

## Looming maternal and infant health crisis:

*Study finds COVID-19's risk to vaccination and breastfeeding rates could trigger huge jump in medical spending and maternal mortality*



# Introduction

To better understand new mothers' concerns and perspectives during the pandemic, Pacify Health conducted a survey of **1,000** new and expecting moms across the country in May 2020.

## BACKGROUND

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The COVID-19 pandemic has affected every aspect of life across the world, and across the U.S., where **60%** of the population has reported a high sense of anxiety during the crisis.<sup>1</sup> It is an especially worrying time for vulnerable populations, such as new and expecting mothers and their infants. Beyond the stresses of increased COVID-19 exposure during in-person doctors' appointments and hospital births, the lack of available research to-date leaves open the possibility that COVID-19 could cause health complications for pregnant women and their babies.<sup>2</sup> And yet, amidst such uncertainty, public health officials are unequivocal that breastfeeding is safe and that the benefits outweigh any potential risks associated with COVID-19. In fact, the head of the World Health Organization recently affirmed that even mothers with suspected or confirmed COVID-19 diagnoses should initiate or continue to breastfeed their babies.<sup>3</sup>

The survey conducted by Pacify Health was specifically aimed at understanding how COVID-19 has affected mothers' perceptions of and plans around in-person care, the value of breastfeeding, need for lactation support, and the role of telemedicine.

## KEY FINDINGS

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The proportion of **mothers who intend to breastfeed has increased** during COVID-19.



However, a **majority of all moms** anticipate challenges in continuing to breastfeed their babies because of COVID-19.



Anticipated difficulty of breastfeeding is **particularly high** among mothers covered by Medicaid, Black and Hispanic mothers, and mothers of NICU babies.



COVID-19 puts vaccination and breastfeeding rates increasingly at-risk, as **70%** of new and expecting moms are concerned about in-person visits post-delivery.



Just a **5%** drop in breastfeeding rates could cost the US healthcare system **>\$320m** in medical spending annually and increase maternal mortality by **>30%**.<sup>4</sup>

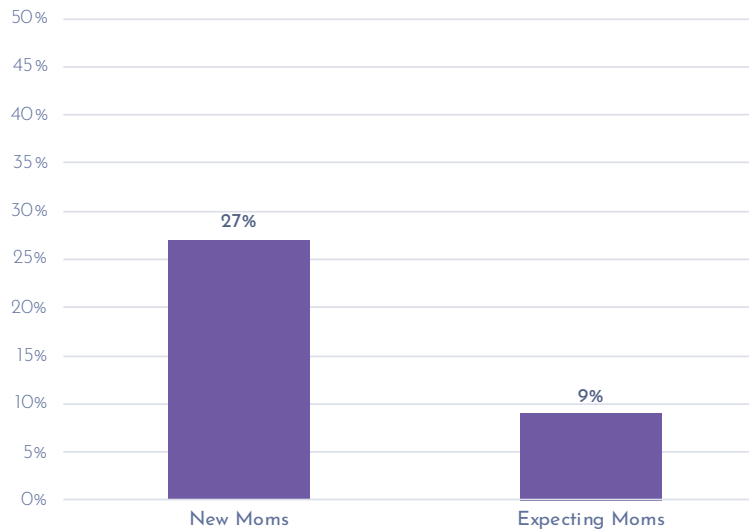


Telemedicine may offer a remedy, with nearly **60%** of new moms expressing a strong preference to receive virtual lactation support as opposed to an in-person lactation consultation.

# Results

## 1. THE PROPORTION OF MOTHERS WHO INTEND TO BREASTFEED HAS INCREASED DURING COVID-19.

Not planning to breastfeed but changed due to COVID-19



More than a quarter (**27%**) of new moms and about **1 in 10** expecting moms who did not intend to breastfeed have now made changes to their feeding plan due to the pandemic.

Among those new mothers who decided to breastfeed due to COVID-19, a majority (**66%**) had babies in the NICU.

