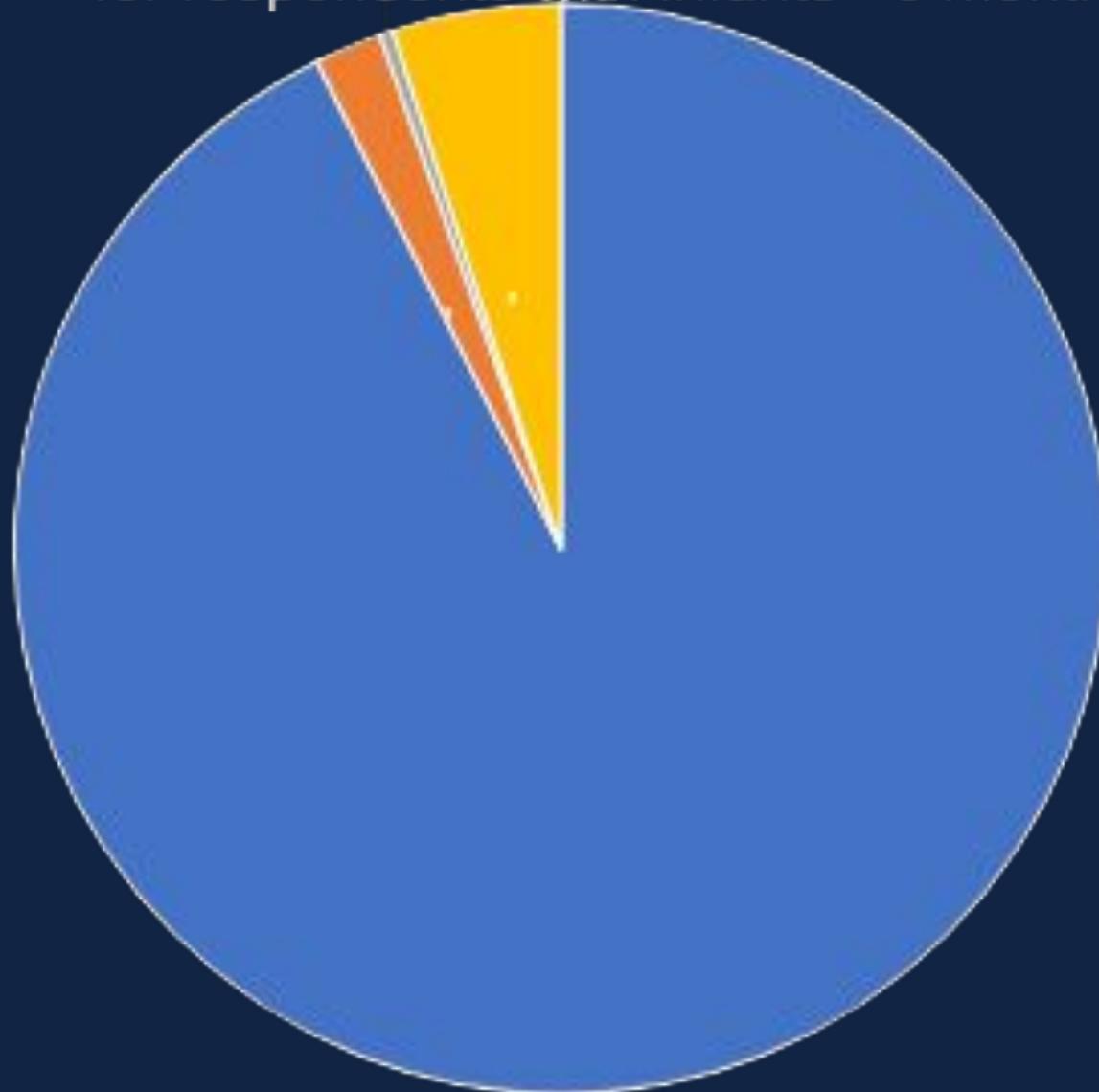
# RESPONDENT CHARACTERISTICS

## COVID-19 stay-at-home status March – May 2020



