New York State Report on Breastfeeding Disparities

A RESPONSE TO NEW YORK STATE BILLS
S.6707 and A.6986-A

January 2025

NEW YORK STATE | Department of Health

Prepared by the Office of Public Health and the Office of Science

TABLE OF CONTENTS

ACKNOWLEDGMENTS

In response to legislation, bills S.6707 and A.6986-A, the Department of Health (Department) presents this report describing the prevalence and disparities in breastfeeding in New York (NY). The Department conducted a literature review, evaluated breastfeeding data in New York, and described the Department's efforts to promote, support, and protect breastfeeding/chestfeeding and reduce disparities. On behalf of the Department, the University at Albany, School of Public Health interviewed and surveyed experts specializing in the fields of neonatal and post neonatal pathology, maternal and infant health, breastfeeding medicine, minority health advocacy, or other related fields and stakeholders representing racial and ethnic minorities in geographic areas of NY that have the lowest prevalence of breastfeeding. Experts, stakeholders and advocates identified barriers to successful breastfeeding, especially among populations with lower prevalence of breastfeeding in the state, and identified strategies to reduce these barriers, improve access to prenatal and postpartum health care and lactation support, increase breastfeeding/chestfeeding initiation and duration, and reduce disparities.

Based on these findings, six recommendations are proposed to increase the initiation and duration of breastfeeding/chestfeeding and reduce racial/ethnic and geographic disparities. This report will be respectfully submitted to the governor, the temporary president of the senate, the speaker of the assembly, the minority leader of the senate, and the minority leader of the assembly.

Contributors:

New York State Department of Health

Office of Public Health

Center for Community Health

Division of Chronic Disease Prevention

Division of Nutrition

Division of Family Health

Office of Science

Public Health Information Group

EXECUTIVE SUMMARY

For the purpose of this report, all research articles, reports, expert recommendations, surveys, datasets, study populations (e.g., women, mothers, parents, infants, etc.), and feeding behaviors (e.g., breastfeeding, human milk feeding) will be described as stated by the authors, so as to not change the denominator or mis-state the reported findings. In some studies, breastfeeding may have included infants fed expressed human milk. Currently, there is insufficient research comparing the benefits of breastfeeding vs. feeding infants expressed human milk or assessing the benefits of chestfeeding.

Recommendations made in this report use the term breastfeeding/ chestfeeding to be more inclusive, recognizing that some people may not be comfortable with the term breastfeeding (e.g., some transgender, gender non-conforming, or non-binary parents or some cisgender women with a history of past trauma). Chestfeeding can also refer to feeding an infant on the chest with a feeding tube attached to the nipple.

For New York (NY) to be the healthiest state, good nutrition for all is essential, including the youngest New Yorkers. That means for most infants, being exclusively breastfed/chestfed for the first six months of life and fed human milk with the addition of complementary foods through age 1-2 years. This is not the norm in NY or the U.S.

The proportion of infants in NY who are breastfed exclusively through six months and who continue to be breastfed through 12 months are well below the *Healthy People 2030* national breastfeeding objectives.

Breastfeeding saves lives and improves health; breastfed infants have a lower risk of infant mortality, reduced rates of sudden infant death syndrome (SIDS), fewer respiratory and gastrointestinal diseases, and lower risks of childhood obesity, asthma, and diabetes. Women who breastfeed have lower risks for breast and ovarian cancer, type 2 diabetes, hypertension, cardiovascular disease, obesity, depression, and food insecurity.

There are some medical conditions where parents/infants cannot successfully breastfeed/chestfeed and some situations where breastfeeding/chestfeeding or human milk feeding are not recommended (CDC, 2023). However, with comprehensive breastfeeding education, recommended maternity care policies and practices, timely and competent support from the healthcare system (providers, birth hospital, lactation consultants), workplace accommodation, family and community support, most birth parents who choose to breastfeed/chestfeed can do so successfully. Infant feeding decisions need to be made in a context based on justice, respect, and self-determination. Infant feeding disparities are well documented and reflect historical and current structural and systemic inequities rooted in racism and discrimination. The root causes of infant feeding inequity need to be addressed. All pregnant individuals and new parents should have access to information, resources, and support to allow them to make informed decisions about feeding their infant in the safest, healthiest, and most fitting for their lives and situations. Parents who choose to not breastfeed/chestfeed (for personal, medical or other reasons) should have their decisions respected. Parents who decide to breastfeed/chestfeed, however, should be fully and equitably supported in their healthcare, workplace, community, and family environments. Currently, more than half of parents do not meet their own infant feeding goals, especially people of color, with low incomes, or living in low-resource neighborhoods. This report reviews the published literature, describes breastfeeding data and trends in NY, and identifies factors contributing to breastfeeding disparities. National and NY experts, and NY stakeholders and advocates provided input about barriers and facilitators; they suggested potential strategies and recommendations to address inequities in healthcare access, lactation support, maternity care practices, workplace accommodations, and community resources to i enable more parents to achieve their infant feeding goals, reduce health disparities, and improve the health of future generations.

During the past 10 years, NY's legislation and policies, and quality improvement, educational and community-based efforts have contributed to a 9% increase of newborn infants being fed any breast

milk. In NY, 89% of infants are ever breastfed, which exceeds the *Healthy People 2020* objective of at least 81.9%. However, disparities have persisted. Exclusive breastfeeding has changed little; the overall proportion of infants exclusively breastfed in the hospital (47.1%, in 2019) is below the national goal, with large disparities by race/ethnicity: 57.4% of non-Hispanic (NH) White, 34.9% of NH Black, and 35.7% of Hispanic infants were exclusively breastfed. The proportion of infants breastfed exclusively through six months in NY (24.1%), is also quite low, and far below the *Healthy People 2030* objective of 42.4% and the World Health Organization's (WHO) 2030 goal of 70%.

The low proportion of infants exclusively breastfed in the hospital is driven by NY's extraordinarily high rate of formula supplementation of breastfed infants (47% in 2019); which is among the highest in the U.S. and three times the national goal of no more than 14.2%). The percentage of breastfed infants supplemented with formula during the birth hospitalization differs considerably by birth hospital (range: 2% to 98%) and race/ethnicity (33.2% of NH White, 60.2% of NH Black, 61.4% of Hispanic, and 55.4% of NH other race infants). Supplementation of breastfed infants with formula leads to earlier discontinuation and shorter duration of breastfeeding.

The low breastfeeding rates continue; NY's breastfeeding rates are below the *Healthy People 2020* objective for the percentage of infants breastfeeding through one year of age (34.1%), and the *Healthy People 2030* objective of 54.1%. Disparities also persist fin NY or continuing to breastfed through 1 year of age, with 30.1% of NH White, 21.2% of NH Black, and 24.0% of Hispanic infants doing so. Furthermore, reductions in breastfeeding initiation and duration have been temporally associated with the COVID-19 pandemic. Breastfeeding initiation decreased by 5% in NY, with greater reductions among NH Black women and Hispanic women compared to NH White women, and greater reductions for women living outside New York City (NYC) compared to those living in NYC.

In addition to disparities by race/ethnicity, breastfeeding measures also differ in NY by socioeconomic status, insurance type (Medicaid vs. private), geography (county, region), birth hospital, and other factors. Where one is born strongly determines the access, timeliness, receipt and quality of health care, the maternity care practices and lactation support, and ultimately, one's breastfeeding success. Across multiple breastfeeding measures, NH Black women have the lowest prevalence of breastfeeding, with the greatest differences seen between NH White women and NH Black women.

NY State has been at the forefront with legislation supporting, protecting, and promoting breastfeeding in public places, hospitals, healthcare practices, workplaces, childcare centers, and communities. NY's Breastfeeding Bill of Rights (2009, amended in 2016) "guarantees" women the right to be informed about breastfeeding and to have access to certain recommended maternity care practices, such as beginning to breastfeed within one hour of birth, having 24-hour rooming-in available, and getting help from someone trained in breastfeeding. However, the nature of the "help," the skills, experience, and competencies required of the person "trained in breastfeeding," and the timeframe for new parents to receive help with breastfeeding are not specified.

NY's current perinatal regulations call for hospitals to designate at least one person who is thoroughly trained in breastfeeding physiology and management to be responsible for ensuring the implementation of an effective breastfeeding program in the hospital, and that at all times, at least one staff member who is qualified to assist and encourage mothers with breastfeeding should be available (NYCRR, Title 10, 405.21 – Perinatal Services, 2023). These regulations, however, do not specify the skills, experience, competencies or training required of the person responsible for ensuring the implementation of an effective breastfeeding program in the hospital or what determines that the frontline staff member is qualified to assist new parents with breastfeeding.

National and NY state surveys suggest that hospital maternity care practices, the quality, and availability of breastfeeding help is uneven, inequitable, and varies by geography and hospital. NY state does not

monitor availability, timeliness or receipt of lactation support or set minimal ratios of lactation staff to patients. Hospitals that participate in the Baby-Friendly Hospital Initiative (BFHI), based on the WHO's evidence-based *Ten Steps to Successful Breastfeeding* (Appendix A), are required to demonstrate that recommended maternity care and infant feeding policies, systems, and practices are in place, and that providers/staff have the appropriate skills and competencies to provide the highest standards of infant feeding care. Implementation of the BFH initiative has been associated with increased breastfeeding initiation and longer duration.

The number of BFHs has increased in NY and the U.S. With financial support from the Centers of Disease Control and Prevention (CDC), the Department, and the New York City Department of Health and Mental Hygiene (NYC DOHMH), many NY hospitals instituted quality improvement initiatives to improve hospital maternity practices, increase compliance with the *Ten Steps to Successful Breastfeeding*, and support progress towards meeting the BFH designation. This led to an increase in the number of designated BFHs in NY from two hospitals in 2008 to 24 hospitals in 2017, most of which were Perinatal Level 1 or 2 hospitals.

More recently, the NYC Health and Hospitals municipal health system, with the support of NYC DOHMH and NYC government, implemented a multi-year initiative to support the 11 NYC municipal hospitals that meet the criteria to be designated as a BFH. This led to a dramatic increase in designated BFHs in NYC; in 2022, there were 44 BFHs in NY (28 in NYC and 15 in the rest of the state). In 2021, 48% of births in NYC occurred at a BFH and 28% of births outside NYC occurred at a BFH.

While the birth hospital is key to supporting parents to successfully initiate and exclusively breastfeed in the hospital, the typical hospital stay after giving birth lasts 24-48 hours. There is strong evidence that comprehensive breastfeeding education and lactation support that begins prenatally, continues in the hospital and through the postpartum period, is associated with higher breastfeeding initiation and exclusive breastfeeding, and longer duration of breastfeeding (McFadden, et al., 2017). Combining the BFH initiative with community-based, culturally relevant, comprehensive lactation support has been shown to be the most successful at not only increasing breastfeeding measures but also reducing racial/ethnic disparities (Merewood, et al., 2019; Burham, et al., 2022).

The Department's Center for Community Health (Divisions of Chronic Disease Prevention, Nutrition, and Family Health) has led efforts to increase awareness and knowledge of the benefits of breastfeeding, and to promote, support, and protect breastfeeding in hospitals, worksites, childcare settings, and public places. The Department's efforts to increase the proportion of infants initiating and continuing to breastfeed include supporting implementation of evidence-based policies and practices and increasing the availability and quality of lactation support. To reduce disparities, the Department has prioritized low-income populations and groups with a low prevalence of breastfeeding. To track adoption of these policies, quality improvement initiatives have been initiated in hospitals and healthcare settings. The funding of community-based partnerships allows for the promotion of policy, systems, and environmental strategies to protect and support breastfeeding in worksites, childcare, healthcare, and the community. The Department's home visiting programs provide breastfeeding education and support to participants in their home. The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides culturally appropriate breastfeeding education and counseling, Breastfeeding Peer Counselors, an enhanced food package, and breast pumps (when needed) to breastfeeding women.

Despite prioritizing efforts towards communities, populations, and institutions with the lowest prevalence of breastfeeding, disparities remain. Funding has limited the reach, extent, and duration of efforts, and they are not available in all communities, all hospitals, or all populations. Furthermore, monitoring and assessment is not routine, and enforcement of lactation support in hospitals, healthcare, and worksites is based on individual complaints, resulting in inequities. Baby-Friendly USA has helped fill that gap by serving as an external accreditation program (analogous to the Joint Commission). Hospitals and birthing facilities in the U.S. can voluntarily participate in the Baby-Friendly Initiative to better support breastfeeding

by implementing the highest standards of infant feeding care, including the *Ten Steps to Successful Breastfeeding*, recommended by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF).

The reasons for disparities in breastfeeding are well documented in the literature, described by national experts and NY experts, advocates, and stakeholders. Breastfeeding disparities are due to many of the same factors that drive disparities in maternal morbidity and mortality, but also include the history of slavery, forced wet nursing, and medical mistrust. The literature review identifies systemic and structural racism, implicit bias, and racial discrimination as root causes, exacerbated by lower maternal educational attainment and income. Several studies find that hospitals that serve higher proportions of Black patients have fewer evidence-based maternity care practices in place. Because pregnant people tend to deliver at the closest hospital, even if the quality is lower, Black women disproportionately deliver at lower quality hospitals, (i.e., hospitals with higher rates of adverse outcomes, such as severe maternal morbidity and infant morbidity and mortality), that provide fewer recommended maternity care practices to support breastfeeding.

Nearly 90% of parents choose to breastfeed, but 50-60% do not meet their own breastfeeding goals (i.e., not exclusively breastfeeding or breastfeeding for a shorter duration) because of the many systemic and structural challenges across the socioecological spectrum. There is a strong evidence base of policies, maternity care and infant feeding practices, and type of lactation support that increase breastfeeding success. Many of these policies and practices are included in NY State (NYS) Public Health Laws and/or perinatal regulations or federal laws, yet, these practices and procedures are not fully implemented, monitored, enforced, or equitably available to all New Yorkers at all maternity care facilities, or in all communities in NY.

The national experts, academic clinicians, researchers, stakeholders, and advocates identified barriers to breastfeeding/chestfeeding: inadequate prenatal education about breastfeeding/chestfeeding; unsupportive personal networks; inequitable access to information, resources and timely, comprehensive lactation support; returning to work; and systemic racism and bias.

The following six recommendations to increase breastfeeding/chestfeeding and reduce racial/ethnic and other disparities are based on a review of NY data, NYS Departmental programs and efforts, a literature review, and recommendations from experts, stakeholders, and advocates. Each recommendation is described in greater detail later in the full report.

SUMMARY OF RECOMMENDATIONS FOR LEGISLATIVE OR OTHER ACTIONS

1. Increase equity in access to breastfeeding/chestfeeding education and lactation support by pregnant and postpartum people.

- Strengthen requirements for insurers to cover, and providers to refer, pregnant people and their partners prenatally for structured, comprehensive breastfeeding/chestfeeding education and lactation support consistent with United States Preventive Services Task Force (USPSTF) recommendations.
- Strengthen requirements to ensure new parents have timely access to lactation support in the birth hospital and postpartum, and that direct care staff providing lactation support have appropriate training, skills, and competencies, and the ability to access more qualified and clinically skilled lactation consultants, such as an International Board Certified Lactation Consultant (IBCLC), in a timely manner, as needed.
- Include use of breastfeeding/chestfeeding education, lactation counseling, support or consultation in health plan quality measures (such as Healthcare Effectiveness Data and Information Set (HEDIS) or Quality Assurance Reporting Requirements (QARR) measures); report use of lactation support services by disparity measures, including race/ethnicity.
- Increase the accessibility and continuity of lactation care by covering lactation counseling and consultation as a separate benefit, i.e., unbundle lactation care from pregnancy, labor and delivery, and postpartum care.
- Remove the requirement that patients be referred or have an order for lactation counseling or care, and/or allow referrals to be made by other providers, including pediatric providers or nurse midwives, and not just obstetric providers.

2. Increase equity in access to the *Ten Steps to Successful Breastfeeding* in hospitals.

- Strengthen requirements for NY hospitals to provide all birthing parents with access to evidence-based maternity care policies and practices, such as the *Ten Steps to Successful Breastfeeding*, that support breastfeeding/chestfeeding.
- Provide funding and resources to enable all NY hospitals to provide maternity care consistent with the *Ten Steps to Successful Breastfeeding* and meet the criteria required to be designated as a Baby Friendly Hospital (BFH).
- Incentivize hospitals to achieve BFH designation by providing additional reimbursement for each step of progress along the pathway towards becoming a designated BFH and provide higher payment for births at BFHs.

3. Strengthen, expand and diversify the lactation workforce.

- Modify criteria for insurance reimbursement by NY Medicaid (and other insurers) for the provision of lactation counseling and care. Allow IBCLCs to provide lactation counseling and consultation within their scope of practice, without also requiring NY licensure as a physician, physician assistant, pediatric or family nurse practitioner, midwife, or registered nurse.
- Amend NYS education law to license IBCLCs in NY to provide lactation counseling and consultation within their scope of practice, without also requiring NY licensure as a physician, physician assistant, pediatric or family nurse practitioner, midwife, or registered nurse.
- Fund academic institutions in NY to a start an Accredited Academic Human Lactation Program leading to IBCLC certification through Pathway 2 (IBCLE 2023).
- Select institutions and students to promote diversity of the lactation workforce.

4. Increase community outreach, especially among diverse populations, and those with low prevalence of breastfeeding/chestfeeding.

- Expand the reach, scope and capacity of the Department's *Breastfeeding, Chestfeeding, and Lactation Friendly New York* program by increasing the number of grantees from 9 to 15 contractors to work in high-need communities statewide, include a wider range of partners and community-based organizations, and fund a statewide Breastfeeding/Chestfeeding Center of Excellence.
- Increase breastfeeding/chestfeeding education and lactation training of staff who work in the home visiting programs, including the Perinatal and Infant Community Health Collaboratives (PICHC), the Nurse-Family Partnership (NFP), and the Healthy Families New York (HFNY) programs.

5. Increase equity in access to lactation support in the workplace.

- Educate employers to increase their awareness and understanding of NY's amended Labor Law, *Nursing Employees in the Workplace*, and the federal *Providing Urgent Maternal Protections (PUMP) for Nursing Mothers Act (PUMP Act)*.
- Educate employers, especially those at small businesses (<50 employees), about the value to businesses of supporting nursing employees in the workplace.
- Support employer's implementation and monitoring of lactation support and accommodations in the workplace, and their provision of NY's written workplace lactation policy.
- Educate employees, healthcare providers, public health professionals, and other staff who interact with pregnant or nursing people about the amended NY labor law, *Nursing Employees in the Workplace*, and the new federal *(PUMP Act)*.
- Increase employer and employee awareness of other NYS programs providing paid and unpaid leave benefits.

6. Increase equity and utilization of paid leave for pregnancy and/or newborn bonding.

- Increase education of employers and employees about NYS programs providing paid leave benefits from work, including NYS's Paid Family Leave, Paid Sick Leave, and Temporary Disability Insurance programs.
- Enhance the dollar amount of benefits, especially for low-income employees, and increase their flexibility so they could be used for breast/chestfeeding or expressing milk.
- Increase education of employers, especially small businesses about the value (i.e., business benefits) of supporting pregnant and nursing employees in the workplace.
- Increase equity and utilization of NYS Paid Family Leave for newborn bonding.

I. INTRODUCTION

Breastfeeding (human milk feeding) is recognized as providing optimal nutrition and many health benefits to infants and mothers. Exclusive breastfeeding for six months after birth is recommended by all expert professional groups. Continued breastmilk feeding, with introduction of appropriate complementary foods at six months, is also recommended, up to one to two years as long as mutually desired by the parent and infant (ACOG, 2016; AAFP, 2008) to two years (AAP, 2022a; AAP, 2022b). Human milk should be available and provided to all infants, yet there are significant disparities in breastfeeding rates, duration, and the associated health benefits and risks. Breastfeeding disparities don't happen in isolation; they reflect lifelong, pervasive disparities in health, education, housing, access to healthcare, opportunities, and societal, community, and public support and resources. These social determinants of health, together with systemic and structural racism, institutional and individual biases and discrimination, result in significant disparities in maternal morbidity, maternal and infant mortality, life expectancy, and recently, COVID-19 infection, morbidity, and mortality. Infant feeding decisions and breastfeeding success are impacted by the full socio-ecological spectrum of influences including societal; cultural; public and institutional polices, systems, and environments; family and community support; and individual socio-economic, demographic, and psychosocial factors (Alberta Health Service, 2019; Snyder, et al., 2021).

The purpose of this review is to identify factors that contribute to racial or ethnic disparities in breastfeeding initiation, exclusive breastfeeding, and/or duration. We also reviewed evidence-based and promising strategies, highlighting how uneven implementation or availability may contribute to disparities, and suggest public health policy, systems, and environmental approaches to foster more equitable access and support for human milk feeding by all pregnant, birthing, or lactating people and their infants.

There is increasing attention on the use of inclusive language that is "de-sexed" or "gender-neutral." However, what is appropriate depends on the purpose, context, audience, and whether one is discussing research findings, making recommendations about a population, or providing one-on-one counseling with a patient or client. Recent published guidelines recommend that lactation-related language be more inclusive by including "human milk feeding," "chestfeeding," and/or "lactating" (Bartick, 2021). Some individuals giving birth or lactating may not identify as female or male. Throughout this report, research studies will be described based on the study population and comparator used in the study. Otherwise, more inclusive language may be used to describe breastfeeding or human milk feeding (from a donor or birth parent) via a bottle, breast, or at the chest (NACCHO, 2021).

A. What is the Public Health Issue? Public Health Focus

Early breastfeeding/chestfeeding cessation is a societal concern given the significant health benefits for both the lactating parent and child. More culturally responsive interventions are needed to increase breastfeeding/chestfeeding duration and exclusivity. Moreover, to reduce racial and ethnic disparities in breastfeeding initiation, exclusivity or duration, barriers need to be identified and addressed. Many barriers to breastfeeding are experienced at the individual level, however, many also occur at the social, cultural or political level, suggesting that public health resources and services should play a central role in creating supportive breastfeeding policies, systems, and environments (Brown, 2017). Where barriers to breastfeeding exist at the societal rather than individual level, these influences are typically outside of [parental] control. Five core themes found in the literature include health services, population level health promotion, support of maternal legal rights, protection of maternal wellbeing, and reducing the reach and impact of the formula industry (Brown, 2017).

The Socio-Ecological Model framework can be utilized to examine breastfeeding supports and barriers from the perspective of diverse breastfeeding stakeholders (Snyder, et al., 2021). At the individual level, breastfeeding is a valued behavior and associated with high self-efficacy, however parents are often hindered by exhaustion, isolation, and lack of adequate time to breastfeed. At the interpersonal level,

breastfeeding support includes social networks via family support, peer-to-peer support, and social media. Barriers identified at the interpersonal level include lack of family or partner support (Snyder, et al., 2021). At the next level, normalization of breastfeeding, cultural acceptance and community lactation support were identified as facilitators of breastfeeding, with lack of access to breastfeeding support resources identified as a barrier. At the organizational level, supports include hospitals having Baby-Friendly maternity care practices, and prenatal and postpartum providers/offices and hospitals providing breastfeeding education and lactation support throughout the pregnancy and postpartum period. Institutional barriers included lack of hospital resources, hospital provision of formula samples, and childcare staff who do not support human milk feeding. Lastly, at the policy level, workplace protections for expression of breastmilk are supportive, but barriers include lack of enforcement of workplace protections and limited maternity or parental paid leave policies or laws (Snyder, et al., 2021).

Breastfeeding/chestfeeding must be considered a public health issue that requires investment and interventions concurrently addressing the many systems, environments, and levels through which the breastfeeding/chestfeeding journey touches. While individual level support is important, focusing solely on one level may not lead to the policy, systems, and environmental changes needed to normalize breastfeeding/chestfeeding and address the racial and ethnic disparities.

B. Benefits of Breastfeeding

Breastfeeding and human milk feeding offers many well recognized health benefits to infants, children, and parents. Infants who are breastfed (fed human milk) have a reduced risk of necrotizing enterocolitis, otitis media, gastroenteritis, hospitalization for lower respiratory tract infections, atopic dermatitis, sudden infant death syndrome, childhood asthma, childhood leukemia, type 1 and type 2 diabetes mellitus, and childhood obesity (Ip, 2007; AAP, 2008).

Several large U.S. studies report significant reductions in infant mortality associated with breastfeeding initiation, after adjustment for maternal and infant risk factors (Bartick M, 2016; Li R, 2021). Breastfeeding was associated with statistically significant reductions in infant deaths due to infections (AOR=0.81), Sudden Unexpected Infant Death (AOR=0.85), and necrotizing enterocolitis (AOR=0.67) (Li, et al., 2022). A recent study of 10 million U.S. births found a 33% reduction in infant mortality from all causes from age 7–364 days (adjusted for maternal age, maternal education, race/ethnicity, WIC participation, smoking during pregnancy, type of delivery, birth plurality, gestational age, and infant sex). When these data were stratified by state; breastfeeding initiation was associated with a 50% reduction in infant mortality in NY (AOR = 50%) (Ware. et al., 2023).

Women who breastfeed reduce their long-term risk of breast cancer and ovarian cancer, type 2 diabetes mellitus, hypertension, and osteoporosis, and they are more likely to return to their pre-pregnancy weight. (McFadden, 2017; Castrucci, 2006). Suboptimal breastfeeding by women is associated with excess deaths (up to age 70), primarily from myocardial infarction, breast cancer, and diabetes (Bartick, 2016).

C. Burden/Costs from Not Meeting Breastfeeding Recommendations

The estimated cost burden from not breastfeeding represents approximately 0.49% of the world's Gross Domestic Product, in part due to the health care costs for chronic diseases among women and children that might have been prevented or reduced by breastfeeding (McFadden, et al., 2017; Rollins, et al., 2016). Several studies have estimated the costs from suboptimal breastfeeding. If 90% of infants were exclusively breastfed for six months, the U.S. could save as much as $14.2 billion per year from fewer premature deaths, plus $3.0 billion per year from excess medical costs (Bartick, Reinhold, 2010; Bartick, et al., 2016). Bartick and colleagues estimated that there were 3,340 excess deaths per year attributable to suboptimal breastfeeding; 78% of which were in women, due to myocardial infarction (n = 986), breast cancer (n = 838) or diabetes (n = 473), and 721 were in children, mostly due to sudden infant death syndrome (SIDS) (n = 492) or necrotizing enterocolitis (n = 190).

A recent *Cost of Not Breastfeeding Tool* (Alive & Thrive, 2022) estimated that not exclusively breastfeeding through five months and not continuing to breastfeed until 20-23 months in the U.S. results in: 12,658 deaths (283 child and 12,355 adult), 7,936,810 IQ points lost, and 2,757,224 school years lost, with costs of $2.2 billion (morbidity), $161.3 billion (mortality), and $17.5 billion (health system), in addition to $2.2 billion for infant formula.

D. Prevalence and Trends in Breastfeeding

1) United States

Between 2009 to 2015, data from the National Immunization Survey (NIS) showed increases in breastfeeding initiation, duration, and exclusivity across all racial/ethnic groups (Li, et al., 2019). Breastfeeding initiation increased by 7.1 percentage points (76.1 to 83.1%), exclusively breastfed at six months increased by 9.2 percentage points (15.7 to 24.9%), and continued breastfeeding at 12 months increased by 11.3 percentage points (24.6 to 35.9%). Breastfeeding initiation continued to increase through 2019 to 84.1% (nationally) and 87.9% (in NY) (Chiang, et al., 2021; Li, et al., 2019).

Although there have been significant increases in the proportion of infants breastfeeding nationally, the proportion of non-Hispanic (NH) Black infants breastfeeding remains the lowest and falls below most national breastfeeding goals. A national survey, Study of Attitudes and Factors Effecting (SAFE) Infant Feeding Practices, conducted in hospitals after birth and continued through the infants' sixth month of life, showed disparities between NH Black infants and all other racial/ethnic groups (Safon, 2021). Between 2011-2014, the prevalence of any breastfeeding and exclusive breastfeeding were the lowest among American-born NH Black mothers, compared to both American-born NH White mothers and to foreign-born NH Black mothers. The largest disparities were for any breastfeeding (42.2 percentage points) and for exclusive breastfeeding (21.8 percentage points) (Safon, 2021).

Li and colleagues' study of NIS data showed that between 2009 and 2015, the disparity gap for all three adjusted breastfeeding measures increased between NH White infants and NH Black infants, but not between other racial/ethnic groups and NH White infants (Li, 2019). In 2015, there was a 5.8 percentage point difference in breastfeeding initiation, a 4.5 percentage point difference in exclusive breastfeeding, and 3.7-point difference in breastfeeding continuation between NH White infants and NH Black infants. In the most recently available data (2019), NH Black infants had the lowest initiation rates in 26 states and American Indian/Alaskan Native infants had the lowest rates in 13 states (Chiang, et al., 2021). In contrast, the proportions who initiated breastfeeding was the highest among NH Asian mothers (90.3%) and NH White mothers (85.5%), compared to NH Black mothers (73.6%) (Chiang, et al., 2021).

2) New York

Similar increases in breastfeeding measures have been observed in NY during the past 10 years. The proportions of infants who are fed any breast milk and who are exclusively fed human breast milk in the birth hospital increased between 2009 and 2018, but disparities remain (Prevention Agenda Dashboard, 2019; Appendix, Vital Statistics). Overall, in 2018, 81.9% of NY infants were fed any breast milk in the birth hospital, which exceeded the *Healthy People 2020* objective, but the proportion of infants who were exclusively breastfed was much lower (47.1%). Disparities were seen in both breastfeeding measures by race/ethnicity and income (insurance status). In 2018, 87.3% of Non-Hispanic (NH) White, 85.6% of NH Black, 91.1% of Hispanic, and 90.5% of NH other race NY infants were fed any breast milk during the birth hospitalization (Appendix, NYS Vital Statistics). Greater disparities were seen in the proportion of infants exclusively fed breast milk in the birth hospital, with 58.3% of NH White, 34.1% of NH Black, 35.2% of Hispanic, and 40.4% of NH other race NY infants exclusively fed breast milk (Appendix B, NYS Vital Statistics).

Trend data from the NY Special Supplemental Nutrition Program for Women, Infants and Children (WIC) show increases in the proportion of infants who receive any breast milk, who continue to breastfeed through six months, and who breastfeed through 12 months. Among NY WIC participants, breastfeeding

initiation increased from 62% (2002) to 83.4% (2015), exceeding the *Healthy People 2020* objective of 81.6%, and the national WIC rate (74.5%) (Lee, et al., 2017; Eldridge, et al., 2017). Disparities in breastfeeding initiation were not as stark in NY as the U.S. (Chiang, et al., 2021). The highest initiation rates were among Hispanic infants (90.4%) and the lowest among Native Hawaiian/Other Pacific Islanders (81.7%), creating an 8.7 percentage point difference, which is about half the gap seen at the national level (16.7 percentage points) (Chiang, et al., 2021). Chiang and colleagues noted that states with lower overall breastfeeding initiation generally had greater racial and ethnic disparities. In 2017, 85.3% of infants enrolled in NY WIC initiated breastfeeding; 80.1% of NH White, 84.3% of NH Black, and 89.2% of Hispanic infants were fed breast milk (NY PedNSS). Data from infants enrolled in NY WIC in 2017 demonstrated racial/ethnic disparities in the proportion continuing to breastfeed through 12 months of age, with 30.1% of NH White, 21.2% of NH Black, and 24.0% of Hispanic infants being breastfed for 12 months (Appendix B, PedNSS). For all racial and ethnic groups, these proportions are considerably below the *Healthy People 2020* and *Healthy People 2030* objectives of 34.1% and 54.1%, respectively.

Trend data from the NY Pregnancy Risk Assessment Monitoring System (PRAMS) also show increases between 2005 to 2019 in the proportion of women who reported initiating breastfeeding and continuing to breastfeed through eight weeks. For NY-New York City (NYC), breastfeeding measures continued to increase in 2020, with 91.1% of NH Black, 96.6% of NH White, 87.7% of Hispanic, and 89.0% of NH other women reporting they initiated breastfeeding. Data from PRAMS for NY-Rest of State (excludes NYC) also showed increases between 2005 and 2019 in the proportion of women who reported initiating breastfeeding. Disparities were also seen across the state by geography (county and region) and insurance type (Medicaid vs. private) (2019, Prevention Agenda; Appendix, Data Maps)

During the Covid-19 Pandemic, multiple data sources showed reductions in the proportion of infants who were breastfed. Data from NYS WIC (Pediatric Nutrition Surveillance System Report) showed a 5.6 percentage point decrease, from 85.3% in 2017 to 79.7% in 2020 (NYSDOH, 2020). Significant decreases in breastfeeding initiation were seen for all racial/ethnic groups, but the decreases were largest for NH Black infants (8 percentage points), and lowest for Asian/Pacific Islander infants (3.5 percentage points) and NH White infants (3.6 percentage points). Data from 2021 NYS WIC found that the breastfeeding initiation rate increased slightly from 79.7% (2020) to 80.9 %, which is well below the 85.3% reported in 2017 (NYSDOH, 2021). CDC also reported declines during the COVID-19 Pandemic in the proportion of women who initiated breastfeeding and who exclusively breastfed through six months (CDC, 2022).

E. Contributing Factors to Disparities in Breastfeeding Rates

Structural racism has permeated every corner of our institutions and systems, from education, health care, criminal justice, environmental, and more. Individuals who identify as Black, Indigenous, or Persons of Color (BIPOC), but specifically those who identify as Black, Brown, African American, or Afro-Caribbean (along with many other racial/ethnic identities) have suffered disproportionately across multiple generations at the hands of structural racism which contuse to plague all our systems by mutually reinforcing inequitable systems (Bailey, et al. 2017).

Racism has been publicly declared a public health crisis (CDC, 2021; APHA, 2021). Health care access has been shaped by structural racism. Racial and ethnic minority groups, throughout the U.S., experience higher rates of illness and death across a wide range of health conditions when compared to their White counterparts.

1) Historical Issues and Structural Racism

a) Historical Context of Breastfeeding

All peoples and cultures historically breastfeed; infant survival depended on it. Over time, that tradition has been eroded.

Some researchers suggest that the decision among Black women to breastfeed may be uniquely and deeply related to historical traumas, such as forced wet-nursing during slavery and from the "Mammy" caricature (DeVane-Johnson, et al., 2018; Green, et al., 2021). They identify these traumas as potential barriers to breastfeeding within the Black community. Some enslaved mothers were forced to breastfeed their master's infants, often leaving them unable to nurse or even care for their own (Green, et al., 2021). Wet nursing is linked to White supremacy, slavery, medical racism, and physical, emotional, and mental abuse that reinforce a lack of dignity and respect for Black women (Green et al., 2021). Effects from this practice may still impact infant feeding choices today. A 2015 qualitative study found that participants felt that forced wet-nursing had deprived previous generations of their choice, while they viewed their current ability to choose to formula feed as an act of empowerment (DeVane-Johnson, et al., 2018). Black mothers may choose to formula feed their infant simply because they finally can do so. Unfortunately, however, wet-nursing is not the only violation against Black women coming out of the slave era.

The "Mammy" caricature offensively depicts Black women as happily nursing and serving their White masters (Green, et al., 2021). The "Mammy" caricature may be seen as nurturing and caring among NH white individuals but evokes negative emotions among the NH Black community. In a qualitative study investigating social and cultural influences on Black women's infant feeding decisions, study participants, unprompted, reported the slave-era wet-nursing practices and the "Mammy" stereotype as past reasons that impact infant feeding decisions today (DeVane-Johnson, et al., 2018). This historical trauma reminds Black women of forced reproductive servitude and a time when their bodies were not their own (Green, et al., 2021). A Black woman may choose not to breastfeed because she wants to dissociate herself from the stereotype, feel that she owns her own body, and isn't "prostituting herself out" to be food for someone else (DeVane-Johnson, et al., 2018; Green, et al., 2021). These findings suggest that the historical and generational trauma faced by Black women may also need to be addressed to reduce breastfeeding disparities.

Wet nursing is not a practice confined to the slave era. It has been used worldwide by women of higher status, with Biblical references to a wet nurse having nursed Moses. By 950 BC, women of higher social status in Greece demanded wet nurses (Green, et al., 2021). In the 19th and 20th centuries, infant formula became available and was heavily marketed as a status symbol and a choice of the elite (Green, et al., 2021; Hemingway, et al., 2021). The historical context of wet nursing coupled with formula marketed as an indication of status may partially explain why Black women are less likely to choose to breastfeed.

The historical context of breastfeeding among NH Black mothers has led many away from breastfeeding (DeVane-Johnson, et al., 2018; Green, et al., 2021; Hemingway, et al., 2021). Family and friends of NH Black mothers may not talk about breastfeeding, and therefore mothers may not be taught how to carry it out (DeVane-Johnson, et al., 2018; Green, et al., 2021). Specifically, some Black grandmothers may still feel traumatized remembering the treatment of wet nurses and refuse to talk about it (Green, et al., 2021). However, breastfeeding role models can play an important part in Black women's experiences by providing emotional, tangible, and informational support (Gyamfi, et al., 2021). A literature review showed that older sisters and grandmothers were recognized as the best role models. The absence of these role models across generations for African-American women, combined with inadequate social and informational support also contributes to low breastfeeding initiation (Deubel, et al., 2019; Gyamfi, et al., 2021; Johnson, et al., 2016).

b) Medical Mistrust

Different treatment based on race has led to mistrust in the medical system among many Black or other minority communities in the U.S., exacerbating racial disparities in breastfeeding (Safon, et al., 2021). In a qualitative study, many Black women who did not initiate breastfeeding cited they did not trust the information and recommendations from their health care provider and instead turned to family and friends (Johnson, et al., 2016). Historical mistreatment of Black Americans, such as the U.S. Public Health Service's Tuskegee Syphilis Study, where Black men were denied therapeutic penicillin to study the natural progression of latent syphilis, or participation in other studies without proper informed consent, also contribute to their current mistrust of the health care system (CDC, 2023).

c) Structural Racism

Racism is a barrier to fair medical treatment, access to breastfeeding information, and breastfeeding education (Pyles, et al., 2021). Additionally, many Black mothers who want to breastfeed have trouble finding and receiving services, as structural racism shapes health care access in the U.S. (Butler, et al., 2021). Community hospitals and other health services have continuously disinvested in low-income Black neighborhoods, reducing the quality and type of care a mother will receive (Butler, et al., 2021). Moreover, even if a neighborhood does have a facility that provides maternity care, there are often limited breastfeeding resources and lactation support (Butler, et al., 2021). Studies have shown that maternity care practices supportive of breastfeeding were less likely to be implemented in facilities located in zip codes with a higher percentage of NH Black residents (Hemingway, et al., 2021; Li, et al., 2019).

d) Implicit Biases

Studies find that NH Black mothers are frequently subjected to discrimination in many aspects of health care, including breastfeeding (Butler, et al., 2021; Safon, et al., 2021). These implicit biases come from assumptions that Black women will not breastfeed or have less knowledge about it (Gyamfi, et al., 2021; Johnson, et al., 2016). Assumptions about NH Black mothers' breastfeeding intentions were associated with a lack of tangible support (Johnson, et al., 2016), fewer lactation support referrals, and less help when breastfeeding problems occurred (Edmunds, et al., 2017; Hemingway, et al., 2021; Robinson, et al., 2019; Safon, et al., 2021). A qualitative study of 36 International Board Certified Lactation Consultants (IBCLCs) across the U.S. found that they practiced "race-based discrimination against patients in the course of their lactation care" (Hemingway, et al., 2021). They self-reported inherent presumptions that women of color would not breastfeed, and as a result, women of color were less likely to be referred for lactation support, were deprioritized in workflow, and received reduced attention and support (Hemingway, et al., 2021; Robinson, et al., 2019).

A scoping review found that health care providers' biases directly influenced the quality of care that Black mothers received (Robinson, et al., 2019). Black women were often not provided with adequate breastfeeding information, and they had little to no support from their providers, who did not discuss breastfeeding with them unless the women initiated the conversation.

e) Misconceptions

There are also many misconceptions about breastfeeding within the U.S. Many people, including health professionals, believe that because the commercially prepared formula has been enhanced in recent years, it is equivalent to or better than breastmilk in terms of its benefits (DeVane-Johnson, et al., 2018; DHHS, 2011). A qualitative interview of 20 NH Black women who gave birth at a Baby-Friendly Hospital in Florida showed that many misconceptions were present, regardless of the perceived benefits of breastfeeding (Deubel, et al., 2019). For example, some women reported that breastfed infants became overly dependent on the mother, that their difficulty breastfeeding was because their infant rejected breastmilk and preferred formula, and/or they were uncertain if breastmilk alone provided enough nutrients (Deubel, et al., 2019). Fostering the infant's independence was an important reason NH Black mothers did not breastfeed, although this rationale stems from

a misconception. There are also misunderstandings around returning to work and finding childcare. Many women think they will not be able to breastfeed if they plan to return to work after giving birth, so they may not even discuss it with their employers (DHHS, 2011). Many mothers also believe that formula feeding can make finding childcare easier (Deubel, et al., 2019). Childcare facilities are not always supportive and knowledgeable of breastfeeding practices (DHHS, 2011). If a mother has difficulty finding a childcare center that will feed their infant breastmilk or believes that these facilities are more likely to accept their child if they are formula-fed, mothers may be less likely to breastfeed.

2) Socio-demographic Factors

a) Race and Ethnicity

Race and ethnicity are associated with breastfeeding disparities regardless of income (DHHS, 2011). In the U.S., race/ethnicity is a predictor of breastfeeding rates, with the lowest prevalence among NH Black women (Merewood, et al., 2019). This trend persists regardless of socioeconomic status (Hemingway, et al., 2021; McFadden, et al., 2017). In addition, race/ethnicity was one of the strongest determinants of formula supplementation. In multivariate analysis, breastfed infants of NH Black women were nearly twice as likely as breastfed infants of NH White women to be supplemented with formula (Nguyen, et al., 2017).

b) Educational Attainment

Women with low educational attainment are less likely to initiate breastfeeding and less likely to exclusively breastfeed, compared to more highly educated women (Deubel, et al., 2019; DHHS, 2011; Safon, et al., 2021). Mothers with lower levels of educational attainment were less likely to be the infant's primary caregiver and more likely to be enrolled in WIC; two factors associated with lower breastfeeding initiation (Safon, et al., 2021). Maternal educational attainment was inversely associated with breastfed infants being supplemented with formula; mothers with a twelfth grade or lower education level were 2-3 times more likely to supplement their breastfed infants with formula than mothers with higher educational attainment (Nguyen, et al., 2017).

c) Economic Factors / Income

The CDC has reported that race/ethnicity and income are independently associated with breastfeeding, with higher income associated with an increased likelihood of breastfeeding (DHHS, 2011; McFadden, et al., 2017). Women with lower incomes may live in a resource-limited home, limiting their ability to buy a breast pump or other breastfeeding resources (Gyamfi, et al., 2021). To believe that breastfeeding is entirely due to an individual's decision, however, mistakenly ignores the many external determinants of health (McFadden, et al., 2017). The effectiveness of breastfeeding education or lactation support programs or policies often varies with race/ethnicity or socioeconomic status, indicating the importance of tailoring interventions to the populations served (Li, et al., 2019; McFadden, et al., 2021).

Differences in the proportion of infants breastfed often differs by their insurance status (Medicaid vs. other insurance), which may reflect differences due to parental income, health insurance benefits, or both. A recent study after Medicaid expansion using Pregnancy Risk Assessment Monitoring System (PRAMS) data found 10% lower breastfeeding initiation and lower rates through 8 weeks among women on Medicaid (Hawkins, et al, 2022). In NY, women who reported Medicaid as their source of insurance during pregnancy compared to those with private insurance were less likely to initiate breastfeeding (85.8% vs. 89.3%, respectively), and less likely to report breastfeeding at four weeks (45.9% vs. 65.3%, respectively) (NYSDOH, 2022d).

Another study in Philadelphia, PA, reported that mothers enrolled in Medicaid at the time of delivery were 47% less likely to initiate breastfeeding, and 52% less likely to exclusively breastfeed 6-8 weeks postpartum compared to commercially insured mothers, even after adjusting for factors known to be associated with breastfeeding (Mercier, et al., 2018). While the proportion of NH Black women compared to NH White women who initiated breastfeeding (52% vs. 64%, respectively) and who were exclusively breastfeeding at 6-8 weeks (33% vs. 55%, respectively) were lower, the greatest difference

was among NH White women whose healthcare was covered by Medicaid insurance compared to those with private insurance; 24% vs. 76% initiated breastfeeding, while 22% vs. 64% were exclusively breastfeeding at 6-8 weeks, respectively.

Data from NY during 2004-2020 consistently found the prevalence of breastfeeding at eight weeks postpartum was lower among women covered by Medicaid insurance compared to other insurance. In 2020, 68.7% of mothers enrolled in Medicaid breastfed at eight weeks, compared to 74.2% of those with commercial insurance (NY PRAMS, 2020).

3) Access and Reimbursement of Lactation Services

In 2014, the Affordable Care Act (ACA) mandated that private insurers and Medicaid plans cover the cost of comprehensive prenatal and postnatal lactation support and counseling by a trained professional and equipment rental for the duration of breastfeeding, as recommended by the Health Resources and Services Administration (HRSA) (US DHHS, 2010), without cost sharing (US DOL, 2010). However, the knowledge, training, and clinical skills required to provide lactation support were not defined, nor was the duration or frequency of counseling or lactation support to be provided (Chetwyd, et al., 2013; Herold, Bonuck, 2016; Wouk, et al., 2017; Hawkins, et al., 2015).

Studies consistently find that lactation support by IBCLCs is associated with increased breastfeeding rates. A systematic review and meta-analysis found that interventions providing direct lactation support by IBCLCs during the postpartum period were associated with a 12% increase in exclusive breastfeeding at 3 months and an 8% increase in any breastfeeding at six months (Chetwynd, et al., 2019). A recent study in a large tertiary academic hospital found that mothers were twice as likely to exclusively breastfeed if they had early lactation assistance from an IBCLC compared to those assisted by a non-IBCLC nurse (80% vs. 40% respectively) (Gray, et al., 2021).

There is no consistent method of reimbursement for lactation support for IBCLCs in the U.S. (Chetwyd, et al., 2013). IBCLCs who work in private, community settings were more likely to be reimbursed (63%), than those working in hospitals (3%), where lactation services are often included as part of a bundled payment, making IBCLCs vulnerable to downsizing or elimination. Full Medicaid reimbursement for both inpatient and outpatient lactation services delivered by IBCLCs could potentially improve breastfeeding success among low-income women (Wouk, et al., 2017).

NY Medicaid insurance covers lactation counseling services provided by a NY licensed, registered, or certified health care professional, including nurse practitioners, midwives, and physician assistants, who also has a certificate in lactation (NYSDOH, 2022). However, coverage for a full range of lactation services, from peer counselors to Certified Lactation Counselors (CLC)s and IBCLCs is often not the case. Including IBCLCs on insurance coverage plans and allowing for their reimbursement may help low-income women access lactation specialists that they could not afford otherwise (DHHS, 2011; Gyamfi, et al., 2021), and decrease the barrier insurance status creates to successful breastfeeding. Additionally, mothers also need tools (breast pumps and supplies) to continue expressing milk when they return to work or school. In a recent review, NH Black women reported needing enhanced access to electric breast pumps, and for their insurance to cover them (Gyamfi, et al., 2021). In NY, Medicaid covers the cost of breast pumps and has issued minimum standards for pumps to ensure that those provided are high-quality (NYSDOH, 2022).

During state fiscal year 2020-2021, 47% of individuals who gave birth and were insured by NY Medicaid had a claim for an electric breast pump filled by NY Medicaid (NY Medicaid data, 2022). Private insurers in NY are also required to cover breast pumps. The NY WIC program also provides breast pumps for eligible participants when needed and not covered by health insurance. Since 2014, the number of pumps provided by WIC has declined substantially, indicating good coverage by health insurers.

4) Societal and Cultural Differences

In the U.S., bottle feeding is the norm and breastfeeding in public is largely stigmatized (DHHS, 2011). Many women cite stress, shame, guilt, and embarrassment of public exposure as reasons they do not breastfeed in public (DeVane-Johnson, et al., 2018; Gyamfi, et al., 2021). Sexualization of the breast is heavily embedded in the U.S. culture. Qualitative and quantitative studies have shown the perception of the breasts as sexual objects leads women to feel uncomfortable about breastfeeding in public (DHHS, 2011; Gyamfi, et al., 2021). As a result, women may feel they need to hide when breastfeeding, but comfortable and private places in public are hard to come by (DHHS, 2011). Embarrassment from breastfeeding in public and difficulty accessing private places to feed may inhibit a mother's breastfeeding success leading to early cessation or deterring them from starting altogether (DHHS, 2011).

In addition to the stigmatization of public breastfeeding and sexualization of the breast, many social and cultural norms present in the U.S. further inhibit breastfeeding. A national study found that foreign-born Black mothers had higher rates of any breastfeeding and reported more positive attitudes and perceived control than U.S.-born NH Black or NH White mothers (Safon, et al., 2021). This phenomenon occurred independently of lower educational attainment and higher rates of WIC enrollment by foreign-born Black women; two factors that are associated with lower breastfeeding rates (Safon, et al., 2021). Higher breastfeeding rates among those born outside of the U.S. may indicate a positive cultural component that is not present in the U.S. Numerous studies examining the effects of acculturation on mothers who immigrated to the U.S. find that breastfeeding rates decreased sequentially with every generation born in the U.S., while the acceptability of bottle feeding increased (DHHS, 2011). These findings suggest that the U.S. culture is not fully supportive of breastfeeding and contributes to both low breastfeeding rates and racial/ethnic disparities in the U.S.

5) Hospital Maternity Care and Infant Feeing Policies and Practices

The WHO's *Ten Steps to Successful Breastfeeding* are evidence-based practices proven to increase rates of breastfeeding initiation, continuation, and exclusivity (WHO, 2022). A 2018 comparative effectiveness review found that infants born at Baby-Friendly designated Hospitals compared to non-designated hospitals were more likely to initiate breastfeeding, exclusively breastfeed, and breastfeed for a longer duration (AHRQ, 2018). Multiple studies and a systematic review have reported that implementation of the Baby-friendly Hospital Initiative was associated with reductions in disparities (Chiang, et al., 2021; DHHS, 2011; Green, et al., 2021; Kim, et al., 2018; Pérez-Escamilla, et al., 2016). Despite this proven success, the *Ten Steps* and lactation services are often undervalued (Butler, et al., 2021; DHHS, 2011). In most states, hospitals are not required to implement the *Ten Steps*, ensure patients receive them or that access is equitable (DHHS, 2011; Johnson, et al., 2016; Robinson, et al., 2019).

A report based on survey data from Louisiana (Pregnancy Risk Assessment Monitoring Survey (PRAMS)) from 2007-2008 found that NH Black women compared to NH White women were less likely to breastfeed in the hospital and less likely to receive several of the recommended *Ten Steps*, i.e., rooming-in with their infants, receiving breastfeeding resources after discharge (Robinson, et al., 2019). Another study evaluated whether hospitals participating in CDC's *Maternity Practices in Infant Nutrition and Care* survey (mPINC) met five recommended maternity care practices supportive of breastfeeding (i.e., early initiation of breastfeeding, limited use of breastfeeding supplements, rooming-in, post-discharge support, and assessment of staff competency in breastfeeding management and support) (Lind, et al., 2014). They found that facilities located in communities with higher percentages of Black people, compared to communities with lower percentages of Black people, were less likely to meet each of these five recommended maternity care practices.

Several additional studies have shown that Black women disproportionately receive care at low-performing hospitals and deliver their infants at lower quality hospitals (Howell 2016). Studies find that the hospitals that provide care for higher percentages of Black women have higher risk-adjusted rates of maternal morbidity and of severe maternal morbidity, and that they perform worse on delivery-related indicators (Howell, 2016).