Access to lactation support for these mothers is particularly critical, given the essential role human milk plays in decreasing the risk of deadly complications like necrotising enterocolitis.<sup>5</sup>

“Moms who changed their feeding plan as a result of the health crisis may not feel as prepared as they would like to be. These moms are likely to require more lactation support along the way.”

-Melanie Silverman, MS, RD, IBCLC  
Chief Clinical Officer at Pacify Health

Seeing a higher portion of moms decide to breastfeed is positive. However, moms covered by Medicaid may not readily have access to the breastfeeding support and resources they need to meet their breastfeeding goals, compared to mothers with commercial insurance.

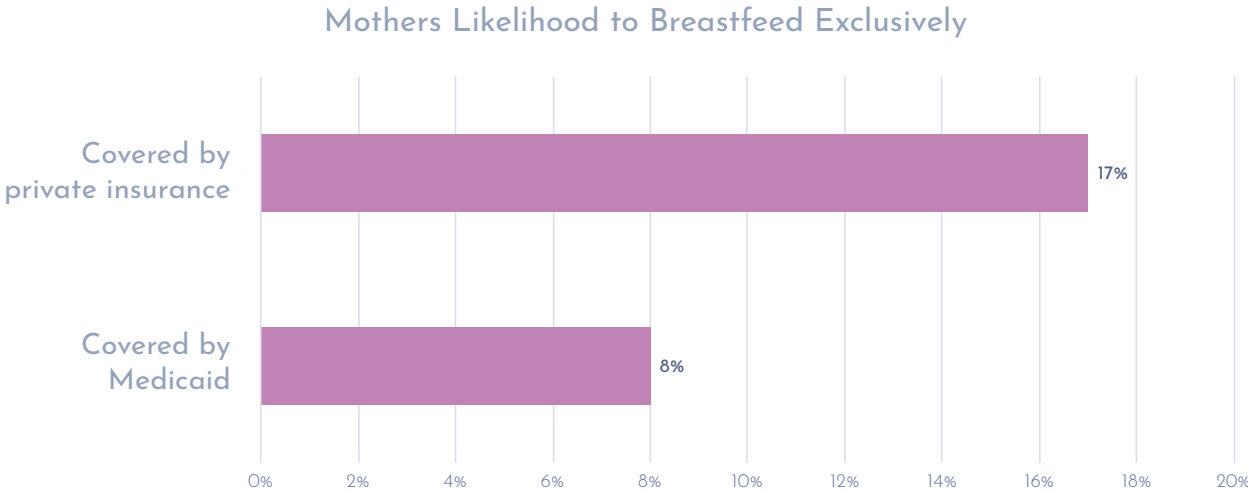
**Moms covered by Medicaid intend to breastfeed at the same or higher levels as commercially insured moms, but struggle to realize those goals:**

**21%** of expecting moms covered by Medicaid intend to breastfeed exclusively

**17%** of expecting moms with commercial insurance intend to breastfeed exclusively

New moms covered by Medicaid and those covered by private insurance also use mixed approaches of breastfeeding plus formula (**16%** and **21%**), and breastfeeding plus pumping (**13%** and **11%**) at equivalent rates.

However, new moms covered by Medicaid are less than half as likely (**8%**) to *breastfeed exclusively*, compared to moms covered by private insurance (**17%**).



**This indicates that moms covered by Medicaid might exclusively breastfeed at similar rates as moms with commercial insurance, if they only had the support to do so.**

## 2. DESPITE AN INCREASED INTENTION TO BREASTFEED, A MAJORITY OF ALL MOMS REPORT CHALLENGES IN CONTINUING TO BREASTFEED THEIR BABIES BECAUSE OF COVID-19.

The vast majority of new moms (**91%**) and expecting moms (**94%**) surveyed are either breastfeeding or plan to breastfeed their baby in some capacity. This aligns with pre-COVID data showing that **83%** of U.S. mothers breastfeed.<sup>6</sup>



**60%**

of recent moms feel that COVID-19 has made breastfeeding harder.



