

Office of Clinical Research CRP First Friday



Lactation:

Not Just a Women's Issue

Friday, April 5th, 2024

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lives
here**



Learning Objectives:

- 1) Explain why lactation is important to the population at large**
- 2) Describe individual and societal barriers to lactation**
- 3) Identify disparities in lactation in the local community**
- 4) Describe possible interventions to apply in our workplace**

Target Audience:

Clinical Research Professionals (CRPs) at UC/H and Cincinnati Children's Hospital Medical Center (CCHMC): including Principal Investigators (PIs), Research Nurses (RNs), Critical Care Unit Nurses (RNs), Pharmacy Technicians and Regulatory Specialists.

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Accreditation Statement for Directly Sponsored Activity

The University of Cincinnati is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The University of Cincinnati designates this live activity for a maximum of 1 *AMA PRA Category 1 Credit™*. Participants should claim only the credit commensurate with the extent of their participation in the activity.

CRPs, NPs, PAs, and RNs can count activities certified for *AMA PRA Category 1 credit™* for professional credit reporting purposes. Other healthcare professionals should inquire with their certifying or licensing boards.

Disclaimer Statement

The opinions expressed during the live activity are those of the faculty and do not necessarily represent the views of the University of Cincinnati. The information is presented for the purpose of advancing the attendees' professional development.

Off-Label Disclosure Statement:

Faculty members are required to inform the audience when they are discussing off-label, unapproved uses of devices and drugs. Physicians should consult full prescribing information before using any product mentioned during this educational activity.

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Speaker and Planner Disclosure Policy:

In accordance with the ACCME Standards for Integrity and Independence in Accredited Continuing Education and the University of Cincinnati policy, all faculty, planning committee members, and other individuals, who are in a position to control content, are required to disclose all relationships with ineligible companies* (commercial interests) within the last 24 months. All educational materials are reviewed for fair balance, scientific objectivity, and levels of evidence. The ACCME requires us to disqualify from involvement in the planning and implementation of accredited continuing education any individuals (1) who refuse to provide this information or (2) whose conflicts of interests cannot be mitigated.

**Companies that are ineligible to be accredited in the ACCME System (ineligible companies) are those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.*

All relevant relationships have been mitigated. The following disclosures were made:

Planning Committee Members:

- Maria Stivers, MS; Course Director – *No Relevant Relationships*
- Nathaniel L. Harris, BS, Course Coordinator – *No Relevant Relationships*
- Heather Muskopf, CME Program Manager – *No Relevant Relationships*

Speakers

Alexa R. Sabedra, MD

Assistant Professor of Clinical
Emergency Medicine
College of Medicine
No Relevant Relationships

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Recently updated Clinical Research SOPs:

- **UCH-OCR-REV-SOP-002-Submission Process for UC Health Research Approval**
- **UCH-OCR-OPS-SOP-018-Coverage Analysis and Research Encounter Form Submission Process for Human Subjects Research at UC Health**

**All OCR SOPs are accessible at the following link.
And from the UC Health intranet home page utilizing the Policy Portal Search function
or reach out to the Office of Clinical Research with any questions or concerns.**

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Inclusive Lecture Series Featuring:

Rebecca Skloot

Author of

The Immortal Life of Henrietta Lacks

Wednesday, April 17, 2024, Noon - 1 p.m.

College of Medicine, MSB E351 (remote option available)

The event is free, but tickets limited. Bring your lunch and join us. Registration is required.

[Registration Link](#)

The event is being hosted by UC Health's Office of Diversity, Equity and Inclusion and sponsored by Messer Construction. One of our strategic objectives is to increase awareness, engagement, and impact to support our employee and patient experience. I am very much looking forward to this forum and would love to have you join us.

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Q&A moderated by

Jeanetta Darno

**VP & Chief Diversity, Equity and Inclusion Officer
Office of Diversity, Equity and Inclusion
UC Health**

University of
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Office of Clinical Research Lunch & Learn

Thursday, April 18th, 2024, 12:00noon - 1:00pm
IN PERSON Presentation MSB 7051

(with the option to join virtually)

BMI RAP Subsystem Overview

Discover how the BMI RAP Subsystem bridges the gap between the UC IRB RAP system and the UC Health Clinical Trials website. With this tool, accessing and managing your study details becomes easier and more user-friendly. You can also easily publish or unpublish your study with just a few clicks.

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Jason Keller

Associate Director, Data Services
UC Center for Health Informatics
Department of Biomedical Informatics
Jason.Keller@uc.edu

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Today's Presentation:

Lactation: **Not Just a Women's Issue**

Women make up half of the workforce across the US, including within academic medicine. Yet disparities exist. Come join us as 4 different groups from UC COM tell their stories of advocating for gender equity – from the departmental level to broader institutional initiatives.

Alexa R. Sabedra, MD

Assistant Professor of Clinical
Emergency Medicine | College of Medicine

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Lactation

Not Just a Women's Issue

Alexa Sabedra, MD
Assistant Professor of Clinical
Department of Emergency Medicine



Laura P. Ward, MD, IBCLC, FAAP



**Sheela Rath Geraghty, MD, MS, IBCLC,
FAAP, FABM**



W O M E N *in*
Medicine &
Science



Disclosures



Disclaimer



Objectives



A brief history lesson



The problem



Why it matters



Solutions

History

**Pre 19th
Century**

**Wet Nurses
& Animal
milks**



1860s

**First
"formula"**

1890-1915

**Percentage
Method**

1920s

**Proprietary
formulas**



1960s

**Rise of
formulas**



1990s-Today

**Evidence of
human milk
benefits**

American Academy of Pediatrics

**Exclusive
breastfeeding for the
first 6 months**

Supports continued
breastfeeding...**as long
as mutually desired
by mother and child
for 2 years or beyond**

CDC Breastfeeding Report Card 2022

Key Breastfeeding Indicators	Current Rates
Infants who are breastfed: Ever	83.2%
Infants who are breastfed at 6 months	55.8%
Infants who are breastfed at 1 year	35.9%
Infants who are breastfed exclusively through 3 months	45.3%
Infants who are breastfed exclusively through 6 months	24.9%
Employers that have worksite lactation support programs	51%

60%

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 lack of family support

Unsupportive hospital practices and policies

And it's REALLY hard



Time

Feed Q2-3 hours for first few months,
and Q3-4 hours for most of first year

5-45 minutes

Pumping



1800

VS

1960

“...WHEN PEOPLE SAY THAT BREASTFEEDING IS ‘FREE,’ I WANT TO HIT THEM WITH A TWO-BY-FOUR. IT’S ONLY FREE IF A WOMAN’S TIME IS WORTH NOTHING.”