Step 6 of the *Ten Steps* (i.e., providing breastfed newborns with no food or fluids other than breast milk unless medically indicated) varies markedly across hospitals and by socio-demographics. Supplementing newborns when not medically necessary with products other than breast milk is a critical factor in impacting breastfeeding outcomes, possibly because ensuring implementation of this step requires that other steps must also be in place (Pérez-Escamilla, et al., 2016). Hospitals, where direct care staff lack the knowledge or skills to help new parents successfully breastfeed or where clinically trained and experienced lactation staff are not readily available in the first hour to assist parents having breastfeeding difficulties, often resort to providing formula when it is not medically indicated.

Healthy People 2020 set an upper target for the proportion of breastfed newborns who receive formula supplementation within the first two days of life to no more than 14.2% (ODPHP, Healthy People 2020). NY far exceeds that proportion with NY having the second highest formula supplementation in the country; one-quarter (24.4%) of breastfed infants in NY were supplemented with formula before 2 days of age (CDC, 2022). Early formula supplementation undermines a mother's intention to breastfeed and decreases the likelihood she will exclusively breastfeed after discharge (DHHS, 2011). In a study of NY hospitals, significant disparities in formula supplementation of healthy breastfed infants during the birth hospitalization were noted for race/ethnicity (adjusted odds ratios [aORs] were 1.54–2.05 for NH Black infants, 1.85–2.74 for NH Asian infants, and 1.25–2.16 for Hispanic infants, compared with NH White infants), and for insurance coverage (aOR was 1.27–1.60 for Medicaid insurance versus other insurance) (Nguyen, et al., 2017). Formula supplementation varied widely among hospitals, with the proportion of healthy breastfed infants supplemented with formula varying from 2.3% to 98.3%; differences that persisted when stratified by perinatal facility level and adjusted for confounding variables including maternal race/ethnicity, education, and delivery method, infant birth weight and Neonatal Intensive Care Unit (NICU) admission. The proportions were much lower at Baby-Friendly Hospitals and at perinatal level 1 (community) hospitals (18.2%), and highest at level 4 hospitals (Regional Perinatal Centers) (57%).

One of the most common disappointments expressed by parents was their inability to exclusively breastfeed. Sixty-eight percent of women who completed the *Infant Feeding Practices Study II* between 2005 and 2007 reported not meeting their own breastfeeding goal of exclusively breastfeeding until at least 3 months (Perrine, et al., 2012). Beginning breastfeeding within one hour of birth and not receiving supplemental formula in the hospital were both associated with achieving their 3-month breastfeeding goal. Formula supplementation is a major barrier that inhibits breastfeeding success and contributes to breastfeeding disparities (Pérez-Escamilla, et al., 2016; DHHS, 2011).

Infant formula is heavily marketed in hospitals (DHHS, 2011). In response, WHO adopted the *International Code of Marketing of Breastfeeding Substitutes*, as part of the *Baby-Friendly Hospital Initiative (BFHI)*, in 1981, to place restrictions on the marketing of "breast milk substitutes, infant feeding bottles, and teats;" to promote breastfeeding; and ensure mothers are receiving accurate information (Baby-Friendly USA, 2012). Requirements include not advertising formula to families, not providing free formula samples, not using pictures or logos that advertise formula, and providing accurate information on both the costs and benefits of formula feeding (Baby-Friendly USA, 2012). Hospitals and birthing centers that wish to be designated and maintain their Baby-Friendly designation must follow the *International Code of Marketing of Breastfeeding Substitutes* (Baby-Friendly USA, 2012). Marketing breast milk substitutes is inversely related to breastfeeding measures (DHHS, 2011).

Many hospitals and healthcare providers report they support breastfeeding while their actions indicate otherwise. Hospitals that include formula company logos on posters or pens, pamphlets, or other hospital materials are inadvertently advertising formula (DHHS, 2011). Some facilities still give away formula gift packs upon discharge; a practice shown in a Cochrane review to reduce the likelihood of exclusive breastfeeding at any point postpartum (DHHS, 2011). For hospitals to do a better job supporting breastfeeding, it is essential to ensure that physicians do not promote or help advertise formula and that hospitals establish and enforce a consistent message (DHHS, 2011). Of note, in 2016,

NY's perinatal regulations were changed to prohibit "distribution of marketing materials, samples or gift packs that include breast milk substitutes, bottles, nipples, pacifiers, or coupons for any such items to pregnant women, mothers or their families;" prohibit "the use of educational materials that refer to proprietary product(s) or; bear product logo(s), unless specific to the mother's or infant's needs or condition;" and prohibit "the distribution of any materials that contain messages that promote or advertise infant food or drinks other than breast milk" at hospital discharge (NYCRR, Title 10, 405.21 – Perinatal Services, 2023).

a) Inadequate Communication and Support

Information is often inconsistent, and communication is limited across health care settings (Butler, et al., 2021; DHHS, 2011). Mothers often receive inconsistent, incomplete or inaccurate advice from clinicians on solving breastfeeding problems (DHHS, 2011). Conflicting messaging leads to a sense of frustration, powerlessness, and failure among mothers, often leaving them with the impression that clinicians favor formula (DHHS, 2011). Unfortunately, the experiences they have receiving care influence their intentions to breastfeed and makes them less likely to comply with other recommended postpartum care (DHHS, 2011).

Black women often do not feel their voices are heard at appointments with providers, leaving them feeling neglected, disrespected, and discouraged to carry out breastfeeding (Green, et al., 2021). A scoping review of NH Black women's breastfeeding experiences reported cultural, social, and health barriers. They found that timely, honest, and culturally-sensitive information, as well as continued support and encouragement, are imperative to improving breastfeeding rates among NH Black women (Gyamfi, et al., 2021). Yet, research finds that NH Black women are less likely than White women to receive adequate support (Li, et al., 2019Z). A qualitative study, of Black mothers reported that health care providers are not always supportive of breastfeeding, sometimes seeming to discourage it for their convenience, and frequently not supporting or helping them through breastfeeding challenges (Johnson, et al., 2016). One NH Black mother said that she intended to nurse for over a year, but once her blood pressure began to spike, her obstetrician/gynecologist suggested stopping nursing, instead of helping her through this challenge.

b) Insufficient knowledge

The prenatal period is an optimal time to prepare mothers to breastfeed by teaching them the benefits, procedures, and potential challenges. But many women do not receive quality breastfeeding education because not all healthcare professionals are trained in preventing, diagnosing or treating breastfeeding problems (McFadden, et al., 2017). Seventy-five percent of providers who reported recommending breastfeeding to mothers stated they had inadequate or no training in how to properly educate mothers on breastfeeding mechanics (DHHS, 2011). Mothers rely on their providers as the primary source of information, making provider training a crucial contributor to poor breastfeeding rates and a key area for intervention (DHHS, 2011).

Breastfeeding content should be required as a core element of nursing programs, medical school, and residency training (DHHS, 2011; ODPHP 2020). Health care providers should be required to take a minimum amount of breastfeeding/lactation education, with continued lactation education throughout one's career (DHHS, 2011).

Deubel, et al. (2019) suggest that accurate breastfeeding information is especially needed by Black women during pregnancy and postpartum. To reduce disparities, providers should be educated on the historical context of breastfeeding among Black women to understand the historical trauma that influences breastfeeding decisions today (DeVane-Johnson, et al., 2018; Johnson, et al., 2016).

In Johnson, et al.'s (2016) study, Black mothers in Michigan felt they were not prepared to breastfeed upon hospital discharge due to limited information from their providers. Provider knowledge has been cited as outdated, inconsistent, and at times resistant to breastfeeding promotion (Semenic, et al., 2012). Moreover, even if education is available to women, it is not always delivered in a way that it is understood by them (DHHS, 2011). Written information may be unhelpful, as the woman may not comprehend it or need further explanations (DHHS, 2011).

6) Workplace and Employment-related Factors

a) Effects of Employment on Breastfeeding

Research finds that women who planned to return to work full-time after childbirth compared to women who did not were less likely to initiate breastfeeding (81.9% vs. 87.5%) and to breastfeed for a shorter time period (24.8-28.3 weeks vs. 43.2 weeks) (Mandal, et al., 2010).

In 2010, a nationally representative study using data from the Early Childhood Longitudinal Study Birth Cohort found that women who delay their return to work had higher rates of breastfeeding initiation and longer duration (Ogbuanu, et al., 2011). They found that women who took more than 13 weeks of maternity leave had the highest initiation rates. Those who had not yet returned to work at nine months were 41% more likely to continue breastfeeding through six months than those who returned to work within one to six weeks.

Some research suggests that a minimum of 12 weeks of maternity leave is necessary for the highest breastfeeding initiation rates and that being able to work at a reduced capacity improves duration (DHHS, 2011). Many worksites, however, still do not provide an adequate amount of maternity leave or flexible or reduced hours after childbirth (DeVane-Johnson, et al., 2018; DHHS, 2011; Hemingway, et al., 2021; Ogbuanu, et al., 2011). Several studies suggest that inadequate maternity leave and a lack of flexible hours play a significant role in the observed disparities in NH Black women initiating and continuing to breastfeed, compared to White women (DHHS, 2011; Gyamfi, et al., 2021; Johnson, et al., 2016).

b) Workplace Protection of Breastfeeding and Pumping

Enhanced paid parental leave and breastfeeding accommodations are needed in all work environments to help combat the disparity resulting from employment (Safon, et al., 2021). Some mothers aspire to breastfeed directly, rather than pump milk and have someone else feed their infant (DHHS, 2011). Employers can support this by allowing women to bring their infant to work, to leave for breastfeeding, or telecommute, by providing flexible work hours, or by allowing women to work part-time (DHHS, 2011). The government can also incentivize or subsidize childcare centers to be located near businesses (DHHS, 2011).

c) Paid Leave Policies and Benefits

The use of paid leave after childbirth (paid maternity leave or paid family leave) has been associated with improved infant health outcomes, including lower rates of prematurity and infant mortality, and better maternal health, including less stress and fewer depressive symptoms (Bartel, et al., 2019). Currently, paid family leave (PFL) is available to 19% of U.S. employees, more commonly professional or management-level employees or those with higher incomes working at larger companies (U.S. DOL, 2019; Bartel, et al., 2019; The Economics Daily, 2019).

Workers in five U.S. states – California (CA), Hawaii (HI), New Jersey (NJ), New York (NY), and Rhode Island (RI) – and the U.S. territory of Puerto Rico – also have access to limited paid leave 2-4 weeks before and up to 4-6 weeks after childbirth as a part of their state's/territory's Temporary Disability Insurance (TDI) programs (Eligibility Team, 2017). An increasing number of U.S. states, including NY, offer or require paid state family and medical leave programs (National Conference of State Legislatures, 2022). The provisions of the state programs vary in the conditions covered (care of newborn, adopted or fostered child; care of family member with serious illness; military exigencies, etc.), and the duration of leave and benefit level provided (National Conference of State Legislatures, 2022; Bartel, et al., 2016).

The federal Family and Medical Leave Act (FMLA) covers unpaid leave for pregnancy or birth of a newborn infant for those who meet eligibility criteria, i.e., working for a minimum amount of time at a company with 50+ employees (FMLA, 2012). Studies find that FMLA is most frequently utilized by married, White, or college-educated women, who can afford to take unpaid leave (Waldofogel, 1999). Higher-income workers are more likely to receive maternity leave benefits, such as paid leave, but as of 2017, only 21% of the workforce had access to paid maternity leave (DHHS, 2011; 1,000 Days, 2021). The federal government has implemented the Family and Medical Leave Act (FMLA), but only 39% of workers across the U.S. are eligible (1,000 Days, 2021). This leave is unpaid and is for a maximum of 12 weeks (FMLA).

The 2017-2018 American Time Use Survey showed that 66% of workers had access to some type of paid leave (including sick time, vacation leave or personal time), which varied by race/ethnicity. Only 48.2% of Hispanic workers and 62.6% of Black workers had access, compared to 71.5% of Asian American workers and 66.3% of NH White workers (U.S. Bureau of Labor Statistics, 2019). Among workers with an unmet need for work leave, 66% reported they could not take leave because they couldn't afford to miss a paycheck (1,000 Days, 2021). Many studies find that NH Black women frequently do not have access to paid leave, cannot afford to take time without a paycheck, and face financial pressures to return to work earlier (Deubel, 2019; Gyamfi, 2021; Hemingway, 2021; Johnson, 2021). Paid time off and other accommodations are often unavailable for those who work part-time or in service-based work environments, which are disproportionately staffed by NH Black individuals (Safon, 2021).

Studies from Europe and Canada find that increased paid maternity leave benefits were associated with increased breastfeeding duration (Burtle, 2016). U.S. studies also report longer breastfeeding duration among women who use employer-funded paid leave (Pac, 2019). Implementation of California (CA)'s state PFL program in July 2004 was associated with increased breastfeeding duration, with a greater impact among Black women, those enrolled in WIC and those with less than a high school education (Pac 2019; Huang, 2015). A recent study reported an increase in breastfeeding initiation and duration through eight weeks among Black women, but not for other racial/ethnic groups, after NY's PFL law went into effect in January 2018 (Dennison, et al., 2022a). The greater relative increase in breastfeeding among Black women significantly reduced racial/ethnic disparities in breastfeeding initiation and duration through eight weeks. After NY's PFL law went into effect, the percentage of women taking paid leave after childbirth increased 15% overall, with greater increases among Black women and Hispanic women (Dennison, et al., 2022b).

F. Evidence-Based Strategies to Increase Breastfeeding

1) Hospital Strategies

a) *Ten Steps to Successful Breastfeeding*

There is strong evidence that certain maternity care policies and practices, the *Ten Steps to Successful Breastfeeding* (Ten Steps; see Appendix A) are associated with increased breastfeeding initiation, exclusivity, and duration (Feltner, 2018). Breastfeeding duration at six weeks was correlated with the number of the *Ten Steps* to which a mother recalls being exposed (Pérez-Escamilla, 2016). Mothers who delivered at hospitals that implemented five to seven steps had higher rates of exclusive breastfeeding and longer breastfeeding duration than those exposed to four or fewer steps (Pérez-Escamilla, 2016). If hospitals and birthing facilities implemented just some of the *Ten Steps* as standard practices it could be effective in improving breastfeeding success (Merewood, et al., 2019; Pérez-Escamilla, et al. 2016).

Multiple studies find that following Step 6 (i.e., providing supplemental formula only when medically indicated) is associated with breastfeeding success. A national study found that parents, whose infants were not supplemented with formula during their hospital stay, were 2.3 times more likely to meet their intention to exclusively breastfeed for at least three months, adjusting for other hospital

practices (Pérez-Escamilla, 2016). It is possible that Step 6 is such a crucial factor in determining breastfeeding outcomes, because fully implementing this step, requires that other steps also be in place (Pérez-Escamilla, et al., 2016). Facilities that implemented all or some of the *Ten Steps* had higher breastfeeding rates.

Formula marketing may contribute to a variety of misperceptions about formula (Gyamfi, et al., 2021). Formula has been marketed in such a way to make women believe its use is "normal" and convenient; its inclusion by WIC program also makes it essentially free for low-income parents (DeVane-Johnson, et al; 2018). Increasingly, researchers, practitioners, and the community are concerned that formula marketing targets Black mothers, so that they were disproportionately exposed (Hemingway, et al., 2021; Green, et al. 2021).

Step 10, coordinating discharge to ensure ongoing care, is crucial in sustaining breastfeeding goals (Pérez-Escamilla, et al., 2016). The most effective lactation support interventions begin before birth and continue in the birth hospital and the postpartum period (Kim, et al., 2018).

b) Baby-Friendly Hospital Initiative

In response to declining breastfeeding rates internationally, WHO and UNICEF developed the *Baby-Friendly Hospital Initiative (BFHI)* to assist hospitals in giving mothers the information, confidence, and skills necessary to carry out and continue breastfeeding and help those who do formula feed prepare and feed formula safely (Baby-Friendly USA, 2012.). The BFHI is based on three pillars: *Ten Steps to Successful Breastfeeding*; *International Code of Marketing of Breastfeeding*; and generating widespread understanding for best infant feeding practices (Baby-Friendly USA, 2012). Baby-Friendly practices include multidimensional and multilevel factors that affect mothers' social and environmental experiences (Munn, et al., 2016). Intrapersonal maternal/infant dyad factors include those that affect mothers' attitudes, knowledge, beliefs, experiences, and perceptions of breastfeeding. These factors directly influence mothers' breastfeeding self-efficacy and motivation to breastfeed, and thus, affect breastfeeding success and early infant health outcomes. Interpersonal interactions with their providers impact maternal attitudes and breastfeeding motivation and include both social and educational support delivered by health providers. Staff education and training, as well as adequate time and staffing resources to properly implement the Ten Steps are crucial. Hospitals should establish a written hospital policy to support breastfeeding mothers; consistently implement the *Ten Steps*; and provide structural, social, and health provider support throughout all stages of pregnancy. Breastfeeding information should be available with standardized breastfeeding definitions, charting, and tracking mechanisms.

Multiple studies and review articles have consistently found that implementation of the BFHI is associated with improved breastfeeding outcomes. Higher breastfeeding initiation, exclusive breastfeeding rates, and longer duration are found for both full-term and pre-term infants (in the NICU) born at designated Baby-Friendly Hospitals (BFH) in comparison to non-BFH (Merewood, et al, 2005; Phillipp, et al., 2001; Merewood, et al., 2003; Munn, et al, 2016). Studies have reported a 10-20% increase in breastfeeding initiation, a 40% increase in exclusive breastfeeding at five months, a 66% increase in any breastfeeding at six months, and a 16% increase in any breastfeeding at 12 months (Sinha, et al., 2015: Hemingway, et al., 2021; Pérez-Escamilla, et al., 2016; AHRQ, 2018). Mothers who gave birth in a BFH, compared to those who did not, were five times more likely to be exclusively breastfeeding at six months (Kim, et al., 2018). In addition to improving breastfeeding rates for all mothers, some studies have found that the BFHI is associated with greater improvements among Black mothers compared to the non-Black population, and reductions in racial/ethnic disparities (Chiang, et al., 2021; Hemingway, et al., 2021).

Unfortunately, high-quality lactation support is not available to all pregnant and postpartum parents, and recommended maternity care practices are not in place in all hospitals for all patients. As of December 2022, there were 605 U.S. hospitals and birthing centers designated as BFH, and in NY, 43 (of 124) hospitals providing maternity care were designated as BFH (Baby-Friendly USA, 2022). Access to a BFH varies greatly across NY; there are more BFHs in NYC than in the rest of the state (28 vs 15, respectively), and the percentage of NY births occurring at a BFH was nearly twice as high in NYC compared to the rest of the state in 2021 (47.8% vs. 28.0%, respectively). Currently 81 hospitals in NY that provide maternity care are not designated as a BFH.

When choosing a hospital in which to deliver, pregnant people tend to select the closest hospital regardless of quality of care offered at that hospital (Phibbs, et al., 2018; Howell et al., 2018). A CDC study found that hospitals in zip codes with a greater percentage of NH Black persons than the national average were less likely to provide five of the recommended *Ten Steps to Successful Breastfeeding* compared to hospitals in zip codes with a lower percentage of NH Black persons (Lind, 2014). The largest differences were for early initiation of breastfeeding, use of formula supplements, and rooming-in. In addition, studies in NY find that a disproportionately high percentage of Black women and Hispanic women deliver at low-performing hospitals (i.e., based on higher rates of severe maternal morbidity or the highest risk-standardized rates of infant morbidity and mortality) (Howell, et al., 2016; Howell, et al., 2018).

An integrative review of 45 articles reporting barriers and facilitators to implementing BFHI, at the sociopolitical, organizational, and individual level, found that social norms and current policies, such as lack of government enforcement of the *International Code of Marketing of Breastfeeding*, are barriers (Semenic, et al., 2012). Barriers at the organizational level include separating mothers from their infants and inadequate human and financial resources (Semenic, et al., 2012). Regardless of how motivated an organization may be to achieve BFH designation, it will not happen if they do not have the resources to cover the costs of staff training, purchase formula at market price (instead of accepting “free” formula, which is a form of promotional advertising), to implement quality improvement efforts, and pay the fees associated with moving through the BFHI designation steps to achieve certification (Baby-friendly USA, 2021).

The most frequently cited facilitator in promoting BFHI policies and integration of services across the perinatal spectrum was government support and involvement (Semenic, et al., 2012). Increased governmental funding has expanded the capacity and assisted with implementation of the BFHI (DHHS, 2011). Recognizing that hospital-based quality improvement collaboratives work to improve maternity care practices supportive of breastfeeding, the CDC has funded initiatives in many states and cities (including NY and NY City), and across the county. They recently issued a new funding opportunity for one U.S. organization to work to improve hospital maternity care and infant feeding policies and practices across the U.S. (CDC, 2023). This organization, however, will only be able to work with a fraction of U.S. hospitals (about 100); they will focus on states having few BFH, and prioritize maternity hospitals serving a high proportion of families less likely to start or continue breastfeeding. The mandatory breastfeeding education required by the BFH initiative for all maternity care staff has helped facilitate the implementation of recommended policies and practices (Semenic, et al., 2012).

c) Combination of Hospital and Community-based Strategies

Reaching Our Sisters Everywhere (ROSE) is a community-based organization that aims to enhance, encourage, support, promote, and protect breastfeeding to reduce disparities in NH Black communities (ROSE, 2021). ROSE works to normalize breastfeeding by providing resources and programs such as workshops, breastfeeding support groups, peer-support programs, and healthcare provider trainings (ROSE, 2021).

In the 31-month study, *Communities and Hospitals Advancing Maternity Practices (CHAMPS)*, participating hospitals in Mississippi, Louisiana, Tennessee, and Texas received an intensive quality improvement and technical assistance intervention to improve compliance with the *Ten Steps*. Community partners and statewide organizations were also engaged and provided support (Merewood, et al., 2019).

During the CHAMPS study, there was a 9.6 percentage point reduction in the disparity in breastfeeding initiation between Black infants and White infants. Breastfeeding initiation increased from 66% to 75% for all races combined, and exclusive breastfeeding increased from 34% to 39%. Among Black infants, breastfeeding initiation and exclusive breastfeeding increased from 46% to 63% and from 19% to 31%, respectively. Receipt of skin-to-skin care after Cesarean delivery was associated with increased breastfeeding initiation and exclusivity among mothers from all racial and ethnic groups; receipt of rooming-in was associated with increased exclusive breastfeeding among Black infants only (Merewood, et al., 2019).

The CHAMPS study continued an additional three years in Mississippi (Merewood, et al., 2022). During that time the program enrolled 95% of eligible Mississippi hospitals, engaged 80% of Mississippi Special Supplemental Nutrition Program for Women, Infants and Children (WIC) programs, and reached 65% of Mississippi's WIC breastfeeding peer counselors. CHAMPS reached 98% of eligible birthing women in Mississippi. The proportion of hospitals designated as Baby-Friendly or attaining the final stages thereof rose from 15% to 90%. The average hospital breastfeeding initiation rate rose from 56% to 66%.

2) Comprehensive Breastfeeding Education and Lactation Support

a) Professional Lactation Support

Lactation care and support after childbirth is needed to support parents to continue exclusively breastfeeding for the first six months. Many women, however, do not have the means or knowledge to identify and obtain breastfeeding support and resources postpartum, and clinicians often do not offer to help (DHHS, 2011). A systematic review conducted by U.S. Preventative Services Task Force (USPSTF; 2016) demonstrated the importance of timing of interventions in supporting any breastfeeding up to six months. The pooled risk ratios for interventions delivered at more than one point during the pre- or postpartum period showed a statistically significant difference in prevalence of any breastfeeding up to three months, compared to those that took place at only one point during pregnancy and postpartum (USPSTF, 2016). Additionally, most of the 52 studies reviewed found fairly good breastfeeding support at the birthing facility, but minimal support during the prenatal and postpartum periods (USPSTF, 2016).

Individual breastfeeding support from health care providers, in conjunction with breastfeeding education or peer-counseling, improves breastfeeding initiation, exclusivity, and the duration of breastfeeding. The USPSTF's 2016 review found that the most effective breastfeeding interventions were those that combined individual-level lactation support from a provider or peer, with breastfeeding education. Pooled analyses found a higher likelihood of any breastfeeding and exclusive breastfeeding up to six months (USPSTF, 2016). Individual-level interventions had little variability across different populations.

Multi-level breastfeeding support has also been successful in improving the prevalence of women of color who breastfeed. Chapman & Pérez-Escamilla (2012) found that peer counselor support alone or combined with professional support interventions were associated with higher breastfeeding initiation and longer duration up to almost six months (Chapman & Pérez-Escamilla, 2012). A peer counseling intervention conducted among Puerto Rican women in a BFH in Hartford, CT, saw initiation rates increase from 76% to 91%. NH Black women with infants in the neonatal care unit at a BFH in Boston, MA, were 2.81 times more likely to breastfeed to 12 weeks postpartum if they received peer-counseling. Black adolescent mothers who received both

lactation and peer-counselor support had higher breastfeeding initiation rates than a control group (79% vs. 63%), and longer median duration of breastfeeding (177 days vs. 61 days) (Chapman & Pérez-Escamilla, 2012).

A quasi-experimental study in Taiwan evaluated the effectiveness of postpartum IBCLC breastfeeding education and peer support at one week and 5-6 weeks (Lee, et al., 2019). At the end of the 6-week intervention, mothers in the intervention vs. control group were exclusively breastfeeding at a much higher rate (61% vs. 39%). They also saw a significant increase in self-efficacy scores among the intervention group compared to the control group.

A cross-sectional study conducted in Philadelphia, PA, compared breastfeeding initiation at four facilities with IBCLCs to three facilities without (Castrucci, et al., 2006). After statistical adjustment, they found that the odds of initiating breastfeeding were 2.28 higher among those who delivered in a facility with IBCLCs compared to a facility without IBCLCs. The effect of IBCLCs on breastfeeding initiation was highest among women with Medicaid insurance. Among women with Medicaid, the odds of initiating breastfeeding were 4.13 times higher if the facility employed IBCLCs, compared to delivering at a hospital without IBCLCs (Castruccl, et al., 2006). IBCLCs have been shown to improve breastfeeding initiation rates, especially among minority women (Gyamfi, et al., 2021; Hemingway, et al., 2021). Despite their benefits, IBCLCs are not available or accessible to all pregnant and birthing people when needed, nor are their services covered by all insurance providers (Chetwyd, et al., 2013).

In the U.S., there are three tiers of lactation providers. IBCLCs are specifically educated and trained in lactation assessment, breastfeeding management, education and instruction, and have received supervised clinical experience (IBLCE.org, 2022). The IBCLC program takes one or more years, and requires 14 college-level health science classes, 90 hours in lactation care, and 300 to 1,000 hours of supervised clinical skills training (USLCA, 2020a). IBCLCs are qualified to provide clinical lactation care, counsel mothers to make informed infant feeding decisions, develop and implement patient care plans, coordinate and manage patient care, facilitate referrals, and minimize the potential for breastfeeding complications.

There are several lactation counselor or educator programs requiring 3 to 5 days of didactic training, but no clinical training. These programs, such as the Certified Lactation Counselor (CLC) or Certified Lactation Educator (CLE) programs prepare participants to provide breastfeeding education or lactation counseling, not clinical care. The final category are breastfeeding peer providers who are prepared to provide breastfeeding support services, such as the WIC peer educator program.

Between 2007 and 2022, there has been a large increase in the number of lactation counselors and consultants in the U.S. and in NY. Between 2007 and 2016, the number of IBCLCs per 1,000 live births increased from 2.1 to 3.8 (nationally) and from 1.0 to 3.8 (in NY) (CDC, Breastfeeding Report Cards, 2007 and 2016). In 2008, the U.S.-based education providers from the Healthy Children Project joined with the Academy of Lactation Policy and Practice; in 2013, they became accredited to offer certifications for lactation counseling (Dodgson, 2019). Between 2011 and 2016, the number of CLCs per 1,000 live births increased from 2.5 to 4.6 (nationally) and to 11.4 per 100,000 births (in NY). The greater increase in CLCs in NY compared to the U.S., is due, in part, to the CLC training being used by the NY WIC program to train their lactation counselors. By 2022, the number of CLCs had increased 6-fold to 15.8 per 1,000 births, while the IBCLCs in NY had doubled to 4.8 per 1,000 births. The relative percentage of lactation providers with the IBCLC credential has decreased dramatically, from nearly all (in 2007) to less than 50% (nationally and in NY) in 2014, and to less than 23% by 2022 (USLCA, 2022; ALPP, 2022a). Information about people with other lactation certificates is not available.

In NY, between 2009 and 2011, professional lactation staffing ratios (N/1,000 births) of IBCLCs and CLCs increased (in part, due to federal funding for breastfeeding quality improvement efforts in hospitals), but then decreased between 2011 and 2014 (in part, due to reduced financial resources for breastfeeding support) (Dennison, et al., 2016). In 2014, 27% of perinatal level I hospitals, 4% of perinatal level II hospitals, and 6% of Level III and IV perinatal hospitals in NY met the staffing ratios of 1.3, 1.6, and 1.9 IBCLCs per 1,000 births, respectively, recommended for optimal utilization and patient outcome (Manuel, 2006; Dennison, et al., 2016). Applying the more recent staffing recommendations of 4.3 IBCLCs per 1,000 NICU births would further reduce the proportion of higher-level hospitals meeting these criteria (Lober, et al., 2021). Without mandated staffing requirements for IBCLCs and/or other lactation staff, hospitals can determine their own requirements. Hospitals that are designated as Baby-Friendly require that staff who help mothers with infant feeding must have sufficient knowledge, competence, and skills (based on didactic and supervised clinical experience) to support breastfeeding (WHO, UNICEF, 2018).

In a national survey of IBCLCs, 45% of IBCLCs reported they work full-time, 30% worked part-time, and the remainder worked per diem, volunteer, or were retired (USCLA, 2011). Thirty-five percent reported they worked in hospitals, 13% in WIC programs, and 40% in outpatient practices. Those who worked in hospitals reported seeing a mean of 37 dyads per week. Most IBCLCs in NY live in the NYC metro area, with low numbers living in the mid-Hudson, Capital, and Western regions.

Self-reported demographic information from a national survey of CLCs reported that 96% are female, and 75% are NH White, 9% Black, 8% Latino, and 3% Asian (ALLP, 2022). The limited diversity amongst lactation providers results in a lack of representation of communities they serve. It is critical that lactation counselors be trained, be recruited from the community, and serve as peers to the birthing individual (Johnson, et al., 2016; Chetwynd, et al., 2013).

Because breastfeeding education and lactation care are often bundled as part of prenatal, hospital maternity, and/or postpartum care, lactation care is often fragmented and lacks continuity. Many new birth parents do not have access to comprehensive breastfeeding education and lactation support. If they have lactation difficulties, many do not receive timely assessment and referral to a more clinically skilled lactation provider (IBCLC or equivalent) (Chetwydt, et al., 2013; Herold, Bonuck, 2016; Wouk, et al., 2017). While the Affordable Care Act requires health insurers provide lactation care, the law does not specify the training or competencies of staff, or the timeliness of care or referrals.

Because clinical lactation providers are not licensed in NY, there is often confusion regarding lactation providers' competencies or skills. Several states (GA, NM, OR, RI) have established a regulatory framework for licensure of IBCLCs (USLCA, 2022), which clarifies those competent to provide clinical lactation support vs. breastfeeding counseling/education and may facilitate reimbursement by Medicaid or other insurers (USLCA, 2020b). Five bills to license IBCLCs have been introduced over the past ten years by the NY legislature (e.g., 2021-2022; A02297).

The counseling/education certification may be viewed as an initial training for those interested in supporting breastfeeding. But the lack of a clinical lactation training program in NY is a barrier to people seeking a pathway to obtain the knowledge and clinical skills required to qualify for the more advanced IBCLC certificate. There are ten IBCLC Pathway 2 Accredited Lactation Academic Programs in the U.S., but none in NY. The current lactation provider educational systems and clinical training programs are insufficient to ensure equitable access to a diverse, competent lactation work force with the knowledge, expertise, and clinical skills to provide quality breastfeeding and lactation support to all.

Accepting IBCLCs as core members of the maternity care team may be an effective strategy to improving breastfeeding rates and reducing disparities (DHHS, 2011). This acknowledgment may also help balance the mismatch in the value of lactation services among health care providers (Butler, et al., 2021; DHHS, 2011).

In several studies Black women report having better communication with their providers if they are of the same race, and report they need role models in lactation support services that are of the same race (Pyles, et al., 2021; Gyamfi, et al., 2021). A study found that the lack of Black lactation consultants in Michigan inhibited Black patients' ability to form relationships (Johnson, et al., 2016). Increasing the number of IBCLCs, especially IBCLCs of color, may be a promising approach in improving breastfeeding rates and reducing disparities (DHHS, 2011; Johnson, et al., 2016).

b) WIC Breastfeeding Peer Counselor Program

Officially launched in 2004, the WIC Breastfeeding Peer Counseling Program uses an evidence-based peer-to-peer model that connects pregnant and postpartum women with paraprofessional breastfeeding counselors who come from the same neighborhoods and speak the same language as WIC participants. (Chapmen, et al., 2010). Studies find that participation in the WIC Peer Counseling Program is associated with an increased rate of breastfeeding initiation, and some studies find that participation leads to longer breastfeeding duration and improved exclusivity. The benefits of participating in the WIC Peer Counseling Program appear stronger among Black women than White women, with higher rates of breastfeeding initiation and longer duration seen (NWA, 2019).

As breastfeeding rates are consistently lower among low-income women, providing additional support through the WIC program is especially important (DHHS, 2011). WIC provides breastfeeding education, promotion, and support before, during, and after pregnancy through their peer-counseling program (DHHS, 2011; Edmunds, et al., 2017). A cross-sectional study reported that NH Black women found peer-counselor education to be supportive, truthful, confidential, and helped eliminate misconceptions around breastfeeding (Gyamfi, et al., 2021). A systematic review found that lay support was successful in improving exclusive breastfeeding at 4-6 weeks and at six months (McFadden, et al., 2017).

Making peer-counseling a core service for all women in WIC may help improve breastfeeding rates among low-income women (DHHS, 2011). A 2010 breastfeeding support program utilizing peer counselors for low-income women in Michigan found that the breastfeeding initiation rate increased by 27 percentage points and duration increased by more than three weeks (DHHS, 2011).

A pilot program in NY WIC program, *You Can Do It*, provided tailored breastfeeding counseling to women based on their responses to the Breastfeeding Attrition Prediction Tool (BAPT). Qualified nutrition staff and peer-counselors provided counseling that focused on attitudes, social and professional support, and a mother's confidence around breastfeeding (Edmunds, et al., 2017). At the end of the study period, participants in the BAPT group compared to the non-BAPT group had statistically significant higher exclusive breastfeeding rates at 7, 30, and 60 days with odds ratios ranging from 1.6 to 1.9. When stratified by race/ethnicity, NH Black and Hispanic mothers in the BAPT group had higher rates of exclusive breastfeeding at 30 and 60 days than the non-BAPT cohort. They speculate that the success of this program may be partially due to participants having the opportunity to work with the same qualified nutrition staff person and peer counselor throughout the entire intervention. This allowed WIC staff to become familiar with participant's unique needs and form a trusting relationship. Furthermore, this intervention started prenatally and continued through the postpartum period, which has been shown in other studies to be most effective in increasing exclusive breastfeeding and duration (Edmunds, et al., 2017).

Finally, peer-counseling programs are low-cost (Kim, et al., 2018). Peer support can be conducted through various mediums such as phone calls, home or clinic visits, hospital visits, or group classes (DHHS, 2011). This diversity reduces the burden placed on the mother when attempting to receive support. Increasing the number of peer counselors, prioritizing counseling, and increasing counseling intensity may be effective strategies to improve all breastfeeding measures (Edmunds, et al., 2017).

c) Community-Based Lactation Support

Community and social support, including reassurance, praise, information, and opportunities for discussion, reduces the risk of early discontinuation of breastfeeding (McFadden, et al., 2017). This Cochrane Review found that women who received breastfeeding support were 21% less likely to stop exclusive breastfeeding at four to six weeks and 9% less likely to stop any breastfeeding at six months (McFadden, et al., 2017). Despite the benefits that community support has on breastfeeding initiation, continuation, and exclusivity, many women, especially NH Black women, report they don't receive this support (Hemingway, et al., 2021).

Social support plays a crucial role in a woman's decision to breastfeed and her breastfeeding success. The beliefs and attitudes of a woman's social network strongly influence this decision (DHHS, 2011). If friends and relatives are more likely to breastfeed, then so is the mother (DHHS, 2011). A qualitative study of 20 NH Black women found that those who reported breastfeeding stated one of the reasons they did so was having at least one friend or relative who breastfed prior (Deubel, et al., 2019). If their social network was unsupportive or judgmental of their breastfeeding practices or if breastfeeding was not the norm, they were less likely to breastfeed. Many of the women stated that they felt social pressures from their friends and family to supplement with formula. Feeling embarrassed, lacking ongoing support from family and friends, and complying with subjective norms are cited by women as reasons for stopping breastfeeding early or not breastfeeding at all (DHHS, 2011).

The household composition may also impair a woman's ability to breastfeed (Gyamfi, et al., 2021). Some NH Black mothers live with multiple generations, are single parents, or have other children, forcing them to take care of others as well as their newborns (Deubel, et al., 2019). These competing responsibilities affect prenatal breastfeeding decisions and the family support she may receive postpartum. While social support is essential for mothers when challenges arise, whether directly related to breastfeeding or other responsibilities, it is not always present (Deubel, et al., 2019; DeVane-Johnson, et al., 2018). In a study in Detroit, NH Black mothers stated they want consistent support from fathers, peers, family, and community members (Johnson, et al., 2016).

3) Promising Approaches to Increase Breastfeeding

a) Home Visiting Programs

Home visiting programs can fill gaps in care, ease the burden of seeking out and accessing services, and create a broader network of maternity care (Butler, et al., 2021). The Healthy Families New York (HFNY) study was designed to introduce discussions about breastfeeding early in the pregnancy (McGinnis, et al., 2017). Family support workers with similar culture and preferred spoken language were assigned to families early in pregnancy. They met one-on-one, providing continuous support, tailoring advice to mother's specific needs, and developing close relationships with mothers. Breastfeeding initiation increased by 1.5% for every one-percentage point increase in home visits. For participants who received at least one home visit during their third postpartum month, the likelihood of breastfeeding until six months increased by 11% (McGinnis, et al., 2017).

b) Community-Based Peer Support

In Johnson, et al.'s (2016) study, Black mothers and health care providers reported they wanted community-based breastfeeding support led by other Black mothers who can relate to their own unique cultural and social experiences. In settings where breastfeeding is not the norm, support groups can improve a woman's belief in her ability to breastfeed, despite ongoing societal and familial pressures (McFadden, et al., 2017). Group support can also dispel misconceptions about breastfeeding, such as the belief that early complementary foods and beverages are needed to meet their infant's nutritional needs (McFadden, et al., 2017). This Cochrane review found that a successful breastfeeding support intervention included offering ongoing and routinely scheduled

visits, that take place during prenatal and postnatal care, providing lactation support by a trained lactation professional, and tailoring the intervention to the needs of the population being served (McFadden, et al., 2017).

One potential community-based model, *Breastfeeding Sisters That are Receiving Support (BSTARS)*, is a peer-led organization founded in 2015 to improve breastfeeding rates among Black women in Shelby County, Tennessee (Pyles, et al., 2021). BSTARS aims to provide a safe space for Black women, women of color, and their families to receive breastfeeding education and emotional support to facilitate behavioral change, and to attempt to heal historical trauma (Pyles, et al., 2021).

The team includes a broad variety of professionals (physicians, peer-counselors, community partners, public health workers, and IBCLCs), allowing for different perspectives. BSTARS enables mothers and community members to join board members in planning future events, teaching, and practicing shared decision-making. This method has fostered a sense of equality and empowerment, motivating mothers to continue their participation (Pyles, et al., 2021). Finally, BSTARS involves a mother's partner in meetings and events. This is a promising strategy, as mothers often rely heavily on partners for support and approval (DHHS, 2011). During a 10-year period, the BSTARS breastfeeding initiation has resulted in an 18.3 percent increase in breastfeeding among Black mothers in Shelby County (Pyles, et al., 2021).

In a randomized trial, a two-hour session spent teaching fathers to support breastfeeding, was associated with a 33% increase in breastfeeding initiation (74% vs. 41%) (DHHS, 2011). Involving a mother's social network and making a plan were the most essential parts to improve breastfeeding rates (DHHS, 2011). Online support groups (e.g., social media platforms or websites); breastfeeding warmlines or hotlines for quick, round-the-clock help; or providing a space for mothers to ask specific questions are also promising sources of ongoing support (DHHS, 2011).

c) Workplace Support

Both federal and NY state laws protect the rights of mothers to breastfeed or express human milk at the worksite. The laws require employers to provide mothers private space, and unpaid time to pump human breast milk to support continued breastfeeding after they return to work (NY Statewide Breastfeeding Coalition, 2018). The Federal Labor Standards Act was amended; and, effective in 2010, required employers to provide reasonable breaktime and a place for nursing mothers to express milk for her nursing child for 1 year after the child's birth (US DOL, 2010), Employers are required to provide a place other than a bathroom that is shielded from view and free from intrusion from coworkers and the public, which may be used by an employee to express breast milk. At the bare minimum employees need privacy to express milk, flexible breaks, and a positive, accepting attitude (DHHS, 2008b).

In 2007, NY passed legislation, Nursing Mothers in the Workplace, that protects nursing mothers who return to the workplace (NY DOL, 2007). The law requires employers to provide uncompensated breaks for women to express milk or nurse their children for a period of up to three years. This law also bars an employer from discriminating against an employee exercising this right. In addition, the law also requires employers to make 'reasonable efforts' to provide a room or other location where the employee can express breast milk privately.

Mothers in supportive work environments were more likely to continue breastfeeding when they returned to work and become more productive and loyal to their company (ODPHP, 2020). Lactation support is associated with higher rates of breastfeeding among employees who return to work compared to those without lactation support (DHHS, 2011). Breastfed infants tend to be sick less often than formula-fed infants, and the percentage of mothers taking sick leave to care for their infants during the first six months is lower than for infants who were fed formula (25% vs. 75%, respectively) (DHHS, 2011). Moreover, employees whose infant was formula fed had up to

three times more health insurance claims (DHHS, 2011). Unfortunately, despite these benefits and laws, not every workplace provides breastfeeding accommodations (DeVane-Johnson, et al., 2018; DHHS, 2011; Hemingway, et al., 2021).

Establishing and maintaining comprehensive, high-quality lactation support programs for employees can be done in multiple ways, including providing breastfeeding resources to employees and providing education. The *Business Case for Breastfeeding* provides tools for educating employers and employees on the benefits to both in implementing lactation support programs (DHHS, 2008b). One of the largest publicly owned providers of health and related benefits, CIGNA Corporation, utilized this toolkit and created a program involving onsite nursing rooms, ongoing advice from a lactation consultant, and resources such as breast pumps and a milk storage system (DHHS, 2008b). CIGNA also provided flexible scheduling to express milk, a prenatal education kit, and telephone support during work leave. They found that 72.5% of these mothers were still breastfeeding at six months, higher than the national average of 21.1% among of employed mothers (DHHS, 2008b).

Additionally, there was a 77% reduction in lost work time due to infant illnesses, an annual savings of $240,000 in health care expenses for breastfeeding mothers and children, and $60,000 in savings from reduced absenteeism. A similar program implemented in Omaha, NE, led to an 83% employee retention rate of their maternity workforce, compared to the national average of 58% (DHHS, 2008a). Furthermore, health care costs were $2,146 more per employee for those who did not participate in the program. Another promising solution is adding lactation services to a basic employee benefits package (DHHS, 2011). Workplace lactation programs resulted in employer health care savings, improved employee retention, and reduced absenteeism.

Women often report they need more breastfeeding support and encouragement in the workplace (DHHS, 2011; Gyamfi, et al., 2021). Many women worry their employers may not support their decision to breastfeed and face fears of job insecurity (DHHS, 2011). NH Black mothers often feel they must choose between continuing breastfeeding or returning to work. In many cases, workplace policies and practices contribute to both low breastfeeding rates and racial/ethnic disparities. Researchers suggest that employees sit down with their employers, discuss their infant feeding plans, arrangements, and planned return to work to ensure their job will be there upon return (DeVane-Johnson, et al., 2018; Ogbuanu, et al., 2011). Changes in workplace policies and attitudes could play a big role in helping parents reach their breastfeeding goals.

d) Breastfeeding Support at Childcare Settings

Childcare centers provide essential services for working parents. They are also critical in respecting a parent's decision to feed her infant her breastmilk and supporting parents to continue breastfeeding (DHHS, 2011). Unfortunately, not all childcare centers are supportive of breastfeeding, and some may undermine or discourage the parent from continuing to breastfeed.

When breastfeeding is not supported and encouraged at the childcare facility selected for the child, the parent may be less likely even to initiate breastfeeding. Finding childcare centers that support breastfeeding is challenging, and often mothers fear that they will be turned away if they are breastfeeding (McFadden, et al., 2017). Thus, mothers frequently begin or switch to formula when preparing to return to work to avoid any of these issues. Childcare employees should be trained to properly store and feed human breastmilk, coordinate feeding times, and provide families with written breastfeeding information (DHHS, 2011; ODPHP, 2020).

II. RECOMMENDATIONS FOR LEGISLATIVE OR OTHER ACTIONS

1. Increase equity in access to breastfeeding/chestfeeding education and professional lactation support by pregnant and postpartum people

Background/Rationale

There is strong evidence that providing evidence-based interventions to promote and support breastfeeding is an effective intervention that produces the intended outcome: increasing breastfeeding initiation, exclusive breastfeeding, and duration (USPSTF, 2008; USPSTF, 2016). Providing multiple strategies, including formal, structured breastfeeding education for pregnant people and families; direct professional clinical lactation care of women during breastfeeding; training of primary care staff about breastfeeding and techniques to provide lactation care and support; and breastfeeding peer support are most effective. Interventions that include both prenatal and postnatal components are more effective at increasing breastfeeding duration.

The Affordable Care Act (ACA) requires health insurers cover, without cost sharing, USPSTF grade A or grade B recommendations, including professional lactation support. The ACA did not specify the training, knowledge, or skills needed by those providing lactation care, despite citing studies that increased breastfeeding was associated with provision of professional lactation care by International Board-Certified Lactation Consultants (IBCLCs) (USPTF, 2016). In addition, the availability, timeliness, or frequency with which lactation care should be provided was not specified.

There is often no “captain of the ship” for breastfeeding education and lactation care (Garner & Ratcliff, 2016). Insurance coverage for lactation care is usually bundled in each of the payments for prenatal pregnancy care, hospital labor and delivery, and postpartum maternal care. The result is no single person or group is coordinating or responsible for providing breastfeeding education or lactation care, which often leads to fragmented care, lack of continuity, inconsistent messaging, and too often, inadequate breastfeeding education and lactation care.

The availability, access, and qualifications of lactation support care is inequitable, differs by income and type of health insurance, and contributes to disparities in breastfeeding measures. NY Medicaid reported that, based on 2020 Medicaid claims/encounter data, very few claims were filed or paid for group or individual lactation counseling sessions before delivery or following delivery (1% of each group). Most patients who are eligible for Medicaid insurance would also be eligible to participate in the NYS WIC program. It is possible that some pregnant or postpartum patients who were enrolled in NYS WIC might have obtained breastfeeding education or lactation support from the WIC program or another community support group.

A study of women from 29 states who completed the Pregnancy Risk Assessment Monitoring System (PRAMS) survey, breastfeeding initiation was lower and duration was shorter for those with Medicaid insurance compared to those with private insurance (D'Angelo, et al., 2015). NYS’s 2020 PRAMS survey showed similar findings, with statistically significant lower initiation rates among women on Medicaid (87.2%) compared to those not on Medicaid (91.8%), while the percentage of women breastfeeding to at least eight weeks was lower for women on Medicaid (68.7%) compared to women not on Medicaid insurance (74.2%), but not statistically different (NYS PRAMS, 2020). Based on 2020 birth data from NYS Vital Records, the percentage of infants exclusively breastfed in the birth hospital was much lower for those with Medicaid vs. private insurance (34.9% vs. 59.5%) (NYS Prevention Agenda Dashboard, New York State Prevention Agenda Dashboard (ny.gov)). Conversely, the proportion of breastfed infants supplemented with formula was higher for those with Medicaid vs. private insurance and higher for NH Black infants and Hispanic infants compared to NH White infants, after adjusting for infant and maternal characteristics (Nguyen, et al., 2017).

Concerns with breastfeeding and problems with lactation are common in the early postpartum period. In a study of 2,946 first-time mothers from California, 92% reported one or more breastfeeding concerns within the first three days postpartum. (Wagner, et al., 2013). Studies that proactively incorporated International Board Certified Lactation Consultants (IBCLCs) into routine prenatal and postnatal primary care visits or provided IBCLC visits immediately postpartum for women with obesity or gestational diabetes were associated with increased breastfeeding initiation, increased frequency, and longer duration (Bonuck, et al., 2014; Griffin, et al., 2022; O'Reilly, et al., 2021).

Despite the important role of healthcare providers in promoting breastfeeding and supporting parents to successfully breastfeed, physicians generally lack adequate breastfeeding education and training (CDC, 2023). CDC funded a landscape analysis (conducted in 2017) to better understand the gaps in breastfeeding education during medical training of pediatric, family medicine, and obstetrics/gynecology physicians. The study described the training in breastfeeding they received during medical school, residency/fellowship and continuing medical education; their competency in managing breastfeeding; and their attitudes (Meek, et al., 2020). Meek and colleagues (2020) reported that medical education in breastfeeding was still inadequate, despite previous efforts to address the gaps and that physicians wanted more training in breastfeeding, especially clinical skills training, to improve their confidence and competence.

The findings of this landscape analysis were incorporated in a guidance plan for breastfeeding education and training for medical schools, residency and fellowship programs and clinical healthcare sites (CDC, 2023). The Physician Education and Training on Breastfeeding Action Plan; developed by 12 diverse professional organizations representing underserved populations and the American pediatric, family medicine, and obstetrics/gynecology organizations; provide recommendations to address gaps in breastfeeding training and education for physicians (AAP, 2018).

Using this plan, the professional organizations have been working to improve breastfeeding education and expand opportunities to learn lactation counseling skills in medical school and residency programs. A recent study of family medicine residency programs showed modest improvements (Uzumcu, et al., 2020). Programs that included lactation consultants, more maternal child health visits in resident continuity clinic, more graduates that practice maternal child health, and competency evaluations by faculty reported more hours of breastfeeding education time, and the highest perceived resident competence.

The experts and stakeholders interviewed by Bozlak and colleagues (2022) reported that medical providers often lacked breastfeeding education and knowledge, which can result in their providing less support for breastfeeding parents and/or promoting the use of formula when it may not be medically necessary to increase infant weight gain or to manage complex cases.

The stakeholders also reported that some providers appear to have implicit biases or make assumptions about who will, or will not, breastfeed (e.g., assume overweight individuals or persons from certain racial or ethnic groups won't breastfeed), which can impact their advice or decrease the time spent discussing breastfeeding. While healthcare providers may lack sufficient time to support the birthing individual themself, they often don't make appropriate referrals for lactation services or coordinate care between themselves and lactation professionals (Bozlak, et al., 2022).