**93%**

of those who feel that COVID-19 will make breastfeeding more difficult are still planning to breastfeed.

**Reported difficulty of breastfeeding is particularly high among mothers covered by Medicaid, Black and Hispanic mothers, and mothers of NICU babies:**

**70%** of moms covered by Medicaid feel that COVID-19 will affect their ability to breastfeed, a fact that could be related to being disproportionately employed in sectors that are less adaptable to telework.

Additionally, new and expecting Black and Hispanic mothers are almost **60%** more likely to report that COVID-19 has or would make it harder to breastfeed compared to White mothers.

**73%** of moms who had a newborn in the NICU feel COVID-19 will make breastfeeding harder, compared to **43%** of moms who did not have babies in the NICU.

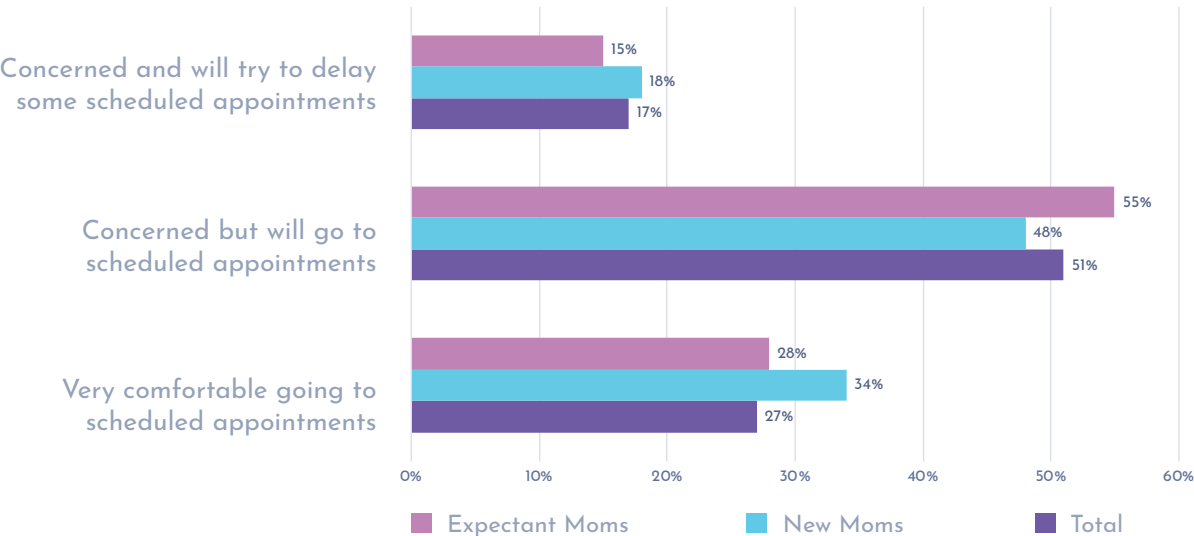
It is clear that despite widespread intention to breastfeed, COVID-19 still looms as a barrier.



### 3. 70% OF NEW AND EXPECTING MOMS ARE CONCERNED ABOUT IN-PERSON VISITS POST-DELIVERY, PUTTING CHILD VACCINATION AND BREASTFEEDING RATES AT RISK.

The threat of COVID-19 led to many shelter-in-place orders in March and April. Even as they lifted at the time of this survey, with phase one reopening in some states when this survey was conducted in May, new moms continued to be concerned about attending in-person postpartum medical visits. Expanding virtual access to lactation support is critical to their breastfeeding success and overall well-being.

Likelihood of Attending Post-Delivery In-Person Appointments











Half (**51%**) said they would attend their postpartum appointments, despite concerns, while **17%** said they may try to postpone their scheduled appointments.