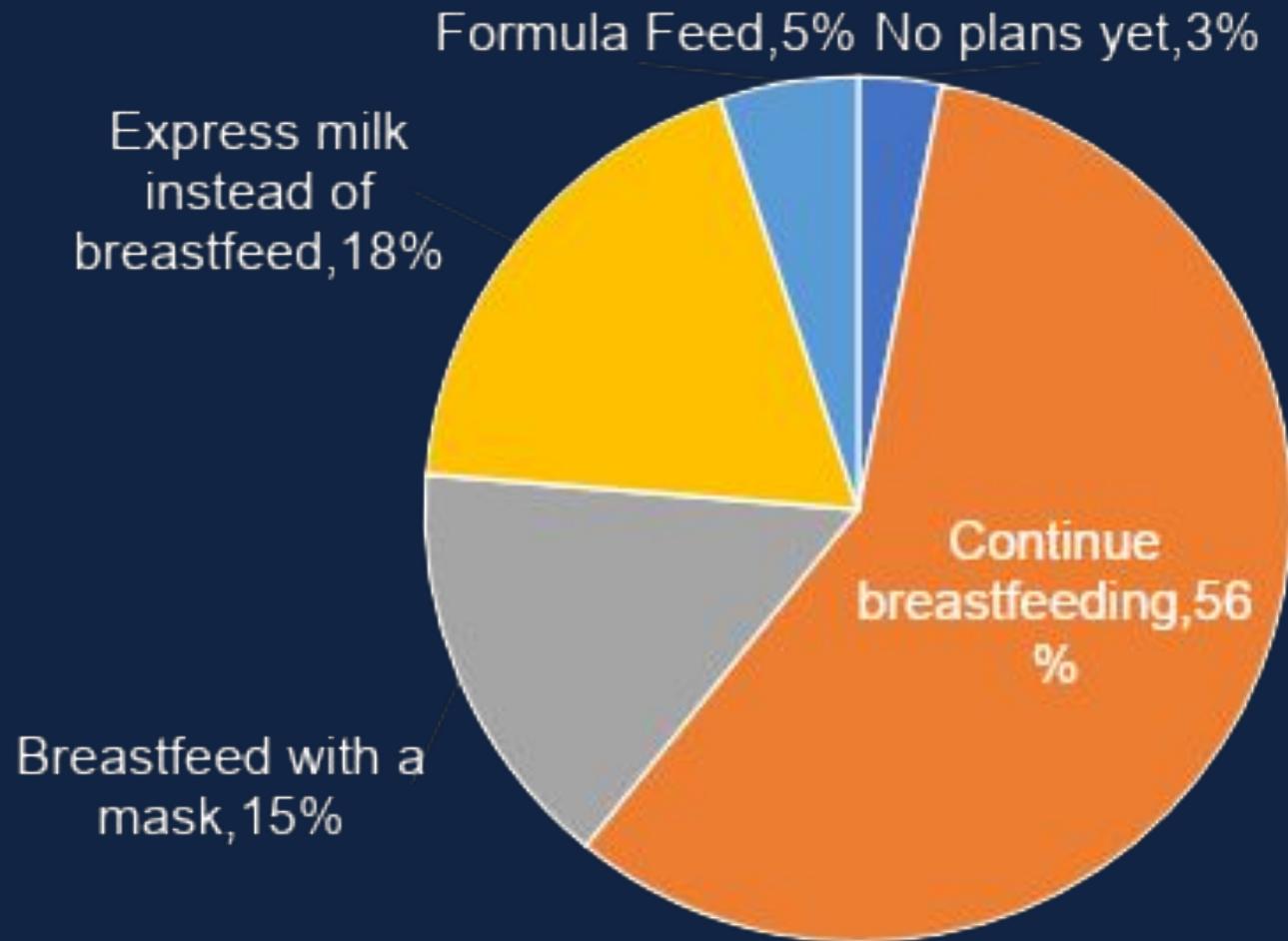
These are unpublished data - please do not photograph or share on social media