The experts/stakeholders discussed the importance of providers understanding the unique needs and concerns of breastfeeding individuals and how an individual's own personal experience, environment, and culture might impact their ability to breastfeed and the specific challenges they may face (Bozlak, et al., 2022). They emphasized the need for culturally appropriate training for providers that they can share with birthing individuals (Bozlak, et al., 2022). Some of the most frequent barriers reported were lack of staff to provide education; limited time by lactation staff to spend with patients; and lack of access to specialized (more clinically advanced) lactation support. Stakeholders reported a need for more lactation support in hospitals and pediatric offices.

The experts/stakeholders noted that a patient's perception of low milk supply is a common reason parents stop breastfeeding (Bozlak, et al., 2022). Health care providers, especially pediatricians, contribute to this perception when they express concern about the infant's growth and suggest the possibility of low breastmilk supply without making a referral to a lactation consultant.

Inadequate prenatal education and breastfeeding knowledge by parents frequently contributes to early discontinuation of breastfeeding. Individuals who lack prenatal education frequently do not understand the mechanics of breastfeeding and milk supply production, the nutritional requirements of infants, or infant feeding cues/behavior. (Bozlak, et al., 2022). They stressed that because they do not know what to expect or how to manage expected challenges, they are more likely to stop breastfeeding when they experience pain or discomfort or perceive a low milk supply.

Strategy

1. **Increase access to breastfeeding/chestfeeding education and professional lactation support during prenatal time period.**

   Strengthen requirements for insurers (private and Medicaid) to cover, and providers to refer pregnant people and their partners for structured, comprehensive breastfeeding/chestfeeding education. According to the USPSTF recommendations, these sessions should be at least 30-45 minutes in duration, and multiple sessions provided rather than a single session. Sessions could be in-person or virtual; group and/or individual. The sessions should be provided by an IBCLC or other lactation provider with comparable training, experience, and competencies in a prenatal obstetrics, pediatric, or hospital office.

   Increase the accessibility and continuity of lactation counseling and care by making lactation care a separate benefit, i.e., un-bundle lactation care from pregnancy, labor and delivery, or postpartum care. Remove the requirement that lactation counseling be ordered or that the patient be referred. At a minimum, allow referrals to be made by other providers, including pediatric or family medicine providers and licensed midwives, not just obstetric providers.

2. **Increase access to breastfeeding/chestfeeding education and professional lactation support during birth hospitalization.**

   Currently, NY perinatal regulations specify that perinatal facilities should "include at least one staff person with expertise in lactation and breastfeeding management who is responsible for the hospital's breastfeeding support program (NYCRR, Title 10, 405.21 – Perinatal Services, 2023)." This requirement should be strengthened to specify and require minimal qualifications for the hospital's breastfeeding coordinator, such as having the education, training, clinical lactation skills, and competencies equivalent to that of an International Board-Certified Lactation Consultant (IBCLC).

   Babies are born every day, around the clock. Most NY hospitals do not meet the recommended lactation staff to birth ratios (1.3, 1.6, and 1.9 IBCLCs per 1,000 births for level I, II, and III/IV perinatal hospitals, respectively) (Manuel, 2006; Dennison, et al., 2016). The very high percentage of breastfed infants in NY who are supplemented with formula during their birth hospitalization indicates that current lactation support in NY hospitals is not adequate.

   The current standard of care based on the *Ten Steps to Successful Breastfeeding* calls for the infant to spend the first hour after birth in continuous skin-to-skin contact with the birth parent and the first nursing to occur during this time period. To achieve this, there needs to be at least one direct care staff with the clinical training, skills, experience, and competence to assist the birth parent and infant in the delivery room to successfully breastfeed. Within the first 4-6 hours, a breastfeeding/chestfeeding session should be evaluated for latch, milk transfer, etc. by lactation staff with the appropriate competencies, skills, and training. If difficulties are noted, the parent/infant dyad should be referred in a timely manner to a more skilled and clinically trained lactation consultant. Comprehensive lactation care should be available 24/7 throughout the birth hospitalization, with sufficient lactation staff to ensure all infants receive adequate lactation support to successfully breastfeed if desired.

3. **Increase access to breastfeeding/chestfeeding education and professional lactation support during postpartum time period.**

   Strengthen requirements for professional lactation support to be covered by health insurers. Require lactation support to be available in a timely manner. Infants need to nurse every 2-3 hours (8-10 times per day), so if there are problems interfering with successful breastfeeding/chestfeeding (i.e., problems with latch, breastmilk transfer, painful nipples, etc.), these issues need to be addressed in a timely fashion. Small infants with feeding problems can't wait; lactation support should be available immediately after birth, 24/7 in the birthing hospital, and readily available in the community.

   The qualifications and competencies of lactation providers/staff should be defined. There is a need for lactation providers with a range of skills. At a minimum, all direct care lactation providers should have baseline skills and competencies in providing education, assessing latch, milk transfer, and breastfeeding/chestfeeding success. When needed, patients with persistent, complicated or serious lactation issues should be able to be assessed and referred to a more qualified and clinically skilled lactation consultant, such as an IBCLC, quickly and easily (i.e., same day, preferably within 4-8 hours).

   Provision of timely referrals to breastfeeding/chestfeeding support services impacts breastfeeding/chestfeeding success; therefore, the number and timeframe of referrals should be monitored. High rates of formula supplementation in the hospital and/or discontinuation of breastfeeding/chestfeeding can be indicators of inadequate lactation support.

   Because most breastfeeding women (85%) report lactation problems within the first five days after birth, it has been proposed that all breastfeeding/chestfeeding parents and infants should be proactively referred and routinely scheduled for a postpartum lactation visit shortly after hospital discharge, rather than being advised to follow-up as needed with lactation support. This lactation care visit could be scheduled to coincide with the first recommended pediatric visit when the infant is 3-5 days of age. As NY Medicaid now requires a referral for lactation, it's important that patients can obtain timely referrals to lactation care providers. Routinely referring and scheduling breastfeeding/chestfeeding infants and parents for lactation care at the time of hospital discharge is a proactive preventive strategy that would increase breastfeeding/chestfeeding success and reduce racial/ethnic and socio-economic disparities.

   To ensure patients are being offered and receiving breastfeeding/chestfeeding education and lactation support, it is important to monitor access and referrals by providers, and patients' use of breastfeeding/chestfeeding education, lactation counseling, and consultation by disparity measures, including race/ethnicity.

Potential Reach

Increasing access to breastfeeding/chestfeeding education and comprehensive lactation support could impact many pregnant and postpartum people. Ensuring more equitable access would impact most populations with low breastfeeding/chestfeeding success, especially NY Medicaid recipients, most of whom currently do not receive comprehensive breastfeeding/chestfeeding education prenatally, or adequate lactation support postpartum.

Financial Considerations

There is already a requirement that lactation support be covered by health insurers. Currently there are insufficient lactation providers, especially the more qualified IBCLCs in NY. Increasing the available number of IBCLCs per 100,000 births in the hospital and the availability and timeliness in outpatient settings may cost more money in the short term. But increased lactation support is expected to increase the percentage of infants who are exclusively breastfed/chestfed and the duration of breastfeeding/chestfeeding duration. This would result in cost savings from fewer respiratory and gastrointestinal illness; lower rates of SIDS, and lower infant mortality, in addition lower rates of maternal breast and ovarian cancer later in life; fewer depressive symptoms; and reduced risks of obesity and diabetes.

2. Increase equity in access to the Ten Steps to Successful Breastfeeding in hospitals.

Background/Rationale

Studies consistently find higher prevalence of breastfeeding among full-term and pre-term infants (in the NICU) born at designated Baby-Friendly Hospitals (BFH) compared to infants born at non-BFH (Merewood, et al., 2005; Phillipp, et al., 2001; Merewood, et al., 2003). The number of designated BFHs has increased dramatically during the past 15 years, as has the percentage of births at a BFH (CDC, Breastfeeding Report Cards). The greater relative increases in BFH in NYC are due to greater funding and strong support from NYC Mayor's Office, NYC Health and Hospital leadership, and the NYCDOHMH.

Access to a BFH varies greatly across NY state. As of December 2021, 43 of the 124 hospitals providing maternity services in NY have been designated as a BFH (Baby-friendly, USA, 2021). There are now more BFHs in NYC than the rest of the state (28 vs 15, respectively), and in 2021, the percentage of births occurring at a BFH was nearly twice as high in NYC compared to the rest of the state (47.8% vs 28.0%, respectively).

To become designated as a BFH, facilities must successfully complete all phases of the 4-D Pathway including integrating the *Ten Steps to Successful Breastfeeding* into their maternity care practices, educating all staff, ensuring direct care staff meet minimal clinical competencies, and purchasing infant formula at market price (Baby-Friendly USA, 2022). The process takes, on average 3.5 years.

Geographic location tends to determine access to a BFH; the quality of healthcare available; and other social determinants of health, such as education and quality of schools, affordability, and availability of housing, etc. In choosing a hospital to deliver, pregnant people tend to select the closest hospital regardless of quality of care offered at that hospital (Phipps & Lorch, 2018; Howell, et al., 2018). In NY, formula supplementation of breastfed infants varies widely (from 2% to 98%) between hospitals Most of the variation was due to differences in hospital policies and practices, which persisted even after adjusting for socioeconomic variables, maternal and infant factors, and level of perinatal care (Nguyen, et al., 2017). A CDC study found that hospitals located in areas where a higher percentage of NH Black persons lived were less likely to provide the recommended *Ten Steps to Successful Breastfeeding*, compared to areas with lower percentages of NH Black persons (Lind, 2014). The largest differences were in early initiation of breastfeeding, use of breastmilk supplements, and availability of 24-hour rooming-in. Studies in NYC find that a disproportionately high proportions of Black women and of Hispanic women deliver at low-performing hospitals (i.e., defined as having higher rates of severe maternal morbidity or the highest risk-standardized rates of infant morbidity and mortality) (Howell, et al., 2016; Howell, et al., 2018).

Stakeholders and experts discussed the need for wider implementation of the BFH designation. There was concern about the lack of access to BFHs in communities that are more likely to experience breastfeeding disparities. They noted that prior to NYC's efforts, hospitals that became a BFH were primarily in those areas where breastfeeding rates were already high, which may have led to increasing disparities in NY. There were widespread recommendations that establishment of BFHs should be prioritized for hospitals that serve communities experiencing breastfeeding disparities, and that funding and support needs to be provided to help these hospitals achieve BFH-designation and then maintain it (Boznak, et al., 2022).

The NY experts emphasized the need for "funding for BFH implementation and sustainability" and to "ensure accountability of BFHs." With funds from the American Recovery and Reinvestment Act of 2009, the CDC funded states and large cities to support hospital-based quality improvement collaboratives to improve maternity care practices supportive of breastfeeding and also funded numerous states and cities to improve maternity care practices. Since then, CDC has provided limited funding to a single organization to provide technical assistance, training, and funding to about 100 hospitals nationwide to support implementation of the *Ten Steps to Successful Breastfeeding* and the BFHI (CDC, 2023). While these collaboratives have been successful in improving breastfeeding initiation, exclusivity, and duration and improving health equity, their reach has been limited to only a fraction of hospitals in the U.S. and have included only a few hospitals in NY.

One national expert and some stakeholders suggested that more emphasis should be placed on implementing the *Ten Steps* themselves, rather than the BFH designation (Boznak, et al., 2022). There were concerns that BFHs need additional funding to support on-going staff training, implementation and monitoring of the Ten Steps, and to maintain their designation status.

In addition to lack of access to BFHs, many hospitals were reported as NOT being breastfeeding friendly. Maternity care practices in many hospitals do NOT support breastfeeding (Bozlak, et al., 2022). One of the most frequent barriers reported was insufficient or lack of staff to provide breastfeeding education. Existing lactation staff have limited time to spend with patients. They often cannot see all breastfeeding patients. In addition, lack of access to specialized (more clinically trained and experienced) lactation support (i.e., IBCLCs) for those having breastfeeding problems is another common barrier.

Strategy

1. **Strengthen requirements for NY hospitals to provide all birthing parents with access to evidence-based maternity care policies and practices that support breastfeeding/chestfeeding.** Requirement could be similar to California (CA)'s Hospital Infant Feeding Act, California Health & Safety Codes §123367, requiring that all hospitals with a perinatal unit adopt either: 1) the *Ten Steps to Successful Breastfeeding* per Baby-friendly USA's Baby-Friendly Hospital Initiative; 2) an alternate process that includes evidenced-based policies and practices and targeted outcomes; or 3) the CA's Model Hospital Policy Recommendations for Providing Breastfeeding Support, developed by the CA Department of Public Health (Arnold, et al., CDPH, 2021).
2. **Fund implementation of the *Ten Steps to Successful Breastfeeding* and the BFH initiative.** Initially, hospitals providing maternity care services in low income and racially/ethnically diverse communities or those with the lowest percentage of birth parents breastfeeding could be prioritized.
3. **Incentivize hospitals to achieve BFH designation and provide maternity care consistent with the *Ten Steps* by providing additional funds to hospitals as they progress along each step on the Pathway towards becoming designated as a BFH.** Hospitals serving communities with high breastfeeding disparities could be prioritized. A private-public partnership of insurers could work together to support and provide incentive funding. With time, the increased number and percentage of births at BFHs would lead to higher rates of exclusive breastfeeding/chestfeeding, longer breastfeeding/chestfeeding duration, and cost savings from improved infant and maternal health outcomes.

Potential Reach

In 2008, only two hospitals in NY were designated as a BFH: St. Joseph's Hospital (2007) and Harlem Hospital (2008) (Baby-Friendly USA). In 2009, the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, American Recovery and Reinvestment Act of 2009, provided five-year funding to the Department and to NYC DOHMH to institute a quality improvement initiative to improve hospital maternity practices, increase compliance with the *Ten Steps to Successful Breastfeeding*, and support hospitals on the pathway towards meeting the BFH designation. These efforts led to a significant increase in the number of BFHs in NY from two hospitals (2008) to 38 hospitals (2019). The percentage of NY births in BFHs also increased from 1.0% (2007) to 5.7% (2014) to 12.9% (2016) and 21.6% (2018); (CDC Breastfeeding Report Cards, 2007, 2014, 2016 and 2018).

NYC DOHMH was able to continue funding quality improvement consultants and staff to provide technical assistance and support to NYC hospitals. NYC Health and Hospitals Municipal Health System leadership committed to supporting their eleven hospitals to become designated as BFHs. This led to a significant increase in the number of BFHs in NYC over the past five years. As of December 2022, there were 43 BFHs in NY. Since the recent increase in BFHs in NYC, there are nearly twice as many BFHs (28 vs. 15, respectively) and 70% more births at a BFH (48% vs. 28%, respectively) in NYC compared to the rest of the state (NYS Vital Records, 2021). Currently, there are 81 hospitals in NY that provide maternity care that are not designated as a BFH. These 81 hospitals would be directly impacted by a requirement that they meet the criteria and become designated as a BFH.

Financial Considerations

Each of these strategies would require financial support: the quality improvement initiative; training and education of healthcare providers and staff; implementation of the policy, systems, and environmental changes; data collection; and monitoring implementation of the *Ten Steps to Successful Breastfeeding*. The knowledge, skills, and competency of direct care providers would need to be evaluated using tools such as the World Health Organization (WHO)'s Competency Verification Toolkit (WHO, 2020). Furthermore, hospital administration, leaders and staff outside of the maternity unit should receive breastfeeding/chestfeeding education to understand the importance of protecting, promoting, and supporting breastfeeding/chestfeeding specific to their roles and workplace exposure to parent/infant dyads.

The CDC has funded (through state and city health departments and quality improvement organizations) initiatives to increase adoption of the *Ten Steps to Successful Breastfeeding* and designation of hospitals as a BFH. Private funders (such as the Kellogg Foundation) have also funded quality improvement initiatives in select states or geographic areas with low breastfeeding rates to increase adoption of the *Ten Steps to Successful Breastfeeding* and designation of hospitals as BFHs.

Blue Cross and Blue Shield of Mississippi (BCBSMS, 2019) implemented a statewide quality improvement initiative, The Maternity Quality Model, to promote healthier mothers and babies in Mississippi. The BFH Designation is one of four components of the BCBSMS Maternity Quality Model: Prevention of Early Elective Delivery, Neonatal Appropriateness of Care, and implementation of Maternal Safety Bundles Delivery.

Mississippi hospitals are reimbursed by BCBSMS at a higher rate for each additional Pathway step they are on towards becoming designated as a BFH. In 2014, when BCBSMS began collaborating with CHAMPS on this initiative, there were no Mississippi hospitals with the BFH designation. By 2019, 93% of BCBSMS hospitals were either designated or on the pathway to designation, and 11 hospitals have received the BFH designation.

It takes time for a hospital to become designated as a BFH; the hospital needs to revise their policies and procedures, train staff and providers, and go through the review and certification process (including site visits). A recent study used structured interviews and existing hospital data to measure the institutional cost of pursuing BFH designation at four large, urban academic medical centers representing the four census regions in the U.S. (Jeglier, et al., 2019). They found that the median time to achieve designation was 3.5 years (range: 3 - 5). The median total annual staff time dedicated to pursuing BFHI designation was 2,486 hours (range:1,539 - 3499), median staff time per birth was an additional 0.533 hours (range:0.362 - 2.333), and additional median cost paid per birth, including staff time was $26.44 (range: $19.17 - $65.34). Institutions that used higher salaried staff to facilitate the designation process (e.g., executives and physicians) had higher total costs per birth.

A study based on 2007 costs reports from the American Hospital Association and the Centers for Medicare and Medicaid estimated the labor and delivery costs were $2,205 vs. $2,170 per birth at BFH vs. non–BFH, respectively. The $35 difference in delivery costs at a BFH vs. non-BFH were not statistically different (DelliFraine, et al., 2011).

3. Strengthen, expand and diversify the lactation workforce

Background/Rationale

The increased attention to the benefits of breastfeeding, recognition by USPSTF of the benefits of lactation support, and mandated insurance coverage of grade A and B USPSTF recommendations, including lactation support, under the Affordable Care Act (ACA), helped spur the growth of the lactation workforce over the past 15 years. The field is still evolving. Currently in the U.S., there are three tiers of lactation providers, and all are valuable. The needs of breastfeeding/chestfeeding families are many and diverse, with some needing the care of highly skilled, clinically trained International Board Certified Lactation Consultants (IBCLC)s, while others may benefit from counseling, education or peer support.

The most highly skilled and trained are IBCLCs, who are qualified to provide clinical lactation care (USLCA, 2020a). Their education and training will usually take one or more years, requiring 14 college-level health science classes, including a course in sociological concepts and cultural sensitivity; 90 hours of education in lactation care; and 300 to 1,000 hours of supervised clinical lactation skills training (USLCA, 2020a). The International Board of Lactation Examiners® (IBLCE®) evaluates and credentials individuals as IBCLCs, confirms they are prepared to clinically assess and manage lactation and breastfeeding of new parents and infants (USLCA, 2020b), and has defined the Scope of Practice for IBCLCs (IBCLCE, 2018).

The lactation counselor or educator programs require 3 to 5 days of didactic training, but they do not include any clinical training. There are several programs, including but not limited to Certified Lactation Counselors (CLC), Certified Lactation Educators (CLE), etc. Lactation counselors/educators are prepared to provide breastfeeding education or counseling services. Many hospitals provided the CLC training for frontline nursing staff, as did local WIC programs for their breastfeeding counselors.

The final category is breastfeeding peer counselors, who are peers from the same community with personal breastfeeding/chestfeeding experience, who have received training and are prepared to provide lactation support services.

Between 2007 and 2016, the number of IBCLCs per 1,000 live births in NY increased from 1.0 to 3.8 (compared to 2.1 to 3.8 nationally) (CDC, Breastfeeding Report Cards, 2007 and 2016). In 2008, the U.S.-based education providers from the Healthy Children Project joined with the Academy of Lactation Policy and Practice; in 2013, they became accredited to offer certifications in lactation (Dodgson, 2019). The number of CLCs per 1,000 live births increased from 2.5 in 2011 to 4.6 in 2016 (nationally) and to 11.4 (in NY), Between 2011 and 2022, the number of IBCLCs in NY doubled to 4.8 per 1,000 births, while the number of CLCs increased 6-fold to 15.8 per 1,000 births. While there has been more than a 7-fold increase in the total number of lactation providers in NY, the proportion who are IBCLCs has decreased dramatically, from nearly all (in 2007) to less than 25% in 2022 (USLCA, 2022; ALPP, 2022a). Despite these increases in people participating in lactation counseling training or completing IBCLC certification, there continues to be a shortage of lactation support in NY. This may be, in part, because NYS Medicaid reimbursement requires lactation counselors to be certified by a nationally recognized accrediting agency and be licensed as a physician, physician assistant, nurse practitioner, midwife, or registered nurse (NYS Medicaid, 2022).

Because lactation providers are not licensed in NY, there is often confusion regarding lactation providers' competencies, clinical experience, and/or skills. Several states (Georgia, New Mexico, Oregon, and Rhode Island) have established a regulatory framework to license IBCLCs (USLCA, 2022), which clarifies those competent to provide clinical lactation support vs. lactation counseling/education, and may facilitate reimbursement by Medicaid and other insurers (USLCA, 2020b). Since 2013, there have been five NY bills proposing that IBCLCs be licensed (A.2297, 2021-2022; A.1189, 2019-2020; A.357-A.2017-2018; A.235-A. 2015-2016; A.8359, 2013-2014).

The lactation counseling/education certification may be viewed as an initial or entry-level training for those interested in supporting lactation or breastfeeding/chestfeeding. But the lack of a clinical lactation training program in NY is a barrier to people seeking a pathway to obtain the knowledge and clinical skills required to meet the more advanced IBCLC criteria. There are ten IBCLC Step 2 university/college training programs in the U.S., but none are located in NY. The current lactation provider educational systems and clinical training programs are insufficient to ensure equitable access to a diverse, competent lactation work force with the knowledge, expertise, and clinical skills to provide quality breastfeeding/chestfeeding and lactation support in NY.

Stakeholders noted that lactation professionals in NY are not representative of the communities they serve, and that NY lacks the diversity in providers needed to serve the NY population (Bozlak, et al., 2022). Nationally, almost all IBCLCs report they are female, with 75% reporting their race as White and 4% reporting their race as Black (USCLA, 2011). The majority of IBCLCs in NY are in the NYC metro area, with low numbers in mid-Hudson, Capital, and Western regions. Almost all (96%) of CLCs report they are female; with race reported as NH White (75%), and NH Black (9%), Latino (8%), and Asian (3%) (ALLP, 2022b). The minimal diversity amongst lactation providers results in a lack of representation of communities they serve. It is critical that lactation counselors be trained, be recruited from the community in which they live, and serve as peers to the birthing individual (Johnson, et al., 2016; Chetwynd, et al., 2013).

Reimbursement of breastfeeding/chestfeeding education and lactation care are often bundled as part of prenatal, hospital maternity and/or postpartum care, contributing to lactation care often being fragmented and lacking continuity. Many parents do not have access to comprehensive breastfeeding/chestfeeding education and lactation support. When they have lactation difficulties, many do not receive timely assessment or referral to a more clinically skilled lactation provider (IBCLC or equivalent) (Chetwydt, et al., 2013; Herold, Bonuck, 2016; Wouk, et al., 2017). While the Affordable Care Act requires that health insurers cover lactation care, the law does not specify the education, training, or competencies of lactation providers, or the timeliness for care or referrals.

In Bozlak and colleague's study (2022), the experts and stakeholders report that access to lactation support in clinical settings is often insufficient. Providers and lactation staff need more training and experience and more IBCLCs are needed (Bozlak, et al., 2022). Stakeholders report there are often delays in referrals or in patients receiving specialized care for breastfeeding problems or medical issues, such as tongue tie. It was suggested that NY needs to have a structured system for providers, students or staff to learn more about breastfeeding and/or to obtain clinical lactation skills training (Bozlak, et al., 2022). NY would benefit from having an academic-affiliated Step 2 training pathway for IBCLC certification.

The experts and stakeholders discussed that the costs of obtaining the education and clinical lactation training and completing the certifying exams are barriers to becoming an IBCLC. There is a need for scholarships and other funding to train community-based lactation counselors. Stakeholders repeatedly emphasized how critical it is that peers be recruited from the community and trained to serve as breastfeeding peer counselor to the birthing individual. Making it easier for people from communities most impacted by breastfeeding disparities to become educated, trained, and certified as lactation counselors would help reduce disparities. Another barrier to becoming a certified lactation counselor/educator was the limited availability of training and testing in languages other than English.

Lactation providers should be able to obtain a licensed credential in NY. Licensing IBCLCs without requiring a professional medical or nursing degree or license are policy approaches to increase the availability of more advanced lactation support, while freeing up nurses to provide other health care. The US Lactation Consultant Association supports licensure for IBCLCs, in part, to increase awareness and understanding of the differences between breastfeeding educators/counselors and IBCLCs.

Strategy

1. **Modify criteria for insurance reimbursement by NY Medicaid (and other insurers) for the provision of lactation counseling and consultation.** Allow certified IBCLCs to provide professional lactation counseling and care within their scope of practice without also requiring they be licensed by NY as a physician, physician assistant, nurse practitioner, midwife, or nursing license. This would help the nursing shortage by freeing up nurses' time to provide other non-lactation care.
2. **Amend NYS education law to license IBCLCs to provide lactation counseling and consultation, without also requiring they be licensed by NY as a physician, physician assistant, nurse practitioner, midwife, or registered nurse.**
3. **Fund academic institutions in NY to start an IBCLC Pathway 2 Accredited Lactation Academic Program (IBCLE, 2022).** These new Lactation Academic Programs could be viewed as worksite development projects to increase the capacity, knowledge, clinical skills, and expertise of NY's lactation workforce. Locate Lactation Academic Programs in colleges serving populations of color, encourage programs to recruit diverse group of students, and ensure programs include cultural relevance. Encourage Lactation Academic Programs to partner with local hospitals to provide clinical sites for trainees to obtain the required directly supervised clinical lactation experience (minimum of 500 hours).
4. **Support local NY WIC agencies to hire an IBCLC or a Lactation Consultant with the advanced training, knowledge, and clinical skills in lactation required by the International Board of Lactation Consultant Examiners to serve as the lead breastfeeding technical support expert (MI-WIC Policy, 2018b).** This person could provide clinical lactation assessment and counseling services to clients (MI-WIC Policy, 2018a). Local NY WIC agencies with IBCLCs could serve as a clinical lactation training site for students enrolled in the IBCLC Pathway 2 Lactation Academic Program, supervising WIC breastfeeding counselors and providing a pathway for staff development towards becoming certified as an IBCLC.

Potential Reach

All pregnant and postpartum people in NY would benefit. Communities with the fewest professional lactation providers, especially IBCLCs, would benefit the most.

Local WIC programs, their staff, and their participants would benefit from having access to an IBCLC or Lactation Consultant with advanced training, knowledge, and skills in lactation care, and from the technical expertise they would provide.

Financial Considerations

There would be minimal costs to modify the criteria for insurance reimbursement by NY Medicaid (e.g., the time to prepare and submit a State Plan amendment). The costs of developing a NY licensing program for IBCLCs would be low; the costs could be covered, in part, from a licensing fee. A process similar to that in states that already license IBCLCs could serve as examples (e.g., see bills in GA, NM, OR, RI).

The costs of starting an academic Pathway 2 IBCLC training program can be estimated by recent grants from the W.K. Kellogg Foundation to the University of North Carolina at Chapel Hill and to Ascension St. John Foundation and St. John Hospital and Medical Center in Michigan (WKKF, 2022). The University of North Carolina (which previously established an academic Pathway 2 IBCLC training program at the University of North Carolina), worked with two Historically Black Colleges to start an academic Pathway 2 IBCLC training program at each institution. (Johnson C. Smith University, 2022). The Ascension St. John Foundation and Hospital worked with Henry Ford College to establish an academic Pathway 2 IBCLC training program in southeast Michigan (Henry Ford College, 2019). The W.K. Kellogg Foundation awarded the University of North Carolina $1,312,206 over four years and awarded Ascension St. John $586,311 over 8 years to help support these efforts. There were likely additional costs not covered by these grants.

The NY WIC Program would require funds to support hiring an IBCLC at local WIC agencies. The NY WIC Program would also need funds to cover the costs of the Lactation Consultant when supervising students from the academic Pathway 2 IBCLC training program, as this would be outside the usual duties as a WIC employee.

4. Increase community outreach, especially among diverse populations, and those with low prevalence of breastfeeding

Background/Rationale

National and NY data indicate persistent disparities in breastfeeding among sociodemographic groups. Breastfeeding initiation is lower among NH Black women (64%) compared to NH White (81.5%) or Hispanic women (81.9%) (CDC, 2016).

Culture and traditions may contribute to how Black women make infant-feeding decisions as breastfeeding is a learned and mimicked activity (Mojab, 2016). Socio-historical events could drive attitudes to initiate breastfeeding due to a common shared experience in the Black culture that is kept alive through oral histories and attitudes of Black communities (Alexander, 2004; DeVane-Johnson, et al., 2018).

Increasing the diversity of lactation support personnel and representativeness of community groups, such as La Leche League support groups, WIC peer counselors and Baby Cafés would facilitate providing culturally relevant breastfeeding education and lactation support (Green, 2012; Lutenbacher, et al., 2016; Taylor, 2009; Spencer, et al., 2015). They can also help individuals to better access resources to address other social or environmental factors which may create barriers to breastfeeding (Bozlak, et al., 2022).

Community-based breastfeeding support groups led by Black women and organizations such as Reaching Our Sisters Everywhere (ROSE) and the Black Mother's Breastfeeding Association have been more successful in earning the trust of the Black community (DeVane-Johnson, et al., 2018). Experts/stakeholders noted that social determinants of health often impacted equity of breastfeeding success. Individuals with unmet basic needs, such as financial, housing, food insecurity, lack of transportation, or personal safety issues, are less likely to initiate breastfeeding (Bozlak, et al., 2022).

Poverty and structural barriers, such as systemic racism, impact both initiation and continuation of breastfeeding. One reason Black women have lower breastfeeding rates is because their neighborhoods often provide less breastfeeding support and fewer resources due to historic lack of investment in Black communities.

Stakeholders strongly emphasized that having a personal network that supports breastfeeding is a critical facilitator (Bozlak, 2022). For example, these networks can include partners and family members who emotionally support the breastfeeding individual, but who also assist them with other family-life demands to allow the breastfeeding individual the time needed to establish and sustain breastfeeding. Unsupportive personal networks can be a major barrier to initiation. Stakeholders noted the demands of childcare and family life often influence the time individuals have to devote to breastfeeding

Experts/stakeholders emphasized that organizations with which individuals interact within the community are important in supporting continued breastfeeding. (Bozlak, et al., 2022). They also discussed that breastfeeding needs to be more normalized within each community, especially within communities of color, and communities experiencing breastfeeding disparities.

Strategy

1. **Expand the reach, scope and capacity of the Department's Breastfeeding, Chestfeeding, and Lactation Friendly New York program by increasing the number of grantees from 9 to 15 contractors to work in high-need communities statewide, include a wider range of partners and community-based organizations, and fund a statewide Breastfeeding/Chestfeeding Training Center of Excellence.**
2. **Increase breastfeeding education and lactation training of staff who work in NY's home visiting programs, including the Maternal, Infant, Early Childhood Home Visiting (MIECHV) program, the Perinatal and Infant Community Health Collaboratives (PICHC), Nurse-Family Partnership (NFP), and the Healthy Families New York (HFNY) programs.** With increased knowledge and skills, home visiting staff would be more effective in providing breastfeeding education, lactation support, and in recognizing and referring parents/infants who need more advanced clinical lactation care.

Potential Reach

Increasing the number of Breastfeeding, Chestfeeding, and Lactation Friendly New York grantees funded by the Department from 9 to 15 would nearly double the reach and would allow for three contractors in each region of the state to be funded.

As the home visiting program expands, the reach would likewise expand. Staff who were better trained about breastfeeding/chestfeeding and lactation would be more effective in counseling and educating expectant and new parents about breastfeeding/ chestfeeding, providing lactation support, and recognizing the need for and facilitating referrals for more advanced clinical lactation care when needed.

Financial Considerations

Additional funding would be needed to support the increased number of grantees for Breastfeeding, Chestfeeding, and Lactation Friendly New York, the expansion in activities, the statewide Breastfeeding/Chestfeeding Center of Excellence, and additional Department staff.

Additional funding would be needed to increase education and training for more home visiting staff to provide comprehensive breastfeeding/chestfeeding education, lactation support, and referrals for more advanced lactation care when needed.

5. Increase equity in access to lactation support in the workplace

Background/Rationale

Studies show that providing lactation support in the workplace for employees returning to work is associated with higher rates of continued breastfeeding (CDC, 2019). Providing lactation support also benefits the employer; it is associated with higher employee retention, better morale, reduced absences, fewer healthcare visits, and lower costs (Carothers, et al., 2010; Yeon, et al., 2011).

The population of women becoming employed during their childbearing years is continuing to grow. Women with children are the fastest growing segment of the work force. As of 2018, 71.5% of women with children are in the work force, and 56% of women with infants under one year of age are in the work force within the U.S. (DOL Women's Bureau, 2021). Despite the high percentage of women with children in the workforce, insufficient break time, inadequate facilities for pumping and storing milk, lack of resources that promote breastfeeding, and lack of support from employers and colleagues are among the challenges faced by employed mothers who want to continue breastfeeding (Office of the Surgeon General, 2011).

Currently, federal law requires employers to provide reasonable break time for an employee to express breast milk for her nursing child for one year after the child's birth (US DOL, 2010). NY's Labor Law, Section 206-c, requires private and public employers, regardless of the size or nature of the business to provide nursing employees (salaried or hourly) with break time to pump breast milk at work for up to three years after the child's birth (NYSDOL, 2015; NYSDOL, 2021).

However, some NY employers may not be in full compliance with the federal and/or NY laws (Bozlak, et al., 2022). Employees working at low-wage or service jobs may not receive the same accommodations, flexibility, and support (Yeon K, et al., 2011). Jobs employing low-income women, including childcare, home healthcare, and service industries (e.g., food or retail) are also less likely to have flexible schedules for expressing milk, workplace lactation policies, or other supports for expressing milk at work. Women in these industries report the lowest rates of breastfeeding initiation and duration (Carothers, 2022; Lauer, 2019).

Studies find that working women tend to breastfeed for a shorter time period than do non-working mothers. The experts/stakeholders report that pumping breastmilk at work often creates a low milk supply issue for the breastfeeding individual, that can ultimately lead to the supplementation with formula (Bozlak, et al., 2022).

Breastfeeding duration, however, is also impacted by type of work. In one study, women working in professional/managerial positions breastfed nearly as long as non-working mothers (7.3 vs. 7.4 months, respectively), but much longer compared to mothers in service/labor occupations (5.9 months) (Whitley, et al., 2021).

The workplace may be the primary barrier to continued breastfeeding, especially for low-income employees or those working at small business, due to the lack of support or lack of accommodations. Employees who experience challenges in accessing resources or who feel uncomfortable pumping at work frequently do not ask for accommodations for fear of losing their job (Lauer, et al., 2019).

Specifically, if breastfeeding individuals do not expect to have workplace support, do not have jobs that accommodate flexibility or provide adequate space to pump, or believe it will impact their milk supply, or do not want to pump, they will often decide to not even initiate breastfeeding.

Several experts suggested that lack of support and accommodations in the workplace may be a primary barrier to continued breastfeeding. Some women who expect to return to work quickly and/or anticipate there will be hassles in expressing breastmilk at work just decide to NOT breastfeed at all (Bozlak, et al., 2022). Individuals who feel uncomfortable pumping at work may not want to confront their supervisor or administrator or ask for accommodations for fear of losing their job. They may just decide not to breastfeed.

The experts/stakeholders discussed that lack of support and accommodations for breastfeeding are more common in certain jobs and locations. Individuals working in schools as well as service industries, such as fast-food workers, grocery clerks, transportation employees, and police officers, often don't have supportive workplaces.

Many NY experts recommended changes to existing policies to ensure laws that protect expression of breastmilk in the workplace are monitored and enforced, and that it is not the responsibility of the breastfeeding individual to ensure their employer complies, or to file a complaint.

In December 2022, amendments to NY's Labor Law, Section 206-c, were passed and signed. The amendments strengthened the law, Nursing Employees in the Workplace, providing details about the lactation space and specificity about what should be available in the lactation room/location. It further stated that the employee should be allowed to take time to express breast milk when she needs to up to three years following the child's birth, and that employers can not retaliate against employees who exercise these rights. The law also requires the NY Labor Commissioner develop and issue a written policy, which employers must provide to all employees upon hire, annually thereafter, and upon return to work following the birth of a child.

The federal bill Providing Urgent Maternal Protections (PUMP) for Nursing Mothers Act (PUMP Act), was passed and signed in December 2022. The PUMP Act will protect many mothers not covered by the 2010 federal Break Time for Nursing Mothers law. It will expand coverage from only wage and hourly workers to include salaried workers, such as managers, teachers, and those working in nursing, agriculture, transportation, or as home care workers. The PUMP Act covers employers of all sizes and reduces the number of employers who can appeal due to "undue hardship;" this applies to employers with fewer than 25 employees (instead of 50). The PUMP Act also increases the time period when employers must provide break time for an employee to express breast milk from one year to two years after the child's birth.

Strategy

1. **Educate employers to increase their awareness and understanding of NY's amended Labor Law, Nursing Employees in the Workplace, and the federal PUMP Act and their responsibilities to make a lactation room/space available, to inform their employees of their rights, and to not discriminate against employees who exercise their rights to express breast milk.**
2. **Educate employers, especially those at small businesses (<50 employees), about the value to businesses of supporting nursing employees in the workplace, such as providing the Business Case for Breastfeeding (Office of Women's Health, 2021).**
3. **Support employers' implementation and monitoring of lactation support and accommodations in the workplace and their provision of NY's written workplace lactation policy to all employees annually and upon return to work following the birth of a child.**
4. **Educate employees, healthcare providers, public health professionals and other staff who interact with pregnant or nursing people about NY's amended Labor law, Nursing Employees in the Workplace and the federal PUMP Act.** Educate them about employees' rights and protections afforded by these laws, how to communicate with employers and, if necessary, file complaints if employers don't comply with these laws.
5. **Increase employer and employee awareness of other NYS programs providing paid and unpaid leave benefits, including NYS's Paid Sick Leave, NYS Paid Family Leave, and NYS Temporary Disability programs.** Support changes to allow these benefits to be more flexible and used for breastfeeding/chestfeeding or expressing milk. Consider reducing the minimum increment that can be used for NY Paid Sick Leave or expand the permitted uses for NY Paid Sick Leave to allow use for breastfeeding/chestfeeding or expressing breastmilk at work.

Potential Reach

NYS Labor Law, Nursing Employees in the Workplace, applies to all private and public employers and employees in NY. These efforts would help ensure all nursing employees are supported in the workplace and have the time, place, accommodations, and support needed to regularly express breastmilk, if desired, for up to three years following the birth of an infant.

Expanding the reach would impact pregnant and lactating employees whose employers are less supportive and workplaces that are less accommodating. Small businesses and certain occupations, such as service industry, fast food establishments, schools, and transportation workers might be more impacted.

Allowing employees to use paid sick leave for breastfeeding/chestfeeding or expressing breastmilk, to protects parents from losing pay, if they are not able to expand their workday to make up the time used to breastfeed or express milk. Ensuring all employees have access to earned paid sick leave is important to help reduce disparities.

Financial Considerations

There are some costs associated with increasing educational efforts for employees and employers. There are also some costs associated with providing lactation support and equipping lactating rooms in the workplace. There may also be some costs associated with efforts to monitor compliance and increase enforcement.

Studies suggest that businesses benefit when employers support nursing employees (Office of Women's Health, 2021). The payoff can be significant, with employer cost savings from: more satisfied, loyal employees; greater retention of employees; reduction in sick time taken by employees for children's illnesses; and lower health care and insurance costs.

6. Increase equity and utilization of paid leave for pregnancy and newborn bonding

Background/Rationale

In the U.S., most women work outside the home, including 70% of women with children younger than 18 years. Among pregnant women, 56% work full time during pregnancy, and 82% of nulliparous women continue to work until the month before their due dates. Most women (73%) return to work within six months after giving birth. While working during pregnancy is generally safe, there is evidence of significant health benefits when pregnant people can take time off before and after birth. For pregnant women, the major employment issues include pregnancy-related discrimination, work accommodations that allow continued employment, job-protected leave, and wage replacement while on leave (ACOG, 2018). Paid maternity or family leave is associated with higher breastfeeding rates and longer duration (Bartel, et al., 2016; Dennison, et al., 2022).

National studies find that higher-income workers are more likely to receive paid maternity leave benefits (39%), such as paid family leave, but as of 2017, only 21% of the U.S. workforce had access to paid maternity leave while 39% of high-income workers across the U.S. were eligible (DHHS 2011; 1,000 Days 2021). Studies find that Black women frequently do not have access to paid leave, cannot afford to take time without a paycheck, and face financial pressures to return to work earlier (Deubel, 2019; Gyamfi, 2021; Hemingway, 2021; Johnson, 2021).

The NYS Paid Family Leave (PFL) Law provides job protection, continued health Insurance, and protection from discrimination or retaliation. After NY's PFL law went into effect, the percentage of women taking paid leave after childbirth increased 15% overall, with greater increases among Black women and Hispanic women compared to White women, which significantly reduced racial/ethnic disparities in breastfeeding initiation and duration (Dennison, et al., 2022).

Use of paid maternity or PFL is consistently associated with improved infant and maternal health, fewer postpartum depressive symptoms, increased breastfeeding success and duration, and reduced family stress. Men are less likely than women to use PFL or parental leave for bonding with a newborn and they take shorter leaves. Yet, men who take PFL for bonding tend to have stronger infant bonding and more involvement in their child's life. Employees who work for smaller businesses (with fewer than 50 employees) use PFL at approximately half the rate as those at larger businesses (more than 50 employees) (Dennison, et al., 2022). NY advocates and stakeholders report that utilization of NY PFL benefits is lower among part-time workers and/or those working in lower wage jobs, especially service-based jobs (Bozlak, et al., 2022).

NY is one of five U.S. states that requires employers to provide temporary disability insurance (TDI) benefits (NYSWCB, 2022). People who are pregnant, may be eligible for TDI benefits for four weeks before their due date and six weeks after giving birth (eight weeks for Cesarean section delivery). One cannot collect NY TDI benefits at the same time as NY PFL benefits, but the benefits can run sequentially.

In CA, the state's TDI program was associated with a 3.2% overall reduction in infants with low-birth weight (Stearns J, 2015). The authors report that for those who took leave prior to delivery (i.e., the treatment-on-the-treated effect), there was a 10% reduction in low-birth weight infants, with a greater impact among unmarried women and Black women. Another study among women working in Southern CA found that those who took up to four weeks of leave prior to delivery, compared to those who did not take leave, had nearly four times lower odds of Cesarean delivery, after adjusting for covariates (OR, 0.27; 95% confidence interval, 0.08–0.94) (Guendelman, et al., 2009). In CA, the weekly amount paid for leave is the same whether using TDI or PFL benefits.

In contrast, NY's TDI benefit is paid at 50% of one's average weekly wage (AWW) for the last eight weeks worked, capped at a maximum benefit of $170 per week (WCL §204). In 2022, the NY PFL benefit provided up to 12 weeks of job-protected, paid time off, paid at 67% of one's average weekly wage (AWW) for the last eight weeks worked, with a maximum benefit cap of 67% of the Statewide AWW, which in 2022 is $1,068.36 per week. In 2018, NY PFL provided up to eight weeks of job-protected, paid at 50% of one's AWW, with a maximum benefit cap of 5% of the Statewide AWW, or $652.96 per week. In 2018, 61.7% of women who claimed NY PFL for bonding also claimed NY's TDI benefit (NY PFL, 2022; Dennison, Ncube, et al., 2022). Advocates and stakeholders have recommended that NY increase both the percentage of wage replacement and the benefit cap for NY's TDI program to be more in line with NY PFL (Better Balance, 2002).

NY experts reported that returning to work is a key barrier to continue breastfeeding (Bozlak, et al., 2022). The experts/stakeholders strongly emphasized that returning to work is a major barrier to continuing to breastfeed and is often cited as a reason that parents stop breastfeeding. Individuals who experience financial insecurity often must return to work early (i.e., before the 12 weeks paid leave time benefit ends), which does not allow them sufficient time to establish breastfeeding. Analysis of CA PFL data finds that eligible workers with very low wages are far less likely to utilize PFL (Shumaker, 2022). Those earning between $80,000 and $99,000 year were four times more likely to utilize PFL benefits than workers earning less than $20,000 per year. In response, some are advocating that lower income workers should receive a greater percentage of wage replacement, e.g., up to 90% wage replacement (CA Joint Budget Letter, 2021; Better Balance, 2022).

NY experts and stakeholders acknowledged the importance of policy interventions to address breastfeeding disparities. They recognized the importance and beneficial impact that NY PFL has had on breastfeeding. However, they recommended that NY PFL should be enhanced to include a longer time period and that the benefit be improved by increasing the percentage reimbursement and raising the maximum cap. For people, especially those with lower incomes, the partial reimbursement from NY PFL may be insufficient, and they need to return to work early "for financial reasons." The very low maximum benefit of $170 per week for NY's TDI is especially difficult for lower income families (NYSWCB, 2023). They also expressed concerns that some individuals may be ineligible for PFL because their employer does not provide NY PFL (e.g., some public employers) or the person hasn't worked enough days or hours. This may be especially true for individuals with part-time jobs and/or multiple jobs, who might not have any paid leave benefits at all.

Strategy

NY Paid Family Leave (PFL)

1. Increase education of employees about the NY PFL program, and its availability to both parents to allow them to bond with their child within one year after their child's birth, adoption, or foster placement.
2. Increase education of employers about the NY PFL program. Provide additional outreach to smaller businesses (i.e., fewer than 50 employees) to understand the reasons for lower utilization, and to increase their awareness of the benefits.
3. Normalize the use of PFL and increase the acceptance, use, and duration of PFL by both parents (especially parental leave for bonding by the non-birth parent).
4. Increase the percentage of wage replacement for lower-income individuals (e.g., those making less than $20,000 per year, as in CA).
5. Increase the flexibility in using PFL by changing the minimum time for which PFL can be used from one full day to half day increments.

NY Temporary Disability Insurance (TDI) Program

1. Increase education to employers about the TDI program, and its availability and benefits for pregnant people and immediately postpartum.
2. Increase education to employees about the TDI program benefits and availability (i.e., TDI can be taken during the four weeks prior to one's due date and the six weeks after giving birth vaginally, or eight weeks following a birth by Cesarean section. (NYSWCB, 2022).
3. Raise the percentage of wage replacement and maximum benefit paid under NY's TDI program to levels equal to the NY PFL benefit (i.e., increase the wage replacement from 50% to 67% of an employee's Average Weekly Wage (AWW) and the maximum benefit (cap) to 67% of the NY State AWW).

Potential Reach

These changes to TDI benefit would impact all pregnant and postpartum people in NY, as well employees using the benefit for other covered temporary conditions or disabilities. Allowing the Paid Family Leave benefit to be used in half day increments would help new parents returning from bonding, and those caring for seriously ill relatives to gradually return to work.

Financial Considerations

Increasing utilization of NY's PFL benefits by those who are eligible would result in somewhat higher costs for all employees. Increased benefits for NY's TDI program would result in increased costs for both employers and employees as the insurance costs are paid by both. Some businesses, business associations, and employees may object to the increase in costs of TDI insurance associated with increasing NY's TDI benefits. However, the maximum NY TDI benefit, frozen for a quarter century, is long overdue for an increase. The NY TDI benefit lags dramatically behind every other state with TDI (e.g., the maximum weekly national TDI benefit averages $742 per week, which is much higher than NY's maximum benefit of $170 per week). Some employers already pay for enhanced TDI plans because of the inadequacy of state-required benefits, so the change could yield these employers cost savings.

III. REFERENCES

Academy of Lactation Policy and Practice, Statistical Report: Number of Current Certified Lactation Counselors in the U.S. & Territories. 2022a. Accessed October 12, 2023. Statistical Report (alpp.org).

Academy of Lactation Policy and Practice. Demographic Report of Current CLCs in the U.S. & Territories. 2022b. Accessed October 12, 2023. CLC_Demographics.pdf (alpp.org).

Agency for Healthcare Research and Quality (AHRQ). National healthcare quality and disparities report.2018. Accessed October 12, 2023. https://www.ahrq.gov/research/findings/nhqrdr/nhqdr18/index.html.

Ahsan S, Jain S, Walters D. The global cost of not breastfeeding. *Int J Nutr* 2022. Accessed October 12, 2023. https://www.nutritionintl.org/wp-content/uploads/2022/07/CONBF-Global-Brief-July-28-2022-FINAL.pd.

Alberta Health Services. The socio-ecological model in the breastfeeding context. A visual framework of common factors that may influence breastfeeding. 2019. Accessed October 12, 2023. https://www.albertahealthservices.ca/assets/info/hp/hcf/if-hp-hcf-bf-socioecological-model-printable.pdf.

Alive & Thrive. The new cost of not breastfeeding tool. 2022. Accessed October 12, 2023. The new Cost of Not Breastfeeding tool (aliveandthrive.org).

American Academy of Family Physicians (AAFP). Breastfeeding, family physicians supporting (position paper). 2008. Accessed October 12, 2023. https://www.aafp.org/about/policies/all/breastfeeding-position-paper.html.

American Academy of Pediatrics (AAP, 2022a). Breastfeeding and the use of human milk. Policy Statement. *Pediatrics*. 2022; e2022057988. Accessed October 12, 2023. https://publications.aap.org/pediatrics/article/doi/10.1542/peds.2022-057988/188347/Breastfeeding-and-the-Use-of-Human-Milk.

American Academy of Pediatrics (AAP, 2022b). Breastfeeding and the use of human milk. Technical Report. *Pediatrics*. 2022; e2022057989. Accessed CONBF-Global-Brief-July-28-2022-FINAL.pdf (nutritionintl.org). https://publications.aap.org/pediatrics/article/doi/10.1542/peds.2022-057989/188348/Breastfeeding-and-the-Use-of-Human-Milk.

American College of Obstetricians and Gynecologists (ACOG), Committee on Obstetric Practice; Breastfeeding Expert Work Group. Committee opinion. No. 658: Optimizing support for breastfeeding as part of obstetric practice. *Obstet Gynecol* 2016;127: e86-92. 2016;127(2): e86-e92. doi:10.1097/AOG.0000000000001318.

American College of Obstetricians and Gynecologists (ACOG). Breastfeeding your baby. FAQs. Updated May 2021. Accessed October 12, 2023. https://www.acog.org/womens-health/faqs/breastfeeding-your-baby.

American College of Obstetricians and Gynecologists (ACOG), Committee Opinion. Employment Considerations During Pregnancy and the Postpartum Period. Number 733. 2018. Accessed October 12, 2023. Employment Considerations During Pregnancy and the Postpartum Period | ACOG.

American Public Health Association (APHA). Racism is a public health crisis. 2021. Accessed October 12, 2023. https://www.apha.org/Topics-and-Issues/Health-Equity/Racism-and-health/Racism-Declarations.

Arnold C, Rodriguez A, Spier P. Providing Breastfeeding Support: Model Hospital Policy Recommendations. 2022. California Department of Public Health. Accessed October 12, 2023. https://www.cdph.ca.gov/Programs/CFH/DMCAH/Breastfeeding/Pages/Hospital-Policy-Recommendations.aspx.

Baby-Friendly USA. About us: The baby-friendly hospital initiative. 2021. Updated 2023. Accessed October 12, 2023. https://www.babyfriendlyusa.org/about/.