**Concerningly, moms covered by Medicaid were 27% more likely to report that they may try to delay some scheduled appointments due to concerns about COVID-19, compared to mothers with commercial insurance.**

#### 4. JUST A 5% DROP IN BREASTFEEDING RATES COULD COST THE US HEALTHCARE SYSTEM >\$320M IN MEDICAL SPENDING ANNUALLY AND INCREASE MATERNAL MORTALITY BY >30%.

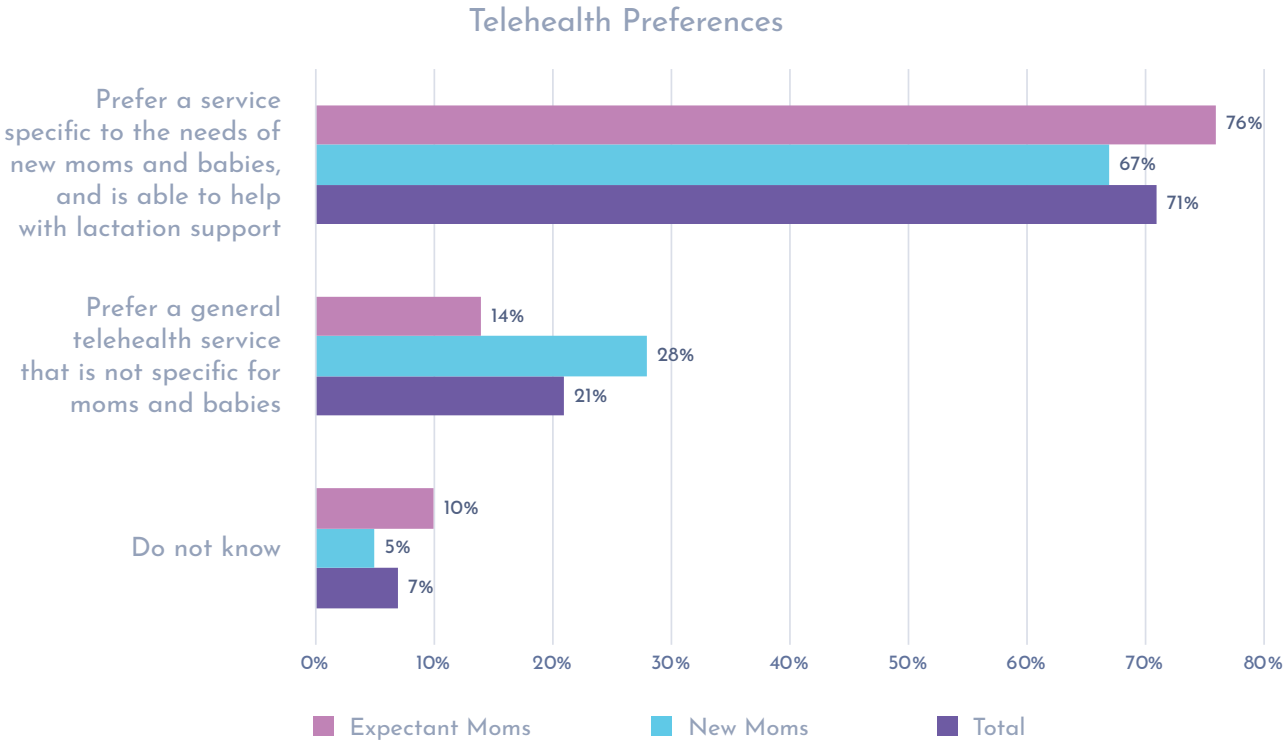
Different durations of breastfeeding are associated with differences in health outcomes for mothers and for children. The United States Breastfeeding Committee created a calculator to estimate the costs of suboptimal breastfeeding rates by inputting the difference in disease burden associated with a unit-change in rates of any breastfeeding at 0 to 12 months and in exclusive breastfeeding from 0 to 6 months. The cost calculator was based on a computer model taken from the literature on the association between breastfeeding and 9 pediatric diseases and 5 maternal diseases in high income countries.<sup>7</sup>

Just a 5% drop in breastfeeding rates due to COVID-19 shows devastating costs to the US healthcare system. Below, 8 of 14 calculated condition outcomes for mom and baby are included:

Maternal Outcomes (95% CI)	New Cases	Preventable Deaths
 Hypertension	+3,877	+33
 Diabetes	+1,297	+52
 Myocardial Infarction	+807	+89
Infant Outcomes (95% CI)	New Cases	Preventable Deaths
 Ear Infections	+101,952	
 Gastrointestinal Illness	+236,073	
 Obesity	+4,188	
 Lower Respiratory Tract Infection	+1,924	+3
 NEC (Necrotizing Enterocolitis)	+141	+20



**5. NEARLY 60% OF NEW MOMS HAVE A STRONG PREFERENCE TO RECEIVE LACTATION SUPPORT VIRTUALLY. ADDITIONALLY, 71% OF MOMS PREFER VIRTUAL SUPPORT FROM LACTATION SPECIALISTS RATHER THAN THEIR PRIMARY CARE PROVIDER.**



The majority (**58%**) of new moms said that if they had a breastfeeding question or problem, they would rather access lactation support from a video visit on their smartphone than have to seek in-person assistance.

In addition, more than **two-thirds** of moms covered by Medicaid and **three-quarters** of moms with commercial insurance coverage who are interested in using telehealth would prefer a virtual service that’s specific to maternal and lactation support, versus one from their general primary care provider.

Age is also a factor, with the oldest moms being the most likely to prefer in-person visits. For moms age 45 or older, **nearly two-thirds (62.5%)** would prefer in-person lactation support over telehealth. This is dramatically different for moms ages 25-44, where **less than one-third** prefer in-person support over a video visit.

## 6. DECREASED CHILD VACCINATION RATES DUE TO COVID-19 MAKE THE IMMUNOLOGICAL BENEFITS OF BREASTFEEDING ESPECIALLY CRITICAL TODAY.

Infants have never been at a greater risk for measles, mumps, hepatitis, polio, and other common immunizable diseases. Non-influenza vaccination rates decreased **31%** for children ages **0-24 months** across the country at the peak of COVID-19 in April.<sup>8</sup>

Drop in common vaccination rates during COVID-19:

**-50%**



Measles,  
mumps, and  
rubella

**-42%**



Diphtheria,  
tetanus, and  
whooping cough

Though vaccination rates for this age group increased in May, promoting breastfeeding through virtual lactation support is critical to provide necessary immunity to babies. The Cleveland Clinic estimates vaccine rates for children overall in May were still down **42-73%**.<sup>9</sup>

Additionally, new research suggests that the presence of COVID-19 antibodies in the breast milk of moms who previously had the virus could provide some immunity to babies.<sup>10</sup>

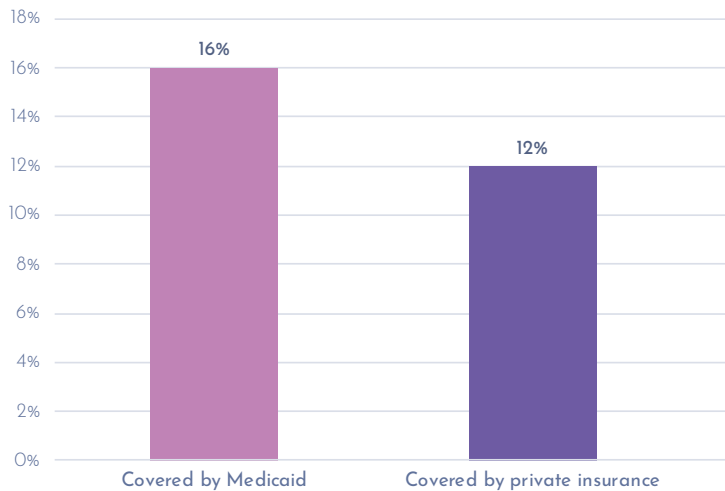
“COVID-19 has made previously routine vaccination a daunting challenge... We must prevent a further deterioration in vaccine coverage and urgently resume vaccination programs before children’s lives are threatened by other diseases.