-HANNA ROSIN





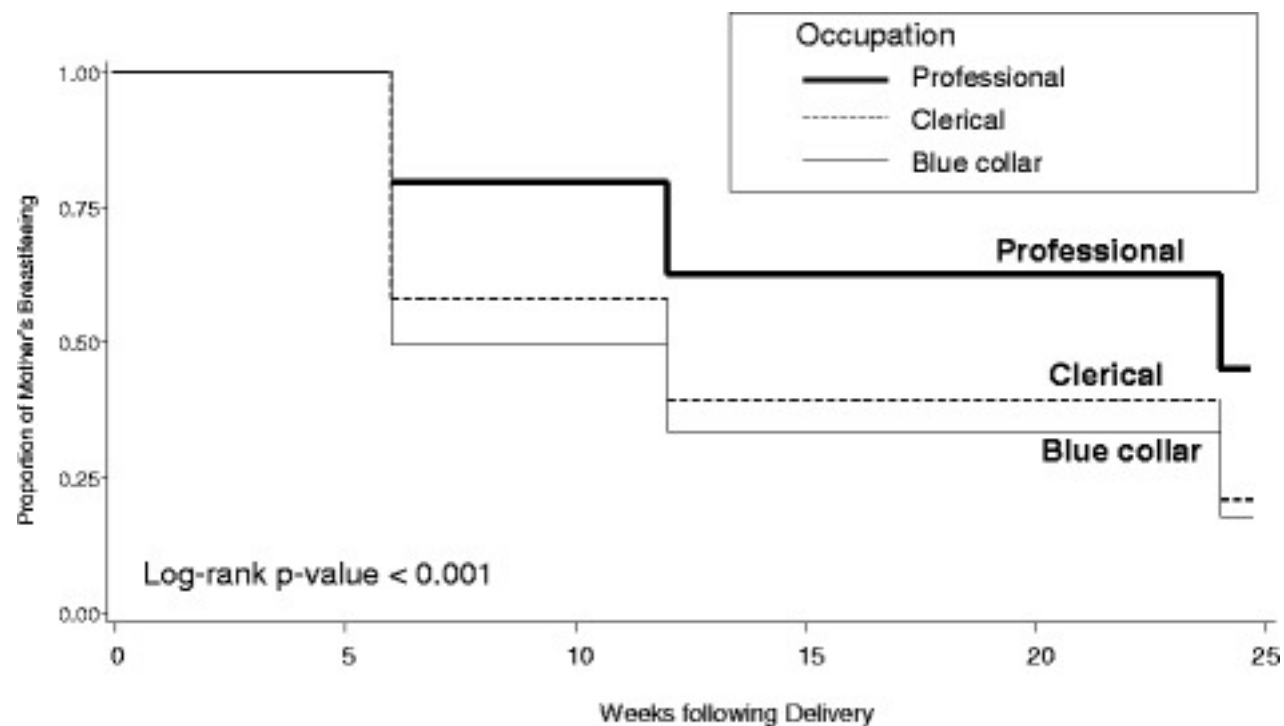
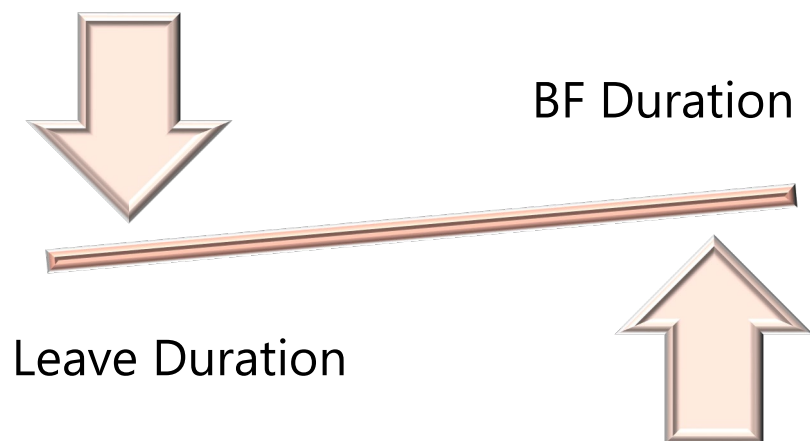
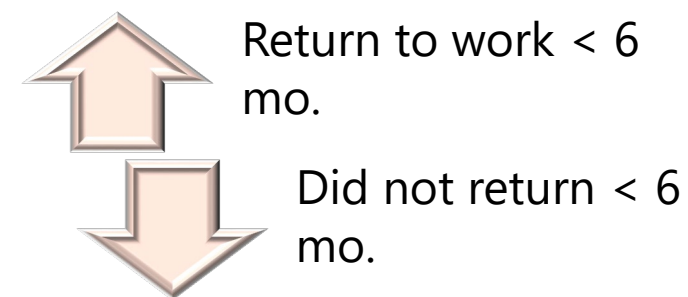
Carrie Melago
@carriemelago

This is great but would be more realistic shot in a dirty McDonald's bathroom stall or in a small office mother's room that she had to kick a male coworker out of first



Determinants of breastfeeding initiation and cessation among employed mothers: a prospective cohort study

Rada K. Dagher^{1*}, Patricia M. McGovern², Jesse D. Schold³ and Xian J. Randall⁴



Work, race and breastfeeding outcomes for mothers in the United States

Margaret D. Whitley^{1*}, Annie Ro¹, Anton Palma²

¹ Program in Public Health, University of California, Irvine, Irvine, CA, United States of America, ² Institute for Clinical and Translational Science, University of California, Irvine, Irvine, CA, United States of America

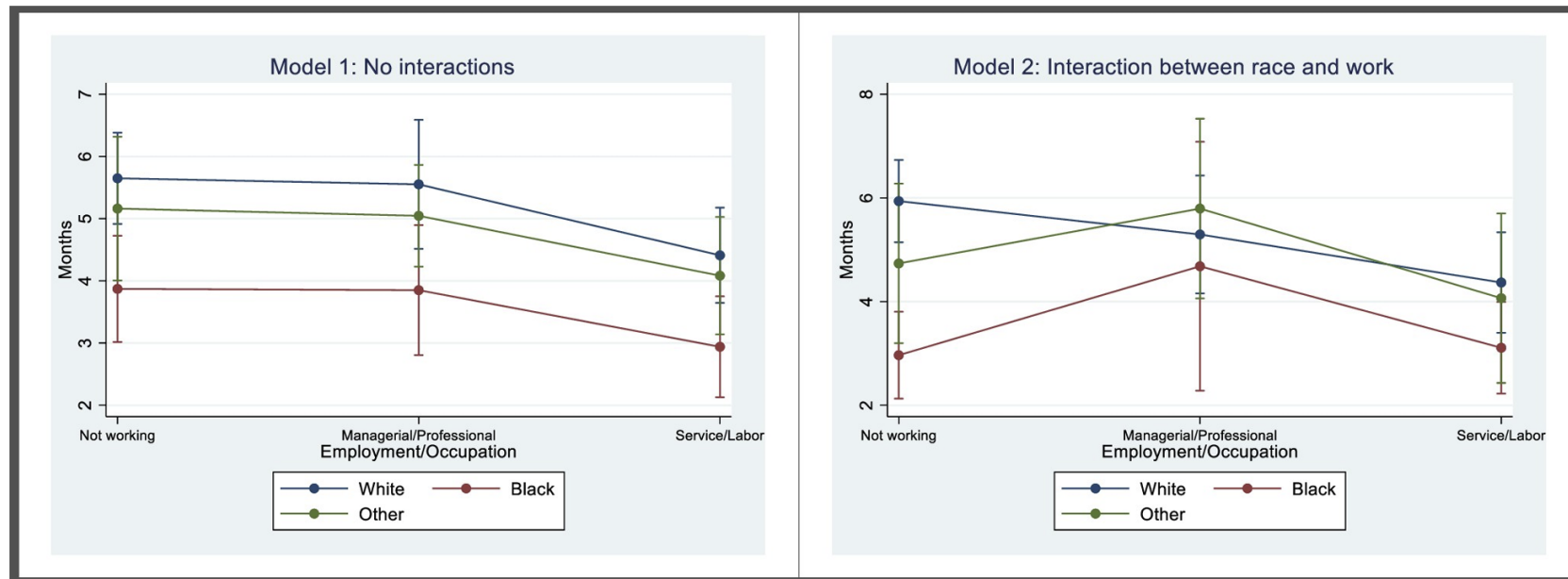
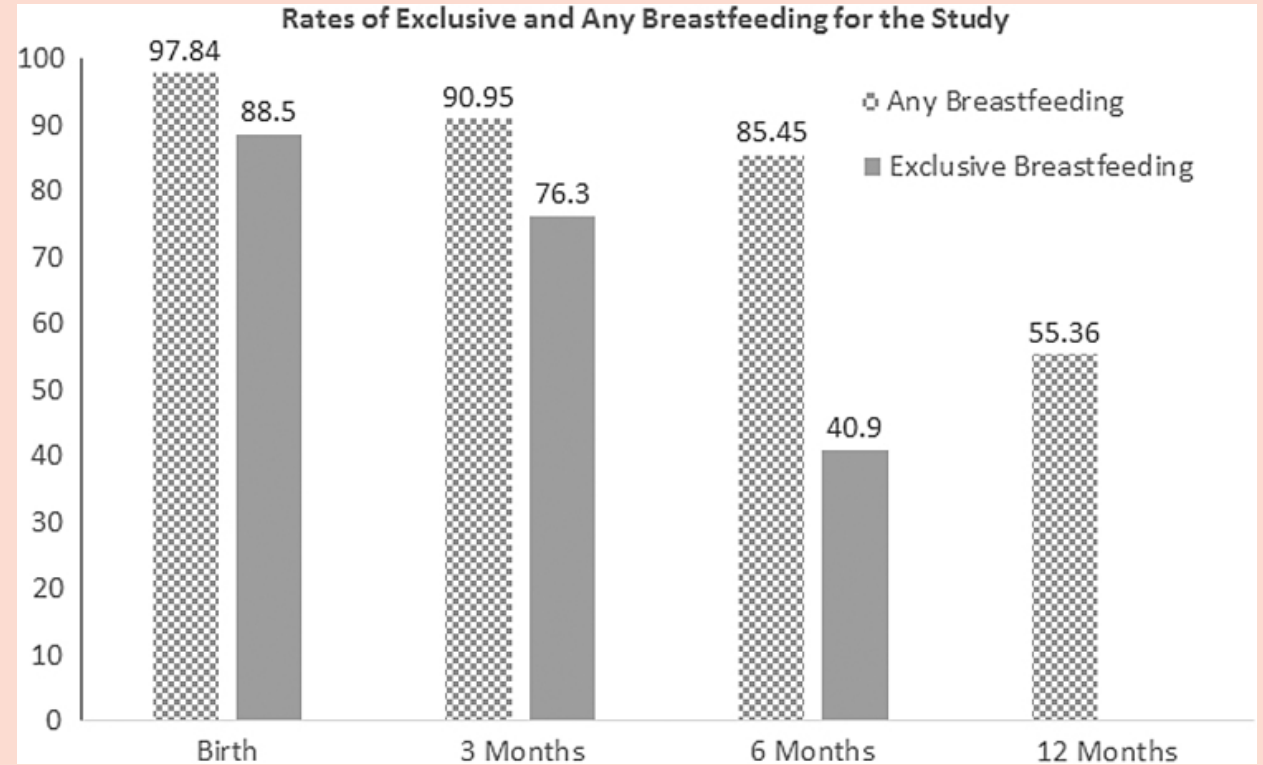