Baby-Friendly USA. Baby-Friendly facilities A-Z and by state. Accessed October 12, 2023. Baby-Friendly USA - Baby-Friendly Facilities A-Z and by State (babyfriendlyusa.org).

Baby-Friendly USA. Designation Process: Getting Started. 2022. Accessed October 12, 2023. https://www.babyfriendlyusa.org/for-facilities/designation-process/#.

Baby-Friendly USA. 10 Steps and international code. The international code of marketing of breast-milk substitutes. 2012. Accessed October 12, 2023. https://www.babyfriendlyusa.org/for-facilities/practice-guidelines/10-steps-and-international-code/.

Bailey ZD, Krieger N, Agénor M, et al. Structural racism and health inequities in the USA: evidence and interventions. 2017; 389:1453–1463. Accessed October 12, 2023. https://www.hivlawandpolicy.org/sites/default/files/Structural%20racism%20and%20health%20inequities%20in%20the%20USA_Evidence%20and%20interventions.pdf.

Bartel AP, Baum C, Rossin-Slater M, Ruhm C, Waldfogel J. California's paid family leave law: Lessons from the first decade. U.S. Department of Labor, Office of the Assistant Secretary for Policy. 2016. Accessed October 12, 2023. https://www.dol.gov/agencies/oasp/evaluation/WorkerLeaveStudy/WL-California-Paid-Family-Leave-Law.

Bartel AP, Kim S, Nam J, Rossin-Slater M, Ruhm C, Waldfogel J. Racial and ethnic disparities in access to and use of paid family and medical leave: evidence from four nationally representative datasets. Monthly Labor Review, U.S. Bureau of Labor Statistics, January 2019, https://doi.org/ 10.21916/mlr.2019.2. Accessed August 7, 2022.

Bartick M, Reinhold A. The burden of suboptimal breastfeeding in the United States: a pediatric cost analysis. *Pediatrics*. 2010;125(5): e1048-e1056. Accessed June 22, 2022.

Bartick MC, Schwartz EB, Green BD, et al. Suboptimal breastfeeding in the United States: maternal and pediatric health outcomes and costs. *Matern Child Nutr*. 2017;13(1): e12366.

Bartick M, Stehel EK, Calhoun SL, et al. Academy of breastfeeding medicine position statement and guideline: Infant feeding and lactation-related language and gender. *Breastfeed Med.* 2021;16(8):587-590. Accessed October 12, 2023. https://www.liebertpub.com/doi/10.1089/bfm.2021.29188.abm?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub++0pubmed.

Beauregard JL, Hamner HC, Chen, J, et al. Racial disparities in breastfeeding initiation and duration among U.S. infants born in 2015. *MMWR Morb Mortal Wkly Rep* 2019;68(34):745-748. Accessed October 12, 2023. https://www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm6834a3-H.pdf.

Beauregard JL, Nelson JM, Li R, Perrine CG, Hamner HC. Maternity care practices and breastfeeding intentions at one month among low-income women. *Pediatrics*. 2022;149(4): e2021052561.Accessed October 12, 2023. https://publications.aap.org/pediatrics/article/149/4/e2021052561/185377/Maternity-Care-Practices-and-Breastfeeding.

Blue Cross and Blue Shield of Mississippi (BCBSMS). Maternity Quality Model. Part 3 – Baby-Friendly Hospital Designation. 2019. Accessed October 12, 2023. https://cheerequity.org/cheer-champions/champion-of-the-week-blue-cross-blue-shield-of-mississippi/.

Bonuck K, Stuebe A, Barnett J, et al. Effect of primary care intervention on breastfeeding duration and intensity. *Am J Public Health*. 2014;104:S119–S127. doi:10.2105/ AJPH.2013.301360.

Bozlak C, Ruland L, Eskew B. New York State (NYS) Breastfeeding Disparities Qualitative Research Study Report. University at Albany School of Public Health, 2022.

Brown A. Breastfeeding as a public health responsibility: a review of the evidence. *J Hum Nutr Diet*. 2017;30(6):759-770.

Burtle A, Bezruchka S. Population health and paid parental leave: what the United States can learn from two decades of research. *Healthcare*. 2016;4(2):30. Accessed October 12, 2023. https://www.mdpi.com/2227-9032/4/2/30/htm.

Butler M, Allen JA, Hoskins-Wroten J, et al. Structural racism and barriers to breastfeeding on Chicagoland's south side. 2021. *Breastfeed Med*. 2012;16(2):112–115.

California's Hospital Infant Feeding Act, California Health & Safety Codes §123367, Accessed October 12, 2023. https://california.public.law/codes/ca_health_and_safety_code_section_123367.

California (CA) Joint Budget Request Letter. Accessed October 12, 2023. Budget Request Protect and Increase Wage Replacement (5.24) (ca.gov).

Castrucci BC, Hoover KL, Lim S, Maus KC. A comparison of breastfeeding rates in an urban birth cohort among women delivering infants at hospitals that employ and do not employ lactation consultants. *J Public Health Manag Pract*. 2006;12(6):578-585. doi:10.1097/00124784-200611000-00012.

Centers for Disease Control and Prevention (CDC). Breastfeeding initiation and duration at 4 weeks, (Pregnancy Risk Assessment Monitoring System) PRAMS. 2015. Accessed June 22, 2022. https://www.cdc.gov/prams/pdf/snapshot-report/breastfeeding.pdf.

Centers for Diseases Control and Prevention (CDC). Breastfeeding Report Card, United States, 2022. Accessed October 12, 2023. Breastfeeding Report Card United States, 2022 (cdc.gov).

Centers for Diseases Control and Prevention (CDC). Contraindications to Breastfeeding or Feeding Expressed Breast Milk to Infants. Updated May 31, 2023. Accessed January 22, 2024. https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/contraindications-to-breastfeeding.html.

Centers for Disease Control and Prevention (CDC). Hospital-based Quality Improvement Collaborative to Improve Maternity Care Practices Supportive of Breastfeeding. Solicitation # CDC-RFA-DP-23-0018. Accessed October 12, 2023. https://apply07.grants.gov/apply/opportunities/instructions/PKG00279355-instructions.pdf.

Centers for Disease Control and Prevention (CDC). Impact of racism on our nation's health. CDC.gov Updated April 8, 2021. Accessed October 12, 2023. https://www.cdc.gov/minorityhealth/racism-disparities/impact-of-racism.html.

Centers for Diseases Control and Prevention (CDC). National Immunization Survey (NIS). Atlanta, GA: U.S. Department of Health and Human Services. Accessed October 12, 2023. https://www.cdc.gov/vaccines/imz-managers/nis/about.html.

Centers for Disease Control and Prevention (CDC). Physician Education and Training to Support Breastfeeding. Assessed October 12, 2023. Physician Education and Training to Support Breastfeeding | Breastfeeding | CDC.

Centers for Disease Control and Prevention (CDC). Reports and Toolkits: The CDC guide to strategies to support breastfeeding mothers and babies. U.S. Department of Health and Human Services; 2013. Accessed October 12, 2023. https://www.cdc.gov/breastfeeding/resources/toolkits.html.

Centers for Diseases Control and Prevention (CDC). The U.S. Public Health Service Syphilis Study at Tuskegee. Accessed October 12, 2023. 2023. Tuskegee Study and Health Benefit Program - CDC - OS.

Chapman DJ, Morel K, Anderson AK, Damio G, Pérez-Escamilla R. Breastfeeding peer counseling: from efficacy through scale-up. *J Hum Lact*. 2010;26(3):314-326. *Adv Nutr*. 2012;3(1):95-104.Accessed October 12, 2023. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3262621/.

Chetwynd E, Meyer AM, Stuebe A, Costello R, Labbok M. Recognition of international Board-Certified Lactation Consultants by health insurance providers in the United States: results of a national survey of lactation consultants. *J Hum Lact*. 2013;29(4):517-526. Accessed October 12, 2023. https://doi.org/10.1177/0890334413499974.

Chetwynd EM, Wasser HM, Poole C. Breastfeeding support interventions by international board-certified lactation consultants: a systemic review and meta-analysis. *J Hum Lact*. 2019;35(3):424-440. Accessed October 12, 2023. https://doi.org/10.1177%2F0890334419851482.

Chiang KV, Li R, Anstey EH, Perrine CG. Racial and ethnic disparities in breastfeeding initiation – United States, 2019. *Morb Mortal Wkly Rep*. 2021;70:769–774. Accessed October 12, 2023. https://www.cdc.gov/mmwr/volumes/70/wr/mm7021a1.htm.

Chowdhury R, Sinha B, Sankar MJ, et al. Breastfeeding and maternal health outcomes: a systematic review and meta-analysis. *Acta Paediatr*. 2015 Dec;104(467):96-113. Accessed October 12, 2023. https://onlinelibrary.wiley.com/doi/epdf/10.1111/apa.13102.

Cordero SH, Perez-Escamilla R. What will it take to increase breastfeeding? (Editorial) *Matern Child Nutr*. 2022; 8 Suppl 3):e13371. doi: 10.1111/mcn.13371. Accessed October 12, 2023. What will it take to increase breastfeeding? - Hernández-Cordero - 2022 - Maternal & Child Nutrition - Wiley Online Library.

D'Angelo D, Le B, O'Neil ME, et al. Patterns of health insurance coverage around the time of pregnancy among women with live-born infants — Pregnancy Risk Assessment Monitoring System (PRAMS), 29 States. *MMWR Morb Mortal Wkly Rep*. 2015;64(SS04);1-19. Accessed October 12, 2023. https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6404a1.htm.

DelliFraine J, Langabeer J, Williams JF, et al. Cost comparison of baby-friendly and non-baby-friendly hospitals in the United States. Pediatrics 2011;127(4):e989-94. doi: 10.1542/peds.2010-1591. Accessed October 12, 2023. Cost Comparison of Baby-friendly and Non–Baby-friendly Hospitals in the United States | Pediatrics | American Academy of Pediatrics (aap.org).

Dennison BA, FitzPatrick E, Zhang W, Nguyen T. New York state paid family leave law associated with increased breastfeeding among Black women. *Breastfeed Med*. 2022a;17(7):618-626. doi.org/10.1089/bfm.2022.0015. Accessed October 12, 2023. New York State Paid Family Leave Law Associated with Increased Breastfeeding Among Black Women | Breastfeeding Medicine (liebertpub.com).

Dennison BA, Ncube B, Nguyen T. First-year enrollment and utilization of New York state paid family leave: 2018. *J Public Health Manag Pract*. 2022b; 28(5):525-535. doi: 10.1097/PHH.0000000000001540 Accessed October 12, 2023. https://pubmed.ncbi.nlm.nih.gov/35703304/.

Dennison BA, Nguyen TQ, Gregg DJ, et al. The impact of hospital resources and availability of professional lactation support on maternity care: Results of breastfeeding surveys 2009–2014. *Breastfeed Med*. 2016;11(9):479-486. doi: 10.1089/bfm.2016.0072.

Deubel TF, Miller EM, Hernandez I, Boyer M, Louis-Jacques A. Perceptions, and practices of infant feeding among African American women. *Ecol Food Nutr*. 2019;58(4):301-316. doi:10.1080/03670244.2019.1598977.

DeVane-Johnson S, Giscombe CW, Williams R 2nd, Fogel C, Thoyre S. A qualitative study of social, cultural, and historical influences on African American women's infant-feeding practices. *J Perinat Educ*. 2018;27(2):71-85. Accessed October 12, 2023. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6388681/.

Dodgson JE. Lactation-specific certifications: A comparison of independently accredited Credentials. *J Human Lactation*. 2020;36(1):119–125. doi.org/10.1177/0890334419888217.

Edmunds LS, Lee FF, Eldridge JD, Sekhobo JP. Outcome evaluation of the you can do it initiative to promote exclusive breastfeeding among women enrolled in the New York State WIC program by race/ethnicity. *J Nutr Educ Behav*. 2017;49(7 Suppl 2): S162-S168.e1. Accessed October 12, 2023. https://www.jneb.org/article/S1499-4046(17)30620-6/fulltext.

Eidelman AI, Schanler RJ, Johnson M, et al. Breastfeeding and the use of human milk. *Pediatrics*. 2012;129(3) e827-e84. Accessed October 12, 2023. https://publications.aap.org/pediatrics/article/129/3/e827/31785/Breastfeeding-and-the-Use-of-Human-Milk?autologincheck=redirected.

Eldridge JD, Hartnett JO, Lee FF, Sekhobo JP, Edmunds LS. Implementing a WIC-based intervention to promote exclusive breastfeeding: challenges, facilitators, and adaptive strategies. *J Nutr Educ Behav*. 2017;49(7 Suppl 2):S177-S185.e1. Accessed October 12, 2023. https://www.jneb.org/article/S1499-4046(17)30223-3/fulltext.

Eligibility Team. State Disability Insurance, overview. January 16, 2017. Accessed June 16, 2022. https://eligibility.com/state-disability-insurance.

Feltner C, Weber RP, Stuebe A, Grodensky CA, Orr C, Viswanathan M. Breastfeeding programs and policies, breastfeeding uptake, and maternal health outcomes in developed countries. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); July 2018. Accessed October 12, 2023. https://effectivehealthcare.ahrq.gov/products/breastfeeding/research.

Garner CD, Ratcliff SL, Thornburg ll, et al. Discontinuity of breastfeeding care: “There's no captain of the ship.” *Breastfeed Med*. 2016;11(1):32–39. doi:10.1089/bfm.2015.0142. Accessed October 12, 2023. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4742991/.

Gray KJ, Bordt EA, Atyeo C, et al. Coronavirus disease 2019 vaccine response in pregnant and lactating women: a cohort study. *Am J Obstet Gynecol*. 2021;225(3): 303.e1-303.e17. doi: 10.1016/j.ajog.2021.03.023.

Green VL, Killings NL, Clare CA. The historical, psychosocial, and cultural context of breastfeeding in the African American community. *Breastfeed Med*. 2021;16(2):116-120. Accessed October 12, 2023. https://doi.org/10.1089/bfm.2020.0316.

Griffin LB, Ding JJ, Has P, et al. Lactation Consultation by an International Board Certified Lactation Consultant improves breastfeeding rates for mothers with gestational Diabetes Mellitus. *J Human Lactation*. 202238(10:141-147.

Guendelman, et al., Juggling work and breastfeeding: effects of maternity leave and occupational characteristics. *Pediatrics*. 2009;123(1):e38-46. doi: 10.1542/peds.2008-2244.

Gyamfi A, O'Neill B, Henderson WA, Lucas R. Black/African American breastfeeding experience: cultural, sociological, and health dimensions through an equity Lens. *Breastfeed Med*. 2021;16(2):103-111. doi:10.1089/bfm.2020.0312.

Hawkins SS, Dow-Fleisner S, Noble A. Breastfeeding and the Affordable Care Act. *Pediatr Clin North Am*. 2015;62(5):1071-1091. doi:10.1016/j.pcl.2015.05.002.

Hawkins SS, Horvath K, Noble A, Baum CF. ACA and Medicaid expansion increased breast pump claims and breastfeeding for women with public and private insurance. *Women's Health Issues*. 2022; 32(2):114-121.

Hemingway S, Forson-Dare Z, Ebeling M, Taylor SN. Racial disparities in sustaining breastfeeding in a baby-friendly designated Southeastern United States hospital: an opportunity to investigate systemic racism. *Breastfeed Med*. 2021;16(2):150-155. doi:10.1089/bfm.2020.0306.

Henry Ford College. HFC establishes first Lactation Consultant Program partnership in partnership with Michigan. 2019. Accessed October 17, 2023. HFC establishes first Lactation Consultant Program partnership in Michigan | Henry Ford College (hfcc.edu).

Herold RA, Bonuck K. Medicaid IBCLC service coverage following the Affordable Care Act and the Center for Medicare and Medicaid Services Update. *J Hum Lact*. 2016;32(1):89-94. doi:10.1177/0890334415599164.

Howell EA, Egorova N, Balbierz A, Zeitlin J, Hebert PL. Black-White differences in severe maternal morbidity and site of care. *Am J Obstet Gynecol*. 2016;214(1):122.e1-122.e1227. doi:10.1016/j.ajog.2015.08.019.

Huang R, Yang M. Paid maternity leave and breastfeeding practice before and after California's implementation of the nation's first paid family leave program. *Econ Hum Biol*. 2015;16:45-59. doi:10.1016/j.ehb.2013.12.009.

International Board of Lactation Consultant Examiners (IBLCE). IBCLC Pathway 2 Accredited Lactation Academic Programmes. Accessed October 12, 2023. Pathway 2: Accredited Lactation Academic Programmes – IBLCE.

International Board of Lactation Examiners® (IBLCE®). Scope of Practice for International Board Certified Lactation Consultant® (IBCLC®) Certificants. 2018. Accessed October 12, 2023. Microsoft Word - FINAL IBCLC SOP March 2008.doc (iblce.org).

International Board of Lactation Consultant Examiners (IBLCE). Statistical report. 2022. Accessed October 12, 2023. https://iblce.org/wp-content/uploads/2022/03/2022_March_25_IBCLCs_US__Territories.pdf.

Ip S, Chung M, Raman G, et al. Breastfeeding and maternal and infant health outcomes in developed countries. *Evid Rep Technol Assess (Full Rep)*. 2007 Apr (153):1-186. PMID: 17764214.

Jeglier B, Ruowei L, Grossniklaus D, et al. Institutional cost of pursuing the Baby-Friendly Hospital Initiative designation in the United States. (Abstract). *Am Public Health Assoc Annual Meeting and Expo*. 2019; Nov.

Johnson AM, Kirk R, Rooks AJ, Muzik M. Enhancing breastfeeding through healthcare support: results from a focus group study of African American mothers. *Matern Child Health J.* 2016;20(Suppl 1):92-102. doi:10.1007/s10995-016-2085-y .

Johnson C. Smith University, Lactation Program. 2022. Accessed October 17, 2023. Lactation Program | Johnson C. Smith University (jcsu.edu).

Jou J, Kozhimannil KB, Abraham JM, Blewett LA, McGovern PM. Paid Maternity Leave in the United States: Associations with Maternal and Infant Health. *Matern Child Health J*. 2018;22(2):216-225. doi:10.1007/s10995-017-2393-x.

Kim SK, Park S, Oh J, Kim J, Ahn S. Interventions promoting exclusive breastfeeding up to six months after birth: A systematic review and meta-analysis of randomized controlled trials. 2019 Jan;89:132-137]. *Int J Nurs Stud*. 2018;80:94-105. doi:10.1016/j.ijnurstu.2018.01.004.

Lauer EA, Armenti K, Hennin M, et al. Identifying barriers and supports to breastfeeding in the workplace experienced by mothers in the New Hampshire Special Supplemental Nutrition Program for Women, Infants, and Children utilizing the total worker health framework. *Int J Environ Res Public Health*. 2019;6:1529; doi:10.3390/ijerph16040529.

Lee F, Edmunds LS, Con, X, Sekhobo JP. Trends in breastfeeding among infants enrolled in the special supplementation program for women, infants, and children – New York. *MMWR Morb Mortal Wkly Rep*. 2017. 66(23), 610-614. Accessed October 12, 2023: https://www.cdc.gov/mmwr/volumes/66/wr/mm6623a4.htm?s_cid=mm6623a4_w.

Lee YH, Chang GL, Chang HY. Effects of education and support groups organized by IBCLCs in early postpartum on breastfeeding. *Midwifery*. 2019;75:5-11. doi:10.1016/j.midw.2019.03.023.

Li R, Perrine CG, Anstey EH, Chen J, MacGowan CA, Elam-Evans LD. Breastfeeding trends by race/ethnicity among U.S. children born from 2009 to 2015. *JAMA Pediatr*. 2019;173(12): e193319. doi:10.1001/jamapediatrics.2019.3319.

Li R, Ware J, Chen, et al. Breastfeeding and post-perinatal infant deaths in the United States, a national prospective cohort analysis. *Lancet Reg Health Am*. 2022;5:100094; doi: 10.1016/j.lana.2021.100094.

Lind JN, Perrine CG, Li R, Scanlon KS, Grummer-Strawn LM. Centers for Disease Control and Prevention (CDC). Racial disparities in access to maternity care practices that support breastfeeding - United States, 2011. *MMWR Morb Mortal Wkly Rep*. 2014;63(33):725-728.

Lober A, Harmon D, Thomas-Jackson SC. Position Paper—Professional lactation support staffing in the hospital setting. *Clinical Lactation*. 2021; 2(3):157-158.

Mandal B, Roe BE, Fein SB. The differential effects of full-time and part-time work status on breastfeeding. *Health Policy*. 2010;97(1):79-86. doi:10.1016/j.healthpol.2010.03.006.

McFadden A, Gavine A, Renfrew MJ, et al. Support for healthy breastfeeding mothers with healthy term babies (Review). (February 28, 2017). *Cochrane Database of Systematic Reviews*. Accessed October 12, 2023. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD001141.pub5/full.

McGinnis S, Lee E, Kirkland KK, Miranda-Julian C, Greene R. Let's talk about breastfeeding: the importance of delivering a message in a home visiting program. *Am J Health Promotion*. 2017;32(4):989-996. Accessed October 12, 2023. https://doi.org//10.1177/0890117117723802.

Meek YJ, Nelson JM, Hanley LE, Onyema-Melton N, Wood JK. Landscape analysis of breastfeeding-related physician education in the United States. *Breastfeed Med*. 2020; 15(6):401–411. doi:10.1089/bfm.2019.0263.

Mercier RJ, Burcher TA, Horowitz R, Wolf A. Differences in breastfeeding among Medicaid and commercially insured patients: a retrospective cohort study. *Breastfeed Med*. 2018;13(4): Accessed October 12, 2023. https://doi.org/10.1089/bfm.2017.0228.

Merewood A, Bugg K, Burnham L, et al. Addressing racial inequities in breastfeeding in the Southern United States. *Pediatrics*. 2019;143(2): e20181897. Accessed October 12, 2023. https://doi.org/10.1542/peds.2018-1897.

Merewood A, Burnham L, Berger J, et al. Assessing the impact of a statewide effort to improve breastfeeding rates: A RE-AIM evaluation of CHAMPS in Mississippi (published online ahead of print, 2022 May 4). *Matern Child Nutr*. 2022;e13370. Accessed October 12, 2023. https://doi.org/10.1111/mcn.13370.

Merewood A, Mehta SD, Chamberlain LB, et al. Breastfeeding rates in US Baby-Friendly hospitals: results of a national survey. *Pediatrics*. 2005;116(3):628-634. doi:10.1542/peds.2004-1636.

Merewood A, Philipp BL, Chawla N, et al. The baby-friendly hospital initiative increases breastfeeding rates in a US neonatal intensive care unit. *J Hum Lact*. 2003;19(2):166-171. doi:10.1177/0890334403252475.

Michigan Department of Health and Human Services - WIC. MI-WIC Policy. 1.0 Administration; 1.07G Lactation Consultant. 2018a. Accessed October 12, 2023. 10 (michigan.gov).

Michigan Department of Health and Human Services - WIC. MI-WIC Policy. 1.0 Administration; 107 Local Agency Staffing and Training. 2018b. Accessed October 12, 2023. https://www.michigan.gov/mdhhs/assistance-programs/wic/wic-staff/wicpolicymanual/mi-wic-policy-manual-table-of-contents#4.0.

National Association of County and City Health Officials (NACCHO). Continuity of care in breastfeeding support: a blueprint for communities. Accessed October 12, 2023. https://www.breastfeedingcontinuityofcare.org/blueprint.

National Association of Professional and Peer Lactation Supporters of Color (NAPPLSC). Lactation Training Model. Reclaiming, improving, and sustaining equity. 2018. Accessed October 12, 2023. https://napplsc.wildapricot.org/.

National Conference of State Legislatures (NCSL). State family and medical leave laws. September 9, 2022. Accessed October 12, 2023. https://www.ncsl.org/research/labor-and-employment/state-family-and-medical-leave-laws.aspx.

National WIC Association (NWA). Breastfeeding peer counselors: a successful program that should be expanded. 2019. Accessed October 12, 2023. https://thewichub.org/breastfeeding-peer-counselors-a-successful-wic-program-that-should-be-expanded/.

National WIC Association (NWA). Enhancing breastfeeding support in WIC: The case for increasing the number of International Board-Certified Lactation Consultants. fact sheet. June 2019. Accessed October 12, 2023. https://s3.amazonaws.com/aws.upl/nwica.org/2018-wic-enhancing-breastfeeding-support-in-wic.pdf.

National WIC Association (NWA). WIC's promotion and support of breastfeeding. Making breastfeeding accessible and equitable for the WIC population. 2019. Accessed October 12, 2023. https://s3.amazonaws.com/aws.upl/nwica.org/wics-promotion-and-support-of-breastfeeding.pdf.

New York Codes, Rules and Regulations. Title 10, Volume C, Chapter 4, SubChapter A, Article 2, Part 405, Section 405.21 Perinatal Services. (NYCRR, 2023). Accessed October 12, 2023. Title: Section 405.21 - Perinatal services | New York Codes, Rules and Regulations (ny.gov).

New York State Department of Health (NYSDOH,2022). Health insurance coverage of lactation support and breast pumps. Accessed October 12, 2023. https://www.health.ny.gov/community/pregnancy/breastfeeding/insurance_coverage.htm.

New York State Department of Health (NYSDOH, 2019). Prevention Agenda 2019-2024: New York State's Health Improvement Plan. Accessed October 12, 2023. https://health.ny.gov/prevention/prevention_agenda/2019-2024/.

New York State Department of Health (NYSDOH, 2022c). Pregnancy Risk Assessment Monitoring Survey (PRAMS) 2011. Accessed October 12, 2023. https://apps.health.ny.gov/public/tabvis/PHIG_Public/prams/reports/#annual.

New York State Department of Health (NYSDOH, 2022d). Pregnancy Risk Assessment Monitoring System (PRAMS): Reports. Percentage of women who breastfed for eight weeks or more New York State, 2020. Accessed October 12, 2023. https://apps.health.ny.gov/public/tabvis/PHIG_Public/prams/reports/#annual.

New York State Department of Labor (DOL). Breast milk expression in the workplace. 2023. Accessed October 12, 2023. https://dol.ny.gov/breast-milk-expression-workplace.

New York State Governor Kathy Hochul. Governor Hochul announced Accessed October 12, 2023. https://www.governor.ny.gov/news/governor-hochul-announces-creation-new-york-state-office-strategic-workforce-development.

New York State Medicaid Program. Durable Medical equipment, Prosthetics, Orthotics, and Supplies (DMEPOS). Procedure codes and coverage guidelines. 2022 manual. Page 10-13, 101-103. Accessed October 12, 2023. https://www.emedny.org/ProviderManuals/DME/PDFS/DME_Procedure_Codes.pdf.

New York State Medicaid Program. Medicaid Update. Expanded List of Lactation Services Certifications: Breastfeeding Support Authorized for Payment. Accessed October 12, 2023. New York State Medicaid Update - June 2022 Volume 38 - Number 7 (ny.gov).

New York State Paid Family Leave. Benefits Schedule. Accessed October 12, 2023. Benefits | Paid Family Leave (ny.gov).

New York State Paid Sick Leave. Overview. Accessed October 12, 2023. New York Paid Sick Leave (ny.gov).

New York State Pediatric Nutrition Surveillance System Reports: 2020; 2021. (NYSDOH, 2020; 2021) Accessed October 12, 2023. The Pediatric Nutrition Surveillance System (PedNSS) (ny.gov).

New York State Pregnancy Risk Assessment Monitoring System (NYS PRAMS), Reports 2020. Accessed October 12, 2023. Pregnancy Risk Assessment Monitoring System (ny.gov).

New York State Workers' Compensation Board (NYSWCB). What are Disability Benefits? Accessed October 12, 2023. What are Disability Benefits (ny.gov).

New York State Workers' Compensation Board (NYSWCB). Workers Disability Benefits. Accessed October 12, 2023. Introduction to the Disability Benefits Law (ny.gov).

New York State Workforce Development Initiative. 2023. Accessed October 12, 2023. https://workforcedevelopment.ny.gov/.

New York Statewide Breastfeeding Coalition, Inc. Protect, promote, and support breastfeeding. Laws and legislation. 2018. Accessed October 12, 2023. https://www.nysbreastfeeding.org/laws-and-legislation/.

Nguyen T, Dennison BA, Fan W, Xu C, Birkhead GS. Variation in formula supplementation of breastfed newborn infants in New York hospitals. *Pediatrics*. 2017;140(1): e20170142.Accessed October 12, 2023. https://doi.org/10.1542/peds.2017-0142.

Office of Disease Prevention and Health Promotion (ODPHP). Healthy People 2020. Accessed October 12, 2023. https://wayback.archive-it.org/5774/20211119013628/https://www.healthypeople.gov/node/4865/data_details.

Office of Disease Prevention and Health Promotion (ODPHP). Using law and policy to promote breastfeeding in the United States. Healthypeople.gov 2020, April 14. Accessed October 12, 2023. https://wayback.archive-it.org/5774/20220415185011/https://www.healthypeople.gov/sites/default/files/MICH_ExecutiveSummary_2020.04.14_508.pdf.

Office of the Surgeon General (US); Centers for Disease Control and Prevention (CDC); Office on Women's Health. The Surgeon General's Call to Action to Support Breastfeeding. *The Importance of Breastfeeding*. 2011.

Office on Women's Health, U.S. Department of Health and Human Services. Business Case for Breastfeeding. 2021. Accessed October 17, 2023. Business Case for Breastfeeding | Office on Women's Health (womenshealth.gov).

Ogbuanu C, Glover S, Probst J, Liu J, Hussey J. The effect of maternity leave length and time of return to work on breastfeeding. *Pediatrics*. 2011;127(6): e1414-e1427. doi:10.1542/peds.2010-0459.

O'Reilly SL, O'Brien EC, McGuinness D, et al., Latch On: A protocol for a multi - centre, randomised controlled trial of perinatal support to improve breastfeed in outcomes in women with a raised BMI. *Cont Clin Trials Commun*. 2021;22:100767.

Pac JE, Bartel AP, Ruhm CJ, Waldfogel J. Paid family leave and breastfeeding: evidence from California. *NBER Working Paper Serie*s. 2019:1-47. Accessed October 12, 2023. https://www.nber.org/papers/w25784.

Pérez-Escamilla R, Martinez JL, Segura-Pérez S. Impact of the baby-friendly hospital initiative on breastfeeding and child health outcomes: a systematic review. *Matern Child Nutr*. 2016;12(3):402-417. doi:10.1111/mcn.12294.

Perrine CG, Scanlon KS, Li R, Odom E, Grummer-Strawn LM. Baby-Friendly hospital practices and meeting exclusive breastfeeding intention. *Pediatrics*. 2012;130(1):54-60. doi:10.1542/peds.2011-3633.

Phipps CS, Lorch SA. Choice of hospital as a source of racial/ethnic disparities in neonatal mortality and morbidity rates. *JAMA Pediatr*. 2018;172(3):221-223. doi:10.1001/jamapediatrics.2017.4917.

Practical Nursing. New York LPN to RN/BSN programs. January 2022. Accessed October 12, 2023. https://www.practicalnursing.org/lpn-to-rn/new-york.

Pyles TEH, Umi SA, Madubuonwu S, et al. Breastfeeding sisters that are receiving support: community-based peer support program created for and by women of color. *Breastfeed Med*. 2021;16(2):165-170. Accessed October 12, 2023. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7891194/.

Reaching Our Sisters Everywhere (ROSE). ROSE breastfeeding and equity summit. 2021. Accessed October 12, 2023. http://breastfeedingrose.org/2021/04/28/summit2021/.

Relton C, Strong M, Thomas KJ, et al. Effect of financial incentives on breastfeeding: a cluster randomized clinical trial. *JAMA Pediatr*. 2018;172(2): e174523. Accessed October 12, 2023. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5839268/.

Robinson K, Fial A, Hanson L. Racism, bias, and discrimination as modifiable barriers to breastfeeding for African American women: a scoping review of the literature. *J Midwifery Womens Health*. 2019;64(6):734-742. doi:10.1111/jmwh.13058.

Safon CB, Heeren TC, Kerr SM, et al. Disparities in breastfeeding among U.S. Black mothers: identification of mechanisms. *Breastfeeding Med*. 2021; 16(2), 140–149.Accessed October 12, 2023. https://doi.org/10.1089/bfm.2020.0310.

Schumacher K. California Budget and Policy Center. Paid Family Leave Payments Don't Add Up for California Workers.2022. Accessed October 12, 2023. Paid Family Leave Payments Don't Add Up for California Workers - California Budget and Policy Center (calbudgetcenter.org).

Semenic S, Childerhose JE, Lauzière J, Groleau D. Barriers, facilitators, and recommendations related to implementing the Baby-Friendly Initiative (BFI): an integrative review. J Hum Lact. 2012;28(3):317-334. doi:10.1177/0890334412445195.

Sinha B, Chowdhury R, Sankar MJ, et al. Interventions to improve breastfeeding outcomes: a systematic review and meta-analysis. *Acta Paediatr*. 2015;104(467):114-134.Accessed October 12, 2023. https://doi.org/10.1111/apa.13127.

Stanczyk AB. Does paid family leave improve household economic security following a birth? Evidence from California. *Soc Serv Rev*. 2019;93(2):262-304.

State of Michigan. WIC Regional Lactation Consultant Map. July 2021. Accessed October 12, 2023. https://www.michigan.gov/-/media/Project/Websites/mdhhs/Folder1/Folder26/Regional_LC_map.pdf?rev=27fc2817ad044e9aaacc39e02434e7d8.

Snyder K, Hulse E, Dingman H, Cantrell A, Hanson C, Dinkel D. Examining supports and barriers to breastfeeding through a socio-ecological lens: a qualitative study. *Int Breastfeed J*. 2021;16(52):1-8. Accessed October 12, 2023. https://doi.org/10.1186/s13006-021-00401-4.

SUNY Delhi. Nursing: Online RN to BSN, Bachelor of Science in Nursing Degree. 2021. Accessed October 12, 2023. https://www.delhi.edu/academics/online/rn-bsn/.

U.S. Department of Agriculture. WIC Works Resource System. Breastfeeding: making it work toolkit. Accessed October 12, 2023. https://wicworks.fns.usda.gov/resources/breastfeeding-making-it-work-toolkit.

U.S. Department of Labor (USDOL), Bureau of Labor Statistics. Economics News Release. Table 1. Workers with access to paid leave by elected characteristics, averages for the periods 2011 and 2017-2018. February 27, 2019. Accessed October 12, 2023. https://www.bls.gov/opub/ted/2019/access-to-paid-and-unpaid-family-leave-in-2018.htm. Table 1. Workers with access to paid leave by selected characteristics, averages for the periods 2011 and 2017-2018 (bls.gov).

U.S. Department of Labor (USDOL), Wage and Hour Division. Fair Labor Standards Act. Break time for nursing mothers. 2010. Accessed October 12, 2023. Section 7(r) of the Fair Labor Standards Act – Break Time for Nursing Mothers Provision | U.S. Department of Labor (dol.gov).

U.S. Department of Health and Human Services (DHHS). The business case for breastfeeding: easy steps to supporting breastfeeding employees. Health Resources Administration, Maternal and Child Health Bureau. (2008). Accessed October 12, 2023. https://www.womenshealth.gov/breastfeeding/breastfeeding-home-work-and-public/breastfeeding-and-going-back-work/business-case.

U.S. Department of Health and Human Services (DHHS). Office of the Surgeon General, Centers for Disease Control and Prevention, Office on Women's Health. The Surgeon General's call to action to support breastfeeding. Rockville, MD. 2011. Accessed October 12, 2023. https://www.ncbi.nlm.nih.gov/books/NBK52683/?report=reader.

U.S. Department of Health and Human Services (DHHS). Women's preventive services guidelines. 2022. Accessed October 12, 2023. https://www.hrsa.gov/womens-guidelines/index.html.

U.S. Department of Labor (USDOL). U.S. Bureau of Labor Statistics. National compensation survey: employee benefits in the United States, Bulletin 2791. Washington, DC. September 2019.

U.S. Department of Labor (USDOL). Wage and Hour Division. FLSA Protections to Pump at Work. 2023. Accessed October 12, 2023. https://www.dol.gov/agencies/whd/nursing-mothers.

U.S. Department of Labor (USDOL). Wage and Hour Division. The Family and Medical Leave Act (FMLA). fact sheet #28., Washington, DC (Revised 2012). Accessed October 12, 2023. https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/whdfs28.pdf.

U.S. Department of Labor (USDOL), Wage and Hour Division. PUMP for Nursing Mothers Act (PUMP Act). Assessed October 12, 2023. FLSA Protections to Pump at Work | U.S. Department of Labor (dol.gov).

U.S. Lactation Consultant Association (USCLA). Clarifying Clinical Lactation Care vs Breastfeeding Support. 2020a. Accessed October 12, 2023. Clarifying-Clinical-Lactation-vs-Breastfeeding-Support.pdf (uslca.org).

U.S. Lactation Consultant Association (USCLA). Licensure. 2022. Accessed October 12, 2023. Licensing the IBCLC® | USLCA - United States Lactation Consultant Association.

U.S. Lactation Consultant Association (USCLA). Organization website USLCA.org (2022). Accessed May 17, 2022. https://uslca.org/.

U.S. Lactation Consultant Association (USCLA). Support for IBCLC as a standalone credential. 2020b. Accessed September 9, 2022. Support-for-IBCLC-as-a-Standalone-Credential.pdf (uslca.org).

U.S. Preventive Services Task Force (USPSTF). Interventions in Primary Care to Promote Breastfeeding: An evidence review for the U.S. Preventive Services Task Force. *Ann Intern Med*. 2008;149:565. Accessed October 12, 2023. https://uspreventiveservicestaskforce.org/uspstf/document/final-evidence-summary10/breastfeeding-counseling-2008.

U.S. Preventative Services Task Force (USPSTF). Primary care interventions to support breastfeeding: updated evidence report and systematic review from the US Preventative Services Task Force. *JAMA*. 2016. 316(16), 1694-1704. Doi: 10.1001/jama.2016.8882.

U.S. Preventative Services Task Force (USPSTF). The guide to clinical preventative services. 2014. Accessed October 12, 2023. https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/clinicians-providers/guidelines-recommendations/guide/cpsguide.pdf#Breastfeeding.

University of North Carolina Gillings School of Global Public Health Carolina Global Breastfeeding Institute (CGBI). RISE: Lactation Training Model – Reclaiming, Improving, and Sustaining Equity. 2021. Accessed July 20, 2022. https://sph.unc.edu/cgbi/rise-lactation-training-model-reclaiming-improving-and-sustaining-equity-2/.

Uzumcu Z; Sutter MB, Cronholm PF. Breastfeeding education in family medicine residencies: A 2019 CERA program directors survey. *Fam Med*. 2020; 52(7):497-504.) doi: 10.22454/FamMed.2020.579473.

W.K. Kellogg Foundation (WKKF). Grants from 2008-present, Lactation. Accessed October 12, 2023. Grants - W.K. Kellogg Foundation (wkkf.org).

Waldfogel J. The impact of the Family and Medical Leave Act (FMLA). J Policy Anal Manage 1999;18(2):281-302. Accessed October 12, 2023. https://onlinelibrary.wiley.com/doi/10.1002/(SICI)1520-6688(199921)18:2%3C281::AID-PAM5%3E3.0.CO;2-J.

Ware J, Ruowei L, Chen A, et al. Association between breastfeeding and post perinatal infant deaths in the U.S. *Am J Prev Med*. 2023; 65(5):763-774; doi: 10.1016/j.amepre.2023.05.015 Accessed November 17, 2023. Associations Between Breastfeeding and Post-perinatal Infant Deaths in the U.S. - American Journal of Preventive Medicine (ajpmonline.org).

World Health Organization (WHO). *Ten Steps to Successful Breastfeeding*. World Health Organization. 2022. Accessed October 12, 2023. Nutrition and Food Safety (who.int).

World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). Competency verification toolkit: ensuring competency of direct care providers to implement the Baby-friendly Hospital Initiative. 2020. Accessed October 12, 2023. Competency verification toolkit: Ensuring competency of direct care providers to implement the Baby-Friendly Hospital Initiative (who.int).

World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services: implementing the revised Baby-friendly Hospital Initiative 2018. Geneva: World Health Organization and the United Nations Children's Fund, 2018. License: CC BY-NC-SA 3.0 IGO. Accessed October 12, 2023. https://apps.who.int/iris/bitstream/handle/10665/272943/9789241513807-eng.pdf?sequence=19&isAllowed=y.

World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). The extension of the 2025 maternal, infant and young child nutrition targets to 2030. Discussion Paper 12. 2019. Accessed October 12, 2023. https://data.unicef.org/resources/who-unicef-discussion-paper-nutrition-targets/.

Wouk K, Tully KP, Labbok MH. Systematic review of evidence for baby-friendly hospital initiative step 3. *J Hum Lact*. 2017;33(1):50-82. Accessed October 12, 2023. https://doi.org/10.1177/0890334416679618.

1000 Days: 2021 breastfeeding inspiration guide. 1000 days webpage. Accessed October 12, 2023. https://www.facebook.com/1000Days/posts/-the-2021-breastfeeding-inspiration-guide-is-here-full-of-info-content-and-resou/4511464545544947/.

IV. Appendices

Title

A. WHO/UNICEF. *Ten Steps to Successful Breastfeeding*

B. New York State Breastfeeding Prevalence, Duration and Trends

C. New York State's Efforts to Promote, Support and Protect Breastfeeding and Reduce Disparities

D. Bozlak C, Ruland L, Eskew B. New York State Breastfeeding Disparities Qualitative Research Study Report. University at Albany, School of Public Health. 03/31/2022.

Appendix A. Ten Steps to Successful Breastfeeding*

Critical management procedures:

1a. Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions.

1b. Have a written infant feeding policy that is routinely communicated to staff and parents.

1c. Establish ongoing monitoring and data-management systems.

2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.

Key clinical practices:

3. Discuss the importance and management of breastfeeding with pregnant women and their families.

4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.

5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.

6. Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated.

7. Enable mothers and their infants to remain together and to practice rooming-in 24 hours a day.

8. Support mothers to recognize and respond to their infants' cues for feeding.

9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.

10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

---

* World Health Organization (WHO). Ten steps to successful breastfeeding. World Health Organization. 2022. Accessed August 10, 2022. Nutrition and Food Safety (who.int)

Appendix B.

New York State Breast Feeding Data Sources: Breastfeeding Prevalence, Duration, Trends

Table of Contents

Name of Data Source:	Vital Statistics of New York State
Link (if available online)	Vital Statistics of New York State
Brief Description:	In New York State, there are two registration areas: 1. New York City, which includes the five counties of Bronx, Kings (Brooklyn), New York (Manhattan), Queens and Richmond (Staten Island) 2. New York State outside of New York City, which encompasses the remaining 57 counties. Through a cooperative agreement, the New York State Department of Health receives data on live births, deaths, fetal deaths, induced terminations of pregnancy/abortions (abortion), marriages, and divorces/dissolutions of marriage recorded in New York City from the New York City Department of Health and Mental Hygiene. The New York State Department of Health also receives information on live births and deaths recorded outside of New York State and to residents of New York State from other states and Canada. The New York State Bureau of Vital Records maintains a registry of all births, marriages, divorces/dissolutions of marriage, deaths, induced termination of pregnancy/abortions, and fetal deaths that have occurred in New York State outside of New York City.
Sample/Population Represented:	All births among New York State residents that occur in the New York State and those registered out of NYS (other States and Canada). There were 225,162 births counted in 2018.
Methods:	Birth Certificate data
Breastfeeding Indicators:	Indicator(s): 1. Breast milk only 2. Formula only 3. Both 4. Unknown

<table>
<tr><td></td><td colspan="2">Disaggregated by: Maternal Race/Ethnicity *note that total values are available as well
Reported as: Number and proportion (%)
Link: Table 4: Live Birth Summary by Mother's Race/Ethnicity, New York State 2018 (ny.gov)</td></tr>
<tr><td rowspan="2">Other Relevant Measures:</td><td colspan="2">Vital Statistics of New York State also includes data on the following indicators for infants born in NYS and to residents of NYS:
*Note: additional analysis will be needed to cross tabulate breastfeeding variable with these other variables of interest</td></tr>
<tr><td>• Sex of the baby
• Mother's Age
• Marital Status
• Birthweight
• Plurality
• Month Prenatal Care (PNC) began
• Order of birth</td><td>• Method of Delivery
• Mother's Education
• Place of Birth
• Primary Financial Coverage
• Attendant
• Pre-Pregnancy Body Mass Index (BMI)</td></tr>
<tr><td rowspan="2">Demographic Data:</td><td colspan="2">Maternal Race/Ethnicity</td></tr>
<tr><td>• Hispanic
- White only
- Black only</td><td>• Non-Hispanic
- White only
- Black only</td></tr>
<tr><td>Dates of Data Available:</td><td colspan="2">NYS: Data are currently available from 2004-2019.

National: National Vital Statistics System (NVSS) final public-use and restricted-use micro-data of birth files are released 7-8 months after the end of a data year. For example, the 2020 files would be released in July/Aug 2021.</td></tr>
<tr><td>Notes:</td><td colspan="2">NYS: Additional questions or comments on this data can be sent to bio-info@health.ny.gov
National: Restricted use micro-data can be requested from the Research Data Center (RDC), operated by the National Center for Health Statistics, or through the NVSS (Restricted-Use Vital Statistics Data)</td></tr>
</table>

Data Summary

Downloaded from Vital Statistics of NYS

Population: All births that occur and are registered in the New York State and all births among New York State residents, even if registered out of NYS (other States and Canada).

Data Source: Birth Certificate data managed by the New York State Bureau of Vital Records

List of Indicators*

1. Percentage of infants fed breast milk only
2. Percentage of infants fed formula only
3. Percentage of infants fed both breast milk and formula

*based on birth certificates with known information about 'how infant was fed'. Excludes infants admitted to the NICU or transferred to another hospital.

Years included: 2009-2018

Figure I: Percentage of infants fed any breast milk in delivery hospital among all infants

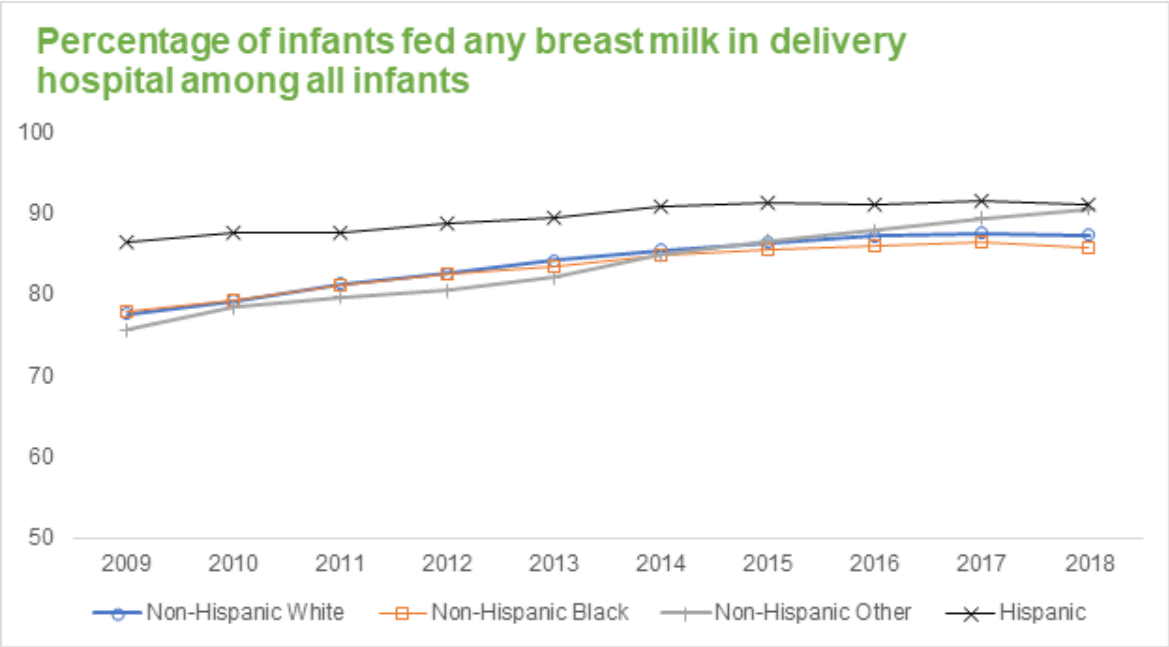


Table I: Percentage of infants fed any breast milk in delivery hospital among all infants

Race/ Ethnicity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Non-Hispanic White	77.6	79.2	81.3	82.5	84.1	85.4	86.4	87.1	87.5	87.3
Non-Hispanic Black	77.8	79.3	81.1	82.4	83.3	84.7	85.4	86.0	86.5	85.6
Non-Hispanic Other	75.6	78.4	79.7	80.5	82.1	84.9	86.6	87.9	89.4	90.5
Hispanic	86.4	87.5	87.5	88.8	89.4	90.7	91.2	91.1	91.5	91.1

The percentage of infants fed any breastmilk at the delivery hospital increased between 2009 and 2018 in New York State (NYS) among all racial/ethnic groups. For example, in 2009 77.8% of NH Black infants were fed any breast milk in the hospital, compared to 85.6% in 2018.

Figure I shows Hispanic infants were fed any breast milk at a higher rate than other racial/ethnic groups each year throughout the entire nine-year period. While the magnitude of this disparity decreased overtime, it is still present. In 2018, there was a 5.5 percentage point difference between the proportion of Hispanic and NH Black infants fed any breast milk during delivery, compared to 8.6 in 2009.

In summary, the percentage of infants fed any breast milk in the delivery hospital over the nine-year period increased for all racial/ethnic groups, and the magnitude of these disparities decreased. However, disparities still exist.