***We cannot trade one health crisis for another.”***

-Henrietta Fore  
UNICEF Executive Director

Though the number of moms who are not currently breastfeeding or are not expecting to breastfeed are low (**6%** of expecting moms and **5%** of new moms), **13%** are now considering it due to the significant health benefits breastfeeding gives the baby.

### Not breastfeeding, but considering now due to health benefits for the baby



This rate is slightly higher for moms covered by Medicaid, with 16% not currently breastfeeding, but now considering it due to its health benefits.

## The benefits of breastfeeding on a baby's overall immune system



In addition to being the best source of nutrition for newborns and infants, human breast milk also provides immunologic protection against many infections.<sup>11</sup>



Breastfeeding may, in addition to the well-known passive protection against infections during lactation, have a unique capacity to stimulate the immune system of the offspring possibly with several long-term positive effects.<sup>12</sup>



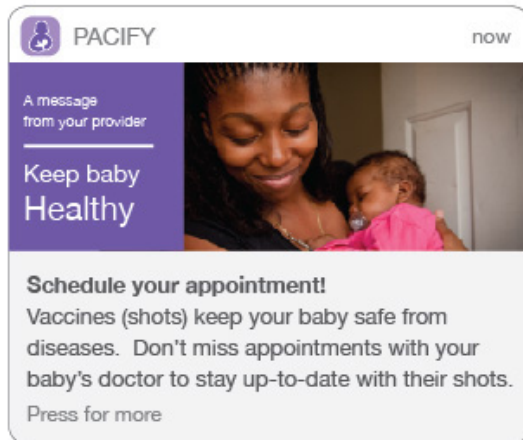
Breast milk also contains antibodies, which means that babies who are breastfed have passive immunity for longer. The thick yellowish milk (colostrum) produced for the first few days following birth is particularly rich in antibodies.<sup>13</sup>



Infants under the age of one who breastfed exclusively for at least four months, for instance, were less likely to be hospitalized for a lower respiratory tract infection, such as croup, bronchiolitis, or pneumonia, than were their formula-fed counterparts.<sup>14</sup>

Despite compelling research demonstrating the improved immunity and health benefits of breastfeeding for mom and baby, it does not replace the vital protection provided by vaccinations to individuals and national health.

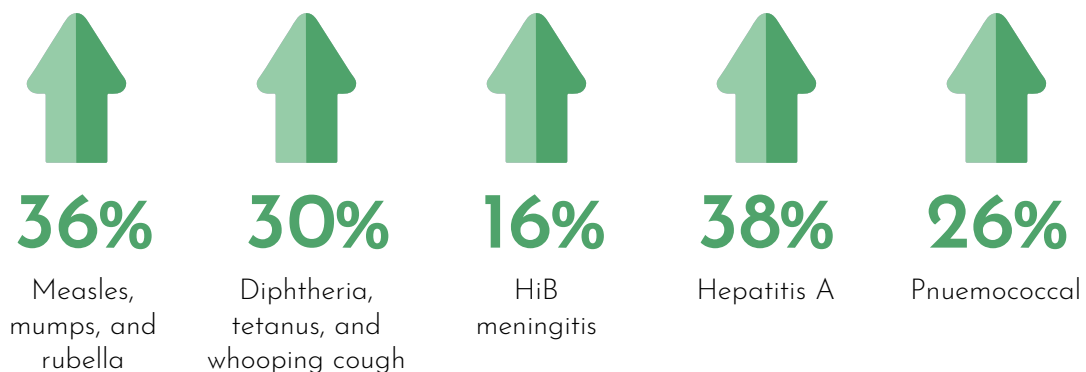
## Increasing vaccination rates for the most hard-to-reach moms and babies



Pacify's educational "nudge" notifications sent to new moms every week are proven to increase vaccination rates.

Notifications are tailored to each week of the perinatal period, ensuring content is always targeted and relevant.