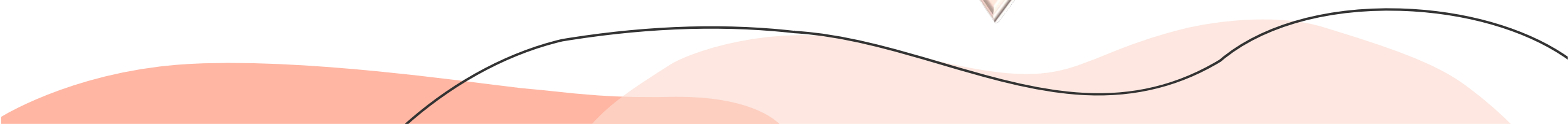
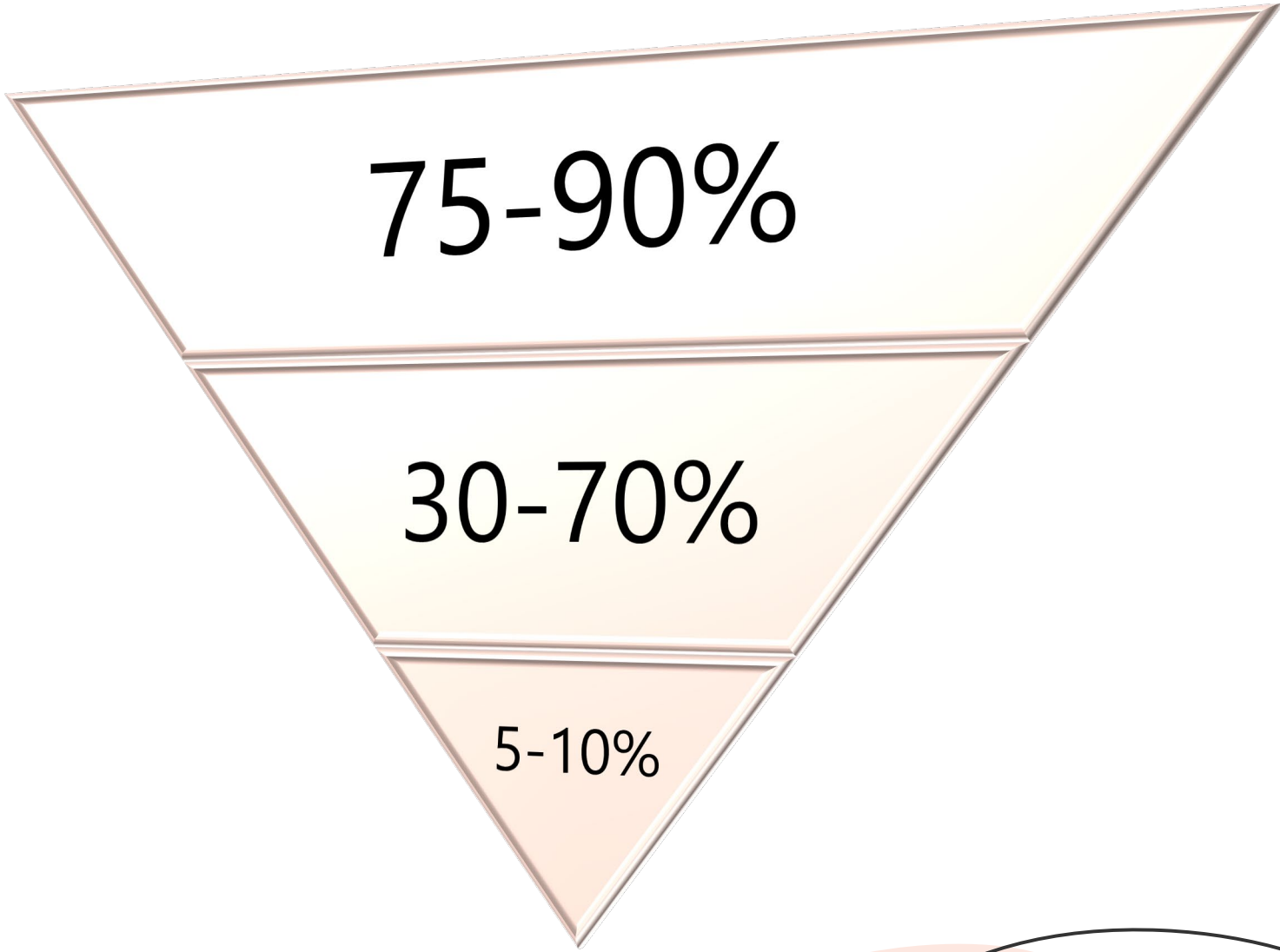
Fig 1. Predicted breastfeeding duration by mother's employment status/occupation type and race. The predicted margins for breastfeeding duration are based on two adjusted zero-inflated negative binomial regression models: Model 1 predicted breastfeeding duration based on mother's employment status/occupation type and race with no interaction term, while Model 2 included an interaction between race and employment status/occupation type. Predicted values and confidence intervals are shown in S1–S3 Tables.

> [Breastfeed Med.](#) 2020 May;15(5):312-320. doi: 10.1089/bfm.2019.0193. Epub 2020 Mar 17.

Physician Mothers and Breastfeeding: A Cross-Sectional Survey

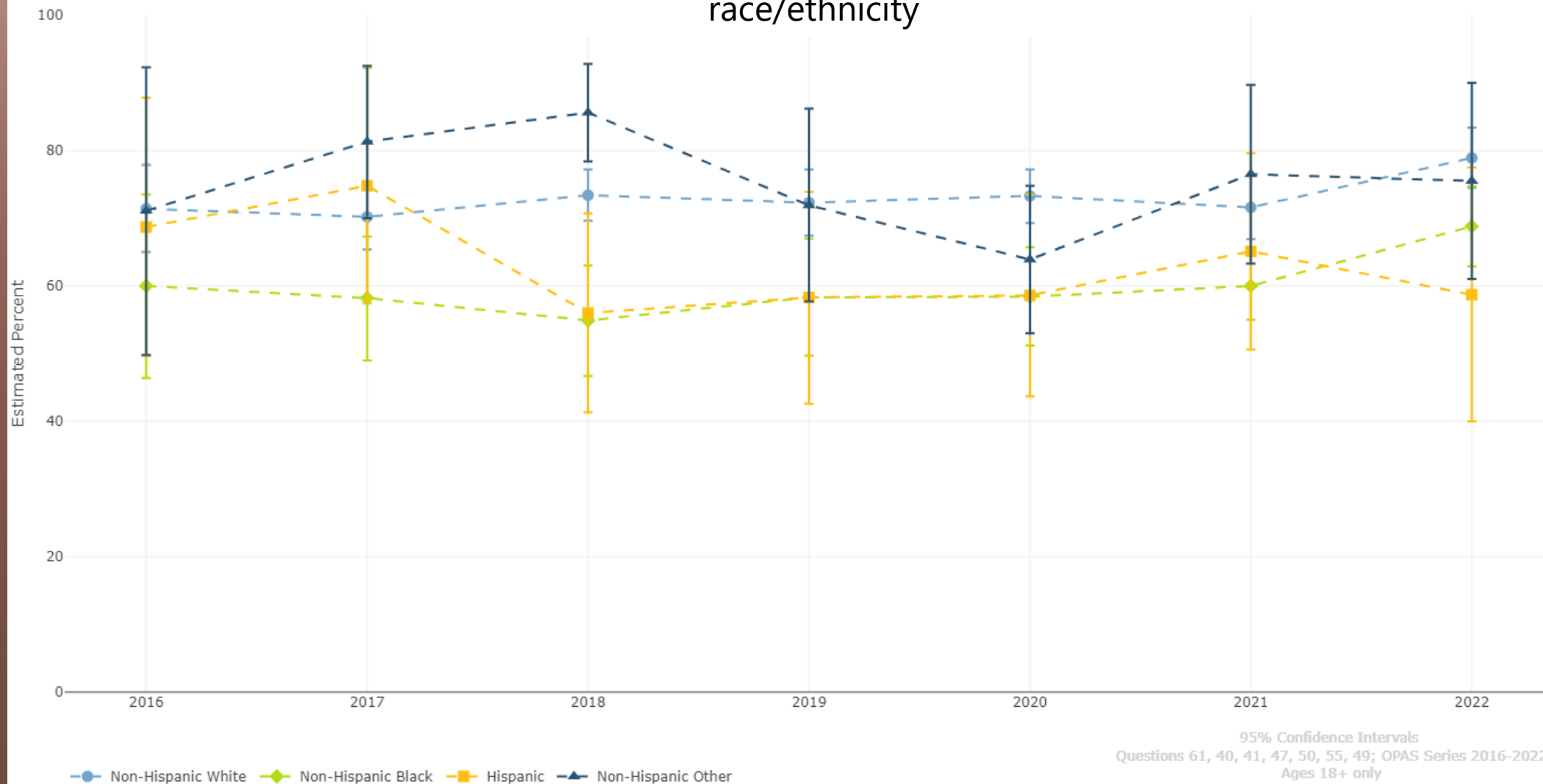
Maryam Sattari ¹, David M Levine ², Lazarus K Mramba ³, Monica Pina ⁴, Reet Raukas ⁵, Elien Rouw ⁶, Janet R Serwint ⁷