Figure II: Percentage of infants fed only breast milk (exclusively breastfed) in the delivery hospital among all infants

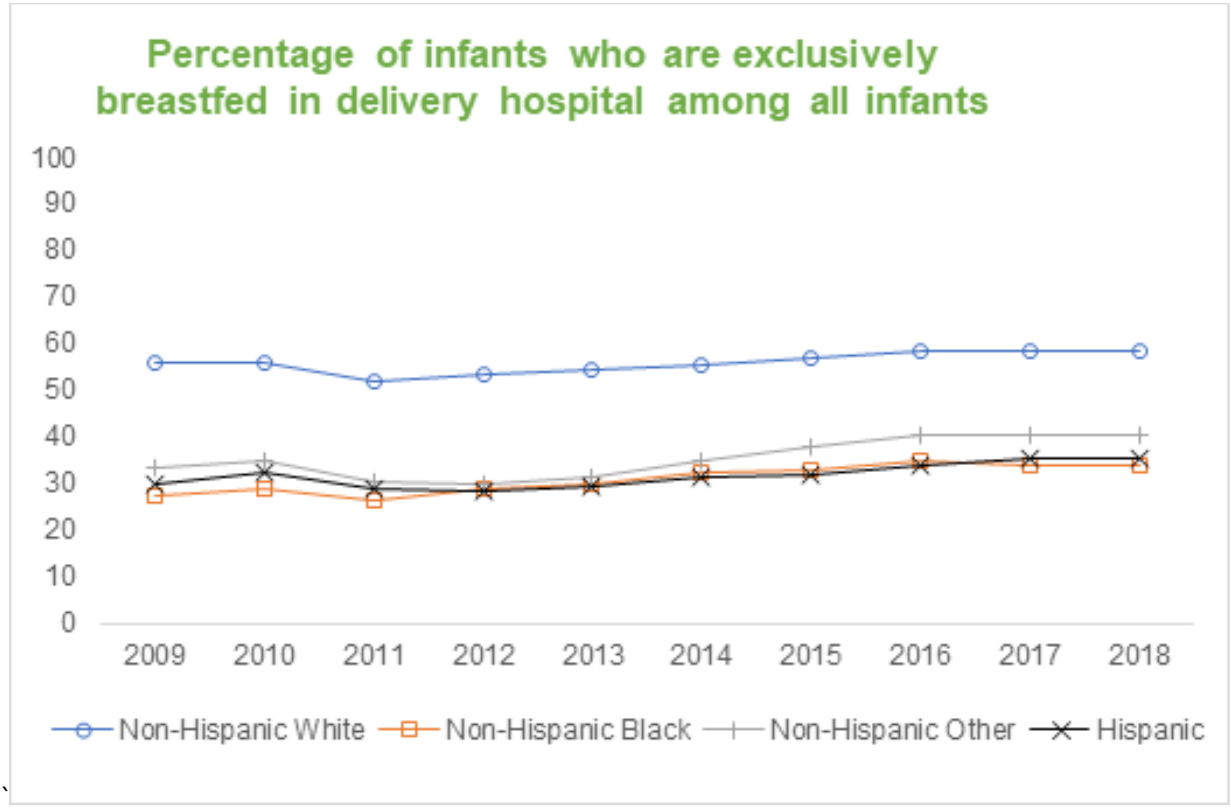


Table II: Percentage of infants fed only breast milk (exclusively breastfed) in the delivery hospital among all infants

Race/ Ethnicity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Non-Hispanic White	56.1	56.0	51.8	53.2	54.4	55.3	56.7	58.5	58.6	58.3
Non-Hispanic Black	27.3	29.1	26.2	28.8	29.9	32.2	32.8	34.9	33.9	34.1
Non-Hispanic Other	33.4	35.0	30.6	30.0	31.3	34.8	37.7	40.3	40.5	40.4
Hispanic	29.8	32.5	28.9	28.2	29.5	31.2	31.9	34.0	35.6	35.2

The percentage of infants who were exclusively breastfed in the delivery hospital increased among all racial/ethnic groups between 2009 and 2018 in NYS. However, Figure II shows clear disparities, with NH White infants fed only breast milk in the delivery hospital at a much higher rate than all other racial/ethnic groups. In 2018, 58.3% of Non-Hispanic White infants were exclusively breastfed at the delivery hospital, compared to 34.1% of Non-Hispanic Black and 35.2% of Hispanic infants. While the magnitude of these disparities decreased over time, there is still a 24.2 percentage point difference between the proportion of NH White and NH Black infants fed only breast milk in the delivery hospital in 2018. This further emphasizes that while breastfeeding measures have improved for all racial/ethnic group, large disparities still exist with NH Black infants experiencing the lowest breastfeeding measures.

Appendix B: Breastfeeding Prevalence, Duration, Trends

Figure III: Percentage of infants supplemented with formula in the delivery hospital among breastfed infants

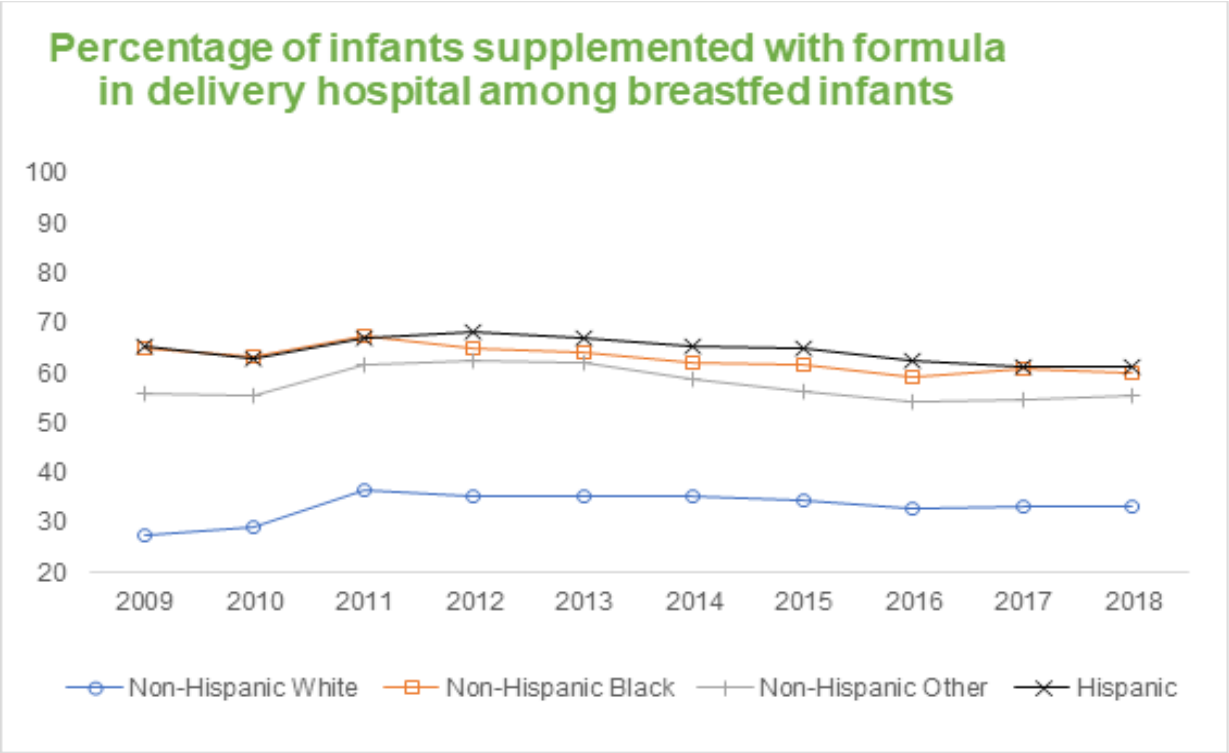


Table III: Percentage of infants supplemented with formula in the delivery hospital among breastfed infants

Race/Ethnicity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Non-Hispanic White	27.7	29.3	36.4	35.5	35.3	35.2	34.4	32.8	33.1	33.2
Non-Hispanic Black	64.9	63.4	67.6	65.0	64.2	62.0	61.5	59.4	60.8	60.2
Non-Hispanic Other	55.8	55.4	61.6	62.7	61.9	59.0	56.5	54.2	54.6	55.4
Hispanic	65.5	62.9	67.0	68.3	67.0	65.6	65.0	62.6	61.1	61.4

In NYS, formula supplementation among infants at the delivery hospital decreased between 2009 and 2018 for all racial/ethnic groups except Non-Hispanic White infants. However, Non-Hispanic White infants were supplemented at a much lower rate during all years of the study period. In 2018, 61.4% of Hispanic infants were given formula, followed by 60.2% of non-Hispanic Black infants, 55.4% of non-Hispanic other infants, and 33.2% of non-Hispanic White infants. These statistics show clear disparities in formula supplementation between NH White infants and all other racial/ethnic groups. Although the magnitude of this disparity in formula supplementation between non-Hispanic White and Hispanic infants decreased from 37.8 percentage points in 2009 to 28.2 in 2018, it remains substantial.

Pregnancy Risk Assessment Monitoring System (PRAMS)

Name of Data Source:	Pregnancy Risk Assessment Monitoring System (PRAMS)
Link (if available online)	Pregnancy Risk Assessment Monitoring System
Brief Description:	PRAMS Annual and Trend Reports present percentage and trend data of women who report experiencing a particular outcome of interest in New York State, New York City and New York State excluding NYC from 2004-2018, by selected demographic characteristics such as race/ethnicity, age, education, marital status and Medicaid status.
Sample/Population Represented:	Approximately 135 mothers who have given birth in past 2-4 months are selected from birth records monthly. Each participating state samples between 1,300 and 3,400 women per year.

Methods:	Selected mothers are sent questionnaires asking about their pregnancies and the time immediately after the birth of their babies. Questionnaire packets include a cover letter, question and answer sheet, a consent document, and a small gift as an incentive. If a mother does not respond after three questionnaires are sent, attempts to reach her by phone are made. Mothers are offered a $50 Target gift card as a thank you if they send back the completed mailed questionnaire or do the interview over the phone. Data collection procedures and instruments are standardized to allow comparisons between states. Mother's responses to the questionnaire are linked to extracted birth certificate data for analysis. Thus, the PRAMS dataset also contains a wealth of demographic and medical information collected through the state's vital records system. The availability of this information for all births is the basis for drawing stratified samples and, ultimately, for generalizing results to the state's entire population of births. PRAMS utilizes a stratified systematic sampling methodology with over sampling of low birth weight births. Low weight births are sampled at a higher rate to ensure adequate representation. Typically, the annual sample is large enough for estimating statewide risk factor proportions, with a confidence interval of plus or minus 3.5% at 95% confidence. Sample sizes are not typically large enough to estimate county level risk factors. More details on the methodology can be found here: Pregnancy Risk Assessment Monitoring System (ny.gov)

<table>
<tr><td>Indicators:</td><td colspan="2">Breastfeeding Indicators:

1. Breastfeeding initiation
2. Breastfeeding ≥ 4 weeks
3. Breastfeeding ≥ 8 weeks or more

Hospital Practices Indicators

1. Babies fed only breastmilk in hospital
2. Women who breastfed in the hospital
3. Women who breastfed within the first hour after birth
4. Hospital helped teach women how to breastfeed
5. Hospital told women to breastfeed on demand
6. Hospital gave women breastfeeding information
7. Hospital gave women a breast pump
8. Women was given gift pack with formula
9. Hospital gave women telephone number for breastfeeding help
10. Baby stayed in same room at hospital
11. Baby used pacifier in hospital

All indicators are reported for New York City, New York State, and New York State excluding New York City.

Disaggregated by: Maternal education level; marital status; maternal age; Medicaid status; maternal race/ethnicity

Reported as: Percentage (95% Confidence Interval)</td></tr>
<tr><td rowspan="2">Other Relevant Measures:</td><td colspan="2">NYS PRAMS reports also include data on the following indicators for mothers giving birth in NYS:</td></tr>
<tr><td>• Safe Sleep
• Maternal Oral Health
• Nutrition
• Tobacco Use
• Alcohol Use
• Family Planning
• Preconception Health</td><td>• Prenatal Care Education
• Prenatal Care
• Postpartum Care
• Postpartum Depression
• Mental Health
• Physical Abuse
• Vaccination</td></tr>
</table>

<table>
<tr><td></td><td></td><td>•</td></tr>
<tr><td rowspan="6">Demographic Data:</td><td>Education Status</td><td>Marital Status</td></tr>
<tr><td>• Less than high school
• High school graduate
• More than high school</td><td>• Married
• Not Married</td></tr>
<tr><td>Maternal Age</td><td>Medicaid Status</td></tr>
<tr><td>• Less than 20 years old
• 20-24 years old
• 25-34 years old
• 35 years old or more</td><td>• On Medicaid
• Not on Medicaid</td></tr>
<tr><td colspan="2">Maternal Race/Ethnicity</td></tr>
<tr><td>• Non-Hispanic White
• Non-Hispanic Black</td><td>• Non-Hispanic Other
• Hispanic</td></tr>
<tr><td>Other relevant information</td><td colspan="2">1. During any of your prenatal care visits, did a doctor, nurse, or other health care worker ask you if you planned to breastfeed your new baby? (No/Yes)

2. During your most recent pregnancy, were you on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)? (No/Yes)

3. During your most recent pregnancy, when you went for your WIC visits, did you speak with a breastfeeding peer counselor or another WIC staff person about breastfeeding? (No/Yes) **NYC PRAMS did not ask this question

4. During your most recent pregnancy, what did you think about breastfeeding your new baby?
<u>Indicators:</u></td></tr>
</table>

	- I knew I wanted to breastfeed - I thought I might breastfeed - I knew I would not breastfeed - I didn't know what to do about breastfeeding 5. During your most recent pregnancy, when you were told that you had gestational diabetes, did a doctor, nurse, or other health care worker suggest you breastfeed your new baby? 6. Before or after your new baby was born, did you receive information about breastfeeding from any of the following sources? For each one, check No if you did not receive information from this source or Yes if you did. Indicators: - My doctor - A nurse, midwife, or doula - A breastfeeding or lactation specialist - My baby's doctor or health care provider - A breastfeeding support group - A breastfeeding hotline or toll-free number - Family or friends - Other 7. What were your reasons for stopping breastfeeding? Indicators: - My baby had difficulty latching or nursing - Breast milk alone did not satisfy my baby - I thought my baby was not gaining enough weight - My nipples were sore, cracked, or bleeding or it was too painful - I thought I was not producing enough milk, or my milk dried up - I had too many other household duties - I felt it was the right time to stop breastfeeding - I got sick or I had to stop for medical reasons - I went back to work

	- I went back to school - My partner did not support breastfeeding - My baby was jaundiced (yellowing of the skin or whites of the eyes) - Other 8. During your postpartum checkup, did a doctor, nurse, or other health care worker ask you how breastfeeding was going? (No/Yes)
Dates of Data Available:	Data on breastfeeding measures is currently available for 2004-2018. Data on hospital practices related to breastfeeding are available for 2009-2018 There is no mention of availability of raw data
Notes:	Additional questions or comments can be sent to phiginfo@health.ny.gov

Pregnancy Risk Assessment Monitoring System (PRAMS)

Breastfeeding Indicators

Population: Mothers who have given birth in the past 2-4 months prior to sampling

Data Source: Questionnaires or phone interviews

List of Breastfeeding Indicators

1. Percentage of women who initiated breastfeeding
2. Percentage of women who breastfed for at least four weeks
3. Percentage of women who breastfed for at least eight weeks

Indicator Notes:

Years Included**:** 2004-2020

Figure I.I: Percentage of women who initiated breastfeeding (New York State)

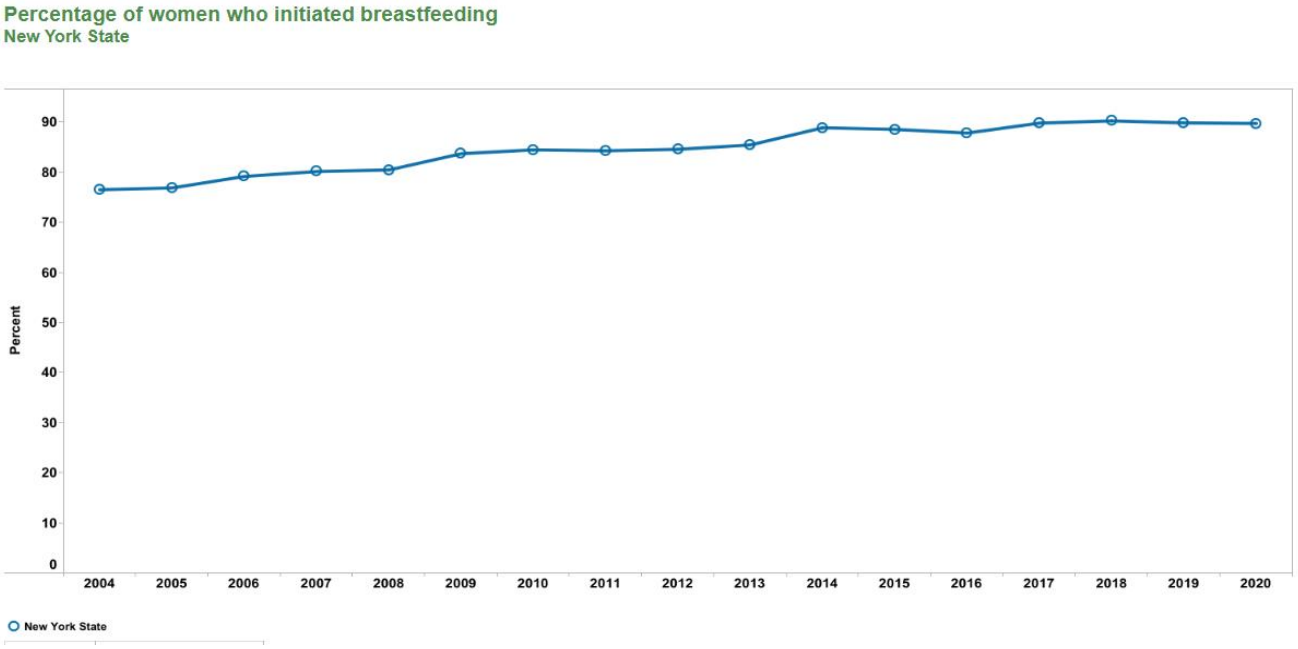


Table I.I: Percentage of women who initiated breastfeeding (New York State)

New York State

Year	New York State Percentage (95% CI)
2004	76.5 (73.9-79.0)
2005	76.9 (74.5-79.1)
2006	79.2 (77.0-81.2)
2007	80.2 (78.0-82.2)
2008	80.5 (78.2-82.6)
2009	83.7 (81.6-85.6)
2010	84.5 (82.5-86.3)
2011	84.3 (82.3-86.1)
2012	84.6 (82.5-86.5)
2013	85.5 (83.4-87.3)
2014	88.9 (87.1-90.5)
2015	88.6 (86.8-90.1)
2016	87.8 (86.1-89.4)
2017	89.8 (88.0-91.4)
2018	90.3 (88.3-91.9)
2019	89.9 (88.0-91.5)
2020	89.7 (87.5-91.6)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women who initiated breastfeeding in New York State (NYS) has increased from 76.5% in 2004 to 89.7% in 2020.

Figure I.II: Percentage of women who initiated breastfeeding (New York City)

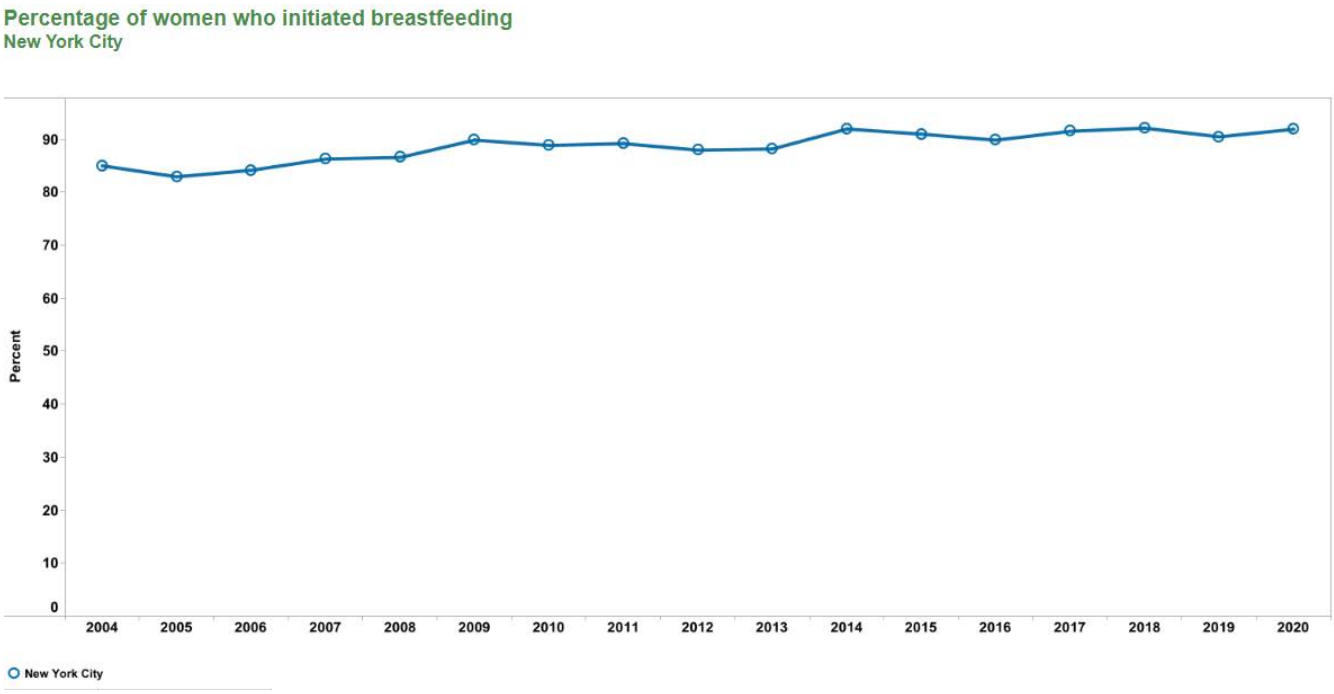


Table I.II: Percentage of women who initiated breastfeeding (New York City)

	New York City
Year	Percentage (95% CI)
2004	84.9 (81.4-87.9)
2005	82.9 (79.7-85.7)
2006	84.1 (81.6-86.3)
2007	86.2 (83.7-88.4)
2008	86.5 (83.6-89.0)
2009	89.8 (87.6-91.7)
2010	88.8 (86.5-90.7)
2011	89.1 (86.9-91.0)
2012	87.9 (85.7-89.8)
2013	88.1 (85.8-90.1)
2014	91.9 (90.1-93.4)
2015	90.9 (89.2-92.4)
2016	89.8 (87.9-91.4)
2017	91.5 (89.6-93.0)
2018	92.0 (90.2-93.6)
2019	90.4 (88.3-92.2)
2020	91.8 (89.7-93.6)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women who intiated breastfeeding in New York City has increased from 84.9% in 2004 to 91.8% in 2020.

Figure I.II: Percentage of women who initiated breastfeeding (NYS excl NYC)

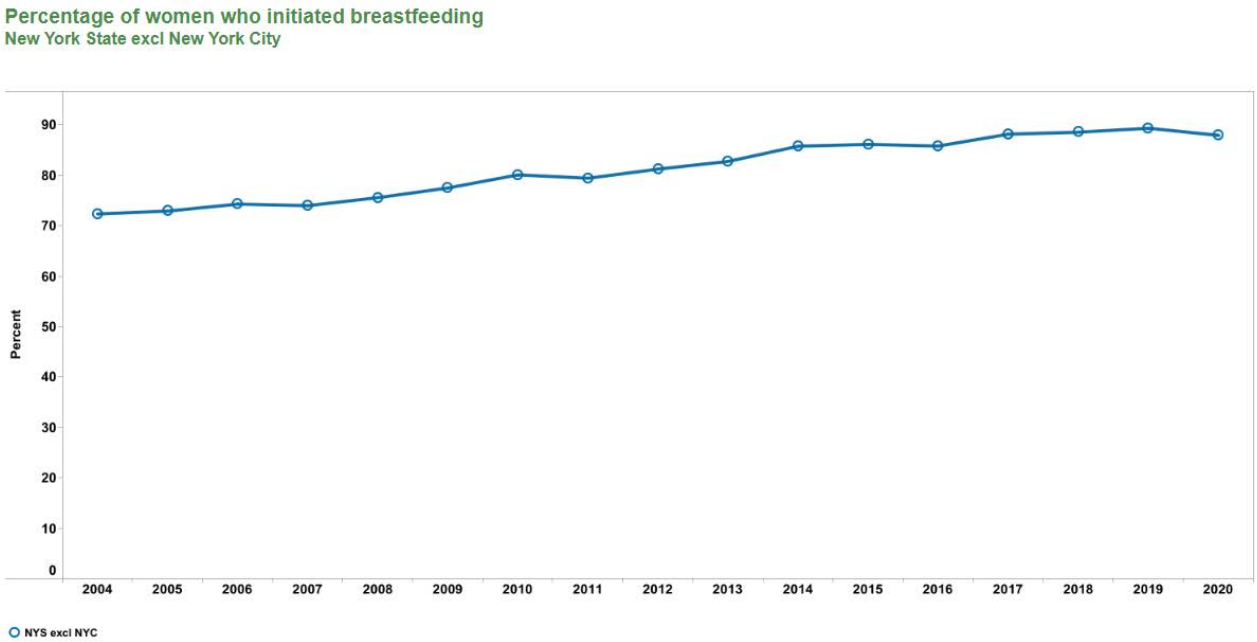


Table I.II: Percentage of women who initiated breastfeeding (NYS excl NYC)

	NYS excl NYC
Year	Percentage (95% CI)
2004	72.4 (68.8-75.7)
2005	72.9 (69.5-76.1)
2006	74.3 (70.8-77.5)
2007	74.0 (70.4-77.3)
2008	75.6 (72.2-78.7)
2009	77.5 (73.9-80.7)
2010	80.1 (76.7-83.1)
2011	79.4 (76.1-82.5)
2012	81.3 (77.6-84.4)
2013	82.8 (79.3-85.8)
2014	85.8 (82.5-88.6)
2015	86.2 (82.9-88.9)
2016	85.8 (82.7-88.5)
2017	88.2 (84.9-90.8)
2018	88.6 (85.0-91.4)
2019	89.4 (86.2-91.9)
2020	87.9 (84.1-91.0)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women who initiated breastfeeding in New York excluding New York City has increased from 72.4% in 2004 to 87.9% in 2020.

Figure II.I: Percentage of women who initiated breastfeeding (New York State)

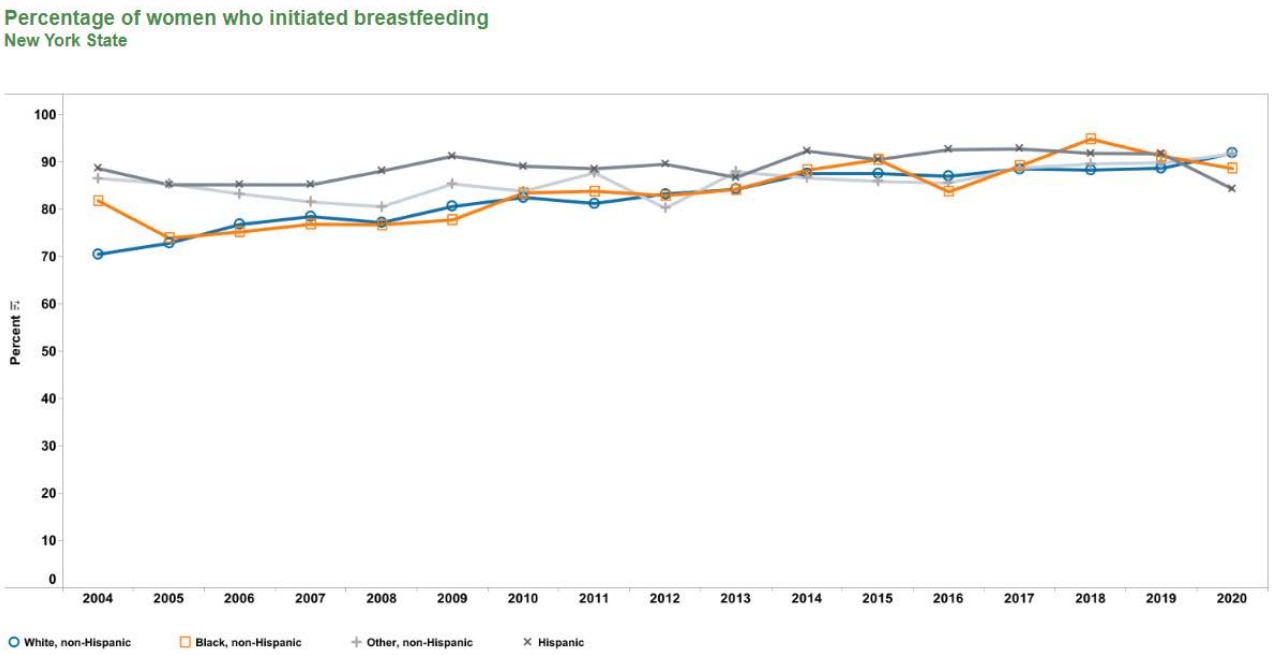


Table II.I: Percentage of women who initiated breastfeeding (New York State)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2004	70.5 (66.8-74.0)	81.9 (75.2-87.0)	86.6 (77.3-92.5)	88.7 (83.9-92.2)
2005	72.9 (69.4-76.1)	74.0 (67.0-79.9)	85.4 (76.8-91.2)	85.2 (80.8-88.8)
2006	76.8 (73.7-79.7)	75.2 (69.2-80.5)	83.3 (75.7-88.9)	85.2 (81.3-88.4)
2007	78.5 (75.3-81.4)	76.9 (70.8-82.0)	81.6 (74.1-87.3)	85.2 (81.1-88.6)
2008	77.2 (73.9-80.3)	76.8 (69.3-82.9)	80.6 (73.2-86.3)	88.1 (83.9-91.4)
2009	80.6 (77.3-83.6)	77.8 (71.2-83.2)	85.4 (79.2-90.0)	91.3 (87.9-93.8)
2010	82.5 (79.4-85.3)	83.5 (77.9-87.9)	83.9 (77.5-88.7)	89.2 (85.4-92.0)
2011	81.3 (78.1-84.1)	83.9 (78.1-88.4)	87.8 (82.6-91.6)	88.6 (84.7-91.6)
2012	83.3 (80.0-86.1)	82.9 (75.7-88.4)	80.3 (73.9-85.5)	89.6 (86.2-92.2)
2013	84.3 (81.0-87.1)	84.2 (77.7-89.1)	88.0 (82.8-91.8)	86.8 (82.9-89.9)
2014	87.6 (84.6-90.1)	88.3 (82.9-92.2)	86.7 (81.2-90.7)	92.4 (89.1-94.7)
2015	87.6 (84.7-90.1)	90.5 (85.6-93.9)	85.9 (80.5-90.0)	90.6 (87.5-93.0)
2016	87.0 (84.1-89.5)	83.7 (78.1-88.1)	85.6 (80.7-89.5)	92.7 (89.7-94.8)
2017	88.6 (85.6-91.0)	89.2 (83.6-93.1)	88.8 (84.0-92.3)	92.8 (89.1-95.3)
2018	88.4 (85.1-91.0)	94.9 (91.3-97.1)	89.6 (85.0-93.0)	91.9 (87.4-94.9)
2019	88.7 (85.7-91.2)	91.3 (86.8-94.4)	89.9 (85.3-93.2)	91.8 (87.6-94.7)
2020	91.9 (88.9-94.1)	88.7 (81.4-93.3)	91.8 (86.9-94.9)	84.3 (78.3-89.0)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

In New York State, Hispanic women have the lowest breastfeeding initiation rate.

The 2020 rates are,

White, non-Hispanic – 91.9%
Black, non-Hispanic – 88.7%
Other non-Hispanic -91.8%
Hispanic-84.3%

Figure II.II: Percentage of women who initiated breastfeeding (New York City)

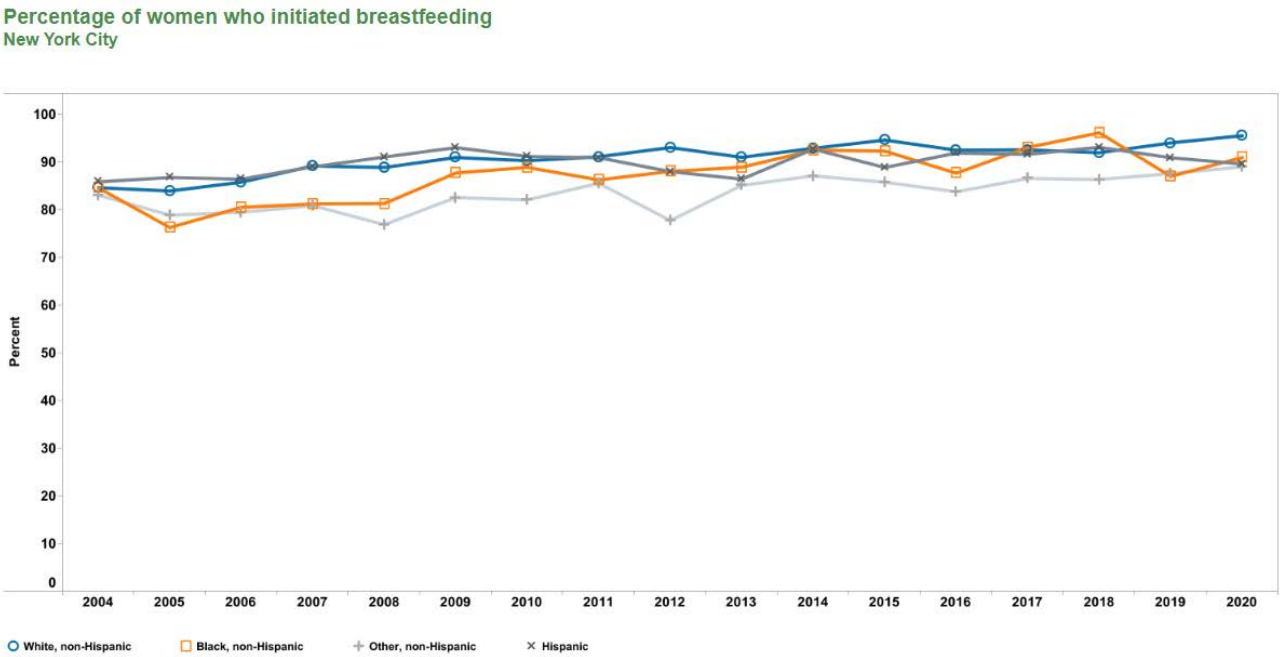


Table II.II: Percentage of women who initiated breastfeeding (New York City)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2004	84.7 (77.2-90.0)	84.6 (76.8-90.2)	83.1 (69.7-91.3)	85.9 (80.0-90.3)
2005	84.0 (77.8-88.7)	76.3 (68.8-82.5)	78.9 (66.4-87.6)	86.8 (81.7-90.6)
2006	85.8 (81.1-89.5)	80.5 (74.7-85.3)	79.5 (70.2-86.5)	86.5 (82.5-89.7)
2007	89.2 (84.9-92.5)	81.3 (75.1-86.2)	80.9 (71.7-87.6)	89.1 (85.0-92.1)
2008	88.9 (83.3-92.8)	81.3 (73.3-87.4)	76.9 (67.6-84.2)	91.1 (86.5-94.3)
2009	91.0 (86.7-94.0)	87.8 (81.9-91.9)	82.6 (75.2-88.2)	93.1 (89.7-95.4)
2010	90.3 (85.9-93.5)	88.9 (83.5-92.7)	82.1 (75.2-87.5)	91.2 (87.2-94.1)
2011	91.2 (87.1-94.0)	86.3 (80.0-90.9)	85.6 (79.3-90.2)	91.0 (87.1-93.8)
2012	93.1 (89.6-95.5)	88.1 (82.4-92.1)	77.8 (70.7-83.5)	88.0 (83.8-91.3)
2013	91.1 (86.9-94.0)	89.0 (83.1-93.0)	85.2 (78.5-90.0)	86.5 (82.1-89.9)
2014	92.9 (89.6-95.3)	92.5 (88.0-95.5)	87.2 (81.6-91.2)	92.8 (89.5-95.1)
2015	94.7 (92.0-96.5)	92.4 (87.9-95.2)	85.8 (80.2-90.1)	88.9 (85.4-91.7)
2016	92.5 (89.3-94.9)	87.7 (82.5-91.6)	83.8 (78.2-88.2)	91.9 (88.6-94.4)
2017	92.6 (89.1-95.1)	93.1 (88.8-95.8)	86.6 (80.9-90.8)	91.7 (88.0-94.3)
2018	92.0 (88.6-94.5)	96.2 (92.8-98.0)	86.4 (80.5-90.7)	93.2 (89.7-95.5)
2019	94.1 (90.9-96.2)	87.1 (80.6-91.6)	87.6 (81.9-91.7)	91.0 (86.8-93.9)
2020	95.6 (92.3-97.5)	91.0 (84.8-94.8)	89.0 (82.7-93.2)	89.7 (85.3-92.8)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

In New York City, the breastfeeding initiation rates were similar across different race/ethnicity.

The 2020 rates are,

White, non-Hispanic – 95.6%
Black, non-Hispanic – 91.0%
Other, non-Hispanic-89.0%
Hispanic-89.7%

Figure II.III: Percentage of women who initiated breastfeeding (NYS excl NYC)

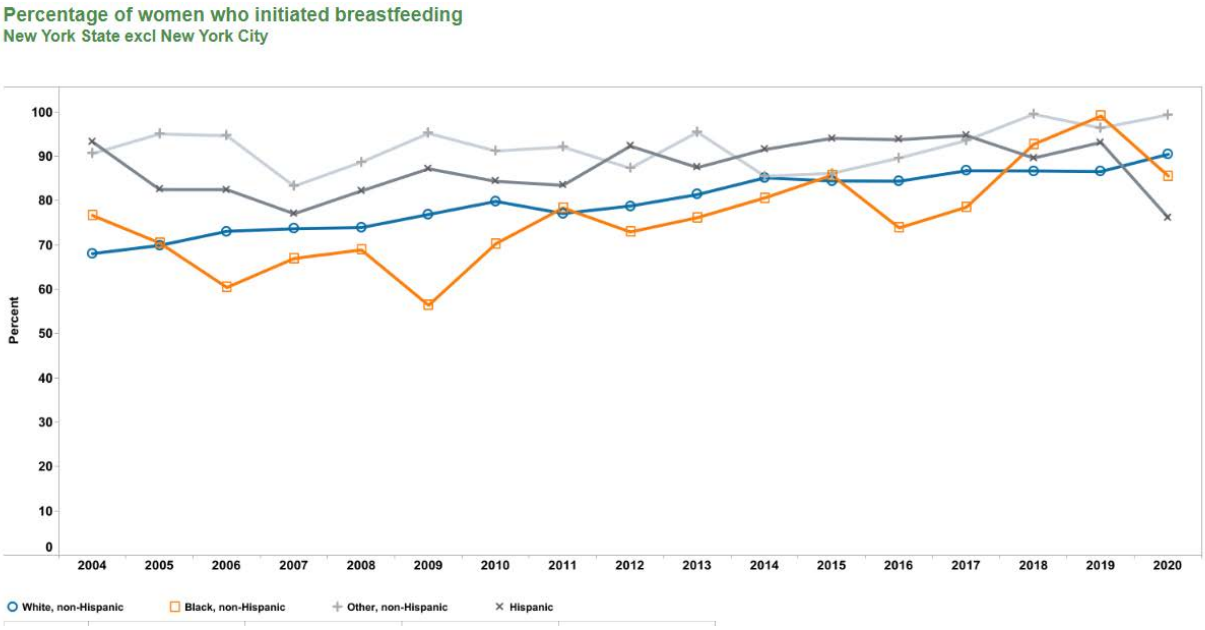


Table II.III: Percentage of women who initiated breastfeeding (NYS excl NYC)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2004	68.0 (63.9-71.9)	76.6 (63.3-86.2)	90.6 (75.0-96.9)	93.2 (82.8-97.5)
2005	69.9 (65.8-73.7)	70.4 (56.6-81.3)	95.0 (83.7-98.6)	82.5 (73.6-88.8)
2006	73.1 (69.0-76.8)	60.4 (45.2-73.8)	94.6 (79.5-98.8)	82.5 (72.8-89.2)
2007	73.6 (69.4-77.5)	66.9 (52.8-78.6)	83.2 (68.3-92.0)	77.0 (67.2-84.6)
2008	73.9 (69.9-77.6)	68.9 (54.0-80.7)	88.7 (74.5-95.4)	82.2 (72.7-88.9)
2009	76.9 (72.5-80.7)	56.4 (42.3-69.5)	95.2 (78.8-99.0)	87.2 (78.4-92.7)
2010	79.8 (75.8-83.3)	70.3 (56.6-81.0)	91.2 (67.4-98.1)	84.3 (75.3-90.5)
2011	77.1 (72.9-80.8)	78.3 (64.6-87.7)	92.1 (80.2-97.1)	83.4 (73.5-90.1)
2012	78.8 (74.3-82.6)	72.9 (55.1-85.5)	87.3 (68.7-95.5)	92.3 (85.5-96.0)
2013	81.4 (77.0-85.0)	76.1 (61.4-86.5)	95.4 (86.8-98.5)	87.4 (78.3-93.1)
2014	85.1 (81.0-88.5)	80.6 (67.5-89.3)	85.5 (70.3-93.6)	91.5 (82.7-96.0)
2015	84.4 (80.4-87.8)	85.7 (70.2-93.8)	86.1 (71.6-93.9)	94.0 (86.0-97.6)
2016	84.4 (80.3-87.7)	73.8 (59.3-84.5)	89.6 (77.5-95.5)	93.7 (86.9-97.1)
2017	86.7 (82.6-90.0)	78.5 (61.4-89.3)	93.6 (81.2-98.0)	94.7 (84.0-98.4)
2018	86.7 (82.1-90.2)	92.7 (83.4-97.0)	99.5 (96.3-99.9)	89.6 (76.7-95.8)
2019	86.5 (82.4-89.8)	99.0 (96.9-99.7)	96.4 (86.5-99.1)	93.1 (81.9-97.6)
2020	90.4 (86.4-93.4)	85.6 (69.3-94.0)	99.3 (97.2-99.8)	76.2 (62.4-86.0)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

In NYS outside New York City (NYC), Hispanic women have the lowest breastfeeding initiation rate.

The 2020 rates are,

White, non-Hispanic – 90.4%
Black, non-Hispanic – 85.6%
Other, non-Hispanic-99.3%
Hispanic-76.2%

Figure III.I: Percentage of women who breastfed for four weeks or more (New York State)

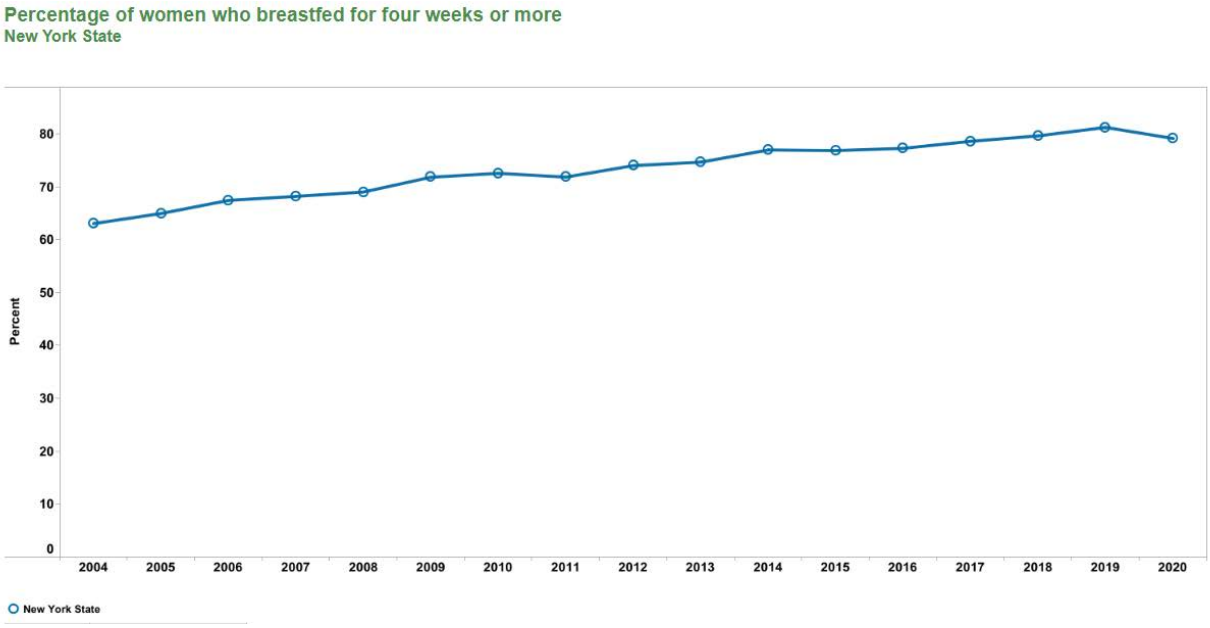


Figure III.I: Percentage of women who breastfed for four weeks or more (New York State)

Year	New York State Percentage (95% CI)
2004	63.0 (60.1-65.9)
2005	64.9 (62.3-67.5)
2006	67.4 (65.0-69.8)
2007	68.2 (65.7-70.5)
2008	69.0 (66.4-71.5)
2009	71.8 (69.3-74.1)
2010	72.5 (70.1-74.8)
2011	71.8 (69.4-74.1)
2012	74.0 (71.5-76.3)
2013	74.6 (72.2-76.9)
2014	76.9 (74.6-79.1)
2015	76.8 (74.5-79.0)
2016	77.2 (75.0-79.3)
2017	78.6 (76.1-80.9)
2018	79.6 (77.0-82.0)
2019	81.2 (78.8-83.4)
2020	79.1 (76.2-81.7)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women in New York State who breastfed their infants for four or more weeks increased from 63.0% in 2004 to 79.1% in 2020.

Figure III.II: Percentage of women who breastfed for four weeks or more (New York City)

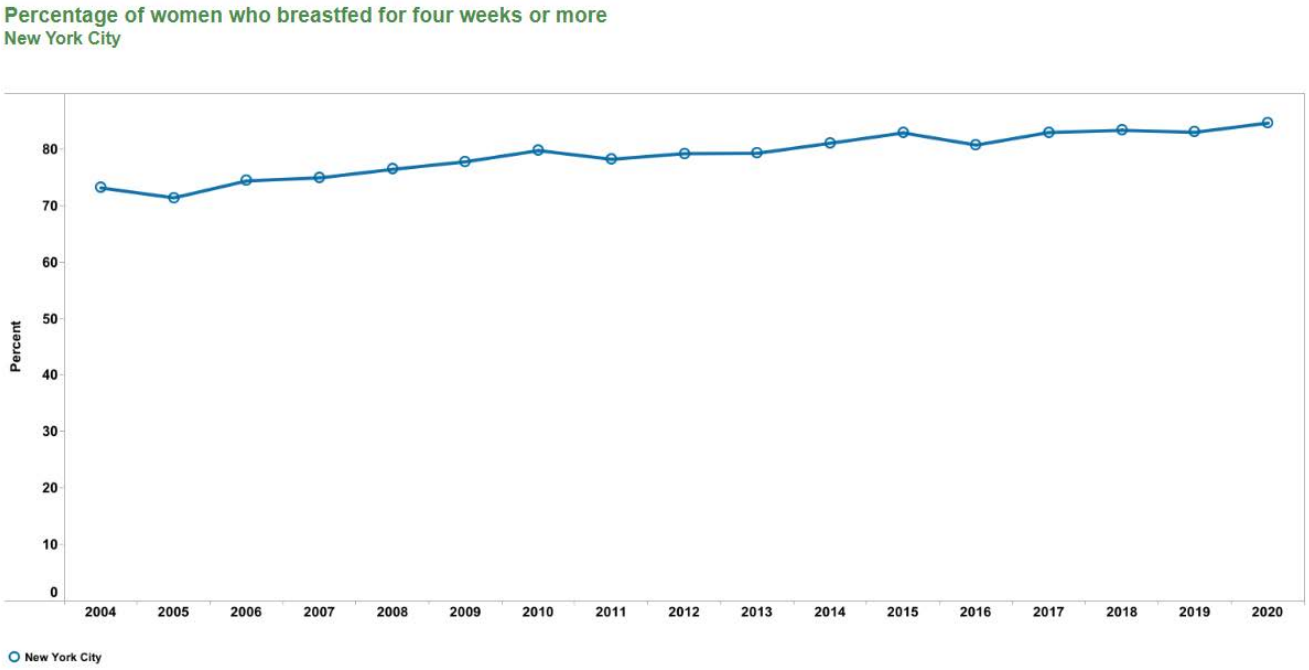


Table III.II: Percentage of women who breastfed for four weeks or more (New York City)

Year	New York City Percentage (95% CI)
2004	73.1 (68.9-76.9)
2005	71.3 (67.6-74.8)
2006	74.3 (71.4-77.1)
2007	74.9 (71.8-77.7)
2008	76.4 (72.9-79.6)
2009	77.7 (74.8-80.4)
2010	79.7 (76.9-82.2)
2011	78.2 (75.3-80.8)
2012	79.2 (76.5-81.6)
2013	79.2 (76.4-81.8)
2014	81.0 (78.6-83.2)
2015	82.8 (80.6-84.9)
2016	80.7 (78.3-82.9)
2017	82.9 (80.5-85.1)
2018	83.3 (80.9-85.5)
2019	82.9 (80.4-85.3)
2020	84.6 (81.9-86.9)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women in New York City who breastfed their infants for four or more weeks increased from 73.1% in 2004 to 84.6% in 2020.

Figure III.III: Percentage of women who breastfed for four weeks or more (NYS excl NYC)

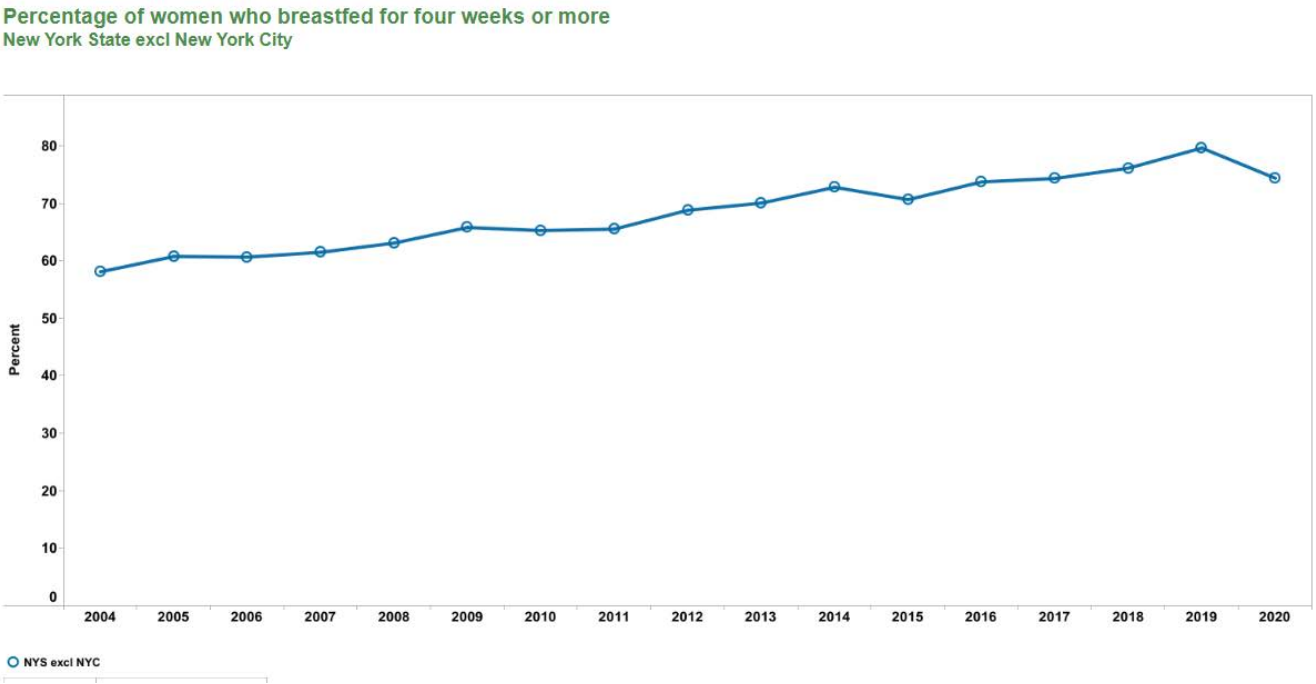


Table III.III: Percentage of women who breastfed for four weeks or more (NYS excl NYC)

	NYS excl NYC
Year	Percentage (95% CI)
2004	58.1 (54.2-61.8)
2005	60.7 (57.1-64.3)
2006	60.6 (56.8-64.3)
2007	61.5 (57.6-65.2)
2008	63.1 (59.4-66.6)
2009	65.8 (61.8-69.5)
2010	65.2 (61.4-68.9)
2011	65.5 (61.7-69.1)
2012	68.8 (64.7-72.6)
2013	70.0 (66.0-73.8)
2014	72.8 (68.8-76.4)
2015	70.6 (66.6-74.3)
2016	73.7 (69.9-77.2)
2017	74.3 (70.0-78.2)
2018	76.1 (71.6-80.1)
2019	79.6 (75.5-83.2)
2020	74.4 (69.5-78.7)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women in New York State outside NYC who breastfed their infants for four or more weeks increased from 58.1% in 2004 to 74.4% in 2020.

