Understanding the Motives of Donors for a Student-Run Breast Milk Bank

AAP-CA2 Advances in Pediatrics Virtual Symposium February 27, 2021

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UC Riverside Milk Depot Team



Dr. Brenda Ross UCR Milk Depot Director & Co-Founder



Dr. Samar Nahas
Research Mentor
& UCR Women's Health
Center Director



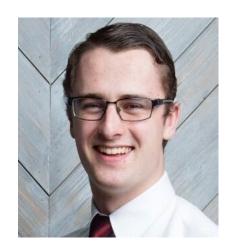
Dr. Lisa Stellwagen
UC Health Milk Bank Director



Sonul Gupta (MS3) Co-Investigator & UCR Milk Depot Co-Founder



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Jordan Smith MS4
Co-Investigator & Co-Founder



Natalie Albasha MS2 Co-Founder



Robert Olmeda Barrientos MS2 Co-Founder



Priya Rajan MS2



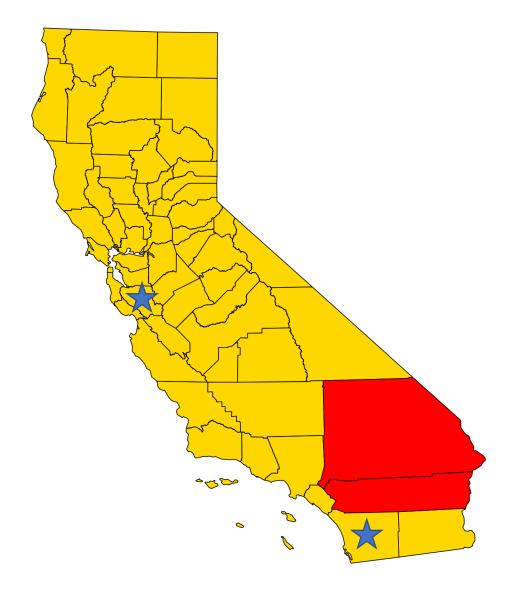
Somiya Maheshwari MS2



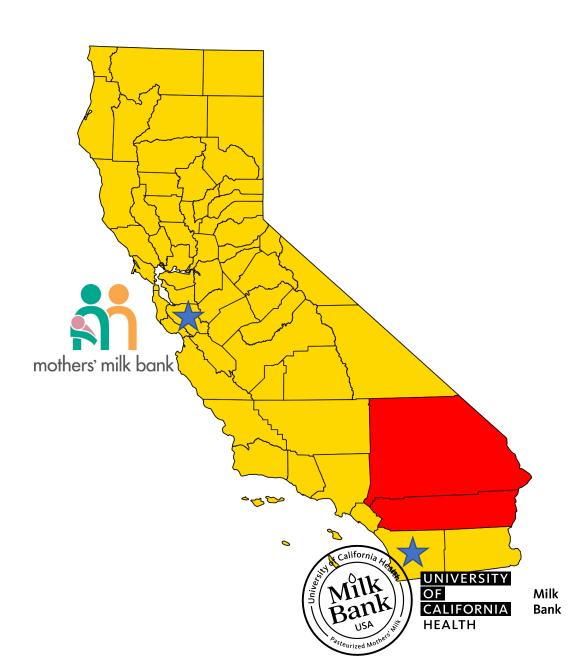
Background

- Exclusive breastfeeding can reduce the risk of developing necrotizing enterocolitis significantly in preterm infants in the NICU¹
- ***Additional Studies
- Southern California is an underserved area for affordable donor breast milk (DBM) access
- Interviews with NICU clinicians indicate that DBM is expensive, with the median cost around \$8.50/ounce
 - High-cost stems from associated screening, processing, and coldstorage shipping from the nearest milk bank