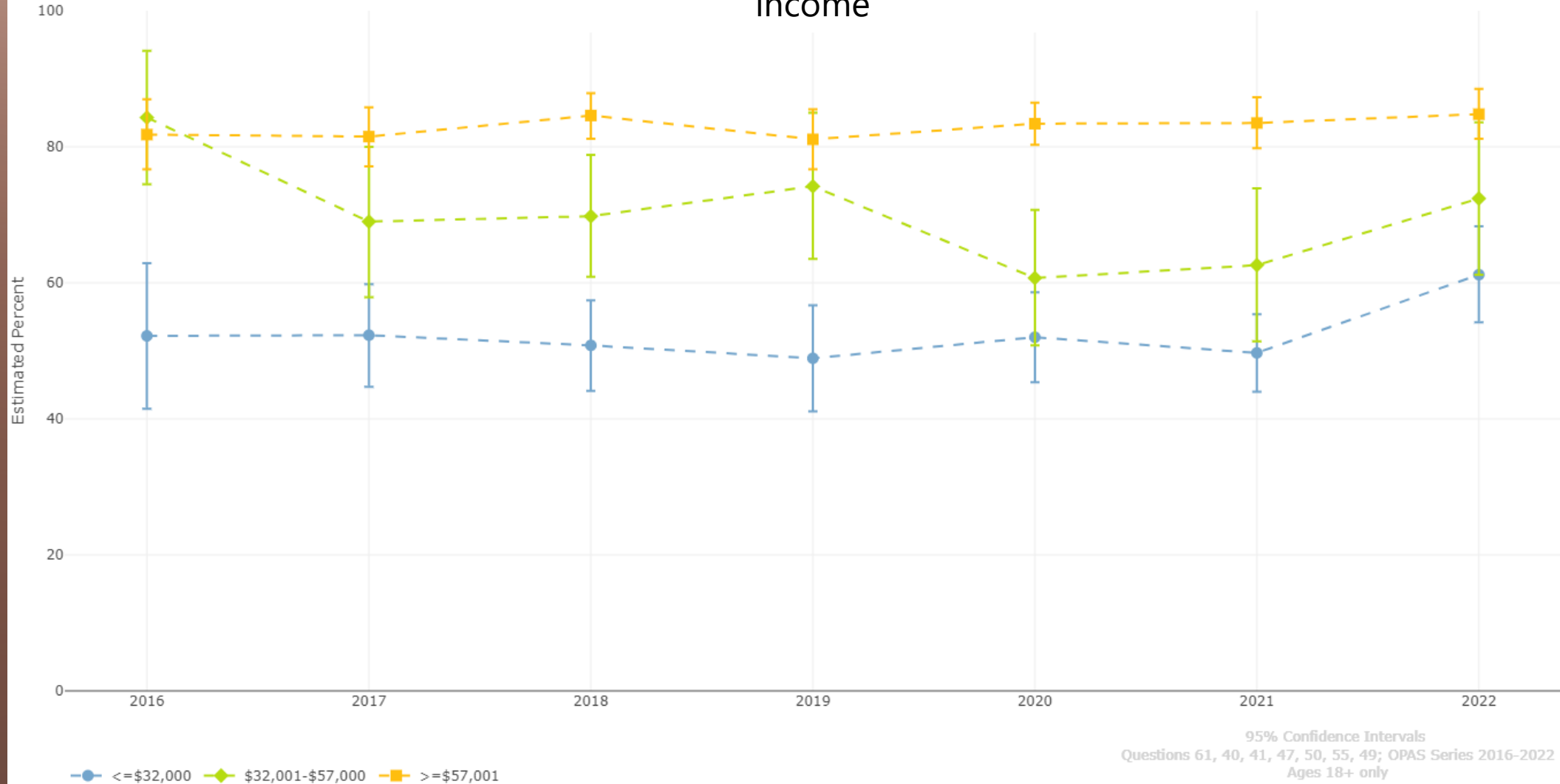


**87% still breastfeeding at 1st
newborn visit**

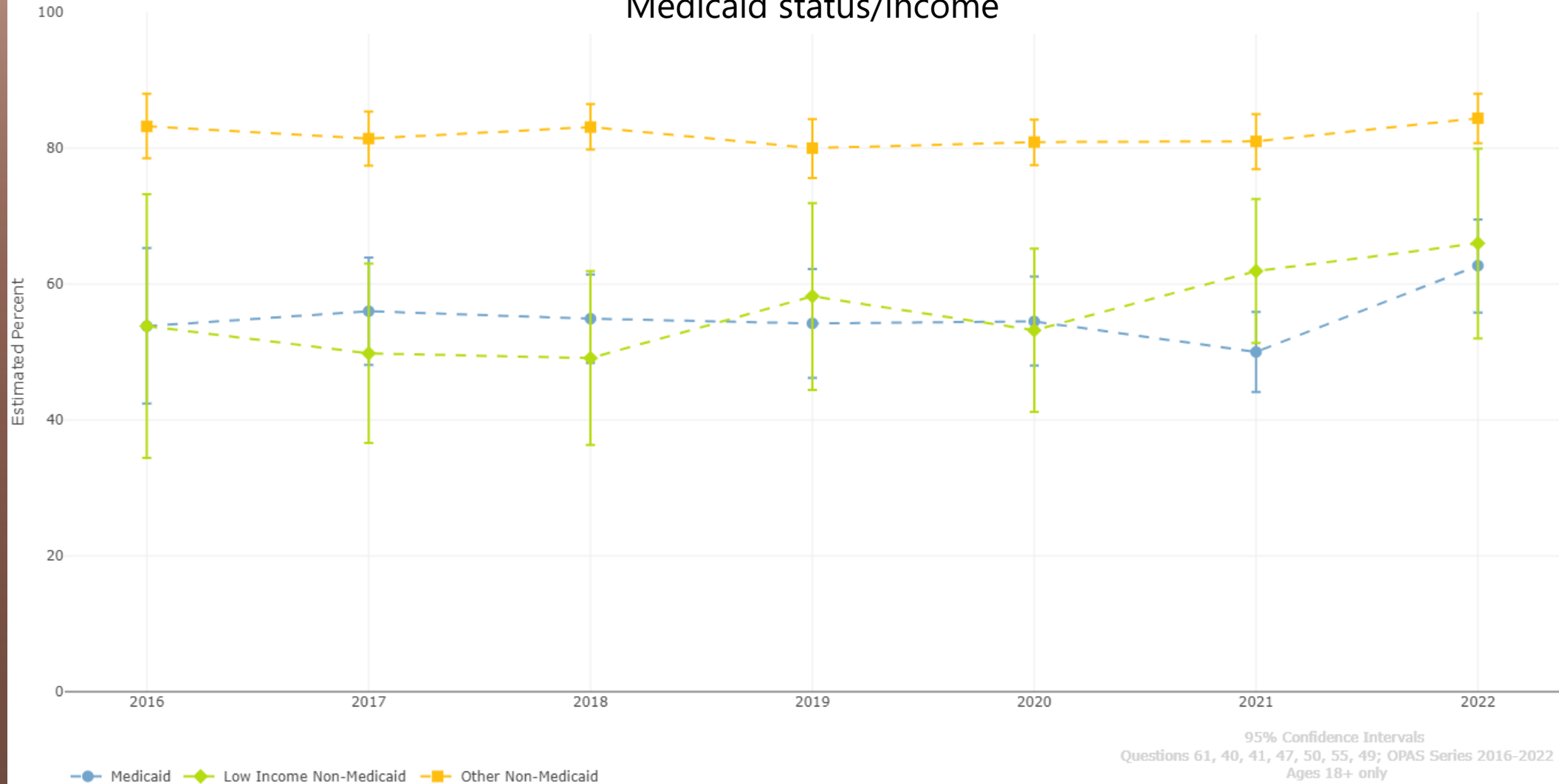
% BF at 8 weeks in Hamilton county stratified by race/ethnicity