## The result is increased vaccination compliance, especially for moms covered by Medicaid



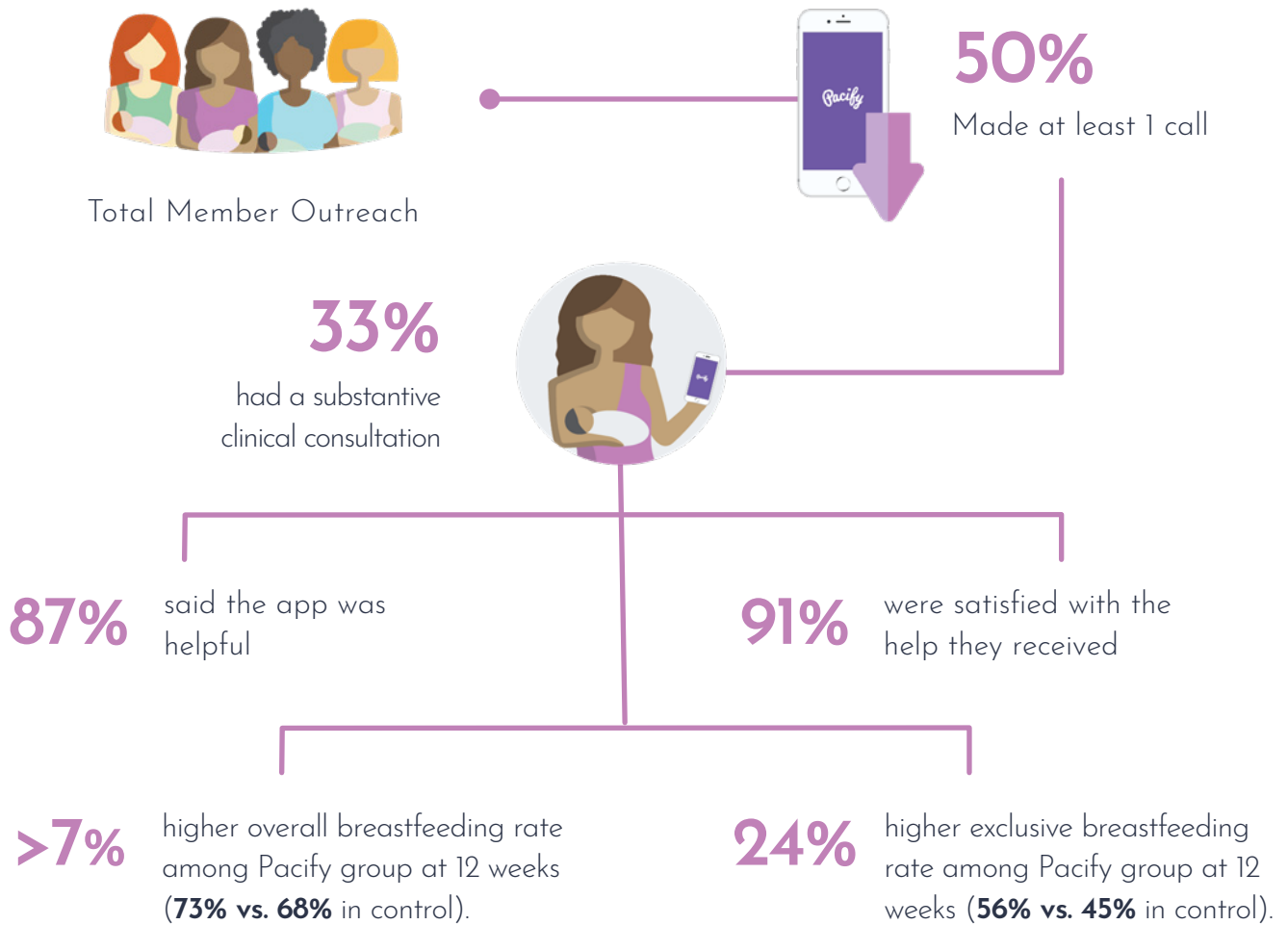
Data from a plan offering Pacify to its members reported increases in vaccination rates of up to **19%** over a period of 22 months, in a sample size of nearly 18,000 members, when compared with members not receiving support through Pacify.