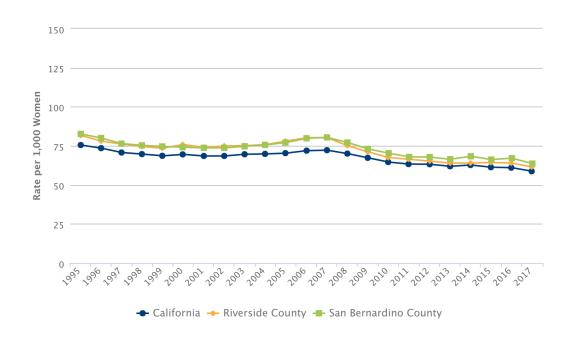


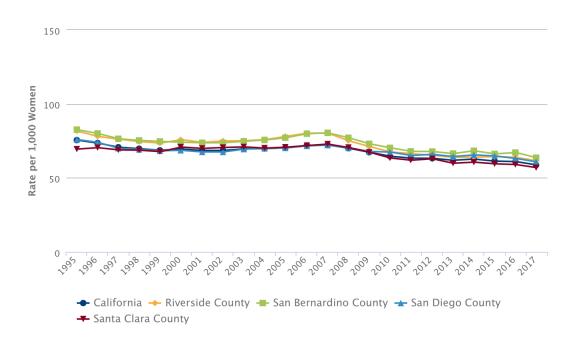






Number of Live Births per 1,000 Women ages 15-44







County: Riverside 👺

92.4%

Source: California Department of Public Health

Measurement period: 2015-2017

Maintained by: Conduent Healthy Communities

Institute

Last update: May 2019

Graph Selections

INDICATOR VALUES

 \checkmark

Change over Time

COMPARED TO



CA Counties



CA Value (94.0%)



Prior Value (92.5%)

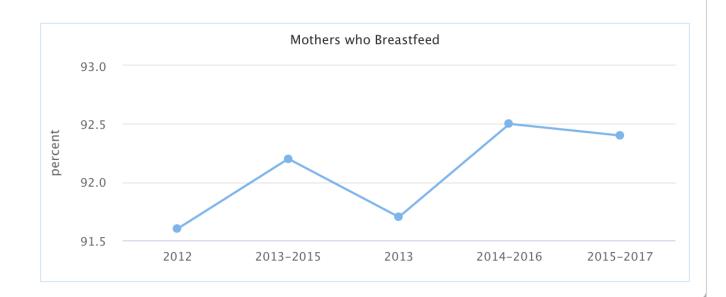


Trend



HP 2020 Target (81.9%)

Technical note: Data provided from California Department of Public Health, Center for Family Health, Genetic Disease Screening Program, Newborn Screening Data





County: Riverside 👺

92.4%

Source: California Department of Public Health

♂

Measurement period: 2015-2017

Maintained by: Conduent Healthy Communities

Institute

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Change over Time

COMPARED TO











CA Counties

CA Value

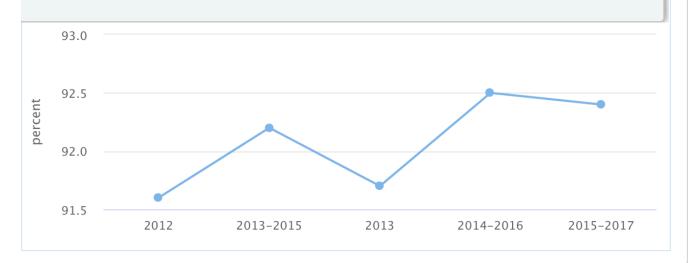
Prior Value

Trend

HP 2020 Target

Compared to CA Counties, Riverside has a value of 92.4% which is in the worst 25% of counties. Counties in the best 50% have a value higher than 95.0% while counties in the worst 25% have a value lower than 92.7%.

Technical note: The distribution is based on data from 57 California counties.



Milk Depot vs. Milk Bank

• Milk Depot: Acts as a collection site for breastfeeding mothers to drop off their milk and ships the milk to the milk bank monthly

 Milk Bank: Acts as the main hub for all things related to breastmilk



Milk Depot & Milk Bank Responsibilities

Adapted from Dr. Lisa Stellwagen

Milk Bank

- Tissue Bank License
- Donor screening and approval
- Serologic testing for infections such as HIV, Syphilis, Hep B/C
- All records and PHI retained by UCHMB
- Milk processing and distribution
- Assume all liability for donors and milk product
- Pay for shipping/courier costs
- Regulatory adherence; FDA/CDPH/HMBANA
- Liability insurance through UCSD Health

Milk Depot

- Maintain CDPH Tissue bank license
- MOU with UCHMB
- Freezer in secure location and best to have uninterrupted power source
- Daily temperature monitoring (-20 C)
- Designated contact staff member
- Adherence to SOP regarding milk storage
- Collect milk from donors and hold until pick up or shipping
- Maintain UCHMB milk drop off logs
- Regular communication with UCHMB regarding milk inventory and delivery arrangements



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UCR is to become the Milk Depot