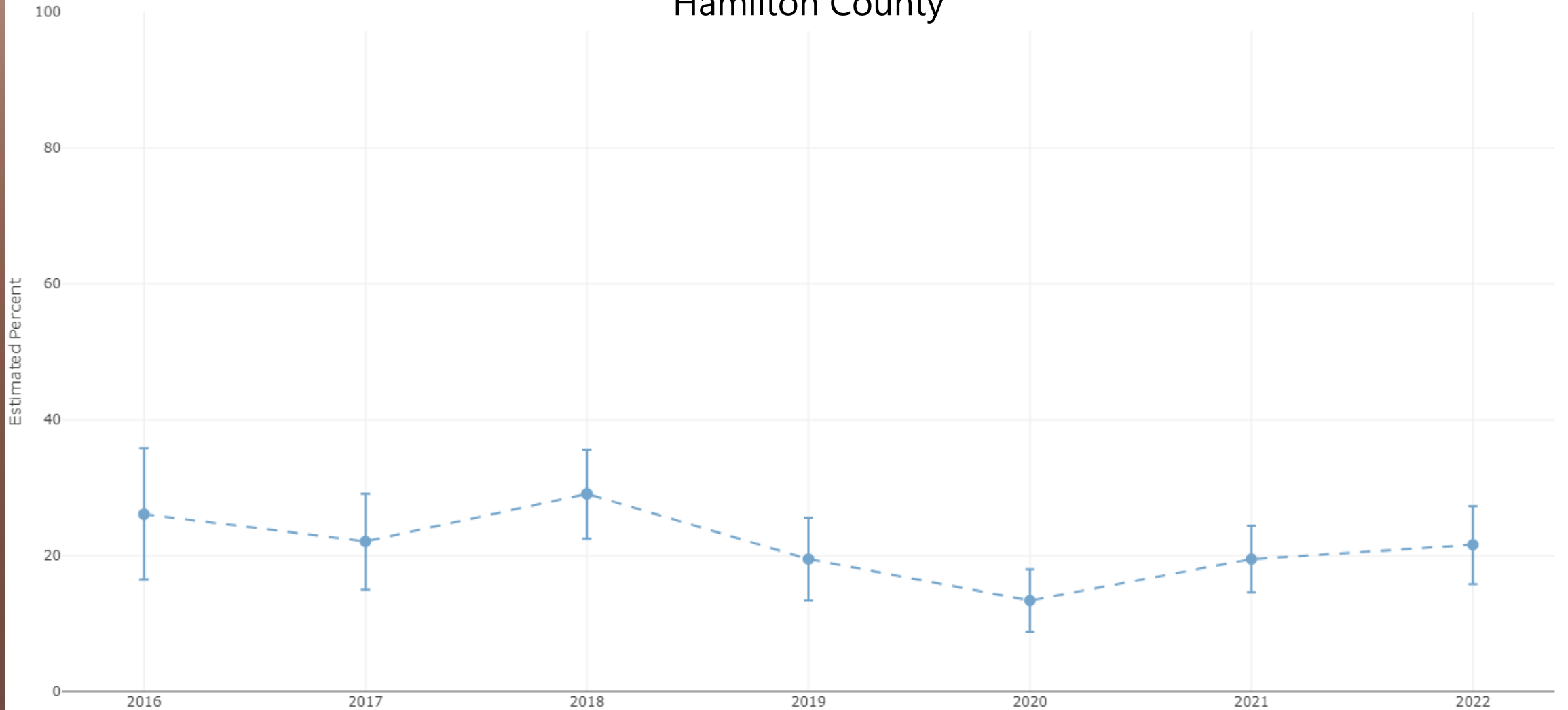
% BF at 8 weeks in Hamilton county stratified by income