Figure IV.I: Percentage of women who breastfed for four weeks or more (New York State)

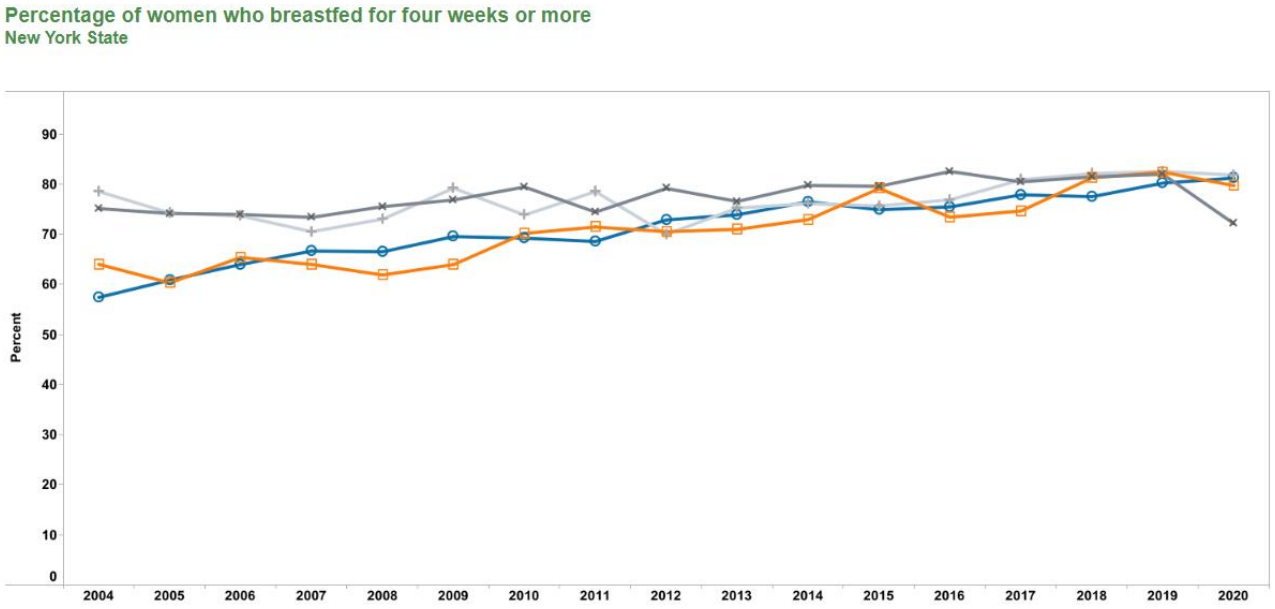


Table IV.I: Percentage of women who breastfed for four weeks or more (New York State)

○ White, non-Hispanic □ Black, non-Hispanic + Other, non-Hispanic × Hispanic

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2004	57.4 (53.5-61.2)	64.0 (56.2-71.1)	78.5 (68.1-86.2)	75.1 (68.9-80.5)
2005	60.8 (57.1-64.4)	60.3 (53.0-67.2)	74.2 (64.5-82.0)	74.1 (69.1-78.6)
2006	64.0 (60.5-67.3)	65.4 (59.0-71.2)	73.7 (65.3-80.6)	74.0 (69.3-78.1)
2007	66.6 (63.1-70.1)	64.0 (57.5-70.0)	70.5 (62.3-77.6)	73.4 (68.6-77.7)
2008	66.5 (62.8-70.0)	61.9 (54.0-69.2)	73.0 (65.0-79.8)	75.5 (70.3-80.1)
2009	69.5 (65.8-73.1)	63.9 (57.0-70.3)	79.2 (72.4-84.7)	76.8 (72.3-80.8)
2010	69.2 (65.5-72.7)	70.2 (63.6-76.0)	73.8 (66.8-79.8)	79.4 (75.0-83.3)
2011	68.6 (64.9-72.0)	71.4 (64.8-77.3)	78.5 (72.4-83.6)	74.4 (69.5-78.7)
2012	72.9 (69.2-76.3)	70.5 (62.8-77.2)	70.0 (63.1-76.1)	79.1 (74.8-82.9)
2013	73.9 (70.1-77.4)	71.0 (64.0-77.1)	75.2 (68.6-80.8)	76.5 (71.8-80.7)
2014	76.5 (72.9-79.7)	72.9 (66.3-78.6)	76.1 (69.8-81.5)	79.8 (75.4-83.5)
2015	74.9 (71.3-78.2)	79.1 (73.0-84.2)	75.6 (69.4-81.0)	79.6 (75.2-83.3)
2016	75.5 (71.9-78.7)	73.4 (67.2-78.8)	76.9 (71.3-81.7)	82.5 (78.5-86.0)
2017	77.9 (74.2-81.2)	74.7 (67.8-80.5)	80.9 (75.0-85.7)	80.5 (74.9-85.0)
2018	77.5 (73.5-81.0)	81.3 (74.2-86.7)	82.1 (76.0-86.9)	81.5 (76.1-85.8)
2019	80.2 (76.6-83.4)	82.4 (74.9-88.0)	82.6 (76.8-87.1)	82.0 (76.5-86.4)
2020	81.2 (77.1-84.7)	79.7 (71.8-85.9)	81.8 (75.2-86.9)	72.1 (65.2-78.1)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

In New York State (NYS), Hispanic women have the lowest rates for breastfeeding their infants for four or more weeks.

The 2020 rates are,

White, non-Hispanic – 81.2%
Black, non-Hispanic – 79.7%
Other non-Hispanic -81.8%
Hispanic-72.1%

Figure IV.II: Percentage of women who breastfed for four weeks or more (New York City)

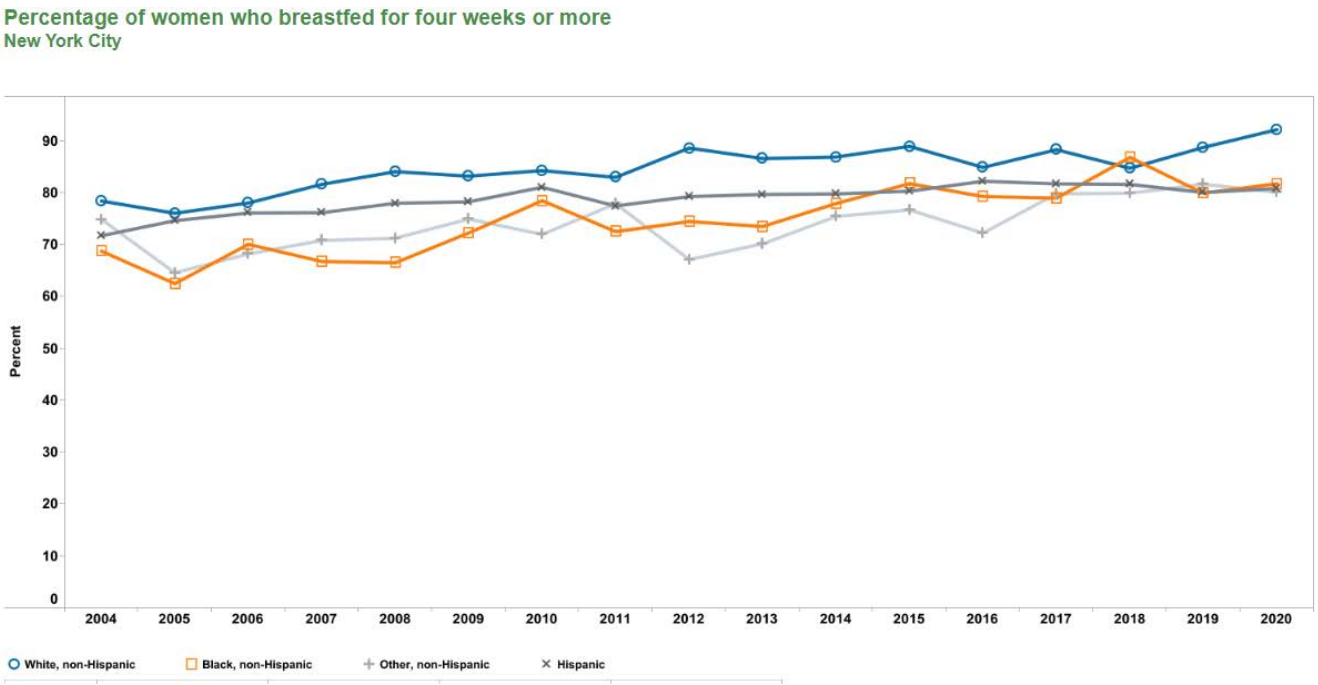


Table IV.II: Percentage of women who breastfed for four weeks or more (New York City)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2004	78.4 (70.3-84.7)	68.7 (59.5-76.6)	74.8 (61.0-85.0)	71.7 (64.5-77.9)
2005	76.0 (69.0-81.8)	62.4 (54.4-69.8)	64.5 (51.6-75.6)	74.6 (68.6-79.7)
2006	78.0 (72.4-82.7)	70.0 (63.6-75.8)	68.2 (58.3-76.6)	76.0 (71.2-80.3)
2007	81.6 (76.4-85.9)	66.7 (59.7-73.1)	70.8 (60.8-79.1)	76.1 (71.0-80.6)
2008	84.0 (77.7-88.8)	66.5 (57.6-74.3)	71.2 (61.5-79.3)	77.9 (71.8-83.0)
2009	83.2 (77.8-87.4)	72.2 (65.0-78.5)	74.9 (66.8-81.5)	78.2 (73.2-82.5)
2010	84.2 (79.1-88.3)	78.4 (71.6-84.0)	71.9 (64.3-78.5)	81.0 (76.1-85.1)
2011	82.9 (77.9-87.0)	72.5 (65.0-78.8)	77.8 (70.7-83.7)	77.4 (72.2-81.9)
2012	88.6 (84.4-91.7)	74.4 (67.3-80.4)	67.1 (59.6-73.8)	79.2 (74.3-83.4)
2013	86.6 (81.8-90.2)	73.5 (66.1-79.7)	70.1 (62.3-76.9)	79.6 (74.7-83.8)
2014	86.8 (82.7-90.1)	77.9 (71.4-83.2)	75.4 (68.7-81.0)	79.7 (75.2-83.6)
2015	88.9 (85.4-91.6)	81.7 (75.9-86.4)	76.7 (70.1-82.1)	80.3 (76.0-83.9)
2016	84.8 (80.7-88.2)	79.2 (73.2-84.2)	72.2 (65.7-77.9)	82.2 (77.9-85.8)
2017	88.2 (84.2-91.3)	78.9 (72.5-84.2)	79.8 (73.5-84.9)	81.7 (76.9-85.7)
2018	84.7 (80.4-88.1)	86.8 (81.4-90.8)	79.9 (73.4-85.1)	81.6 (76.7-85.6)
2019	88.7 (84.8-91.7)	79.9 (72.4-85.7)	81.6 (75.3-86.6)	80.0 (74.7-84.4)
2020	92.1 (88.3-94.8)	81.7 (74.3-87.3)	80.0 (72.8-85.7)	80.8 (75.5-85.1)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

In New York City, Other Non-Hispanic have the lowest rates of breastfeeding for four or more weeks.

The 2020 rates are:

White, non-Hispanic – 92.1%
Black, non-Hispanic – 81.7%
Other, non-Hispanic-80.0%
Hispanic-80.8%

Figure IV.III: Percentage of women who breastfed for four weeks or more (NYS excl NYC)

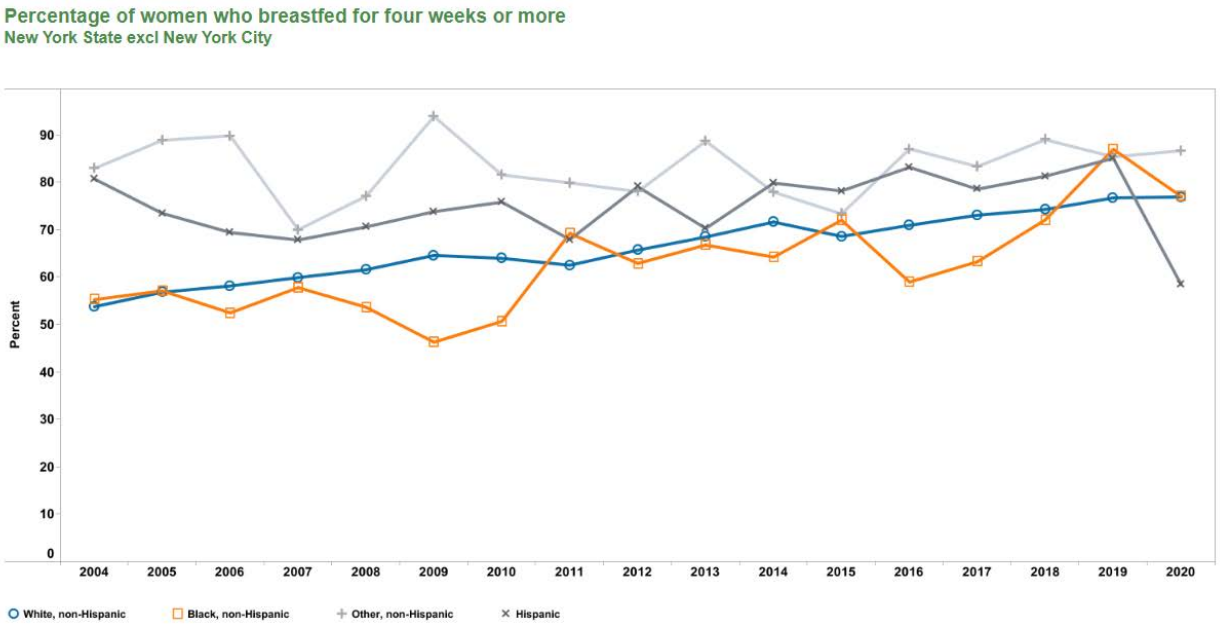


Table IV.III: Percentage of women who breastfed for four weeks or more (NYS excl NYC)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2004	53.7 (49.5-58.0)	55.2 (41.1-68.5)	82.9 (65.3-92.6)	80.7 (67.9-89.2)
2005	56.8 (52.5-60.9)	57.1 (43.3-69.8)	88.8 (74.9-95.5)	73.4 (64.0-81.1)
2006	58.1 (53.8-62.3)	52.4 (37.7-66.8)	89.8 (73.4-96.5)	69.4 (58.7-78.3)
2007	59.9 (55.3-64.3)	57.7 (43.7-70.7)	70.0 (54.5-81.9)	67.8 (57.5-76.6)
2008	61.5 (57.2-65.7)	53.6 (39.1-67.6)	77.0 (61.5-87.6)	70.5 (60.1-79.2)
2009	64.5 (59.8-69.0)	46.3 (33.0-60.1)	93.8 (79.9-98.3)	73.8 (63.6-81.9)
2010	63.9 (59.3-68.3)	50.6 (37.4-63.8)	81.5 (60.9-92.6)	75.8 (66.0-83.5)
2011	62.5 (57.9-66.9)	69.2 (54.8-80.6)	79.8 (67.3-88.4)	67.9 (57.2-77.0)
2012	65.7 (60.7-70.3)	62.9 (45.1-77.7)	78.0 (60.4-89.2)	79.0 (70.1-85.8)
2013	68.4 (63.4-73.0)	66.7 (52.2-78.7)	88.6 (75.5-95.2)	70.2 (59.6-79.1)
2014	71.6 (66.7-76.0)	64.2 (50.2-76.1)	77.9 (61.6-88.5)	79.8 (69.4-87.3)
2015	68.6 (63.7-73.0)	72.0 (55.1-84.3)	73.3 (58.0-84.5)	78.1 (67.5-86.0)
2016	70.9 (66.1-75.3)	58.9 (44.4-72.1)	87.0 (75.2-93.6)	83.1 (74.5-89.2)
2017	73.0 (67.9-77.6)	63.2 (45.9-77.7)	83.3 (68.6-91.9)	78.5 (65.5-87.5)
2018	74.2 (68.7-79.0)	72.0 (56.1-83.9)	88.9 (67.9-96.8)	81.2 (67.8-89.9)
2019	76.7 (71.8-80.9)	86.9 (66.6-95.7)	85.3 (69.4-93.7)	85.0 (72.3-92.5)
2020	76.9 (71.4-81.6)	77.0 (60.2-88.1)	86.6 (68.6-95.0)	58.4 (44.1-71.3)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

In NYS outside New York City (NYC), Hispanic women have the lowest rates of breastfeeding for four or more weeks.

The 2020 rates are:

White, non-Hispanic – 76.9%
Black, non-Hispanic – 77.0%
Other, non-Hispanic-86.6%
Hispanic-58.4%

Figure V.I: Percentage of women who breastfed for eight weeks or more (New York State)

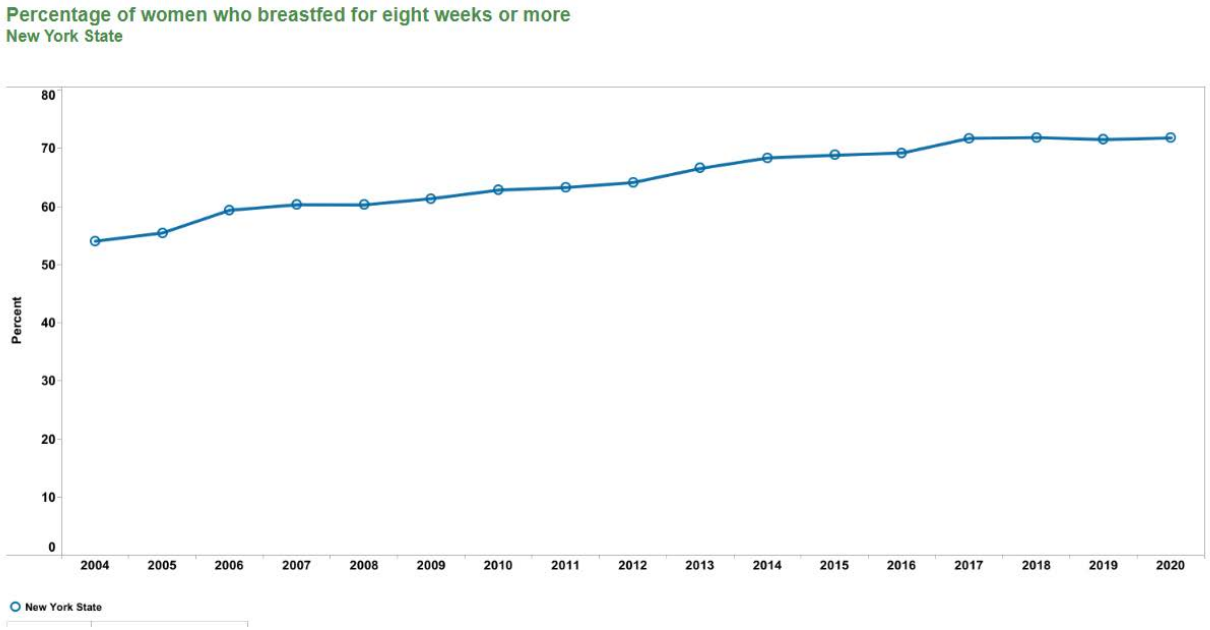


Table V.I: Percentage of women who breastfed for eight weeks or more (New York State)

Year	New York State Percentage (95% CI)
2004	54.0 (51.0-57.0)
2005	55.4 (52.7-58.1)
2006	59.3 (56.8-61.8)
2007	60.3 (57.7-62.8)
2008	60.3 (57.6-62.9)
2009	61.3 (58.7-63.9)
2010	62.8 (60.3-65.3)
2011	63.2 (60.7-65.7)
2012	64.1 (61.5-66.6)
2013	66.5 (63.9-69.0)
2014	68.3 (65.9-70.7)
2015	68.8 (66.4-71.1)
2016	69.2 (66.8-71.4)
2017	71.7 (69.1-74.2)
2018	71.8 (69.1-74.4)
2019	71.5 (68.7-74.2)
2020	71.8 (68.8-74.6)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women in New York State who breastfed their infants for eight or more weeks increased from 54.0% in 2004 to 71.8% in 2020.

Figure V.II: Percentage of women who breastfed for eight weeks or more (New York City)

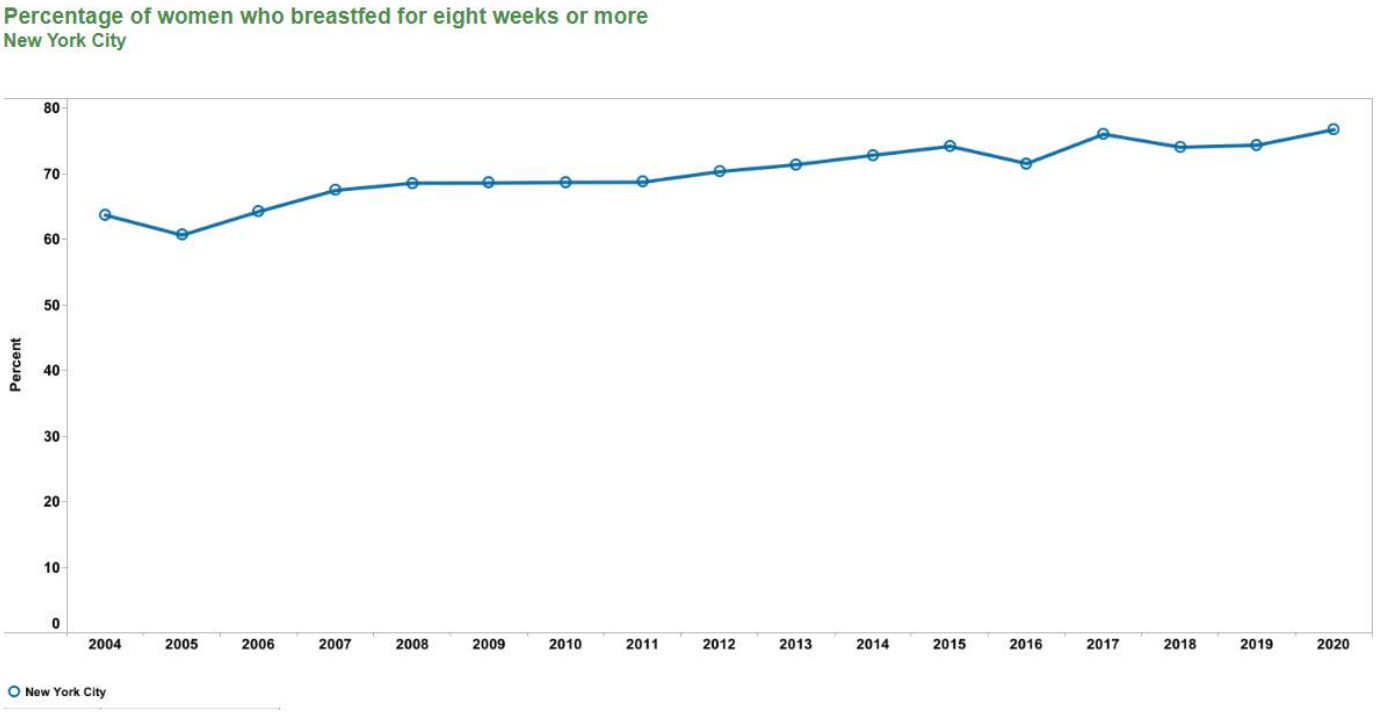


Table V.II: Percentage of women who breastfed for eight weeks or more (New York City)

	New York City
Year	Percentage (95% CI)
2004	63.7 (59.2-67.9)
2005	60.6 (56.7-64.4)
2006	64.2 (61.1-67.3)
2007	67.5 (64.2-70.5)
2008	68.6 (64.8-72.1)
2009	68.6 (65.4-71.6)
2010	68.7 (65.5-71.7)
2011	68.7 (65.6-71.7)
2012	70.3 (67.4-73.1)
2013	71.4 (68.3-74.2)
2014	72.8 (70.1-75.4)
2015	74.2 (71.6-76.6)
2016	71.5 (68.9-74.1)
2017	76.0 (73.3-78.5)
2018	74.0 (71.3-76.6)
2019	74.4 (71.4-77.1)
2020	76.7 (73.7-79.5)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women in New York City who breastfed their infants for eight or more weeks increased from 63.7% in 2004 to 76.7% in 2020.

Figure V.III: Percentage of women who breastfed for eight weeks or more (NYS excl NYC)

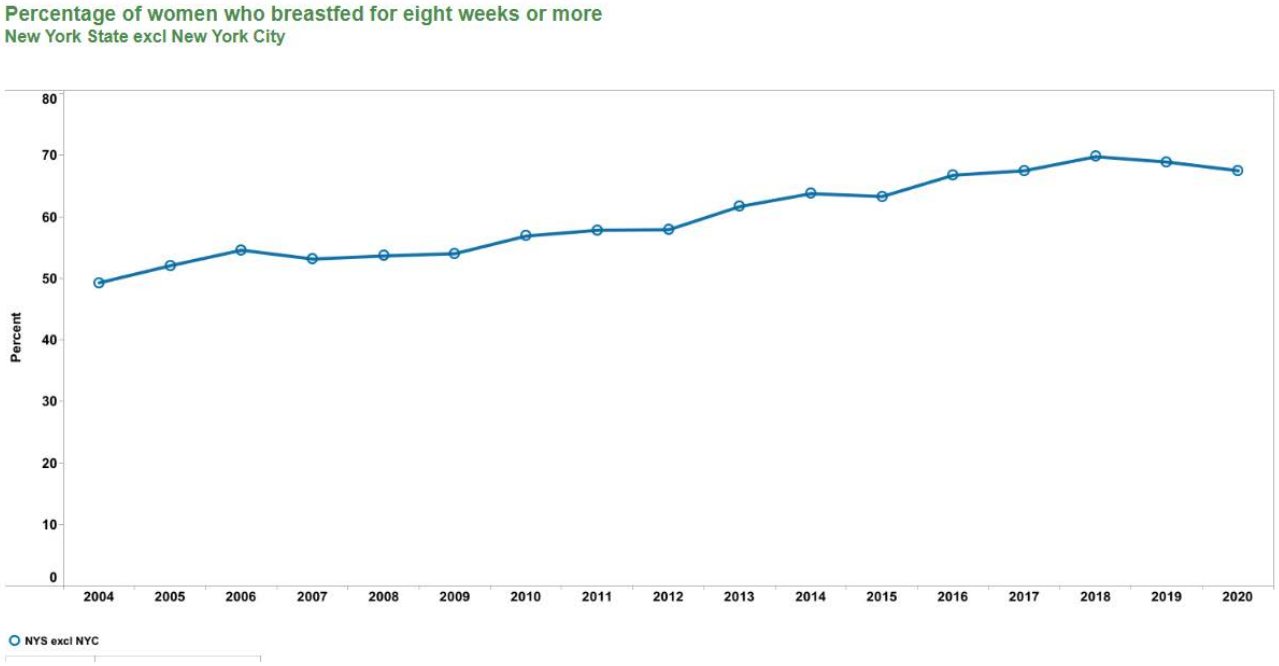


Table V.III: Percentage of women who breastfed for eight weeks or more (NYS excl NYC)

	NYS excl NYC
Year	Percentage (95% CI)
2004	49.3 (45.4-53.1)
2005	52.0 (48.4-55.7)
2006	54.6 (50.7-58.3)
2007	53.1 (49.3-56.9)
2008	53.6 (49.9-57.3)
2009	54.0 (50.0-58.0)
2010	56.9 (52.9-60.7)
2011	57.8 (53.9-61.6)
2012	57.9 (53.6-62.0)
2013	61.7 (57.5-65.7)
2014	63.8 (59.6-67.7)
2015	63.3 (59.1-67.2)
2016	66.7 (62.8-70.5)
2017	67.5 (63.0-71.7)
2018	69.8 (65.1-74.1)
2019	68.9 (64.2-73.2)
2020	67.5 (62.5-72.1)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

The percentage of women in New York State outside of NYC who breastfed their infants for eight or more weeks increased from 49.3% in 2004 to 67.5% in 2020.

Figure VI.I: Percentage of women who breastfed for eight weeks or more (New York State)

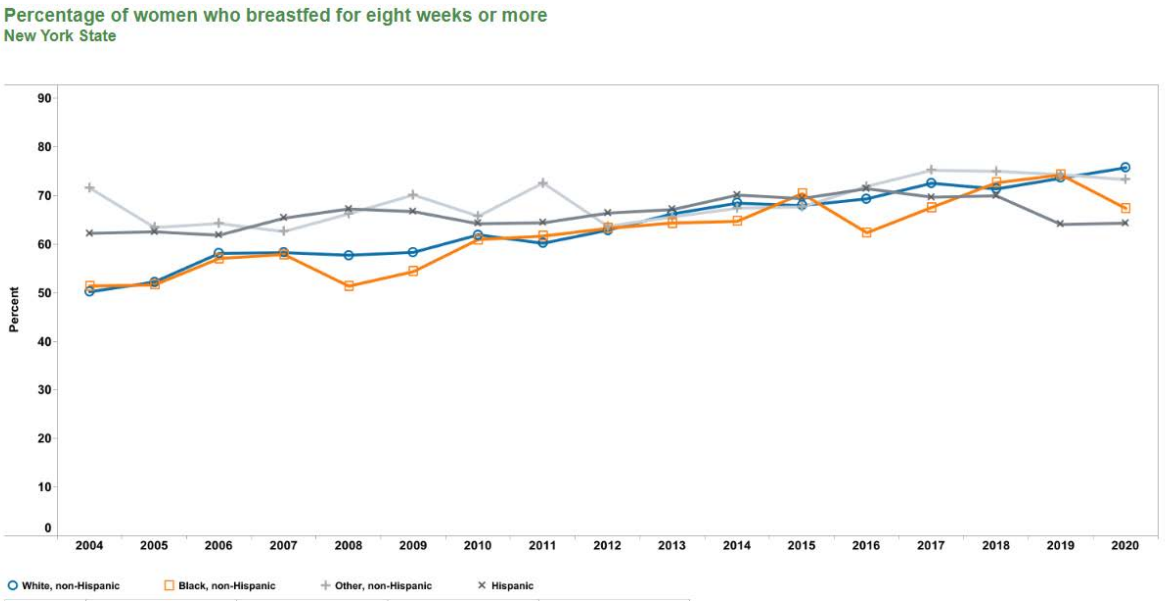


Table VI.I: Percentage of women who breastfed for eight weeks or more (New York State)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2004	50.2 (46.3-54.0)	51.4 (43.6-59.1)	71.5 (60.3-80.6)	62.2 (55.3-68.7)
2005	52.2 (48.5-55.9)	51.6 (44.3-58.8)	63.4 (53.5-72.3)	62.5 (57.2-67.6)
2006	58.1 (54.5-61.6)	57.0 (50.7-63.2)	64.2 (55.6-72.0)	61.8 (56.9-66.5)
2007	58.2 (54.6-61.8)	57.9 (51.3-64.1)	62.6 (54.3-70.2)	65.3 (60.4-70.0)
2008	57.7 (53.9-61.4)	51.3 (43.7-59.0)	66.2 (58.1-73.5)	67.2 (61.7-72.3)
2009	58.3 (54.4-62.1)	54.3 (47.5-61.0)	70.1 (62.8-76.5)	66.7 (61.8-71.2)
2010	61.9 (58.1-65.6)	60.9 (54.2-67.3)	65.7 (58.5-72.3)	64.2 (59.2-68.9)
2011	60.2 (56.4-63.8)	61.6 (54.7-68.1)	72.6 (66.1-78.2)	64.4 (59.2-69.2)
2012	62.9 (59.0-66.6)	63.2 (55.4-70.5)	63.6 (56.6-70.1)	66.4 (61.4-71.0)
2013	66.2 (62.2-70.0)	64.3 (57.1-70.9)	65.6 (58.5-72.1)	67.1 (62.1-71.8)
2014	68.4 (64.6-72.0)	64.7 (57.9-71.0)	67.4 (60.6-73.5)	70.1 (65.2-74.5)
2015	67.9 (64.2-71.4)	70.4 (63.9-76.1)	67.6 (61.1-73.5)	69.4 (64.6-73.8)
2016	69.3 (65.6-72.7)	62.3 (55.9-68.3)	71.9 (66.0-77.1)	71.4 (66.8-75.6)
2017	72.5 (68.7-76.0)	67.5 (60.6-73.8)	75.2 (68.7-80.7)	69.6 (63.5-75.1)
2018	71.3 (67.2-75.2)	72.6 (65.3-78.9)	75.0 (68.5-80.5)	69.9 (64.1-75.2)
2019	73.5 (69.7-77.1)	74.2 (65.6-81.3)	74.3 (68.0-79.7)	64.0 (57.3-70.3)
2020	75.7 (71.3-79.6)	67.3 (58.7-74.9)	73.2 (66.0-79.4)	64.3 (57.6-70.5)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

In New York State (NYS), Hispanic women have the lowest rates for breastfeeding their infants for eight or more weeks.

The 2020 rates are:

White, non-Hispanic – 75.7%
Black, non-Hispanic – 67.3%
Other non-Hispanic -73.2%
Hispanic-64.3%

Figure VI.II: Percentage of women who breastfed for eight weeks or more (New York City)

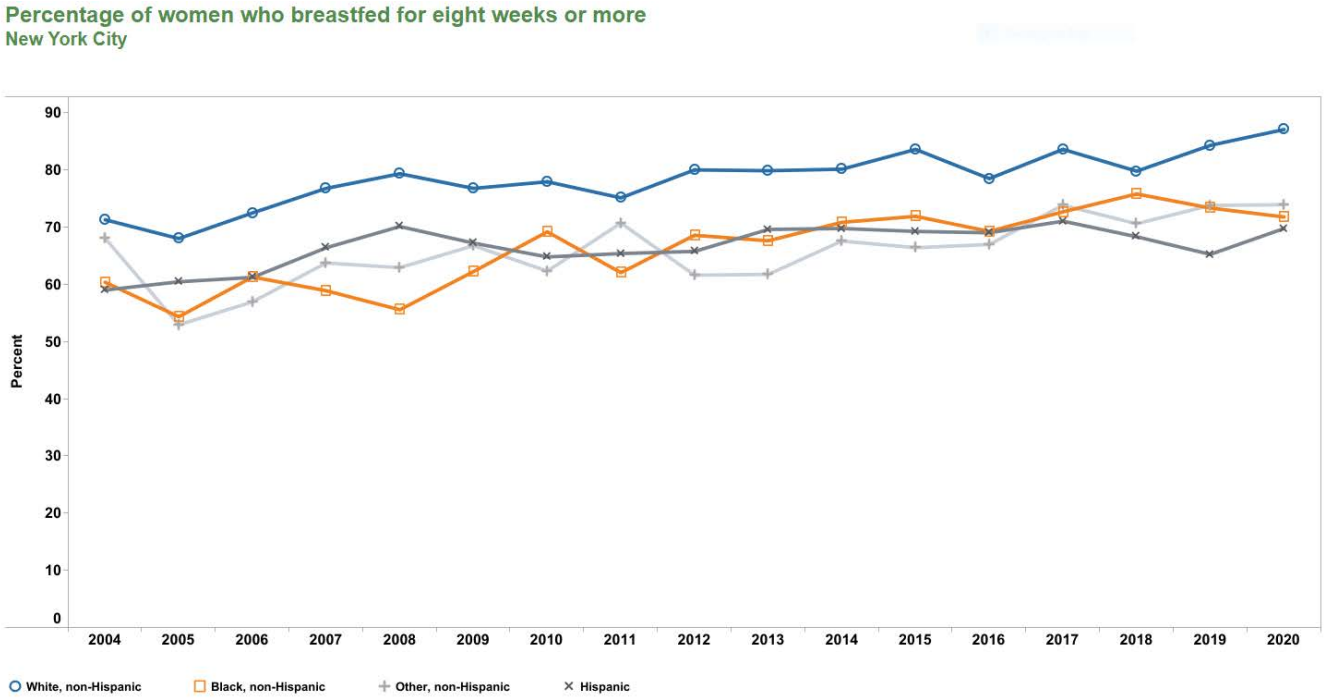


Table VI.II: Percentage of women who breastfed for eight weeks or more (New York City)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2004	71.3 (63.0-78.3)	60.3 (51.1-68.9)	68.0 (54.0-79.4)	59.0 (51.5-66.1)
2005	68.0 (60.6-74.5)	54.3 (46.3-62.1)	52.9 (40.6-64.8)	60.4 (54.0-66.5)
2006	72.5 (66.7-77.6)	61.3 (54.6-67.5)	56.9 (47.1-66.2)	61.2 (55.9-66.3)
2007	76.7 (71.2-81.5)	58.9 (51.8-65.6)	63.7 (53.7-72.6)	66.4 (60.9-71.5)
2008	79.3 (72.6-84.7)	55.5 (46.7-64.1)	62.9 (53.0-71.8)	70.1 (63.6-75.8)
2009	76.7 (70.9-81.7)	62.2 (54.7-69.2)	66.7 (58.4-74.1)	67.2 (61.8-72.2)
2010	77.9 (72.2-82.7)	69.2 (61.7-75.7)	62.3 (54.3-69.6)	64.8 (59.1-70.1)
2011	75.1 (69.5-80.0)	62.0 (54.3-69.2)	70.7 (63.1-77.3)	65.4 (59.7-70.6)
2012	80.0 (75.0-84.2)	68.6 (61.2-75.1)	61.6 (54.0-68.6)	65.7 (60.2-70.9)
2013	79.8 (74.5-84.3)	67.6 (60.0-74.4)	61.7 (53.7-69.1)	69.6 (64.2-74.5)
2014	80.1 (75.4-84.1)	70.8 (64.0-76.8)	67.5 (60.5-73.9)	69.7 (64.7-74.4)
2015	83.6 (79.5-86.9)	71.9 (65.4-77.6)	66.4 (59.5-72.7)	69.2 (64.4-73.7)
2016	78.5 (73.9-82.4)	69.2 (62.7-75.1)	66.9 (60.2-73.0)	69.0 (64.0-73.6)
2017	83.6 (79.1-87.2)	72.7 (65.9-78.5)	73.8 (67.1-79.5)	71.0 (65.6-75.9)
2018	79.8 (75.2-83.7)	75.8 (69.1-81.4)	70.6 (63.6-76.7)	68.3 (62.7-73.4)
2019	84.3 (79.9-87.8)	73.3 (65.3-80.0)	73.8 (67.1-79.5)	65.2 (59.3-70.7)
2020	87.0 (82.6-90.5)	71.8 (63.6-78.7)	73.9 (66.4-80.3)	69.7 (64.0-75.0)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

In New York City, Hispanic women have the lowest rates for breastfeeding their infants for eight or more weeks.

The 2020 rates are:

White, non-Hispanic – 87.0%
Black, non-Hispanic – 71.8%
Other non-Hispanic -73.9%
Hispanic-69.7%

Figure VI.III: Percentage of women who breastfed for eight weeks or more (NYS excl NYC)

Table VI.III: Percentage of women who breastfed for eight weeks or more (NYS excl NYC)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2004	46.5 (42.3-50.7)	34.7 (22.6-49.2)	75.6 (56.2-88.3)	67.4 (53.6-78.7)
2005	48.0 (43.8-52.2)	47.5 (34.3-61.1)	79.2 (63.8-89.2)	66.1 (56.5-74.5)
2006	52.1 (47.7-56.4)	45.2 (31.2-60.1)	85.6 (68.7-94.2)	63.2 (52.3-72.9)
2007	49.8 (45.4-54.3)	55.5 (41.6-68.7)	60.0 (44.8-73.5)	63.2 (52.9-72.4)
2008	51.6 (47.2-55.9)	43.8 (30.4-58.2)	73.5 (58.1-84.7)	61.3 (50.9-70.8)
2009	51.5 (46.8-56.2)	37.5 (25.2-51.6)	81.6 (65.5-91.2)	65.6 (55.1-74.7)
2010	56.3 (51.6-60.8)	41.4 (29.0-55.1)	79.5 (59.7-91.0)	62.8 (52.5-72.0)
2011	53.8 (49.2-58.4)	60.8 (46.2-73.6)	76.3 (63.6-85.6)	62.2 (51.4-71.9)
2012	55.0 (50.0-59.9)	52.8 (35.6-69.3)	69.3 (52.1-82.4)	67.5 (57.4-76.1)
2013	60.3 (55.2-65.2)	58.7 (44.3-71.9)	75.7 (60.0-86.7)	62.0 (51.2-71.7)
2014	62.9 (57.9-67.7)	53.8 (40.2-66.9)	66.9 (50.8-79.9)	70.7 (59.8-79.7)
2015	60.8 (55.9-65.6)	66.2 (49.5-79.6)	70.6 (55.3-82.3)	69.7 (58.5-78.9)
2016	64.8 (59.9-69.5)	45.2 (31.8-59.4)	82.5 (69.8-90.5)	75.1 (66.0-82.5)
2017	67.3 (62.1-72.1)	53.8 (37.4-69.3)	78.2 (61.7-88.8)	67.4 (53.7-78.7)
2018	67.5 (61.8-72.7)	67.3 (51.2-80.1)	88.4 (67.9-96.5)	72.9 (59.0-83.4)
2019	69.1 (63.9-73.8)	75.9 (54.4-89.2)	75.8 (59.3-87.0)	62.2 (47.4-74.9)
2020	71.2 (65.4-76.3)	61.2 (44.3-75.8)	71.4 (52.5-85.0)	55.6 (41.7-68.8)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

This report excludes respondents whose baby has died or is not living with them.

In NYS outside New York City (NYC), Hispanic women have the lowest rates of breastfeeding for eight or more weeks.

The 2020 rates are:

White, non-Hispanic – 71.2%
Black, non-Hispanic – 61.2%
Other, non-Hispanic-71.4%
Hispanic-55.6%

Pregnancy Risk Assessment Monitoring System (PRAMS)

Hospital Practices

Population: Mothers who have given birth in the past 2-4 months prior to sampling

Data Source: Questionnaires or phone interviews

List of Hospital Practices Related to Breastfeeding Indicators

1. Percentage of women who breastfed in the hospital
2. Percentage of women who report hospital gave them a gift pack with formula
3. Percentage of women who breastfed within the first hour after birth
4. Percentage of women who report the hospital gave them breastfeeding information
5. Percentage of women who report their baby stayed in the same room at hospital

Years Included**:** 2009-2020

Figure I.I: Percentage of women who breastfed in the hospital (New York State)

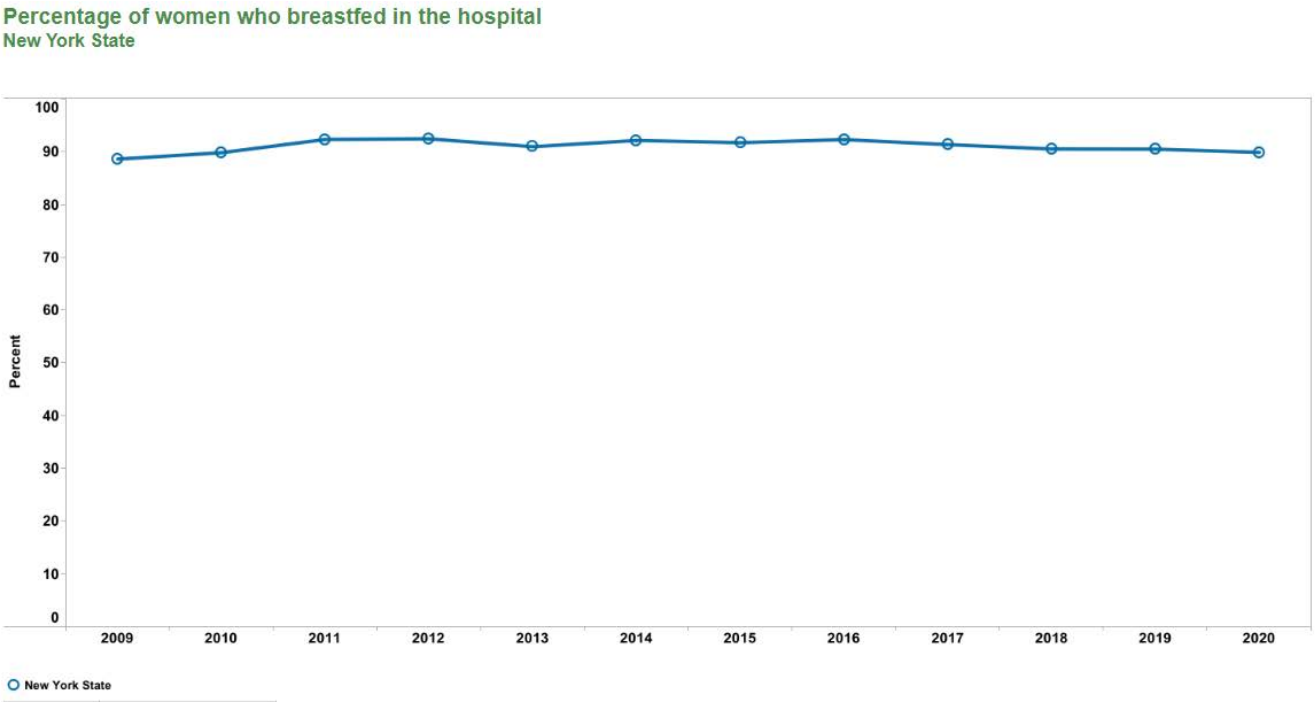


Table I.I: Percentage of women who breastfed in the hospital (New York State)

	New York State
Year	Percentage (95% CI)
2009	88.6 (86.7-90.2)
2010	89.8 (88.1-91.3)
2011	92.3 (90.9-93.5)
2012	92.4 (90.9-93.7)
2013	90.9 (89.2-92.4)
2014	92.1 (90.6-93.4)
2015	91.7 (90.2-93.0)
2016	92.3 (90.9-93.5)
2017	91.3 (89.6-92.8)
2018	90.5 (88.6-92.1)
2019	90.5 (88.7-92.0)
2020	89.9 (87.9-91.5)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who breastfed in the hospital in New York State has remained similiar from 88.6% in 2009 to 89.9% in 2020.

Figure I.II: Percentage of women who breastfed in the hospital (New York City)

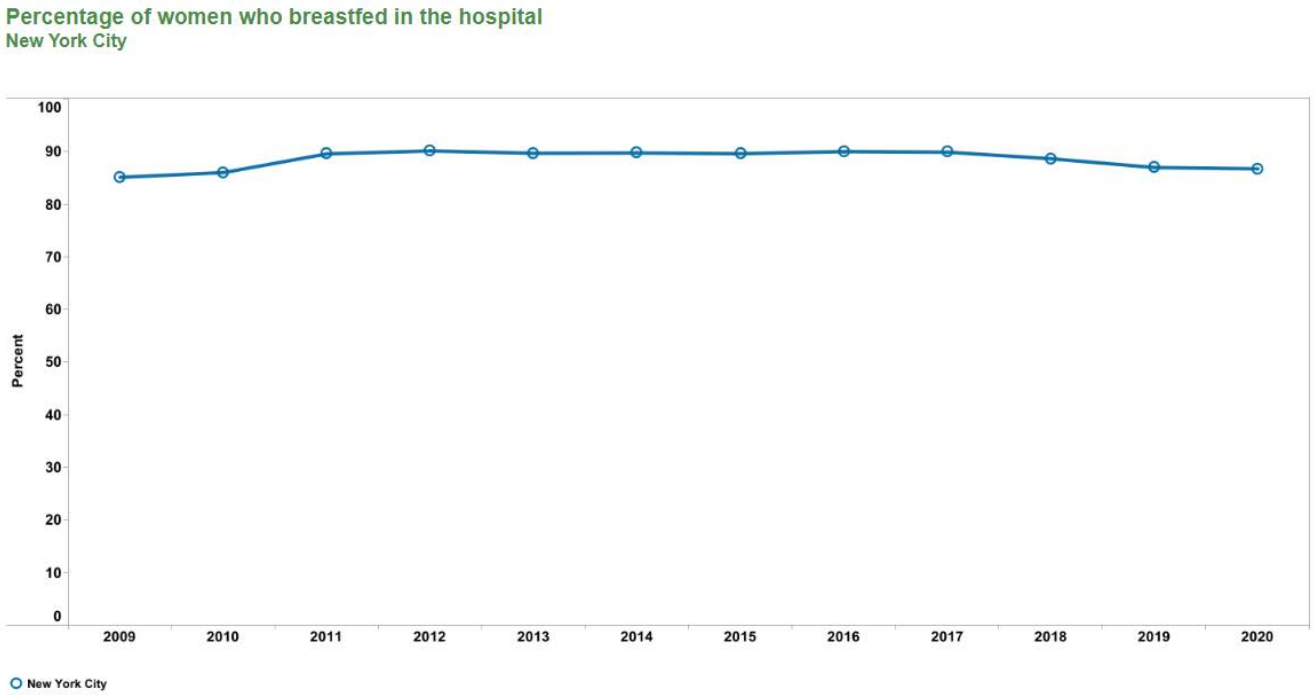


Table I.II: Percentage of women who breastfed in the hospital (New York City)

	New York City
Year	Percentage (95% CI)
2009	85.1 (82.4-87.4)
2010	86.0 (83.4-88.2)
2011	89.5 (87.4-91.4)
2012	90.1 (88.0-91.9)
2013	89.7 (87.4-91.5)
2014	89.7 (87.7-91.4)
2015	89.6 (87.6-91.2)
2016	90.0 (88.1-91.6)
2017	89.9 (87.8-91.6)
2018	88.6 (86.5-90.5)
2019	86.9 (84.5-89.1)
2020	86.7 (84.2-88.9)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who breastfed in the hospital in New York City has remained similar from 85.1% in 2009 to 86.7% in 2020.

Figure I.III: Percentage of women who breastfed in the hospital (NYS excl NYC)

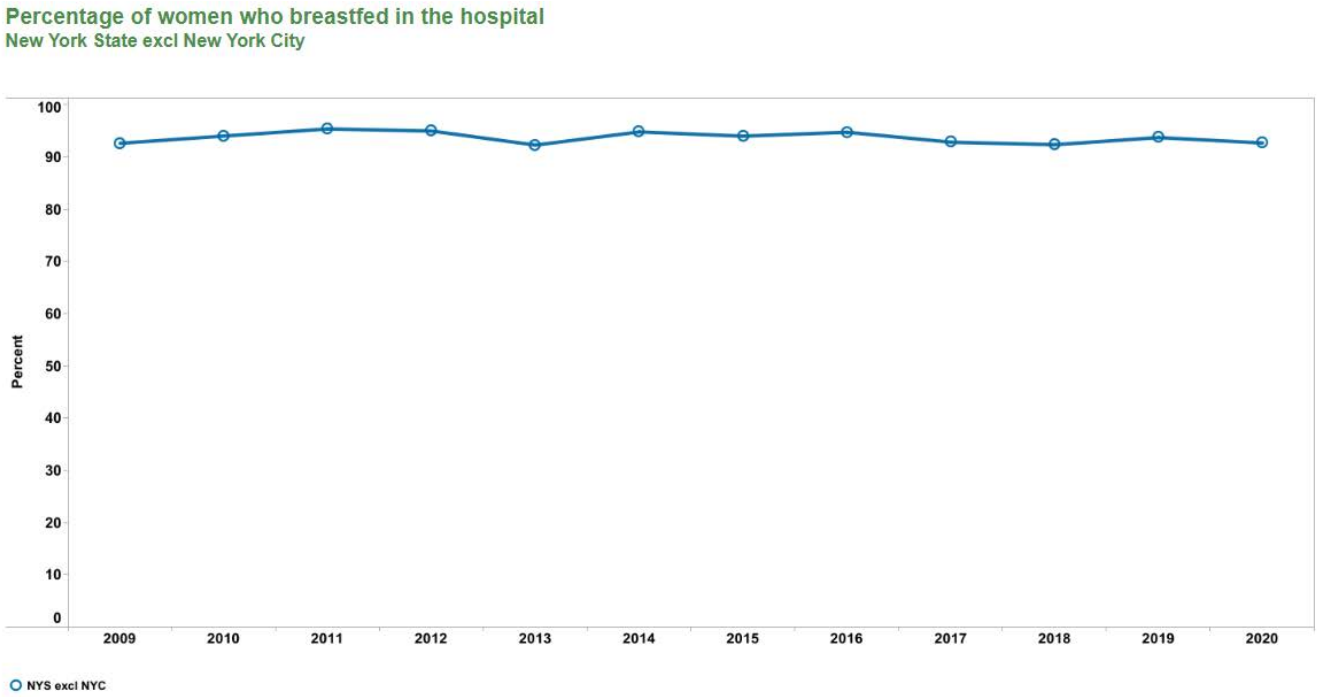


Table I.III: Percentage of women who breastfed in the hospital (NYS excl NYC)

	NYS excl NYC
Year	Percentage (95% CI)
2009	92.6 (90.0-94.6)
2010	94.0 (91.8-95.7)
2011	95.4 (93.5-96.8)
2012	95.0 (92.7-96.6)
2013	92.3 (89.4-94.5)
2014	94.8 (92.4-96.5)
2015	94.0 (91.6-95.8)
2016	94.8 (92.5-96.4)
2017	92.8 (89.7-95.1)
2018	92.4 (89.1-94.7)
2019	93.7 (91.0-95.7)
2020	92.7 (89.6-94.9)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State outside NYC who breastfed in the hospital has remained similar from 92.6% in 2009 to 92.7% in 2020.