(UCR Women's Health Center)

and we have partnered with

UC Health Milk Bank (SD Blood Bank)

as of May 2020



Objectives

- An important component in fostering breast milk donation is understanding the donor herself
- A recent study stated that mothers' motivations derive predominantly from altruism, whereas biggest barrier to donating stems from cultural and religious beliefs²
- Primary aim is to understand donors' motivations
 - Build a tangible support system for breastfeeding mothers, young infants and their families
 - Increase rates of successful breastfeeding in the Inland Empire
 - Promote a culture of breast milk donation
 - Increase the quantity of donations
 - Increase access to DBM for NICU infants
 - Provide culturally responsive care



Timeline

Timeline visual



Methods

- Current study is cross-sectional, with data collected over 12 months (start date ~late July 2020)
- Survey participants are mothers who are breastfeeding/have breastfed
- Mothers have been recruited through personal networks, referrals, social media, and local OB/GYN and pediatrics clinics
- Participants interact with an online survey via Qualtrics and responses remain anonymous
 - Responses are tabulated by zip code, age, births, breastfeeding experience, and milk production
- Participants' motivations for donation are assessed by both free response and multiple choice, with drop-down options informed by previous studies



Follow the link below to complete the survey



https://tinyurl.com/milkbanksurvey

4/16/2020
Approved
N/A
Expires
HS 19-219
Oral Review

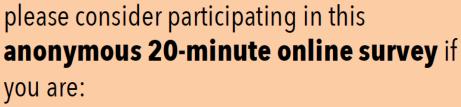
Contact <u>iedonorbreastmilk@gmail.com</u>

for more information on how to provide breastmilk donations

Interested in providing your opinions on starting a donor breastmilk bank in the Inland Empire?



Medical students in your area are currently researching what breastfeeding mothers need as compensation for their breastmilk



- 18 years or older
- A breastfeeding mother/a mother who has breastfed before
- A resident of the Inland Empire
- Fluent in English*



Thank you for taking the time to complete this short questionnaire. Medical students in your community are interested in starting a breast milk bank in the Inland Empire. The human breast milk shortage is a problem that needs to be addressed, as the access to human breast milk for a premature baby can often be the difference between life and death. Before a breast milk bank can be created, it is important to better understand what current breastfeeding mothers would value as potential donors. With your help, we strive to validate that the lack of human breastmilk available in the Inland Empire is an issue worth solving and we hope to identify key factors and resources needed to make this mission a reality. Thank you in advance for your time and feedback. Your responses will be used to provide information from the perspective of Inland Empire's breastfeeding mothers and pediatric needs.

Please see below for more details about this study, and the informed consent.

Title of research study: Profiles of Potential Breast Milk Donors in the Inland Empire

Investigators: Dr. Samar Nahas, Department of Medicine; UC Riverside School of Medicine

Researcher: Sonul Gupta, 3rd Year Medical Student (Co-Investigator, Jordan Smith, 4th Year Medical Student)

UCR School of Medicine

Email: iedonorbreastmilk@gmail.com

We are interested in learning more about each of our participants who have agreed to take our
survey. The following items are design to gain more insight from mothers who have breastfed in the
recent past or are currently breastfeeding.
3·
How old are you?
What is your zip code?
How many children do you
have?
Of those children, how many were breastfed?
How many children are you currently breastfeeding?
How old is/are the child/children that you are currently breastfeeding?

Results

- Preliminary results from 75 women show that the most commonly selected factors for donation (approximately 65% of responders) include:
 - Gaining access to lactation consultants
 - Mental health resources
 - Community of breastfeeding mothers
- Only a quarter of responders disclosed that receiving information about infants positively impacted by their donations is important
- Approximately 20% of participants indicated that monetary compensation was their primary motive
- 60% of individuals stated that they know other women who would be interested in donating



Results

• Graph



Results

• Data on DBM access in NICUs in IE vs. SD counties



Discussion

- Breast milk donors in the Inland Empire are poorly understood
- Altruism has been thought of as the primary motivating factor for donating breast milk
- These results also demonstrate that potential donors have access to a sizeable network of breastfeeding mothers, which could serve to significantly increase DBM availability in this area



Future Steps

- With roughly 6 months left of the study, we expect to hit our target goal of 250 survey responses
- Recent recipient of UC Riverside's Center for Healthy Communities Mini-Grant
 - Purchase of a scale & industrial freezer
- Application for Tissue Bank License through the CA Department of Health
- Begin receiving donations of donor breast milk!