% BF at 8 weeks in Hamilton county stratified by Medicaid status/income

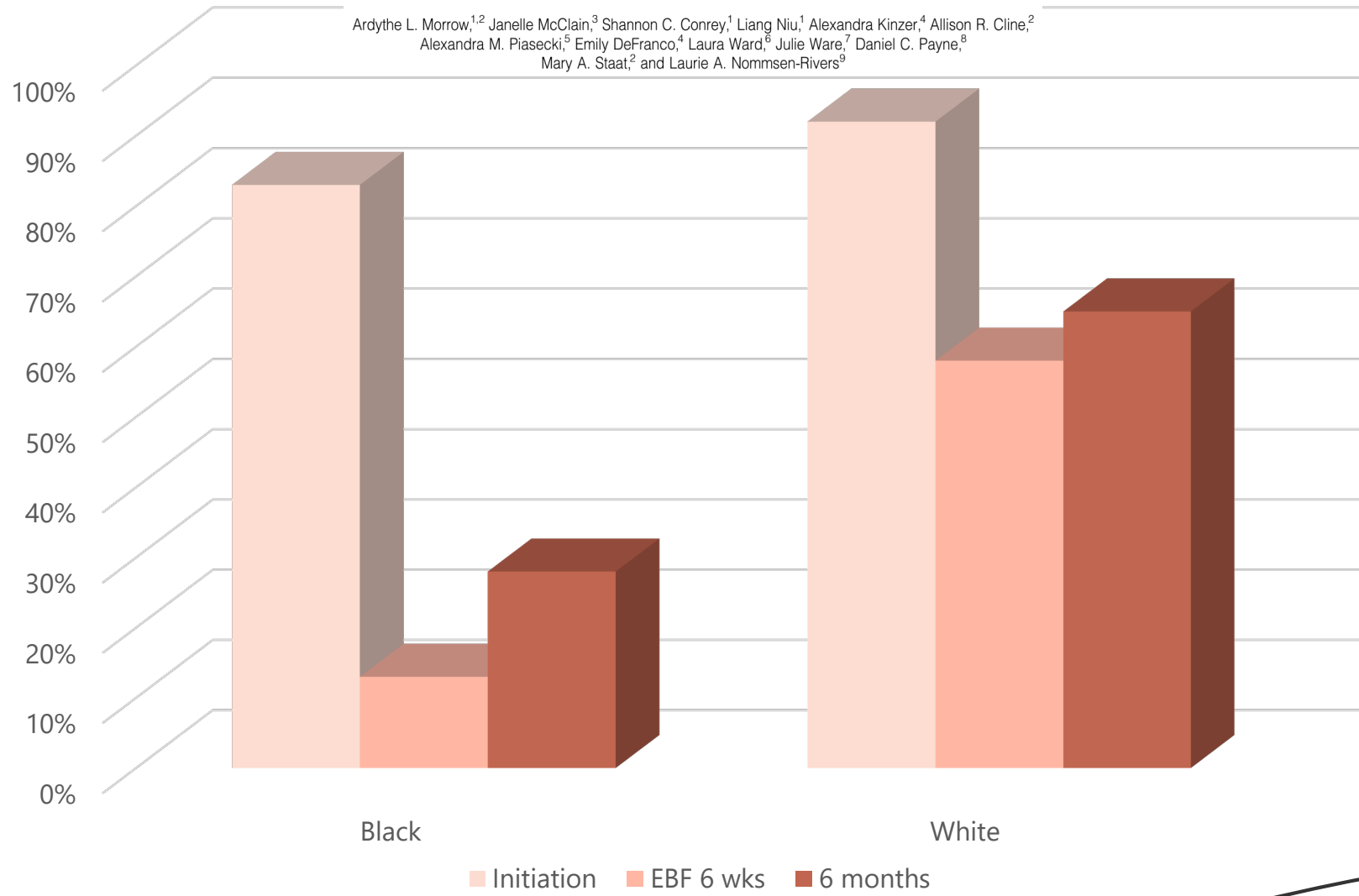


% that stopped BF due to returning to work in Hamilton County

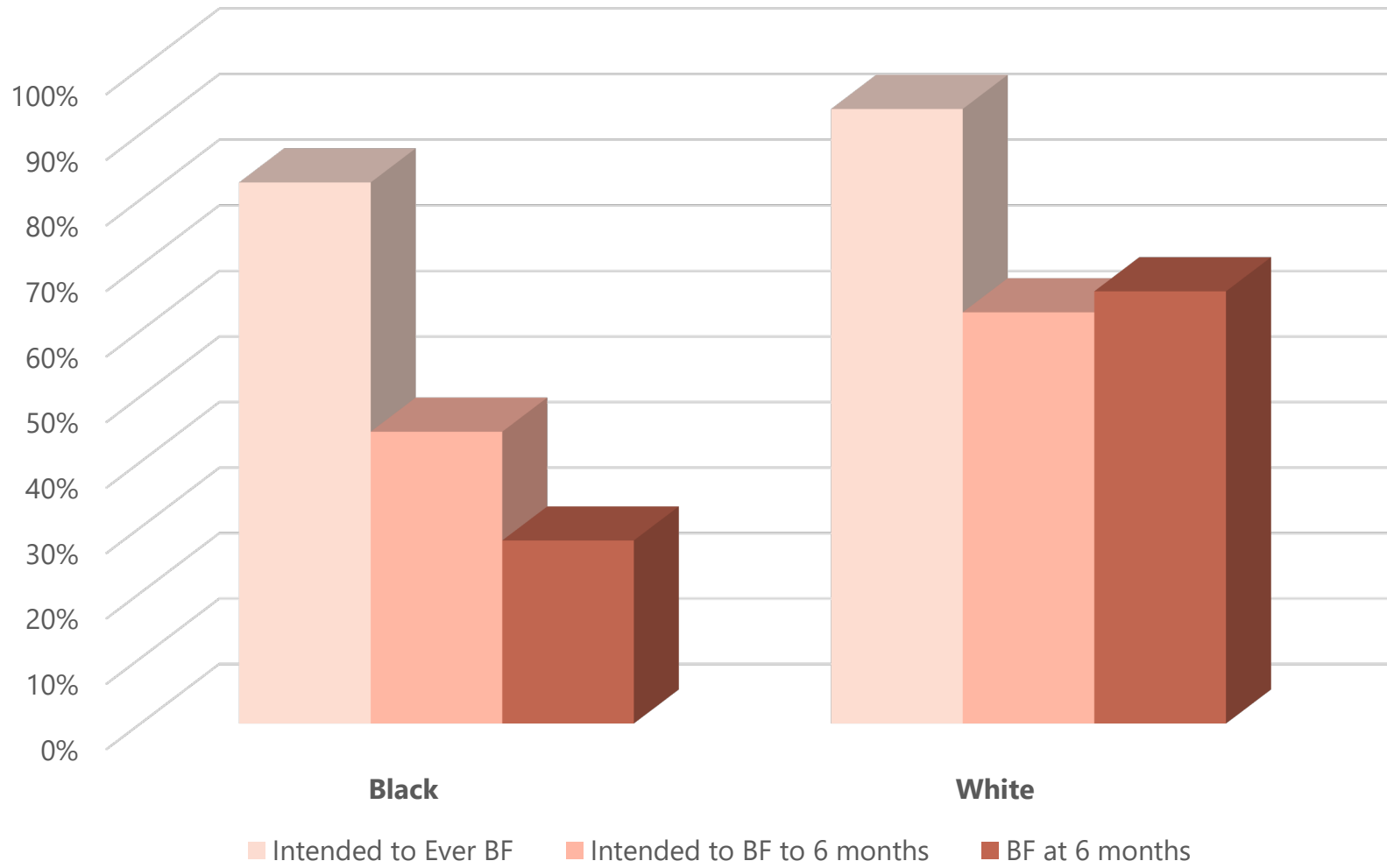


Breastfeeding Disparities and Their Mediators in an Urban Birth Cohort of Black and White Mothers

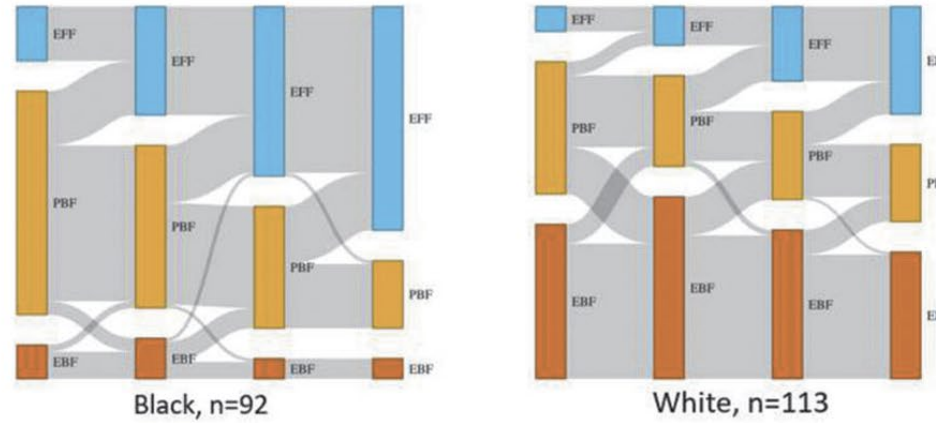
Ardythe L. Morrow,^{1,2} Janelle McClain,³ Shannon C. Conrey,¹ Liang Niu,¹ Alexandra Kinzer,⁴ Allison R. Cline,²
Alexandra M. Piasecki,⁵ Emily DeFranco,⁴ Laura Ward,⁶ Julie Ware,⁷ Daniel C. Payne,⁸
Mary A. Staat,² and Laurie A. Nommsen-Rivers⁹



Disparity in Intent vs Practice

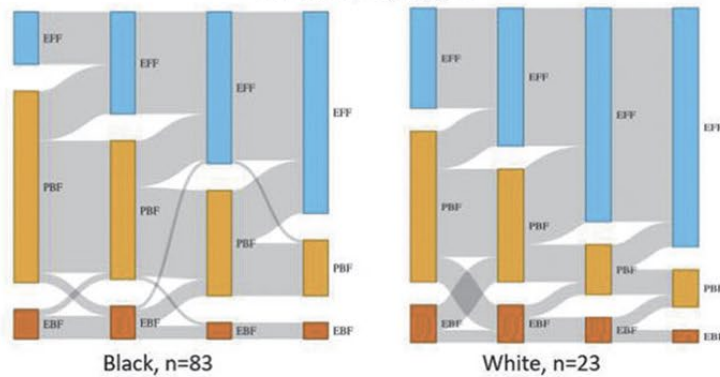


By Race, Unadjusted by Income



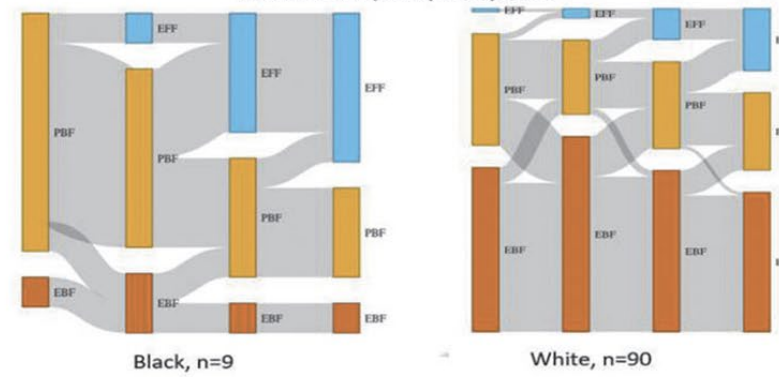
	Wk 2	Wk 6	Mo 4	Mo 6	Wk 2	Wk 6	Mo 4	Mo 6
EBF	11%	13%	7%	7%	50%	58%	48%	41%
PBF	72%	52%	39%	21%	42%	29%	28%	25%
Any BF	83%	65%	46%	28%	92%	87%	76%	66%