What's more, new mothers that received support from Pacify spent an average of **3.6 fewer days in the NICU** than moms who were given case management without Pacify.

# Feasibility and Effectiveness of Telelactation Among Rural Breastfeeding Women: The Tele-MILC trial



To evaluate the feasibility and impact of telelactation via personal electronic devices on breastfeeding duration and exclusivity among rural women, a 2016/2017 study found:<sup>15,16</sup>



Utilization of **50%** is “quite high when you consider that when telehealth is offered to a population, you typically see uptake of less than **1% to 20%**”.

-Lori Uscher-Pines, PhD  
Lead author, RAND Corporation

# Conclusion

The COVID-19 pandemic continues to shake the country and the world, and expecting and new moms are understandably anxious. Some of their biggest concerns are around in-person medical visits, including postpartum visits like lactation support. With these hesitations, there is a clear need to provide virtual support for moms and their babies where at all possible. In this scenario, respondents showed an overwhelming preference for telehealth services that are specialized to lactation support, over services from a primary care provider.

As we enter the sixth month of the pandemic, it is critical that new moms are able to access this kind of telehealth when they need it. Preventing a decline in the U.S.' rates of breastfeeding and the critical immune support that provides babies across the country is vital, especially during a global health crisis.



# Methodology

In May 2020, during the height of the COVID-19 pandemic, 1,000 expecting and new moms in the U.S. were surveyed on their approach to, and perspectives on, breastfeeding, lactation support, and postpartum visits. Respondents included **500** new mothers who had given birth within the past six months, and **500** expecting mothers. Participants across the U.S. were recruited using an online panel partner and surveyed online using Decipher survey platform over a 3 day period.

## DEMOGRAPHICS

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- Respondents represented **47** states.
- **38%** of respondents were between ages 18-24 years; **46%** were between 25-34, and **16%** were over age 35.
- **91%** completed high school or other secondary education.
- **33%** reported household income under \$50,000, **37%** have household income \$50-99K, **27%** have income over \$100k.
- **49%** identified as white, **32%** Black or African American, **18%** Hispanic, Latino, or Spanish, **9%** Asian, **3%** Native American, **1%** Middle Eastern, **2%** other.

## BIRTH STATUS

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- **50%** were expecting but had not yet given birth, **10%** gave birth within the past month, **21%** gave birth 1-3 months ago, and **19%** gave birth 3-6 months ago.
- **24%** had a C-section, **76%** had a vaginal birth.

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## ABOUT PACIFY

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Pacify Health was founded on the idea that more can be done to use mobile technology to help families access excellent prenatal and pediatric care. Pacify's industry-leading mobile platform provides instantaneous, 24/7 support to new mothers. Mothers who download the app can connect via video and audio visits with clinicians including lactation consultants and nurses. There are no appointments or scheduling, and calls are answered in an average of less than 30 seconds. Pacify serves a diverse range of mothers via contracts with leading hospitals, employers, Medicaid managed care companies, state Departments of Health, the Women, Infants and Children (WIC) program, and breast pump manufacturers. In 2019, Pacify was acquired by Advantia Health as part of its commitment to continued investment in technologies that improve the lives and health of women and their families.

## ABOUT SAGE GROWTH PARTNERS

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Sage Growth Partners accelerates commercial success for B2B, B2B2C, and B2C healthcare organizations through a singular focus on growth. The company helps its clients thrive amid the complexities of a rapidly changing marketplace with deep domain expertise and an integrated application of research, strategy, and marketing.

Founded in 2005, Sage Growth Partners is located in Baltimore, MD, and serves clients such as Philips Healthcare, U.S. Renal Care, Quest Diagnostics, Vocera, Livongo, Olive, It's Never 2 Late, and Aperture.