- 1. Partner with a Milk Bank Mentor
- 2. Obtain Tissue Bank License from CA Dept of Health



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State of California—Health and Human Services Agency
California Department of Public Health



TISSUE BANK LICENSE NEW APPLICATION CHECKLIST

version 04.22.2019

The forms listed below marked with an asterisk (*) are found on our web page: https://go.usa.gov/xUvZf (cASE sensitive)

- ➤ Form LAB 172★ (Tissue Bank Application) (Including question #3)
- ➤ Form LAB 169★ (Personnel Report)
- Form LAB 170★ (ART Questionnaire, if applicable)
- ➤ Form LAB 184★ (Contact Person sheet)
- EITHER: Tissue Bank Site Lease Agreement; Business Permit; & Fictitious Name Permit
 - **OR** X Copy of hospital's California State license from Licensing & Certification
- ✓ Ownership Substantiation:
 - (1) Corporate organization chart structure detailing parent and intermediary owners
 - (2) Partnership Agreement
 - (3) Practice Management Assistance Agreement
 - (4) Corporation documents:
 - a. Articles of Incorporation
 - b. List of Board of Directors and Officers
 - c. List of shareholders who own 5% or more
 - d. Management Agreements



- Partner with a Milk Bank Mentor
- 2. Obtain Tissue Bank License from CA Dept of Health **Insert pics of labs here

State of California—Health and Human Services Agency
California Department of Public Health



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- EITHER: Tissue Bank Site Lease Agreement; Business Permit; & Fictitious Name Permit
- ✓ Ownership Substantiation:
 - (1) Corporate organization chart structure detailing parent and intermediary owners
 - (2) Partnership Agreement
 - (3) Practice Management Assistance Agreement
 - (4) Corporation documents:
 - a. Articles of Incorporation
 - b. List of Board of Directors and Officers
 - c. List of shareholders who own 5% or more
 - d. Management Agreements



- 1. Partner with a Milk Bank Mentor
- 2. Obtain Tissue Bank License from CA Dept of Health
 - ▼ Employee & Director Résumés or CVs (BRN# of RN employees on LAB 169 is sufficient)

 - Copy of Patient Consent Form(s)
 - X STD Screening Policy Statement on company letterhead (See "STD Statement" from website)
 - Copy of FDA Registration (if applicable)
 - X Documents signed and dated
 - ★ Operations Affirmation Letter (see page 2)
 - X Application fee enclosed
 - \$500 made payable to: CDPH or Tissue Bank Fund
 - No license fee required for a tissue bank operated by the State, State agency, health care district, city, or county
 - Please mail your complete application to:

California Department of Public Health Laboratory Field Services Attention: Tissue Bank Program 850 Marina Bay Parkway Building P, 1st Floor Richmond, CA 94804-6403



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- Partner with a Milk Bank Mentor
- 2. Obtain Tissue Bank License from CA Dept of Health **Insert pics of

policy

- ☑ Employee & Director Résumés or CVs (BRN# of RN employees on LAB 169 is sufficient)
- □ Copy of all Policies and Procedures pertaining to: receipt and/or collection of tissue; processing and/or storage of tissue; preparation of tissue prior to implantation; recall; QA; documentation of performed procedures
- Copy of Patient Consent Form(s)
- X STD Screening Policy Statement on company letterhead (See "STD Statement" from website)
- Copy of FDA Registration (if applicable)
- X Documents signed and dated
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- 1. Partner with a Milk Bank Mentor
- 2. Obtain Tissue Bank License from CA Dept of Health
- 3. Secure Space for Milk Depot Operations (away from patient care)
- 4. Identify Milk Bank Director & Appropriate Staff
- 5. Obtain Industrial Equipment (\$3,000-5,000)
- 6. Receive milk donations from pre-screened mothers (screening done by Milk Bank) weekly
- 7. Coordinate shipments and/or courier pick-up with Milk Bank
- 8. Renewal of Tissue Bank License Yearly
- 9. Secure donations for creation of Milk Bank (\$\$\$)



References

- 1. Herrmann, Kenneth, and Katherine Carroll. "An exclusively human milk diet reduces necrotizing enterocolitis." Breastfeeding medicine: the official journal of the Academy of Breastfeeding Medicine vol. 9,4 (2014): 184-90. doi:10.1089/bfm.2013.012
- 2. Doshmangir, Leila, et al. "Factors Influencing Donations to Human Milk Bank: A Systematic Review of Facilitators and Barriers." Breastfeeding Medicine, vol. 14, no. 5, 2019, pp. 298–306., doi:10.1089/bfm.2019.0002.





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