Income ≤\$50,000/year



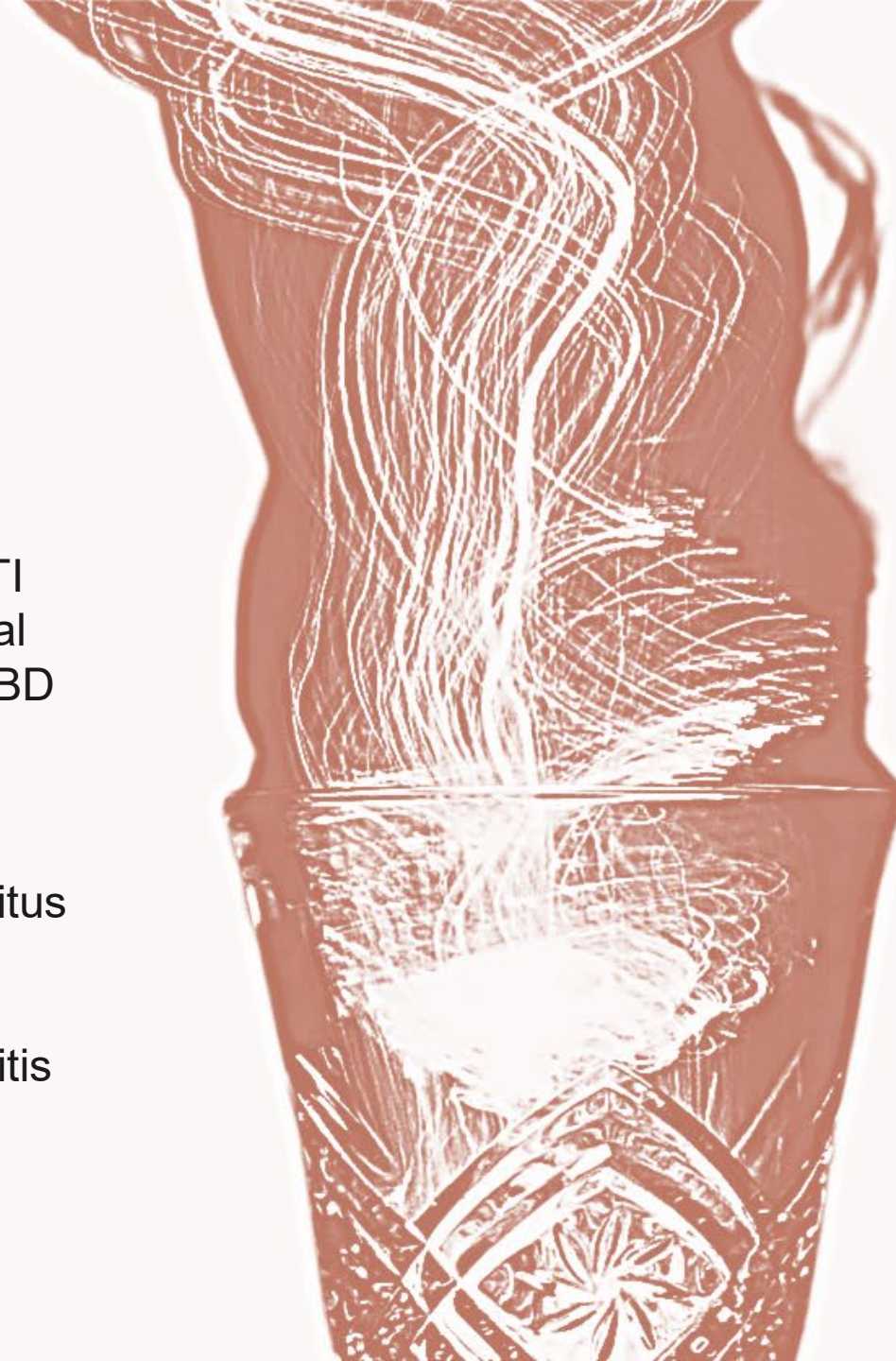
	Wk 2	Wk 6	Mo 4	Mo 6	Wk 2	Wk 6	Mo 4	Mo 6
EBF	11%	12%	6%	6%	13%	13%	9%	4%
PBF	70%	37%	39%	20%	52%	39%	17%	13%
Any BF	81%	49%	45%	26%	65%	42%	26%	17%

Income > \$50,000/year by Race



	Wk 2	Wk 6	Mo 4	Mo 6	Wk 2	Wk 6	Mo 4	Mo 6
EBF	11%	22%	11%	11%	59%	70%	58%	50%
PBF	89%	67%	44%	33%	40%	27%	31%	28%
ABF	100%	89%	55%	43%	99%	97%	89%	78%

FIG. 2. Sankey diagram and table of breastfeeding mode frequencies comparing Black and White mothers over the first 6 months of life. In this Sankey diagram (18), bars represent the relative frequency of the infant feeding behaviors at four time points, left to right: Week 2, week 6, month 4, and month 6. EBF is represented in **dark orange**, PBF in **dark yellow**, and EFF in **blue**. The **gray lines** between bars indicate the proportion of individuals who transition from one infant feeding state to another across the time points measured. EBF, exclusive breastfeeding; EFF, exclusive formula feeding; PBF, partial breastfeeding.



Antimicrobial, anti-inflammatory, immunoregulatory agents, and living leukocytes

- ↓ AOM and LRTI
- ↓ Acute diarrheal disease and IBD
- ↓ SIDS
- ↓ Childhood leukemia
- ↓ Diabetes mellitus
- ↓ Obesity
- ↓ Asthma and atopic dermatitis

Dose dependent

- ↓ Type 2 diabetes
- ↓ Breast, ovarian, and endometrial cancer
- ↓ Hypertension

Societal Benefit



~Deaths prevented annually

- **595,000** due to diarrhea and pneumonia among children 6 to 59 months
- **98,000** due to breast/ovarian cancer and type 2 diabetes

975,000 cases of childhood obesity



Societal Benefit



US study modeled impact of breastfeeding on 9 pediatric and 5 maternal diseases

- **3340** annual excess maternal or child deaths attributed to suboptimal breastfeeding
 - 78% attributed to maternal MI, breast cancer, and diabetes
- **721** pediatric deaths mainly explained by SIDS and necrotizing enterocolitis

Societal Benefit

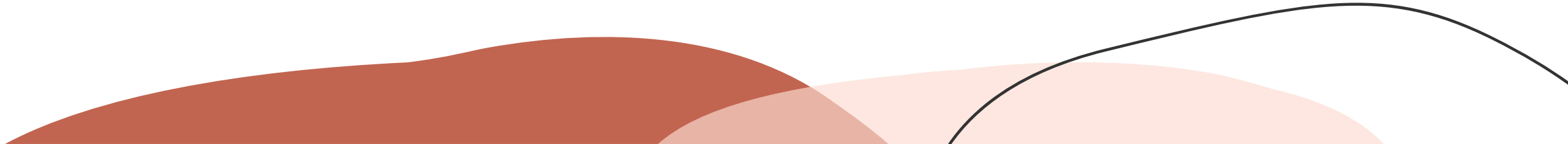


- Extensive water use
- Plastic, paper, and metal waste
- Carbon emissions

Familial Benefit

~\$1200-2000 annually for one infant

~6% of household's wages



Economic Benefit



Direct health care costs to treat maternal and child morbidity



Lost economic productivity due to premature mortality



Costs associated with the decreases in cognitive development of the child



Estimated
global
economic
losses of
\$341.3
billion/year

Economic Benefit



Direct health care costs to treat maternal and child morbidity

\$3.9 billion
79% maternal



Lost economic productivity due to premature mortality

\$14.2 billion



Costs associated with the decreases in cognitive development of the child

\$285.4 billion

Health Benefits to Child	Health Benefits to Mother	Economic Benefits
Improved cognitive development	Decreased postpartum bleeding	Higher employee productivity and lower absenteeism
Bolstered immune system	Decreased menstrual blood loss	Increased employment retention by working mothers who breastfeed
Reduced incidence and severity of such conditions as bacterial meningitis, diarrhea, and urinary tract infections	Increased child spacing	Family cost savings by avoiding purchase of infant formula
Reduced risk of diabetes, lymphoma, leukemia, hypercholesterolemia, and asthma	Earlier return to prepregnancy weight	Decreased health care costs of \$3.6 billion if breastfeeding rates were raised to <i>Healthy People 2010</i> goals, resulting in savings to public and private insurers
Decreased risk of overweight	Decreased risk of breast and ovarian cancers	

Source. Gartner et al.¹; Harder et al.²; Dietz and Hunter³; US Department of Health and Human Services⁴; Ball and Wright⁵; Bartick and Reinhold⁶; *Healthy People 2010 Midcourse Review*.¹⁰