Figure II.I: Percentage of women who breastfed in the hospital (New York State)

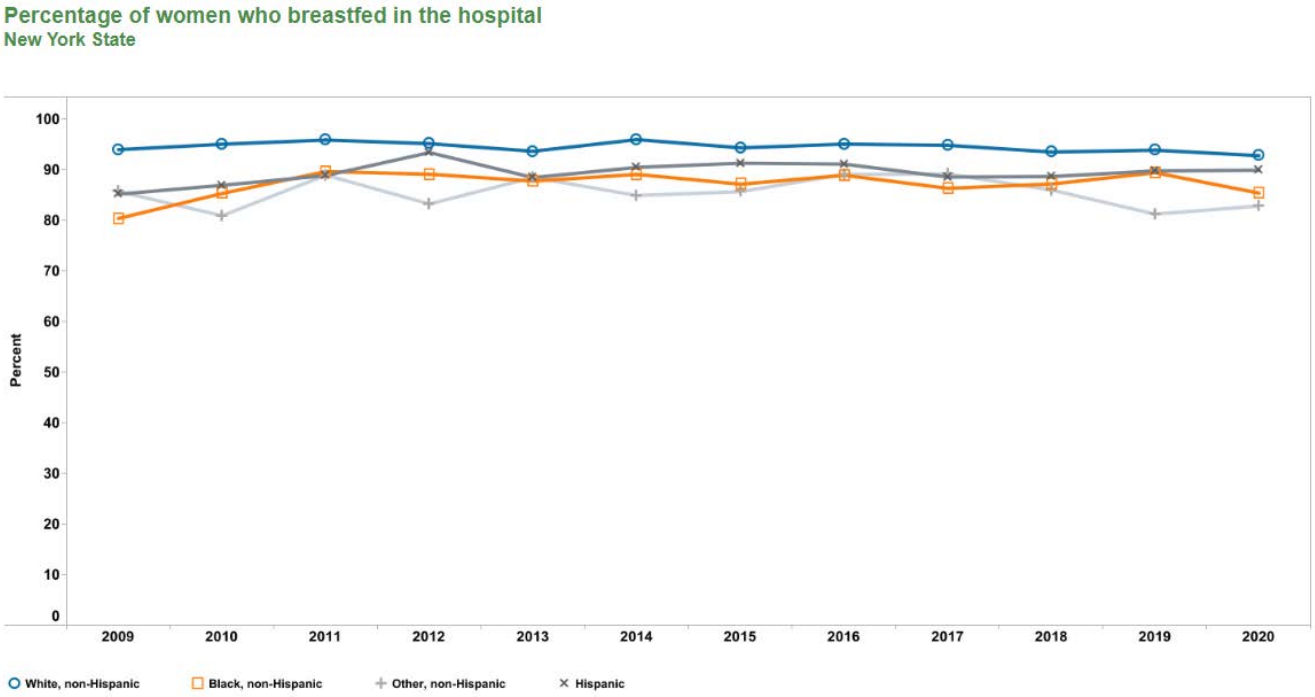


Table II.I: Percentage of women who breastfed in the hospital (New York State)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2009	93.9 (91.7-95.6)	80.3 (73.9-85.5)	85.7 (79.3-90.3)	85.1 (81.1-88.4)
2010	95.0 (93.0-96.5)	85.3 (79.6-89.5)	80.9 (73.7-86.4)	86.9 (83.1-89.9)
2011	95.8 (94.1-97.0)	89.6 (84.6-93.1)	88.9 (84.1-92.4)	88.8 (85.3-91.6)
2012	95.1 (93.1-96.5)	89.1 (83.5-92.9)	83.2 (76.9-88.1)	93.4 (90.5-95.4)
2013	93.6 (91.1-95.4)	87.7 (82.4-91.6)	88.4 (83.1-92.2)	88.4 (84.2-91.6)
2014	95.9 (94.1-97.2)	89.0 (84.1-92.6)	84.9 (79.3-89.2)	90.4 (86.9-93.1)
2015	94.3 (92.3-95.8)	87.1 (81.8-91.0)	85.6 (80.4-89.6)	91.2 (87.8-93.8)
2016	95.0 (93.2-96.4)	88.9 (83.9-92.4)	89.0 (84.0-92.6)	91.1 (88.1-93.3)
2017	94.8 (92.5-96.4)	86.3 (81.1-90.2)	89.1 (84.6-92.4)	88.5 (83.6-92.1)
2018	93.5 (90.8-95.4)	87.1 (82.1-90.9)	86.0 (79.8-90.5)	88.6 (84.0-92.0)
2019	93.8 (91.6-95.5)	89.4 (84.2-93.0)	81.2 (75.0-86.1)	89.7 (85.2-93.0)
2020	92.7 (90.0-94.8)	85.3 (78.4-90.3)	82.8 (75.8-88.1)	89.9 (86.2-92.6)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York State (NYS), Other, non-Hispanic women have the lowest rates for breastfeeding their infants for eight or more weeks.

The 2020 rates are:

White, non-Hispanic – 92.7%
Black, non-Hispanic – 85.3%
Other non-Hispanic -82.8%
Hispanic-89.9%

Figure II.II: Percentage of women who breastfed in the hospital (New York City)

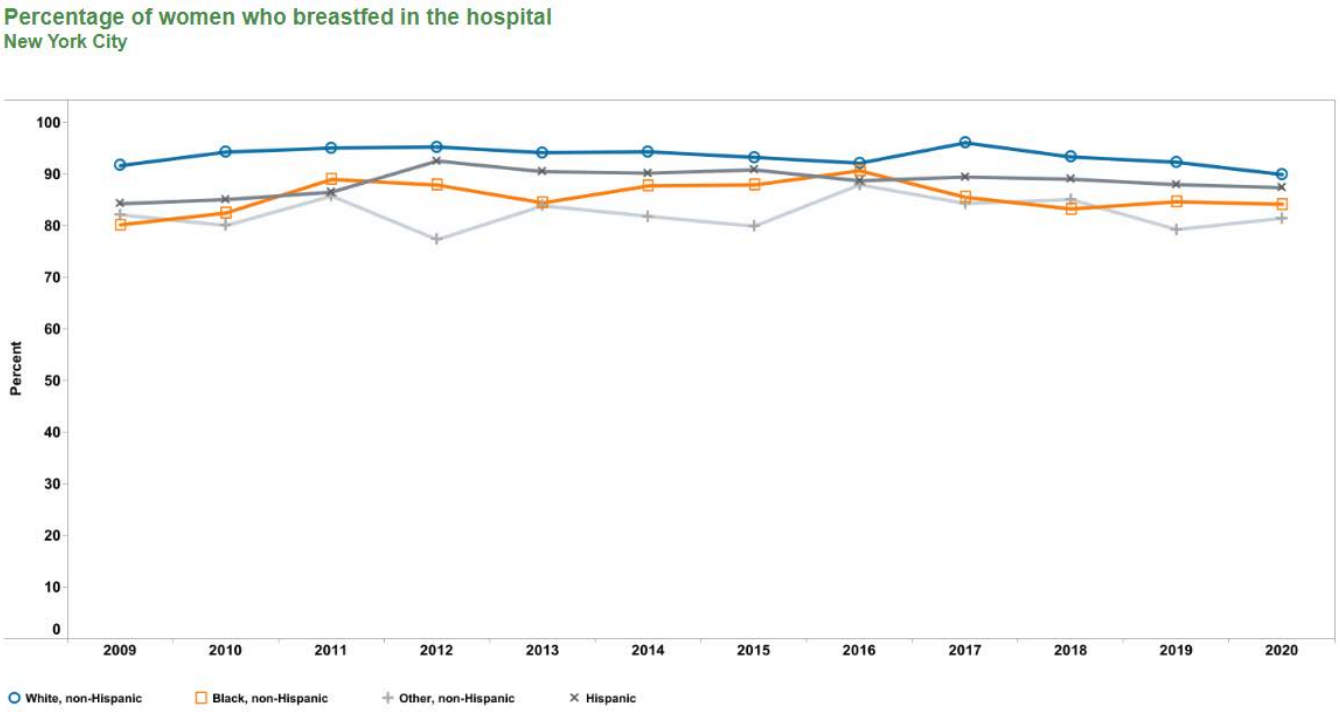


Table II.II: Percentage of women who breastfed in the hospital (New York City)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	91.6 (87.0-94.7)	80.1 (73.2-85.6)	82.1 (74.1-88.0)	84.2 (79.6-88.0)
2010	94.2 (90.1-96.7)	82.4 (75.6-87.7)	80.0 (71.9-86.2)	85.0 (80.5-88.7)
2011	95.0 (91.8-97.0)	88.9 (83.3-92.9)	85.7 (79.2-90.5)	86.5 (82.0-90.0)
2012	95.2 (92.2-97.1)	87.9 (82.0-92.0)	77.3 (69.2-83.7)	92.5 (89.1-94.9)
2013	94.1 (90.3-96.5)	84.4 (77.8-89.3)	83.8 (76.7-89.1)	90.5 (86.4-93.4)
2014	94.3 (91.1-96.4)	87.7 (82.2-91.6)	81.8 (75.3-86.9)	90.2 (86.4-92.9)
2015	93.2 (90.1-95.4)	87.9 (82.7-91.7)	79.9 (73.1-85.3)	90.8 (87.2-93.5)
2016	92.1 (88.7-94.5)	90.6 (86.1-93.8)	87.9 (82.4-91.9)	88.7 (84.9-91.6)
2017	96.0 (93.4-97.7)	85.5 (79.7-89.8)	84.3 (78.0-89.0)	89.4 (85.5-92.4)
2018	93.3 (90.3-95.4)	83.2 (76.7-88.2)	85.0 (78.9-89.6)	89.0 (84.8-92.1)
2019	92.3 (88.5-94.9)	84.6 (77.1-90.0)	79.2 (72.4-84.7)	87.9 (83.5-91.3)
2020	89.9 (85.4-93.1)	84.1 (76.9-89.4)	81.4 (74.0-87.1)	87.4 (82.8-90.8)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York City, the rate of breastfeeding in the hospital was similar across different race/ethnicity groups.

The 2020 rates are,

White, non-Hispanic – 89.9%
Black, non-Hispanic – 84.1%
Other, non-Hispanic-81.4%
Hispanic-87.4%

Figure II.III: Percentage of women who breastfed in the hospital (NYS excl NYC)

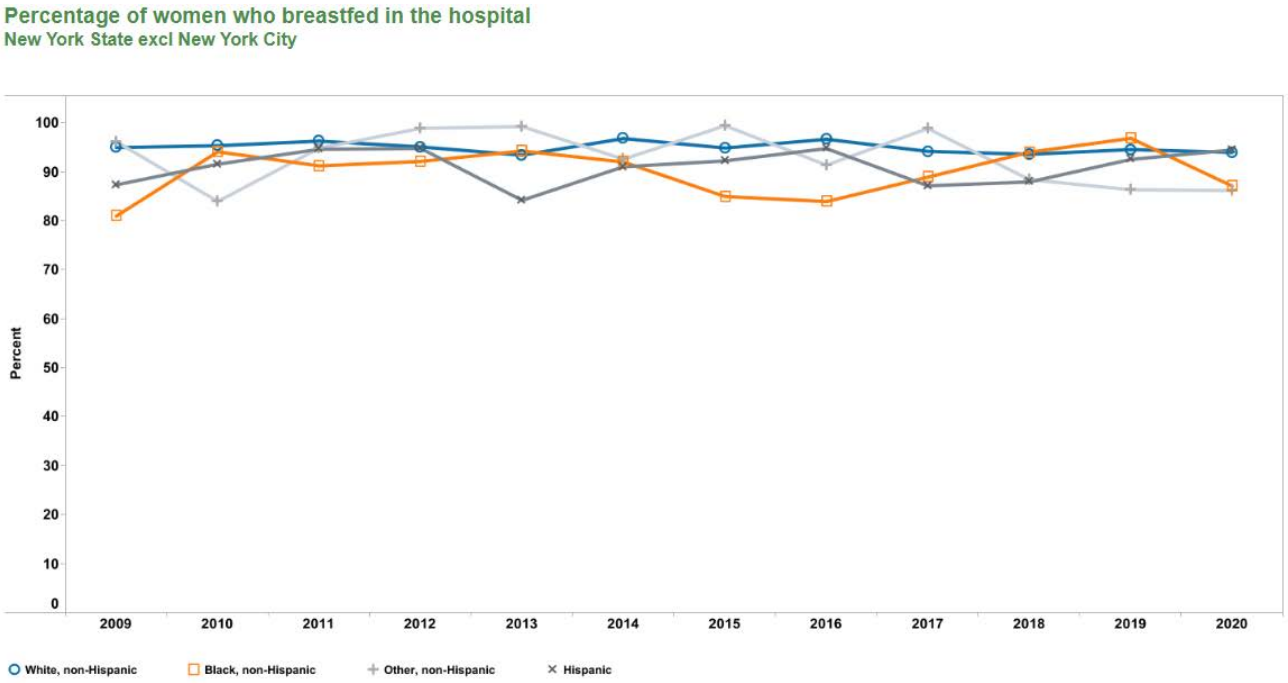


Table II.III: Percentage of women who breastfed in the hospital (NYS excl NYC)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	94.9 (92.3-96.7)	80.9 (62.8-91.4)	96.1 (82.8-99.2)	87.3 (77.9-93.0)
2010	95.3 (92.8-97.0)	94.0 (83.0-98.1)	83.9 (65.3-93.5)	91.5 (83.7-95.8)
2011	96.2 (94.0-97.6)	91.2 (78.0-96.8)	94.8 (86.8-98.1)	94.6 (88.5-97.5)
2012	95.0 (92.3-96.9)	92.1 (73.2-98.0)	98.8 (97.2-99.5)	94.7 (88.4-97.7)
2013	93.4 (89.9-95.7)	94.2 (81.3-98.4)	99.2 (97.8-99.7)	84.1 (73.6-91.0)
2014	96.8 (94.3-98.2)	92.0 (78.1-97.3)	92.5 (77.6-97.8)	91.0 (81.7-95.8)
2015	94.8 (92.1-96.6)	84.9 (68.4-93.6)	99.4 (98.0-99.8)	92.2 (82.7-96.7)
2016	96.6 (94.2-98.0)	83.9 (68.2-92.7)	91.3 (77.9-96.9)	94.7 (89.0-97.5)
2017	94.1 (90.8-96.3)	88.9 (74.8-95.5)	98.8 (97.2-99.5)	87.1 (74.5-94.0)
2018	93.5 (89.6-96.1)	94.0 (84.9-97.7)	88.4 (67.7-96.5)	87.9 (75.5-94.5)
2019	94.5 (91.5-96.5)	96.8 (93.4-98.5)	86.3 (69.3-94.6)	92.5 (80.3-97.4)
2020	93.9 (90.2-96.3)	87.0 (71.6-94.7)	86.1 (66.5-95.1)	94.4 (87.4-97.6)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York State outside of NYC, the rate of breastfeeding in the hospital was similar across different race/ethnicity groups.

The 2020 rates are,

White, non-Hispanic – 93.9%
Black, non-Hispanic – 87.0%
Other, non-Hispanic-86.9%
Hispanic-94.4%

Figure III.I: Percentage of women who report the hospital gave them a gift pack with formula (New York State)

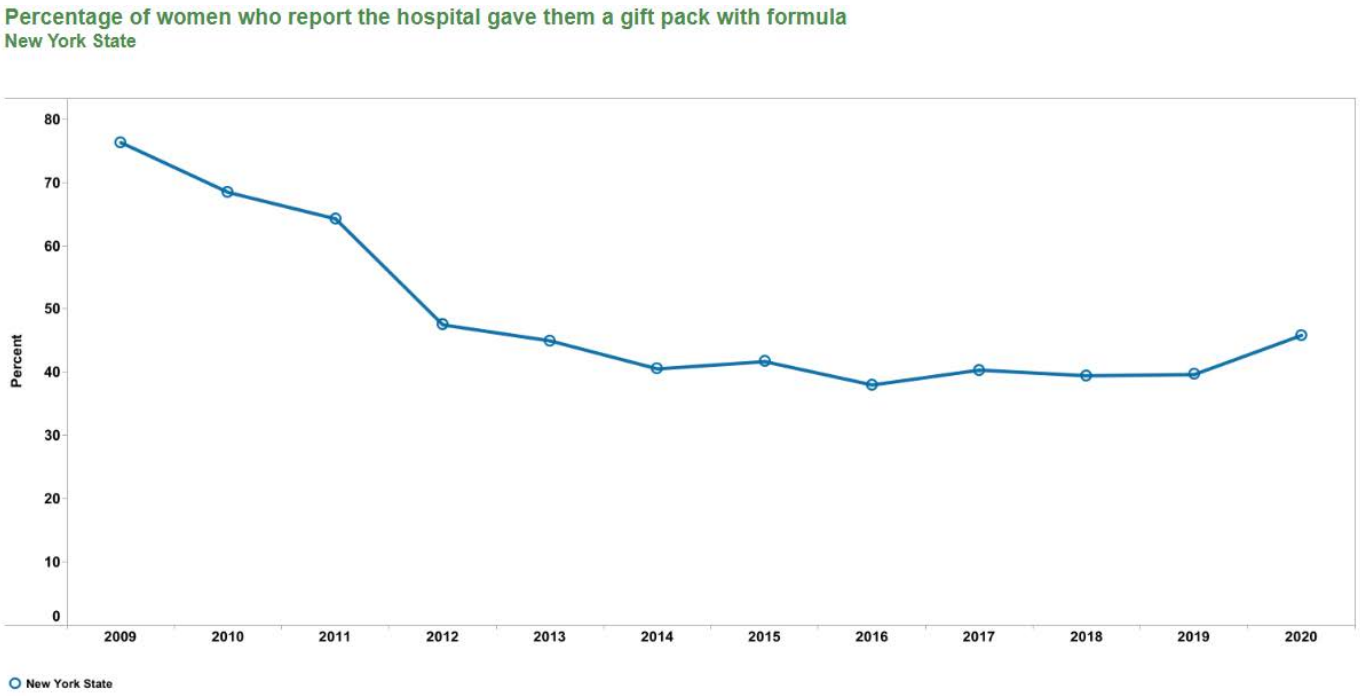


Table III.I: Percentage of women who report the hospital gave them a gift pack with formula (New York State)

	New York State
Year	Percentage (95% CI)
2009	76.3 (73.8-78.6)
2010	68.4 (65.7-71.0)
2011	64.2 (61.5-66.9)
2012	47.5 (44.6-50.4)
2013	44.9 (42.1-47.8)
2014	40.5 (37.9-43.2)
2015	41.7 (39.1-44.3)
2016	38.0 (35.5-40.5)
2017	40.3 (37.5-43.2)
2018	39.4 (36.5-42.4)
2019	39.6 (36.6-42.7)
2020	45.8 (42.6-49.1)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State who report the hospital gave them a gift pack of formula decreased from 76.3% in 2009 to 45.8% in 2020.

Figure III.II: Percentage of women who report the hospital gave them a gift pack with formula (New York City)

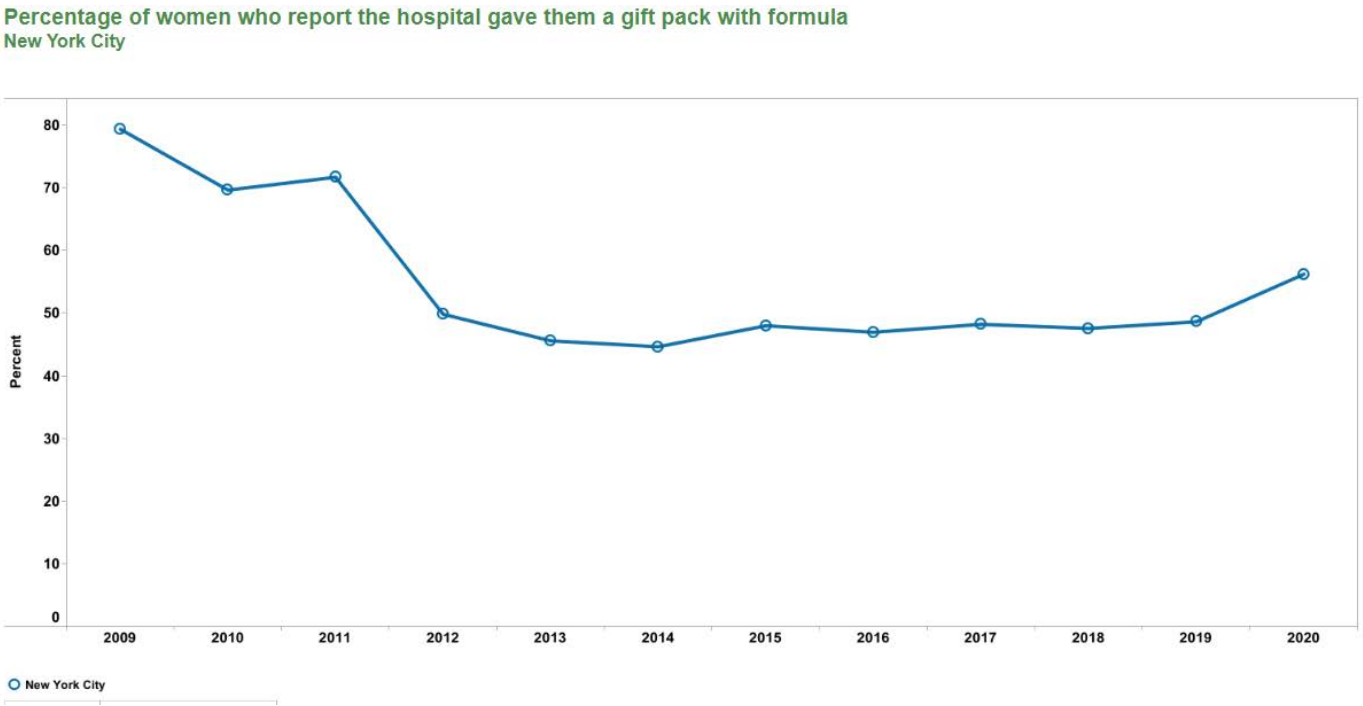


Table III.II: Percentage of women who report the hospital gave them a gift pack with formula (New York City)

	New York City
Year	Percentage (95% CI)
2009	79.3 (76.3-82.1)
2010	69.6 (66.2-72.8)
2011	71.7 (68.4-74.7)
2012	49.8 (46.4-53.2)
2013	45.6 (42.1-49.1)
2014	44.6 (41.5-47.7)
2015	48.0 (45.0-51.0)
2016	46.9 (43.9-50.0)
2017	48.2 (45.0-51.4)
2018	47.5 (44.3-50.8)
2019	48.6 (45.2-52.0)
2020	56.2 (52.6-59.7)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York City who report the hospital gave them a gift pack of formula decreased from 79.3% in 2009 to 56.2% in 2020.

Figure III.III: Percentage of women who report the hospital gave them a gift pack with formula (NYS excl NYC)

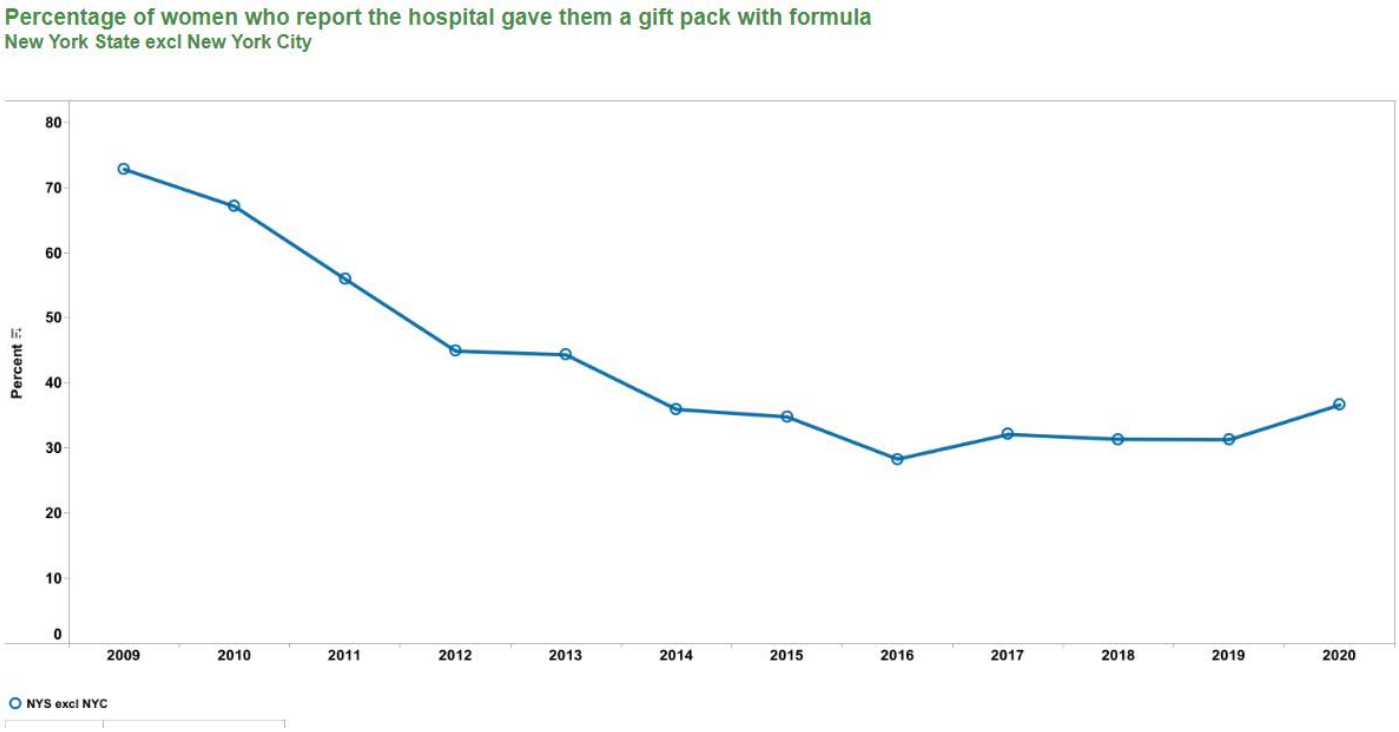


Table III.III: Percentage of women who report the hospital gave them a gift pack with formula (NYS excl NYC)

	NYS excl NYC
Year	Percentage (95% CI)
2009	72.8 (68.6-76.6)
2010	67.1 (62.8-71.1)
2011	55.9 (51.5-60.2)
2012	44.9 (40.2-49.6)
2013	44.3 (39.7-49.0)
2014	35.9 (31.6-40.4)
2015	34.8 (30.6-39.2)
2016	28.3 (24.5-32.5)
2017	32.1 (27.5-37.0)
2018	31.3 (26.7-36.3)
2019	31.3 (26.6-36.3)
2020	36.6 (31.5-42.0)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State outside of NYC who report the hospital gave them a gift pack of formula decreased from 72.8% in 2009 to 36.6% in 2020.

Figure IV.I: Percentage of women who report the hospital gave them a gift pack with formula (New York State)

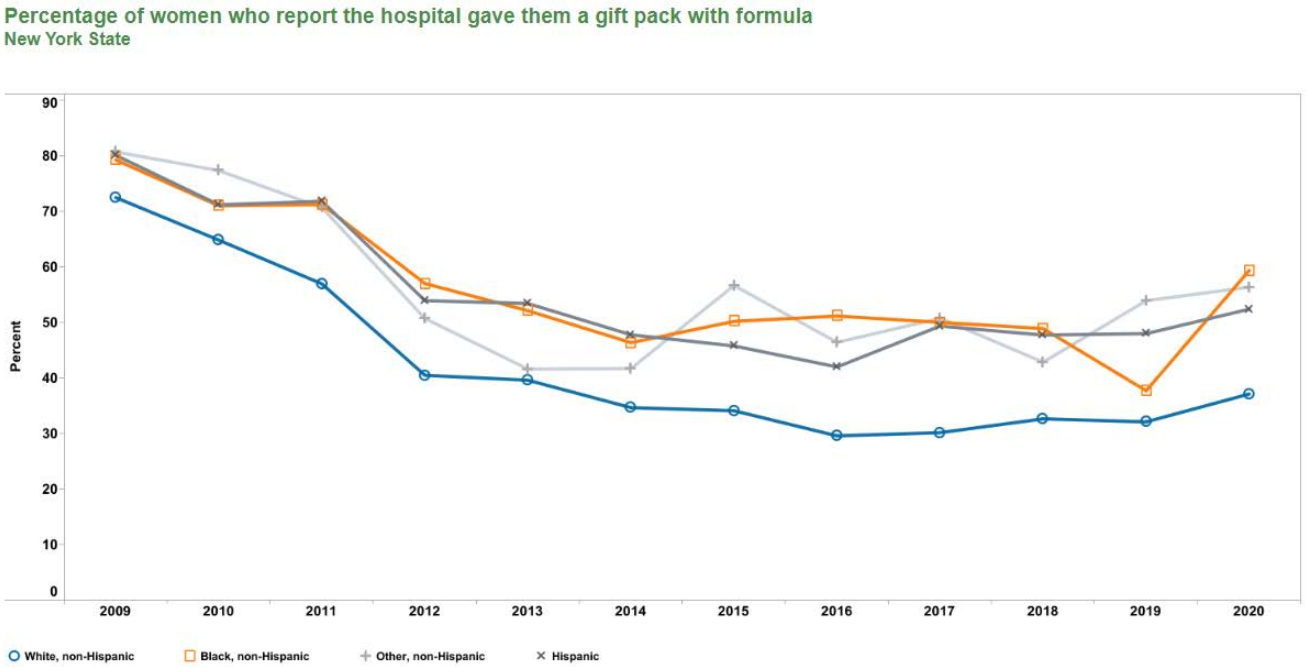


Table IV.I: Percentage of women who report the hospital gave them a gift pack with formula (New York State)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	72.4 (68.4-76.1)	79.2 (72.2-84.7)	80.6 (73.6-86.1)	80.0 (75.5-83.8)
2010	64.7 (60.6-68.7)	70.9 (63.8-77.1)	77.2 (69.7-83.3)	71.1 (66.0-75.7)
2011	56.9 (52.8-60.9)	71.1 (63.7-77.6)	70.6 (63.2-77.0)	71.7 (66.4-76.5)
2012	40.4 (36.4-44.6)	56.9 (48.7-64.8)	50.6 (42.9-58.3)	53.9 (48.3-59.4)
2013	39.5 (35.3-43.9)	52.0 (44.3-59.7)	41.5 (34.1-49.4)	53.3 (47.8-58.8)
2014	34.6 (30.8-38.6)	46.3 (39.3-53.4)	41.6 (34.7-48.9)	47.7 (42.4-53.1)
2015	34.1 (30.4-37.9)	50.1 (43.3-57.0)	56.6 (49.3-63.6)	45.7 (40.5-51.0)
2016	29.5 (26.1-33.2)	51.1 (44.2-57.9)	46.4 (39.6-53.3)	41.9 (37.0-47.1)
2017	30.1 (26.5-34.0)	49.9 (43.0-56.9)	50.7 (43.4-58.0)	49.3 (42.7-55.9)
2018	32.6 (28.6-36.9)	48.8 (41.3-56.4)	42.8 (35.4-50.5)	47.7 (41.3-54.1)
2019	32.1 (28.2-36.2)	37.6 (29.2-46.9)	53.8 (46.7-60.9)	47.9 (40.9-55.1)
2020	37.1 (32.5-41.8)	59.3 (50.2-67.7)	56.3 (48.1-64.2)	52.3 (45.4-59.2)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York State, more than half of non-White women report they received formula in their gift pack from the hospital, compared to only one third of non-Hispanic White women.

The 2020 rates are,

White, non-Hispanic – 37.1%
Black, non-Hispanic – 59.3%
Other, non-Hispanic-56.3%
Hispanic-52.3%

Figure IV.II: Percentage of women who report the hospital gave them a gift pack with formula (New York City)

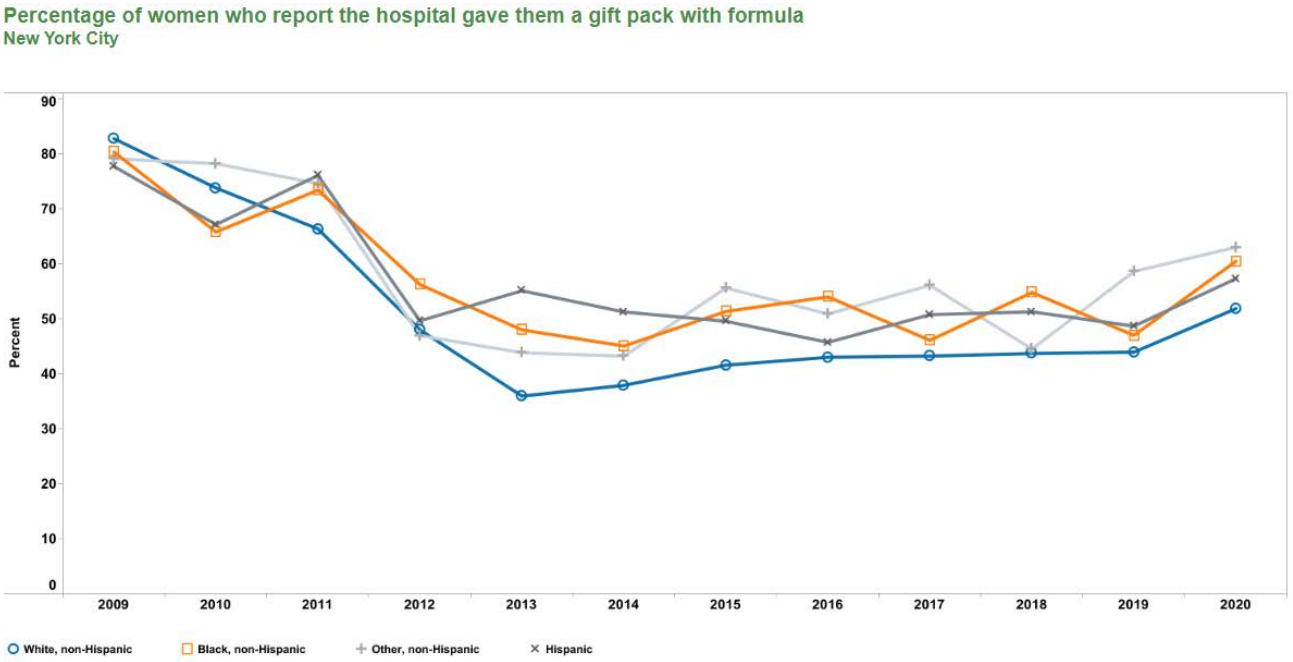


Table IV.II: Percentage of women who report the hospital gave them a gift pack with formula (New York City)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2009	82.7 (76.8-87.3)	80.3 (73.0-86.0)	79.0 (70.8-85.4)	77.6 (72.4-82.2)
2010	73.7 (67.2-79.3)	65.7 (57.6-73.1)	78.1 (69.9-84.6)	67.1 (61.2-72.5)
2011	66.3 (59.9-72.1)	73.3 (65.4-80.0)	74.5 (66.2-81.4)	76.0 (70.5-80.8)
2012	47.9 (42.0-53.9)	56.2 (48.1-64.0)	46.9 (38.6-55.4)	49.6 (43.5-55.7)
2013	35.9 (29.8-42.4)	47.9 (39.8-56.2)	43.8 (35.4-52.5)	55.0 (49.0-60.9)
2014	37.9 (32.6-43.5)	45.0 (37.8-52.4)	43.2 (35.8-50.8)	51.2 (45.6-56.7)
2015	41.5 (36.5-46.7)	51.3 (44.2-58.3)	55.5 (47.9-62.9)	49.5 (44.1-54.9)
2016	42.9 (37.7-48.3)	53.9 (46.7-61.0)	50.8 (43.4-58.2)	45.7 (40.4-51.1)
2017	43.2 (37.7-48.8)	46.0 (38.9-53.3)	56.0 (48.5-63.3)	50.7 (44.7-56.7)
2018	43.6 (38.2-49.2)	54.7 (47.0-62.2)	44.5 (37.0-52.2)	51.2 (45.2-57.2)
2019	43.9 (38.1-49.8)	46.9 (38.1-56.0)	58.5 (51.0-65.7)	48.6 (42.4-54.9)
2020	51.8 (45.4-58.2)	60.4 (51.7-68.5)	63.0 (54.8-70.4)	57.2 (50.9-63.4)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York City, the percentage of women who received formula in their gift pack from hospital was similar across different race/ethnicity groups. However, White, non-Hispanic women have the lowest rates of receiving formula in gift packs from the hospital.

The 2020 rates are,

White, non-Hispanic – 51.8%
Black, non-Hispanic – 60.4%
Other, non-Hispanic-63.0%
Hispanic-57.2%

Figure IV.III: Percentage of women who report the hospital gave them a gift pack with formula (NYS excl NYC)

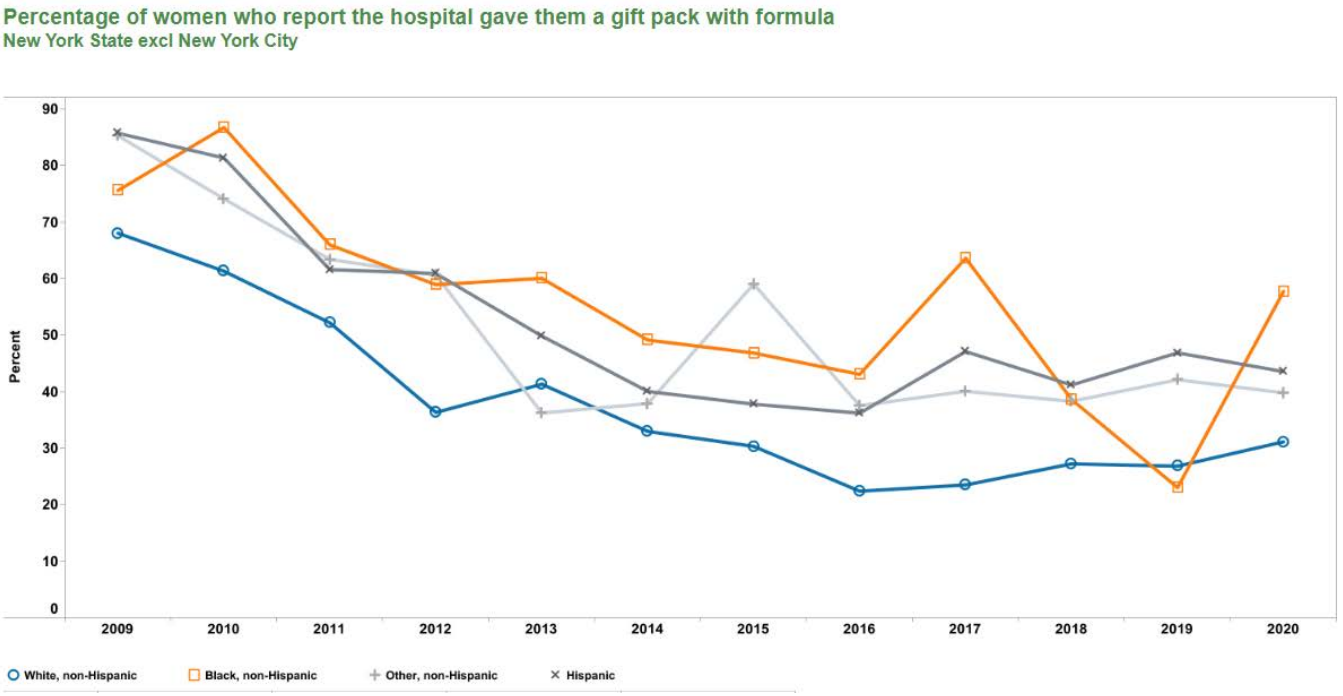


Table IV.III: Percentage of women who report the hospital gave them a gift pack with formula (NYS excl NYC)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	68.0 (62.9-72.8)	75.6 (56.4-88.1)	85.2 (69.6-93.6)	85.7 (76.0-91.9)
2010	61.3 (56.1-66.2)	86.7 (71.2-94.5)	74.1 (54.9-87.1)	81.3 (70.8-88.6)
2011	52.1 (46.9-57.3)	65.9 (48.8-79.7)	63.4 (49.1-75.6)	61.6 (49.4-72.4)
2012	36.3 (31.1-41.8)	58.9 (38.0-77.0)	60.6 (43.3-75.6)	60.9 (50.2-70.6)
2013	41.3 (35.8-47.0)	60.0 (43.4-74.6)	36.2 (22.2-53.0)	49.8 (38.5-61.2)
2014	32.9 (28.0-38.3)	49.1 (34.0-64.4)	37.9 (23.5-54.8)	40.0 (28.9-52.3)
2015	30.3 (25.6-35.5)	46.8 (30.7-63.6)	59.0 (42.6-73.7)	37.8 (27.1-49.7)
2016	22.4 (18.2-27.2)	43.0 (27.9-59.6)	37.5 (24.8-52.1)	36.2 (27.0-46.4)
2017	23.5 (19.0-28.6)	63.6 (44.4-79.2)	40.0 (25.8-56.2)	47.1 (33.5-61.0)
2018	27.2 (22.1-33.0)	38.6 (24.7-54.7)	38.3 (21.6-58.3)	41.1 (27.9-55.9)
2019	26.8 (22.1-32.1)	23.0 (10.8-42.4)	42.1 (27.2-58.6)	46.8 (32.1-62.2)
2020	31.1 (25.5-37.3)	57.7 (39.9-73.7)	39.8 (23.2-59.0)	43.5 (29.1-59.1)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York State outside of NYC, Black, non-Hispanic women have the highest rates of receiving formula in their pack from the hospital.

The 2020 rates are,

White, non-Hispanic – 31.1%
Black, non-Hispanic – 57.7%
Other, non-Hispanic-39.8%
Hispanic-43.5%

Figure V.I: Percentage of women who breastfed within the first hour after birth (New York State)

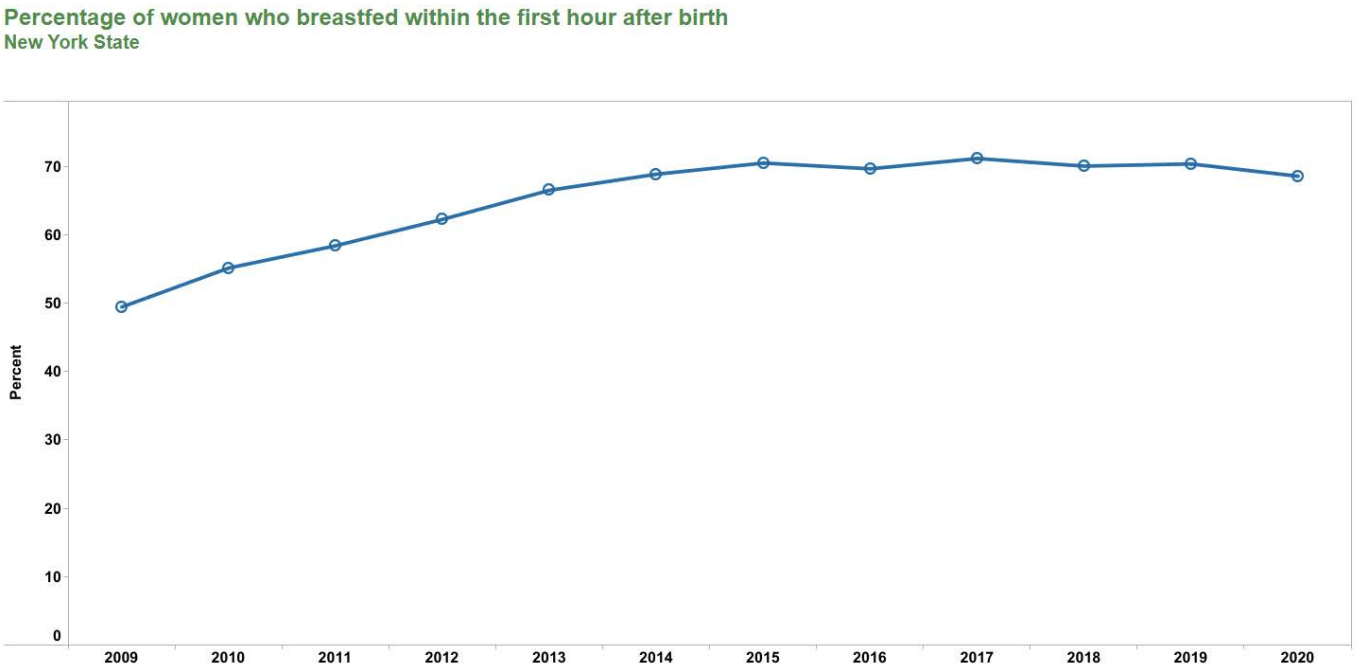


Table V.I: Percentage of women who breastfed within the first hour after birth (New York State)

New York State

Year	New York State Percentage (95% CI)
2009	49.4 (46.6-52.3)
2010	55.1 (52.3-57.9)
2011	58.4 (55.6-61.1)
2012	62.2 (59.5-64.9)
2013	66.5 (63.8-69.1)
2014	68.8 (66.3-71.2)
2015	70.5 (68.1-72.8)
2016	69.6 (67.2-71.9)
2017	71.1 (68.5-73.7)
2018	70.0 (67.2-72.7)
2019	70.3 (67.4-73.1)
2020	68.5 (65.5-71.4)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State who breastfed within the first hour of birth increased from 49.4% in 2009 to 68.5% in 2020.

Figure V.II: Percentage of women who breastfed within the first hour after birth (New York City)

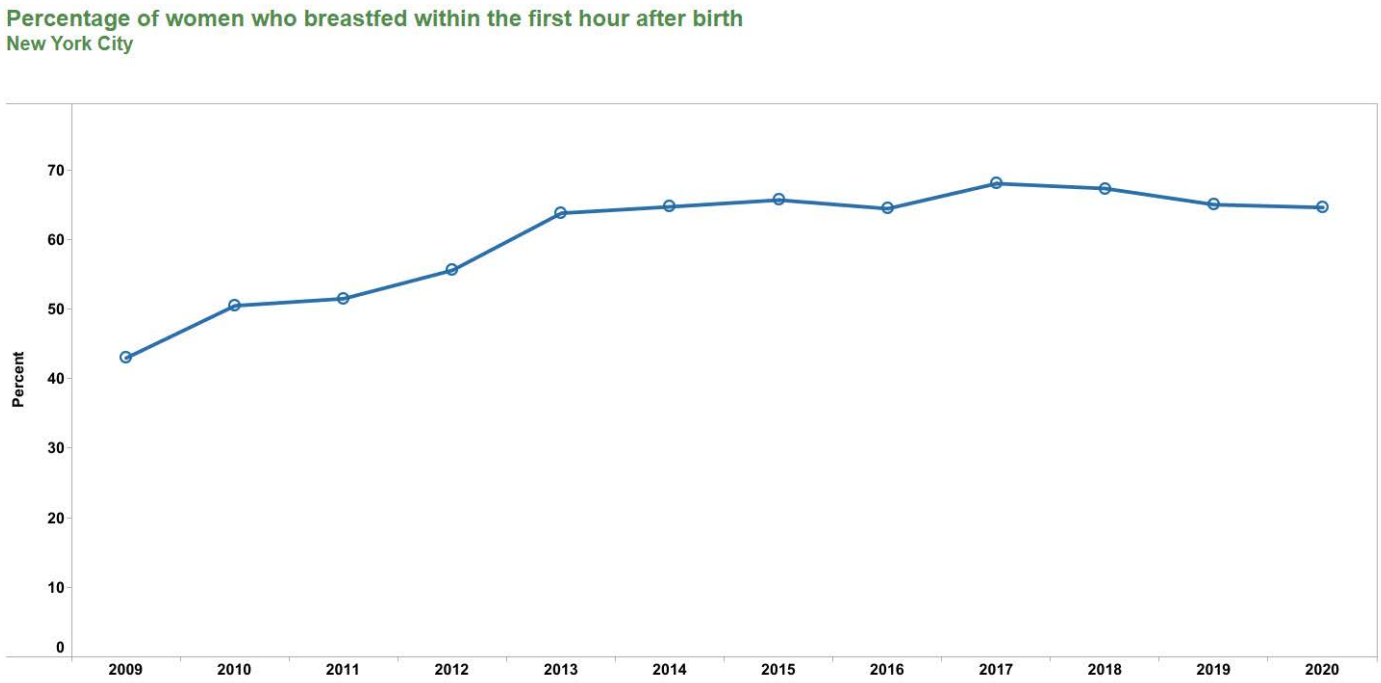


Table V.II: Percentage of women who breastfed within the first hour after birth (New York City)

New York City

Year	New York City Percentage (95% CI)
2009	43.0 (39.5-46.5)
2010	50.5 (46.9-54.0)
2011	51.5 (48.0-55.0)
2012	55.6 (52.2-58.9)
2013	63.8 (60.4-67.0)
2014	64.7 (61.7-67.6)
2015	65.7 (62.8-68.4)
2016	64.4 (61.5-67.2)
2017	68.0 (65.0-70.9)
2018	67.3 (64.3-70.2)
2019	65.0 (61.7-68.2)
2020	64.6 (61.2-67.9)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York City who breastfed within the first hour of birth increased from 43.0% in 2009 to 64.6% in 2020.