# INFANT FEEDING INTENTIONS for respondents with infants <6 months



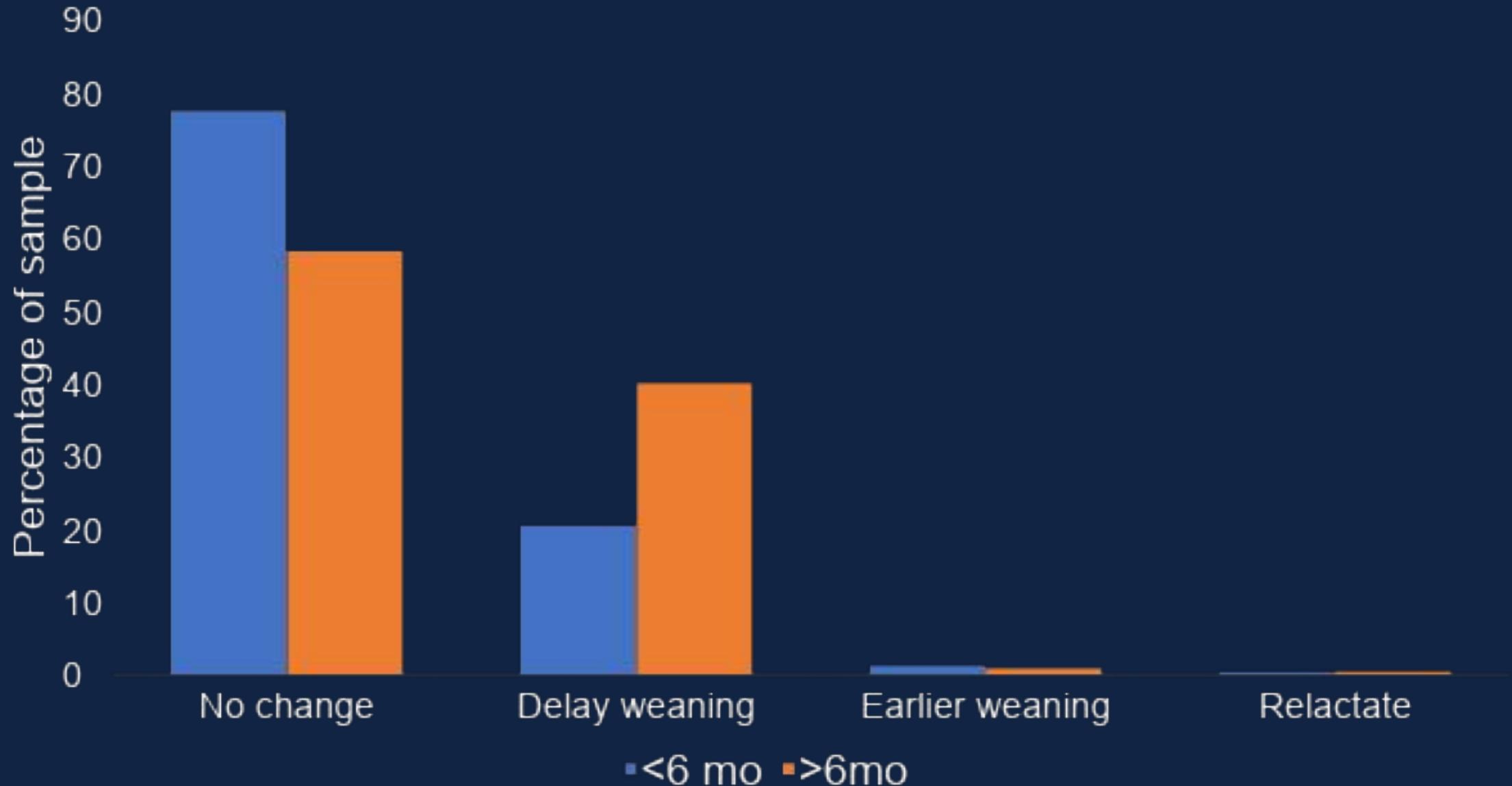
These are unpublished data - please do not photograph or share on social media

# Feeding plans in the event of confirmed COVID-19: Open-ended responses



89% reported plans to provide human milk to infant.

# Changes in weaning due to the pandemic?



# Discussion

- Breastfeeding initiation and continuation were high
- Mostly wealthy parents, able to follow COVID-19 stay-at-home policies and breastfeeding recommendations
- Many parents may have been able to nurse infants longer than they would have before COVID-19 stay-at-home orders
- 1/3 of respondents planned to delay weaning due to concerns about COVID-19

# Limitations

- Cross-sectional study
- Most respondents gave birth to their infants before COVID-19, established lactation prior or during stay-at-home
- Biased nature of the sample prevents comparative analyses within our own dataset

# Conclusions

- Racial capitalism perpetuates COVID-19 disparities, including in infant feeding
- COVID-19 stay-at-home policies are *de facto* case study of how more time at home with infants can improve breastfeeding
- National policies for paid parental/family leave, *along with robust investment in programs to reduce inequities in housing, employment, health care, and income security*, would likely significantly reduce racialized breastfeeding disparities

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