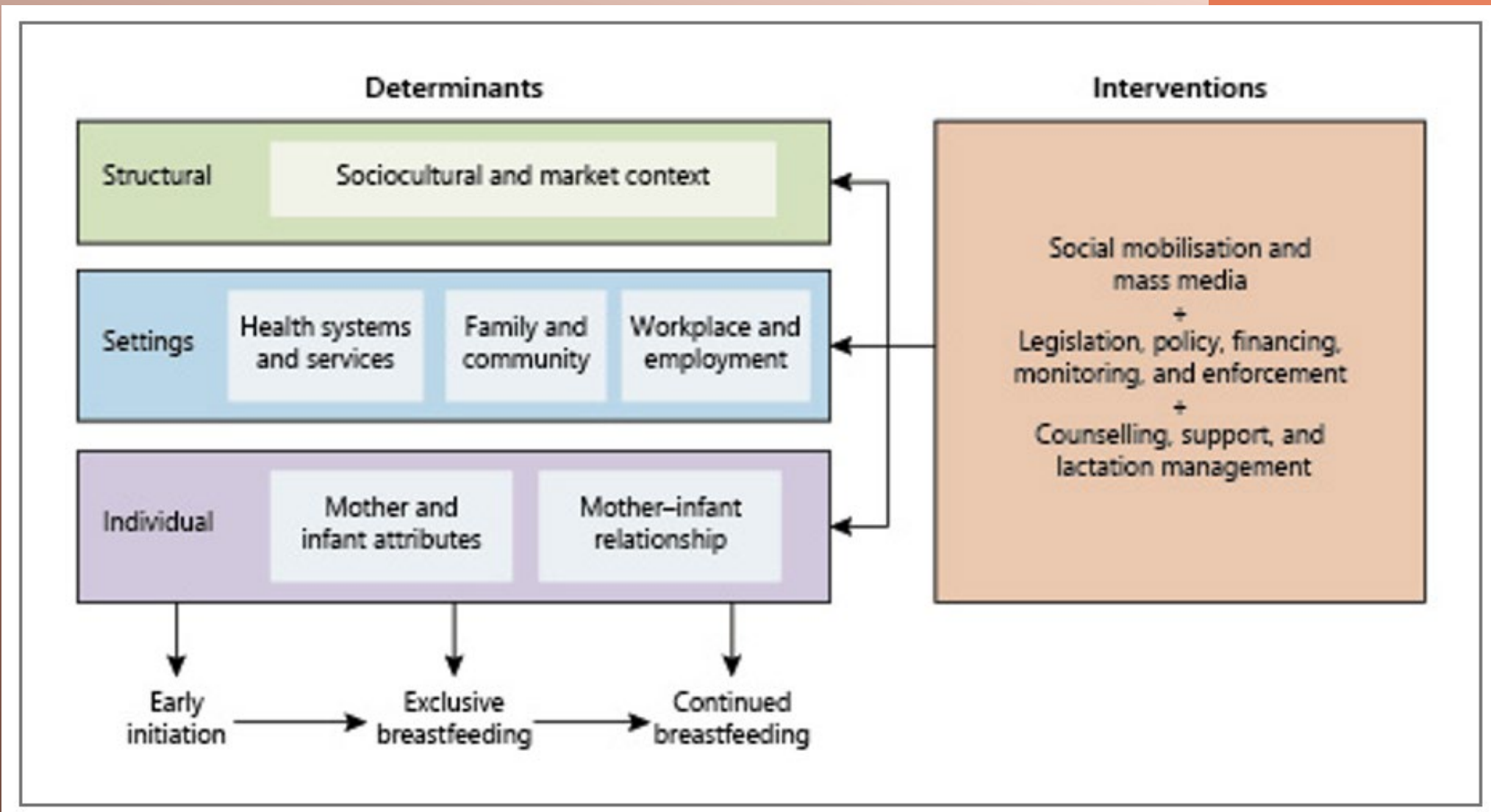


Figure Legend: The components of an enabling environment for breastfeeding – a conceptual model.

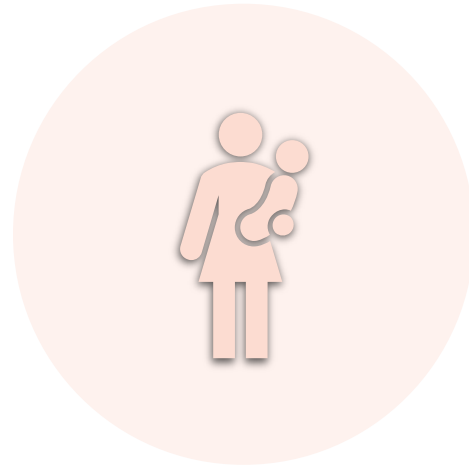


University of

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DEPARTMENT OF EMERGENCY MEDICINE

Special Scheduling



NO BACKUP SHIFTS FOR 3 MONTHS AFTER RETURN TO WORK: AVOID UNEXPECTED CHILDCARE NEEDS, ESP. IN THE MIDDLE OF THE NIGHT



NO SINGLE COVERAGE SHIFTS FOR 3 MONTHS AFTER RETURN TO WORK FOR MOTHERS: UNLESS OPT OUT

UC LEADs Breastfeeding Support Program



Hannah R. Hughes, MD, MBA (she/her) @hrh_approved



Called emergently to intubate a patient while pumping on a single coverage ED shift.



Thankful for the flexibility of wearable pumps & a department committed to supporting breastfeeding providers! @TamingtheSRU @UCMED_Diversity

@uc_health #EMPOWER  



Physician Mothers and the Breastfeeding Challenge

medscape.com

EMERGENCY SPACE



University of Cincinnati Department of Emergency Medicine Workplace Lactation Policy

Applicable for: Faculty, Resident Physicians, and Advanced Practice Providers (APPs)

Background

According to the American Academy of Pediatrics, human breast milk is the normative standard for the feeding and nutrition of infants and research in recent decades has strongly established the short- and long-term infant and maternal health benefits as well as societal and familial economic advantages. The University of Cincinnati Department of Emergency Medicine (UCEM, "Department") is steadfastly committed to a culture of support for lactation and the implementation of this lactation policy.

Policy

UCEM recognizes the importance of breastfeeding and supports the accommodation of physicians and APPs who choose to continue breastfeeding, nursing, or expressing milk after their return to work. This policy shall be communicated to all current employees and included in the new employee orientation.





HOSPITAL GRADE PUMP IN
THE ED



EMR ORDER FOR
INDIVIDUAL EQUIPMENT

For your colleagues

Acceptance and
normalization

Encourage time to
pump, eat, drink

Stop others from
interrupting

Understand pumping
needs to happen and
may not be at a
"convenient" time

Be accepting of
unique pumping
needs

Take Home Points

Short-term and long-term health, economic and environmental advantages to children, women, and society



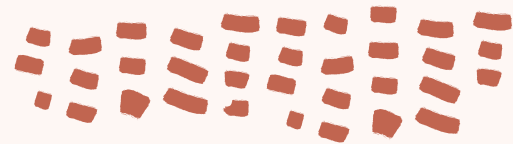
Multifactorial determinants need supportive measures at many levels:

- Social attitudes & values
- Legal and political support
- Employment conditions
- Health-care services

Resources

- Andrew M. Prentice. Breastfeeding in the Modern World. *Ann Nutr Metab* 12 July 2022; 78 (Suppl. 2): 29–38. <https://doi.org/10.1159/000524354>
- Bartick, Melissa C et al. "Suboptimal breastfeeding in the United States: Maternal and pediatric health outcomes and costs." *Maternal & child nutrition* vol. 13,1 (2017): e12366. doi:10.1111/mcn.12366
- Chrstrup, Shana M. "Breastfeeding in the American workplace." *American University Journal of Gender, Social Policy & the Law* 9.3 (2001): 1.
- Dagher, Rada K et al. "Determinants of breastfeeding initiation and cessation among employed mothers: a prospective cohort study." *BMC pregnancy and childbirth* vol. 16,1 194. 29 Jul. 2016, doi:10.1186/s12884-016-0965-1
- Morrow, Ardythe L., et al. "Breastfeeding disparities and their mediators in an urban birth cohort of black and white mothers." *Breastfeeding Medicine* 16.6 (2021): 452-462.
- Perez-Escamilla, Rafael, and S. Segura-Perez. "Maternal and economic benefits of breastfeeding." *UpToDate* 26 (2019): 1-12.
- Prentice, Andrew M. "Breastfeeding in the modern world." *Annals of Nutrition and Metabolism* 78.Suppl. 2 (2022): 29-38.
- Rollins, Nigel C et al. "Why invest, and what it will take to improve breastfeeding practices?." *Lancet (London, England)* vol. 387,10017 (2016): 491-504. doi:10.1016/S0140-6736(15)01044-2
- Schuman, Andrew J. "A concise history of infant formula (twists and turns included)." *CONTEMPORARY PEDIATRICS-MONTVALE-* 20.2 (2003): 91-106.
- The Ohio Pregnancy Assessment Survey Dashboard. grcapps.osu.edu/opas/. Accessed 3/15/2024
- Walters, Dylan D et al. "The cost of not breastfeeding: global results from a new tool." *Health policy and planning* vol. 34,6 (2019): 407-417. doi:10.1093/heapol/czz050
- Whitley, Margaret D et al. "Work, race and breastfeeding outcomes for mothers in the United States." *PloS one* vol. 16,5 e0251125. 5 May. 2021, doi:10.1371/journal.pone.0251125





Questions?