Figure V.III: Percentage of women who breastfed within the first hour after birth (NYS excl NYC)

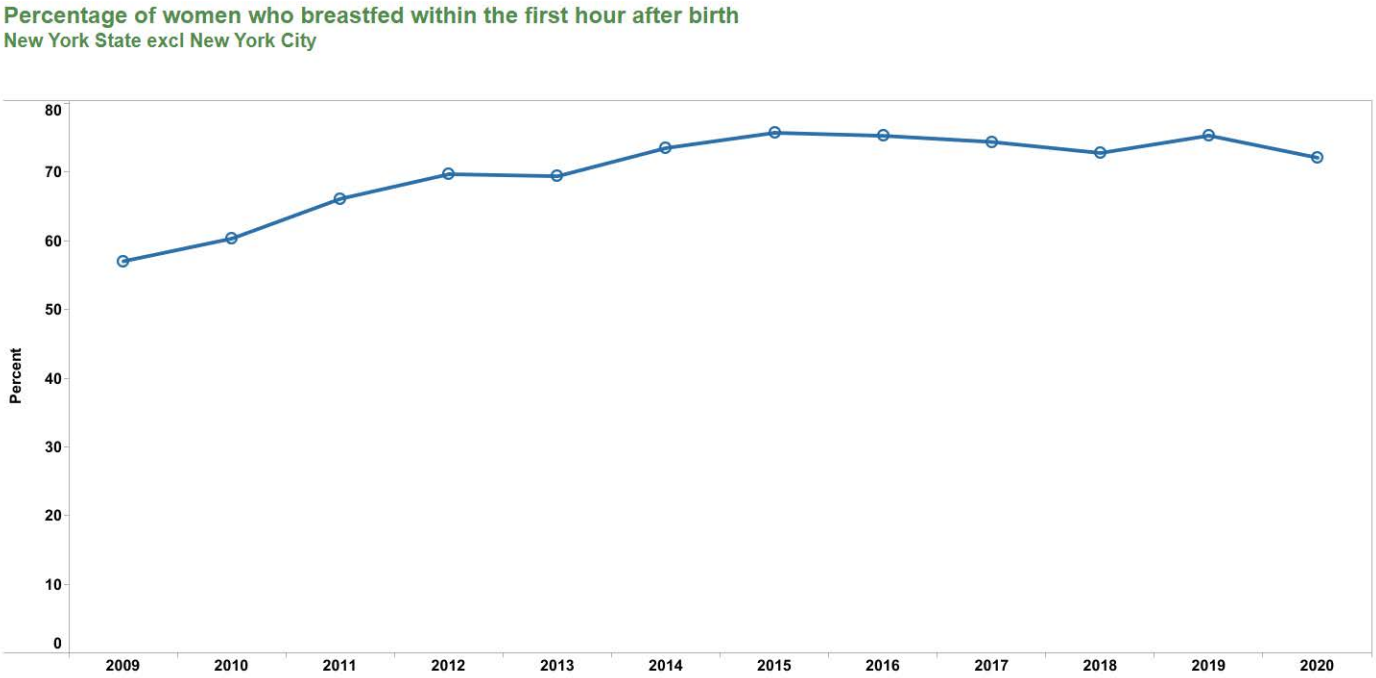


Table V.III: Percentage of women who breastfed within the first hour after birth (NYS excl NYC)

NYS excl NYC

Year	NYS excl NYC Percentage (95% CI)
2009	57.0 (52.5-61.4)
2010	60.3 (56.0-64.5)
2011	66.1 (61.9-70.1)
2012	69.7 (65.3-73.7)
2013	69.4 (65.0-73.5)
2014	73.5 (69.3-77.3)
2015	75.7 (71.7-79.3)
2016	75.3 (71.4-78.8)
2017	74.4 (69.9-78.5)
2018	72.8 (68.0-77.1)
2019	75.3 (70.5-79.6)
2020	72.1 (67.2-76.5)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State outside of NYC who breastfed within the first hour of birth increased from 57.0% in 2009 to 72.1% in 2020.

Figure VI.I: Percentage of women who breastfed within the first hour after birth (New York State)

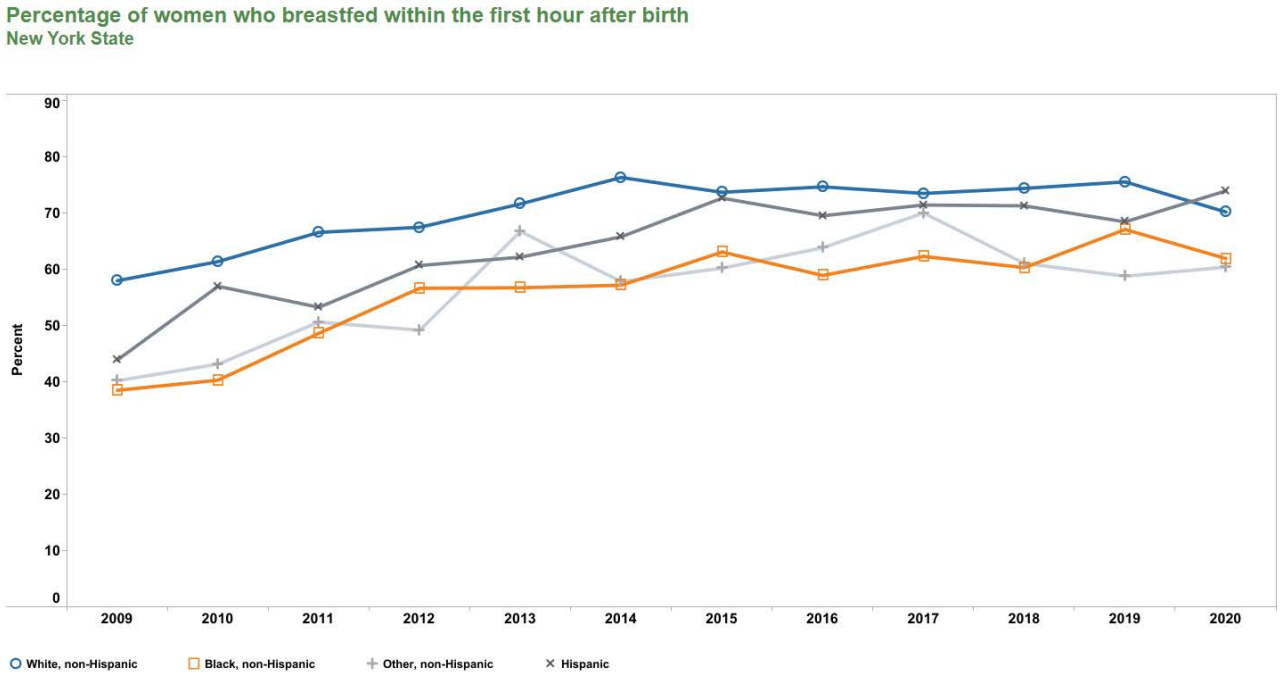


Table VI.I: Percentage of women who breastfed within the first hour after birth (New York State)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2009	58.0 (53.7-62.1)	38.5 (31.4-46.1)	40.2 (32.5-48.4)	43.9 (38.7-49.3)
2010	61.4 (57.2-65.4)	40.3 (33.3-47.7)	43.1 (35.4-51.3)	57.0 (51.7-62.1)
2011	66.6 (62.7-70.3)	48.6 (41.1-56.3)	50.6 (43.3-58.0)	53.3 (47.7-58.7)
2012	67.5 (63.5-71.2)	56.7 (48.6-64.3)	49.2 (41.5-56.9)	60.7 (55.2-65.9)
2013	71.6 (67.6-75.3)	56.7 (49.0-64.1)	66.7 (59.2-73.5)	62.2 (56.7-67.4)
2014	76.3 (72.8-79.5)	57.2 (50.1-64.0)	57.8 (50.6-64.7)	65.8 (60.6-70.6)
2015	73.7 (70.1-77.0)	63.1 (56.5-69.2)	60.2 (53.2-66.9)	72.7 (67.9-77.0)
2016	74.7 (71.2-77.8)	58.9 (52.1-65.4)	63.8 (57.1-70.1)	69.5 (64.7-74.0)
2017	73.5 (69.6-77.0)	62.3 (55.3-68.9)	70.0 (63.5-75.8)	71.4 (65.4-76.8)
2018	74.4 (70.4-78.1)	60.3 (52.8-67.3)	61.1 (53.6-68.1)	71.3 (65.2-76.8)
2019	75.6 (71.8-79.0)	67.1 (57.8-75.2)	58.8 (51.8-65.5)	68.5 (61.4-74.7)
2020	70.2 (65.6-74.5)	61.9 (53.5-69.7)	60.4 (52.4-67.9)	74.0 (68.2-79.0)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York State, Black, non-Hispanic women and Other non-Hispanc women have the lowest rates of breastfeding within the first hour after birth.

The 2020 rates are,

White, non-Hispanic – 70.2%
Black, non-Hispanic – 61.9%
Other, non-Hispanic-60.4%
Hispanic-74.0%

Figure VI.II: Percentage of women who breastfed within the first hour after birth (New York City)

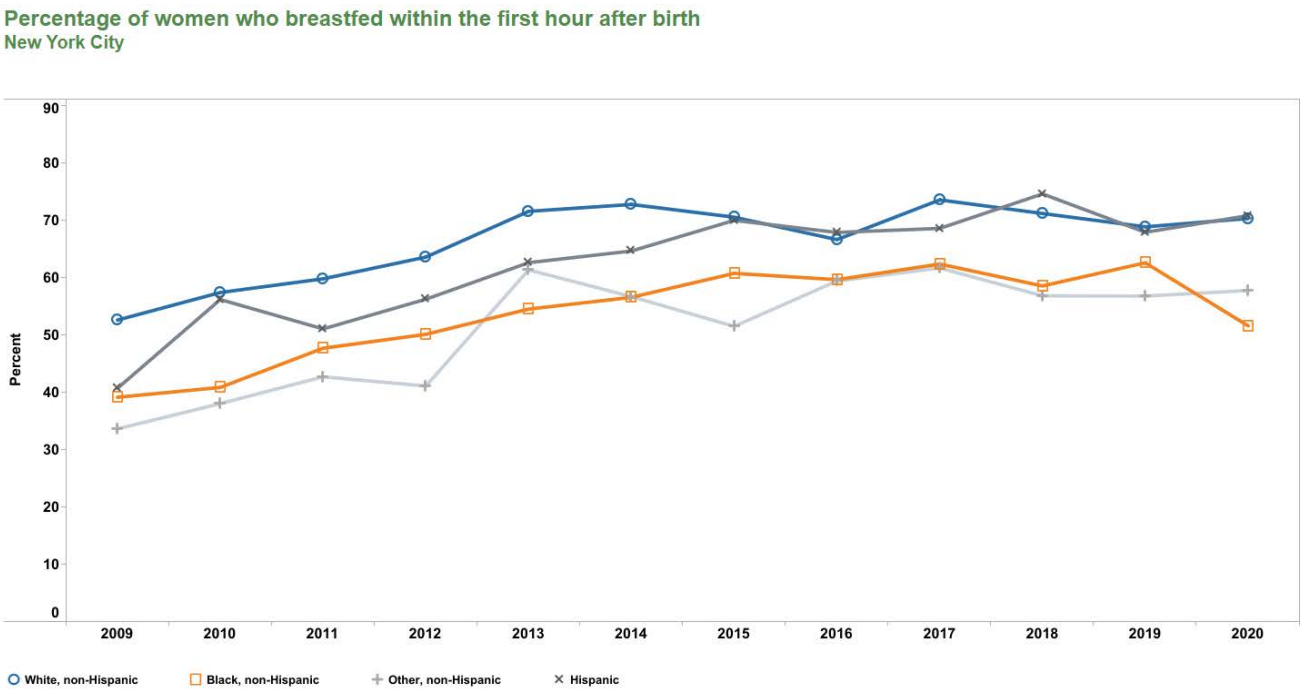


Table VI.II: Percentage of women who breastfed within the first hour after birth (New York City)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	52.6 (45.6-59.5)	39.1 (31.5-47.4)	33.6 (25.6-42.7)	40.7 (35.0-46.6)
2010	57.4 (50.5-64.0)	40.8 (33.1-49.1)	38.0 (29.9-46.9)	56.2 (50.2-62.0)
2011	59.8 (53.3-65.9)	47.7 (39.5-55.9)	42.7 (34.4-51.4)	51.1 (44.9-57.2)
2012	63.6 (57.7-69.1)	50.1 (42.1-58.1)	41.1 (33.1-49.6)	56.2 (50.1-62.2)
2013	71.6 (65.4-77.0)	54.5 (46.3-62.5)	61.4 (52.7-69.4)	62.6 (56.7-68.2)
2014	72.8 (67.5-77.5)	56.6 (49.2-63.7)	56.7 (49.1-64.0)	64.6 (59.2-69.7)
2015	70.5 (65.6-75.0)	60.8 (53.7-67.4)	51.5 (43.9-59.0)	70.0 (64.9-74.7)
2016	66.6 (61.5-71.4)	59.7 (52.6-66.4)	59.4 (52.0-66.4)	67.9 (62.7-72.7)
2017	73.6 (68.5-78.1)	62.4 (55.1-69.1)	61.7 (54.2-68.7)	68.6 (62.9-73.8)
2018	71.2 (66.0-75.9)	58.6 (51.0-65.8)	56.8 (49.1-64.2)	74.6 (69.2-79.3)
2019	68.9 (63.1-74.1)	62.6 (53.6-70.8)	56.8 (49.4-63.9)	67.9 (61.9-73.4)
2020	70.3 (64.3-75.7)	51.6 (43.0-60.1)	57.8 (49.5-65.6)	70.8 (64.9-76.1)

CI denotes confidence interval.
\+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York City, the percentage of Black, non-Hispanic women have the lowest rates of breastfeeding within the first hour after birth.

The 2020 rates are,

White, non-Hispanic – 70.3%
Black, non-Hispanic – 51.6%
Other, non-Hispanic-57.8%
Hispanic-70.8%

Figure VI.III: Percentage of women who breastfed within the first hour after birth (NYS excl NYC)

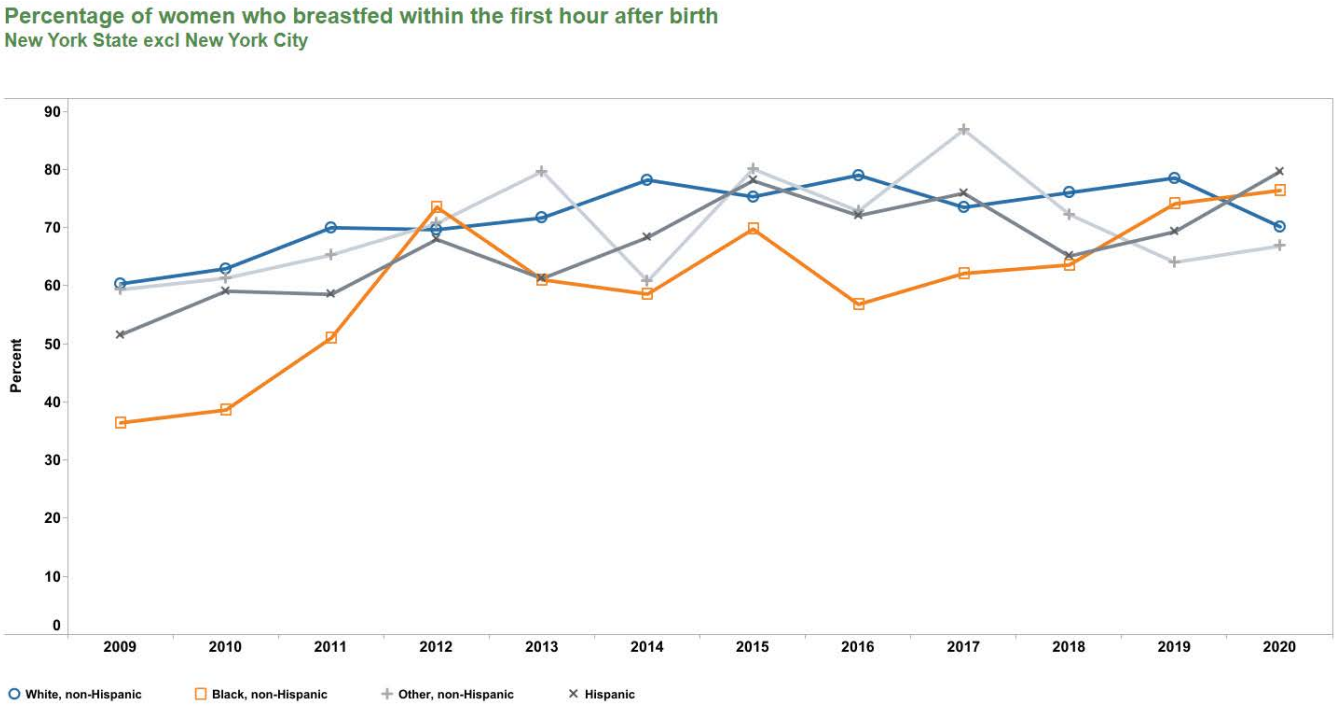


Table VI.III: Percentage of women who breastfed within the first hour after birth (NYS excl NYC)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	60.3 (55.0-65.4)	36.4 (21.0-55.2)	59.3 (42.0-74.6)	51.5 (40.3-62.7)
2010	62.9 (57.8-67.8)	38.6 (24.3-55.2)	61.3 (42.9-76.9)	59.1 (47.8-69.5)
2011	70.0 (65.1-74.5)	51.0 (34.6-67.2)	65.3 (51.7-76.8)	58.5 (46.6-69.5)
2012	69.6 (64.4-74.4)	73.5 (53.7-86.9)	70.7 (53.4-83.5)	68.0 (57.5-76.9)
2013	71.7 (66.5-76.4)	61.0 (44.9-75.1)	79.7 (63.8-89.7)	61.2 (49.5-71.8)
2014	78.2 (73.5-82.2)	58.6 (42.6-72.9)	60.8 (43.8-75.5)	68.3 (56.3-78.2)
2015	75.3 (70.4-79.6)	69.7 (53.4-82.2)	80.1 (64.9-89.7)	78.1 (67.3-86.0)
2016	79.0 (74.4-82.9)	56.8 (40.2-71.9)	72.8 (57.9-83.9)	72.1 (62.2-80.1)
2017	73.5 (68.1-78.2)	62.1 (43.4-77.8)	86.8 (74.6-93.7)	75.9 (62.1-85.8)
2018	76.0 (70.4-80.8)	63.6 (47.1-77.4)	72.3 (53.4-85.6)	65.1 (50.4-77.4)
2019	78.5 (73.6-82.8)	74.1 (53.3-87.7)	64.0 (47.3-77.9)	69.3 (53.3-81.7)
2020	70.1 (64.0-75.6)	76.4 (60.6-87.2)	66.8 (47.6-81.7)	79.6 (67.0-88.3)

CI denotes confidence interval.
\+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In New York State outside of NYC, the percentage of women who breastfed within the first hour after birth are similar across race/ethnic groups.

The 2020 rates are,

White, non-Hispanic – 70.1%
Black, non-Hispanic – 76.4%
Other, non-Hispanic-66.8%
Hispanic-79.6%

Figure VII.I: Percentage of women who report the hospital gave breastfeeding information (New York State)

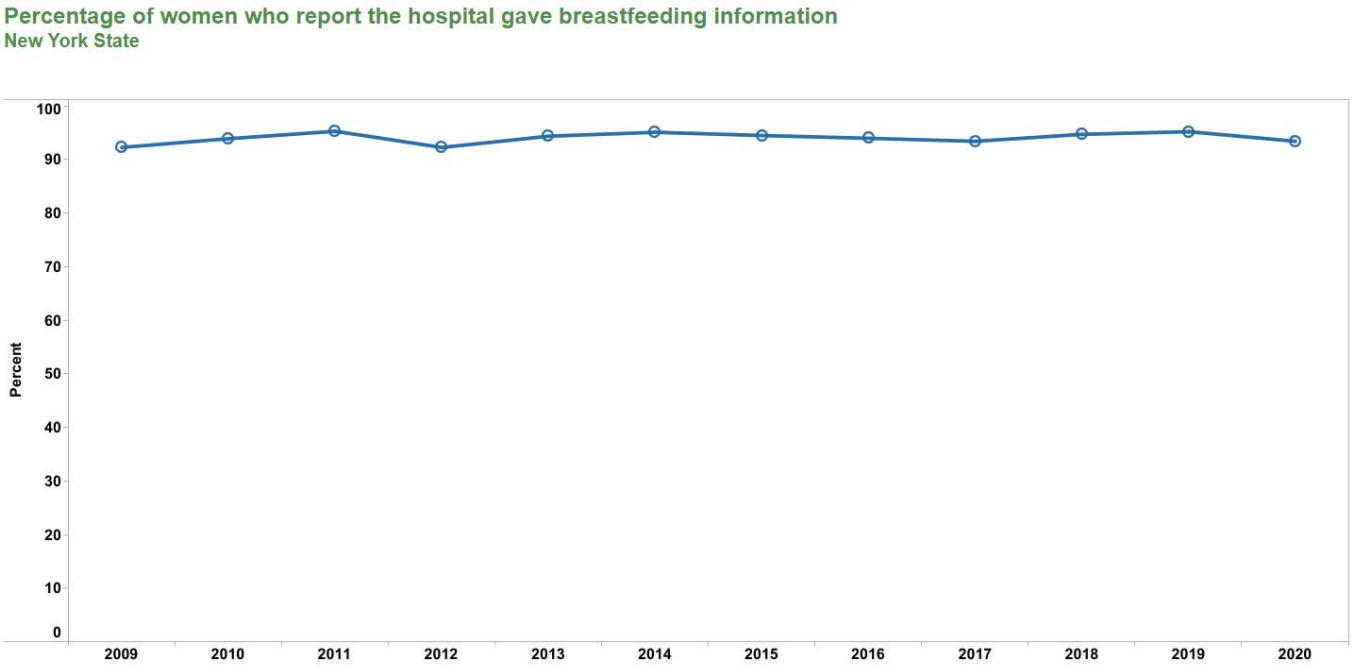


Table VII.I: Percentage of women who report the hospital gave breastfeeding information (New York State)

○ New York State

Year	New York State Percentage (95% CI)
2009	92.2 (90.6-93.6)
2010	93.9 (92.4-95.1)
2011	95.3 (93.9-96.3)
2012	92.2 (90.6-93.6)
2013	94.3 (92.8-95.5)
2014	95.1 (93.8-96.1)
2015	94.5 (93.2-95.5)
2016	93.9 (92.5-95.1)
2017	93.4 (91.7-94.7)
2018	94.7 (93.3-95.8)
2019	95.2 (93.6-96.4)
2020	93.4 (91.6-94.9)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who report the hospital gave breastfeeding information in New York State has been similiar from 2009 to 2020.

Figure VII.II: Percentage of women who report the hospital gave breastfeeding information (New York City)

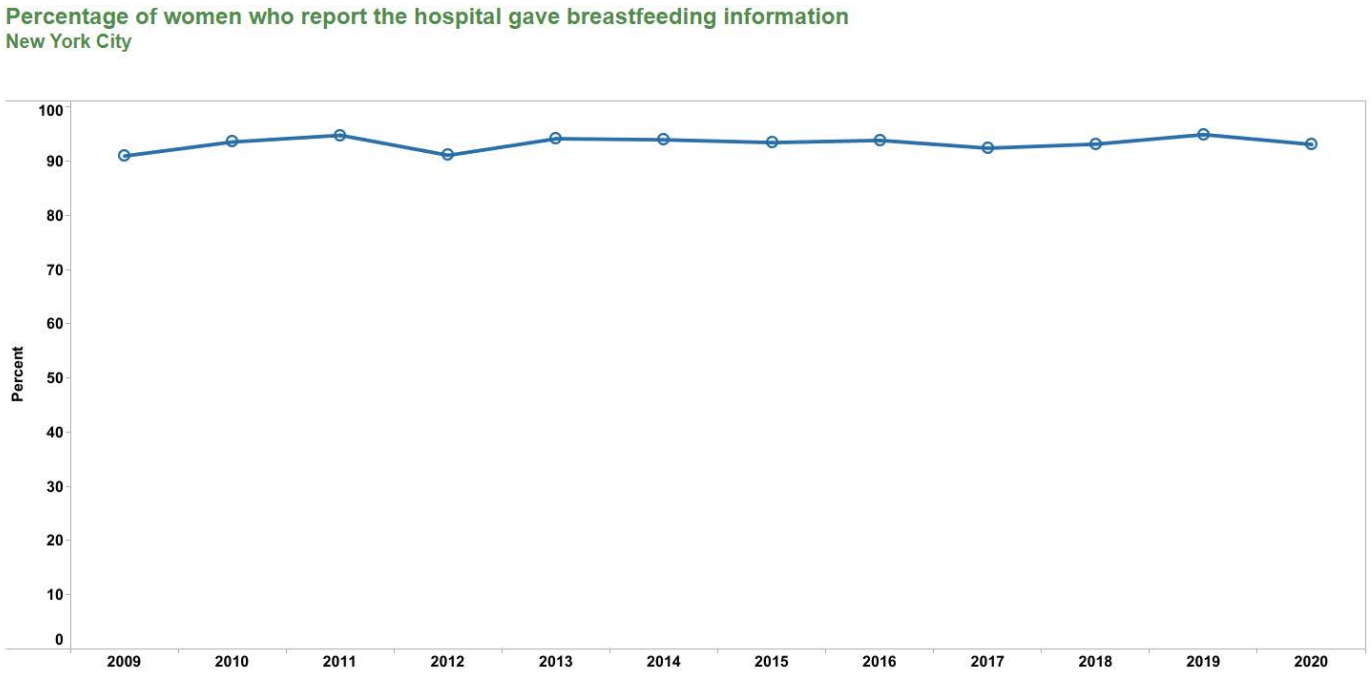


Table VII.II: Percentage of women who report the hospital gave breastfeeding information (New York City)

New York City

Year	New York City Percentage (95% CI)
2009	91.0 (88.8-92.8)
2010	93.6 (91.7-95.0)
2011	94.8 (92.9-96.2)
2012	91.1 (88.9-92.9)
2013	94.2 (92.3-95.6)
2014	94.0 (92.3-95.3)
2015	93.4 (91.8-94.8)
2016	93.9 (92.2-95.2)
2017	92.4 (90.5-94.0)
2018	93.2 (91.2-94.7)
2019	94.9 (93.2-96.2)
2020	93.1 (91.0-94.7)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who report the hospital gave breastfeeding information in New York City has been similiar from 2009 to 2020.

Figure VII.III: Percentage of women who report the hospital gave breastfeeding information (NYS excl NYC)

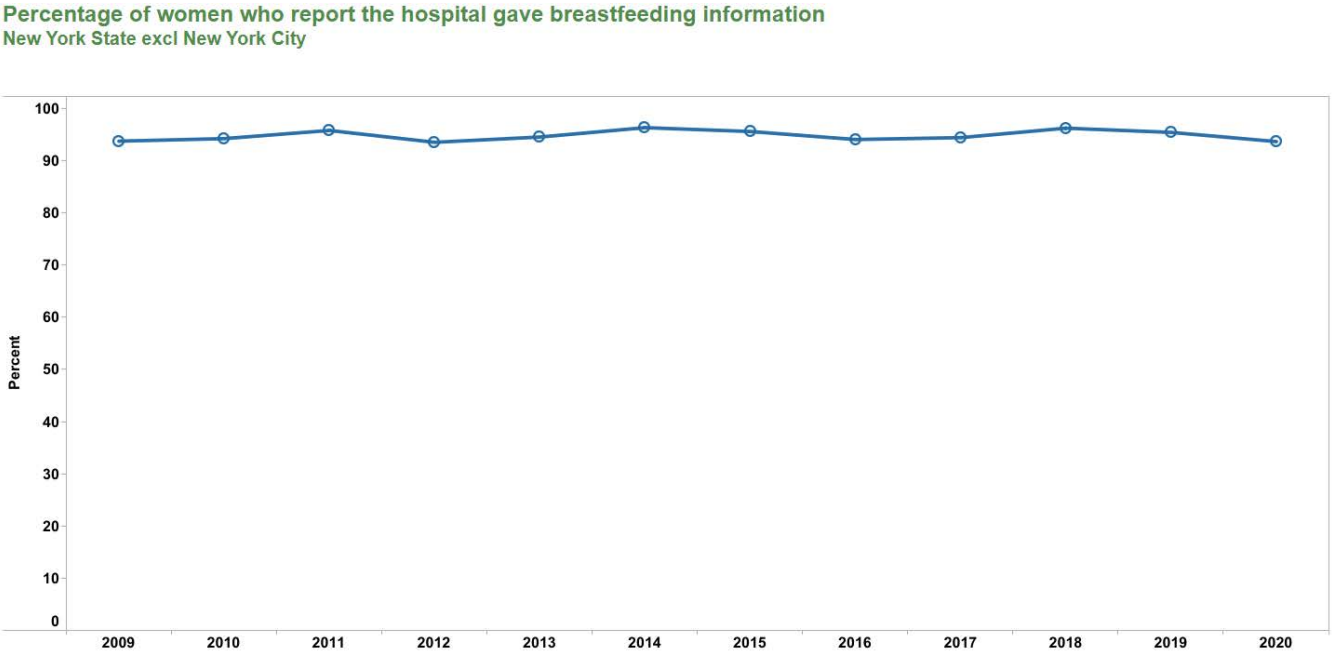


Table VII.III: Percentage of women who report the hospital gave breastfeeding information (NYS excl NYC)

○ NYS excl NYC

	NYS excl NYC
Year	Percentage (95% CI)
2009	93.7 (91.1-95.6)
2010	94.2 (91.7-96.0)
2011	95.8 (93.5-97.3)
2012	93.5 (90.8-95.5)
2013	94.5 (91.9-96.3)
2014	96.3 (94.1-97.7)
2015	95.6 (93.2-97.1)
2016	94.1 (91.4-95.9)
2017	94.4 (91.4-96.4)
2018	96.2 (93.8-97.7)
2019	95.4 (92.6-97.2)
2020	93.7 (90.5-95.8)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who report the hospital gave breastfeeding information in New York State outside of NYC has been similar from 2009 to 2020.

Figure VIII.I: Percentage of women who the hospital gave breastfeeding information (New York State)

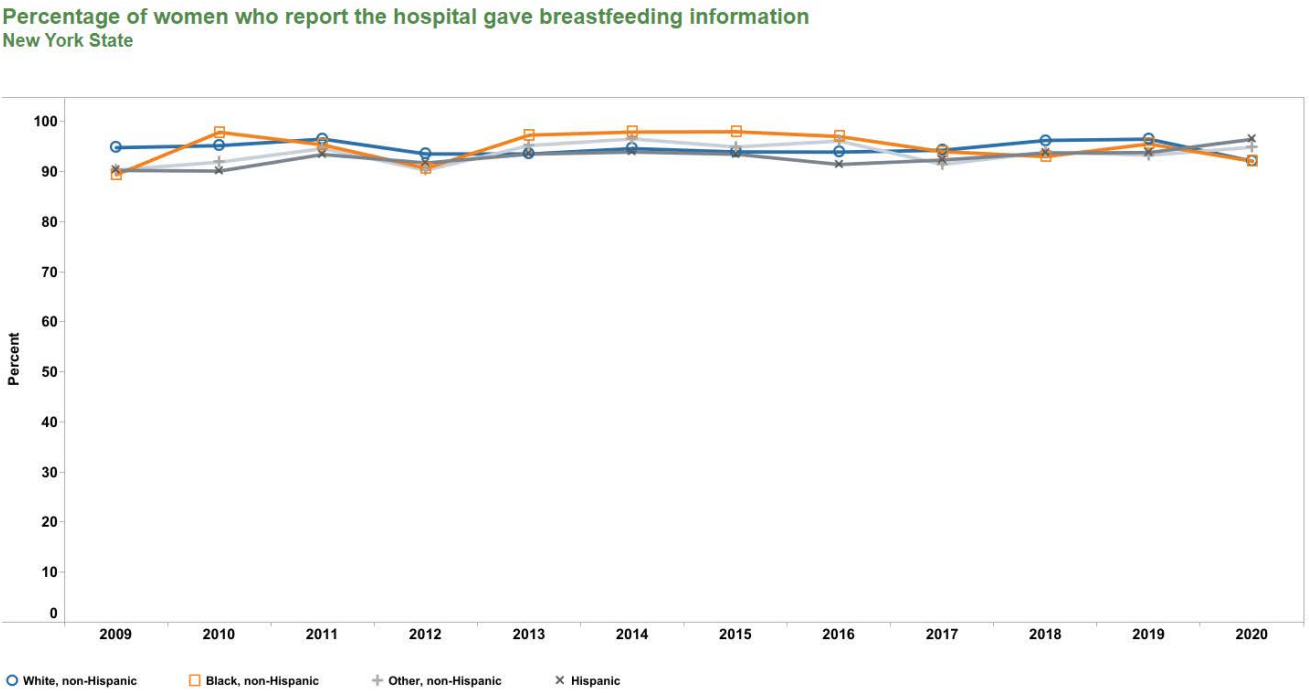


Table VIII.I: Percentage of women who the hospital gave breastfeeding information (New York State)

Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2009	94.8 (92.5-96.4)	89.3 (83.6-93.2)	90.3 (84.5-94.1)	90.2 (86.7-92.9)
2010	95.2 (93.0-96.7)	97.8 (94.3-99.2)	91.9 (86.0-95.4)	90.1 (86.5-92.8)
2011	96.5 (94.6-97.7)	95.3 (89.9-97.9)	94.6 (90.3-97.1)	93.4 (90.0-95.7)
2012	93.5 (91.1-95.3)	90.6 (84.6-94.5)	90.2 (84.8-93.9)	91.7 (88.1-94.3)
2013	93.5 (90.9-95.4)	97.3 (94.1-98.8)	95.2 (90.7-97.6)	93.5 (90.1-95.8)
2014	94.6 (92.4-96.1)	97.9 (95.5-99.0)	96.5 (93.1-98.3)	93.9 (91.0-95.9)
2015	93.9 (91.7-95.5)	97.9 (95.6-99.1)	94.9 (91.3-97.1)	93.5 (90.4-95.6)
2016	93.9 (91.6-95.6)	97.0 (94.0-98.5)	96.1 (92.3-98.1)	91.4 (87.8-94.0)
2017	94.2 (91.8-96.0)	94.0 (89.9-96.5)	91.4 (86.1-94.8)	92.3 (88.2-95.1)
2018	96.2 (94.4-97.4)	93.0 (87.5-96.2)	93.9 (89.3-96.6)	93.7 (89.9-96.1)
2019	96.5 (94.5-97.7)	95.5 (91.0-97.8)	93.2 (88.1-96.3)	93.8 (89.1-96.5)
2020	92.1 (88.8-94.4)	92.1 (86.2-95.5)	94.8 (90.4-97.3)	96.4 (94.1-97.9)

CI denotes confidence interval.
\+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State who report the hospital gave breastfeeding information has remained similar since 2009 for women from different race/ethnic groups.

The 2020 rates are,

White, non-Hispanic – 92.1%
Black, non-Hispanic – 92.1%
Other, non-Hispanic-94.8%
Hispanic-96.4%

Figure VIII.II: Percentage of women who the hospital gave breastfeeding information (New York City)

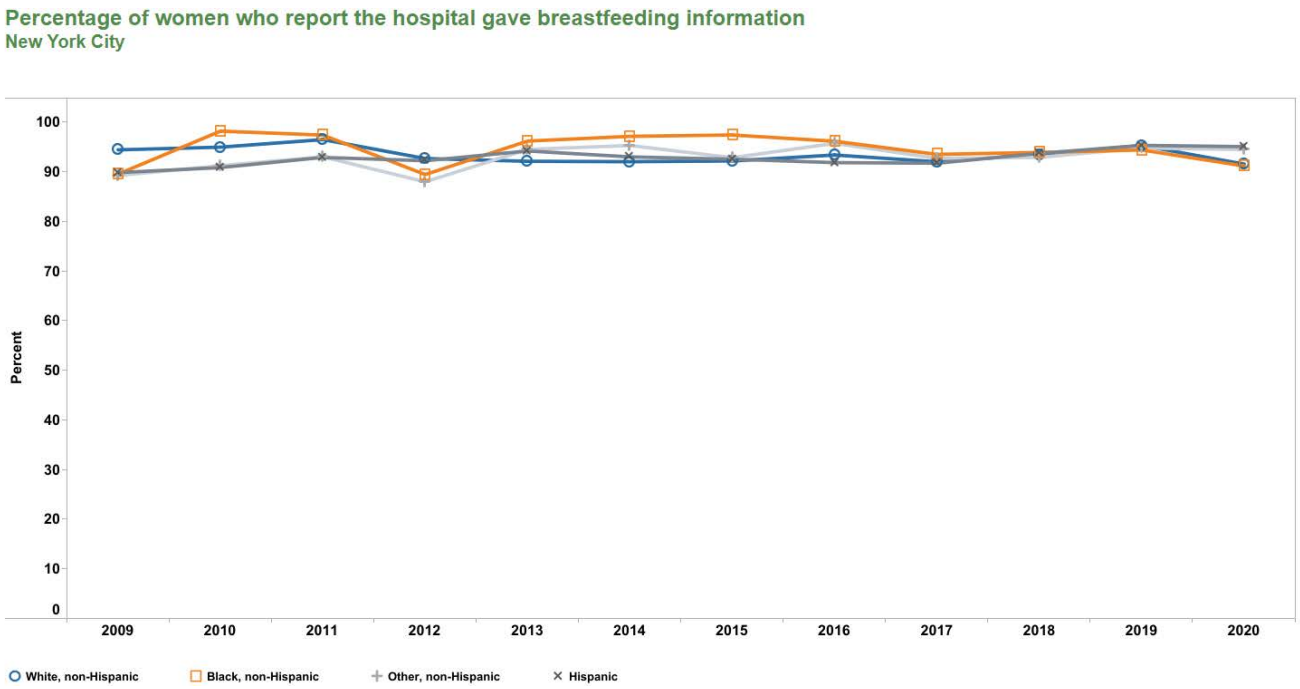


Table VIII.II: Percentage of women who the hospital gave breastfeeding information (New York City)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	94.4 (90.3-96.8)	89.5 (83.4-93.6)	89.2 (82.3-93.6)	89.8 (85.8-92.8)
2010	94.9 (91.0-97.2)	98.2 (94.7-99.4)	91.2 (84.6-95.2)	90.8 (87.0-93.6)
2011	96.5 (93.1-98.2)	97.4 (92.2-99.1)	93.0 (87.2-96.3)	92.9 (88.9-95.5)
2012	92.6 (88.8-95.3)	89.4 (82.8-93.7)	87.9 (81.0-92.6)	92.2 (88.2-94.9)
2013	92.1 (87.7-95.0)	96.2 (91.4-98.3)	94.5 (88.8-97.4)	94.2 (90.7-96.4)
2014	92.0 (88.3-94.6)	97.1 (93.7-98.7)	95.3 (90.6-97.7)	93.0 (89.6-95.3)
2015	92.2 (88.9-94.5)	97.4 (94.2-98.8)	92.8 (87.8-95.9)	92.5 (89.1-94.9)
2016	93.3 (90.1-95.6)	96.1 (92.1-98.1)	95.7 (91.4-97.9)	91.8 (88.2-94.4)
2017	92.0 (88.3-94.6)	93.5 (88.7-96.3)	92.7 (87.6-95.8)	91.7 (87.7-94.5)
2018	93.5 (90.0-95.8)	93.9 (89.0-96.7)	92.9 (87.4-96.1)	93.7 (89.8-96.1)
2019	95.3 (92.0-97.2)	94.4 (88.0-97.5)	94.8 (90.6-97.1)	95.3 (91.9-97.3)
2020	91.5 (86.9-94.6)	91.1 (84.5-95.1)	94.4 (89.3-97.2)	95.0 (91.6-97.1)

CI denotes confidence interval.
\+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In 2020, the percentage of women in New York City who report the hospital gave breastfeeding information has remained similar since 2009 for women from different race/ethnic groups.

The 2020 rates are,

White, non-Hispanic – 91.5%
Black, non-Hispanic – 91.1%
Other, non-Hispanic-94.4%
Hispanic-95.0%

Figure VIII.III: Percentage of women who the hospital gave breastfeeding information (NYS excl NYC)

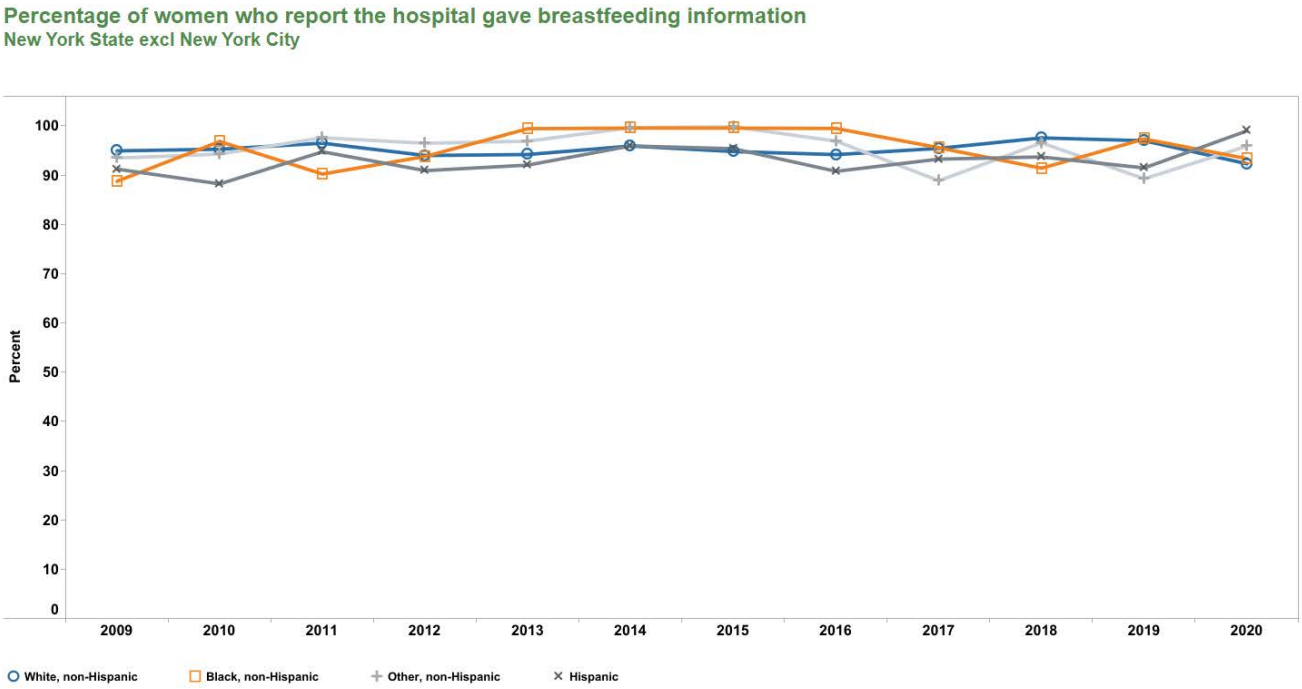


Table VIII.III: Percentage of women who the hospital gave breastfeeding information (NYS excl NYC)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	94.9 (91.9-96.9)	88.8 (71.0-96.2)	93.5 (78.2-98.3)	91.2 (82.7-95.8)
2010	95.3 (92.5-97.0)	96.8 (80.7-99.6)	94.3 (72.2-99.0)	88.2 (78.5-93.9)
2011	96.5 (93.9-98.0)	90.2 (73.8-96.8)	97.6 (86.3-99.6)	94.7 (86.1-98.1)
2012	94.0 (90.7-96.2)	93.8 (71.6-98.9)	96.5 (83.4-99.3)	90.9 (82.8-95.4)
2013	94.2 (90.7-96.4)	99.4 (98.2-99.8)	96.9 (84.0-99.5)	92.0 (82.9-96.5)
2014	95.9 (92.9-97.7)	99.5 (98.1-99.9)	99.6 (97.4-100.0)	95.9 (88.1-98.7)
2015	94.8 (91.7-96.8)	99.5 (98.1-99.9)	99.8 (98.6-100.0)	95.4 (87.1-98.4)
2016	94.2 (90.8-96.3)	99.5 (97.8-99.9)	96.9 (83.6-99.5)	90.8 (82.6-95.3)
2017	95.4 (91.8-97.5)	95.6 (84.2-98.9)	88.9 (74.2-95.7)	93.2 (82.2-97.6)
2018	97.5 (95.1-98.8)	91.4 (75.8-97.3)	96.5 (81.7-99.4)	93.7 (83.4-97.8)
2019	97.0 (94.2-98.5)	97.3 (88.1-99.4)	89.3 (71.7-96.5)	91.5 (79.0-96.8)
2020	92.3 (87.9-95.2)	93.3 (79.3-98.1)	95.9 (81.9-99.2)	99.0 (97.2-99.6)

CI denotes confidence interval.
\+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

In 2020, the percentage of women in New York State outside of NYC who report the hospital gave breastfeeding information has remained similar since 2009 for women from different race/ethnic groups.

The 2020 rates are,

White, non-Hispanic – 92.3%
Black, non-Hispanic – 93.3%
Other, non-Hispanic-95.9%
Hispanic-99.0%

Figure IX.I: Percentage of women who report their baby stayed in same room at hospital (New York State)

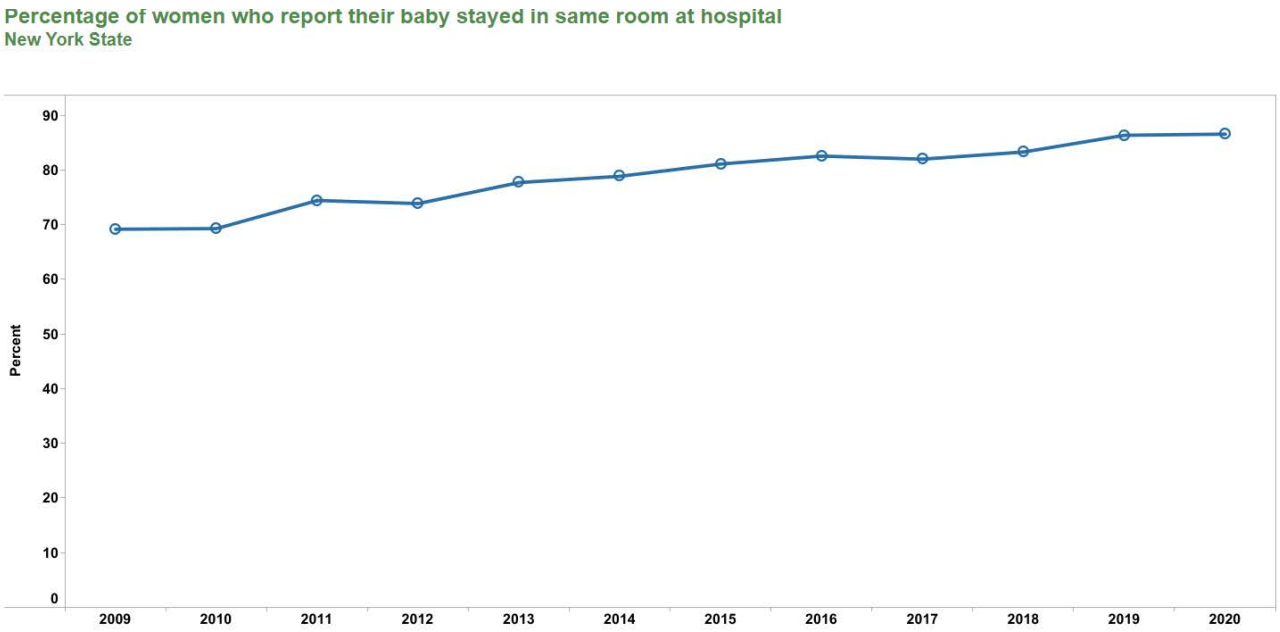


Table IX.I: Percentage of women who report their baby stayed in same room at hospital (New York State)

○ New York State

Year	New York State Percentage (95% CI)
2009	69.2 (66.5-71.7)
2010	69.3 (66.7-71.7)
2011	74.4 (72.0-76.7)
2012	73.8 (71.4-76.2)
2013	77.7 (75.3-79.9)
2014	78.8 (76.7-80.9)
2015	81.1 (79.1-82.9)
2016	82.5 (80.6-84.3)
2017	82.0 (79.7-84.1)
2018	83.3 (81.1-85.2)
2019	86.3 (84.4-88.1)
2020	86.5 (84.4-88.4)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who report their babies stayed in the same room in the hospital in New York State has increased in the last decade and half from 69.2% in 2009 to 86.5% in 2020.

Figure IX.II: Percentage of women who report their baby stayed in same room at hospital (New York City)

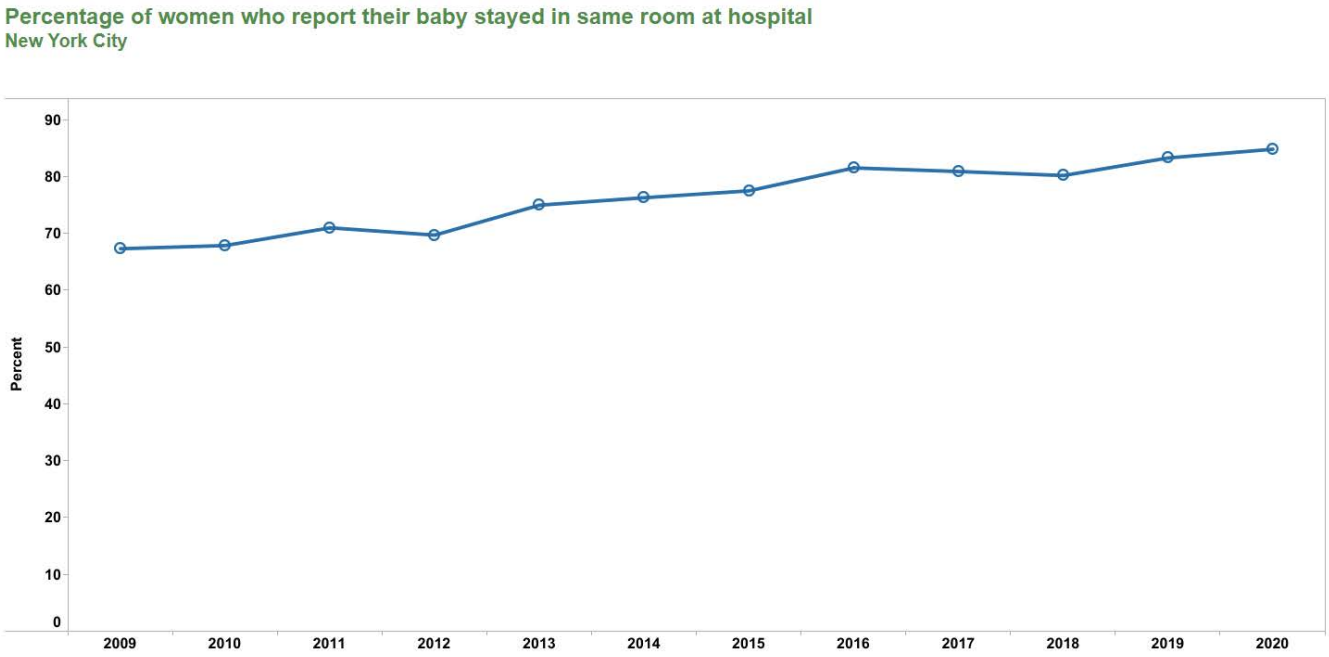


Table IX.II: Percentage of women who report their baby stayed in same room at hospital (New York City)

New York City

Year	New York City Percentage (95% CI)
2009	67.3 (63.9-70.5)
2010	67.8 (64.5-71.0)
2011	71.0 (67.8-74.0)
2012	69.7 (66.5-72.7)
2013	75.0 (71.9-77.8)
2014	76.3 (73.6-78.7)
2015	77.5 (75.0-79.8)
2016	81.5 (79.2-83.6)
2017	80.9 (78.4-83.1)
2018	80.2 (77.6-82.5)
2019	83.3 (80.8-85.5)
2020	84.8 (82.3-87.0)

CI denotes confidence interval.
\+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who report their babies stayed in the same room in the hospital in New York City has increased in the last decade and half from 67.3% in 2009 to 84.8% in 2020.

Figure IX.III: Percentage of women who report their baby stayed in same room at hospital (NYS excl NYC)

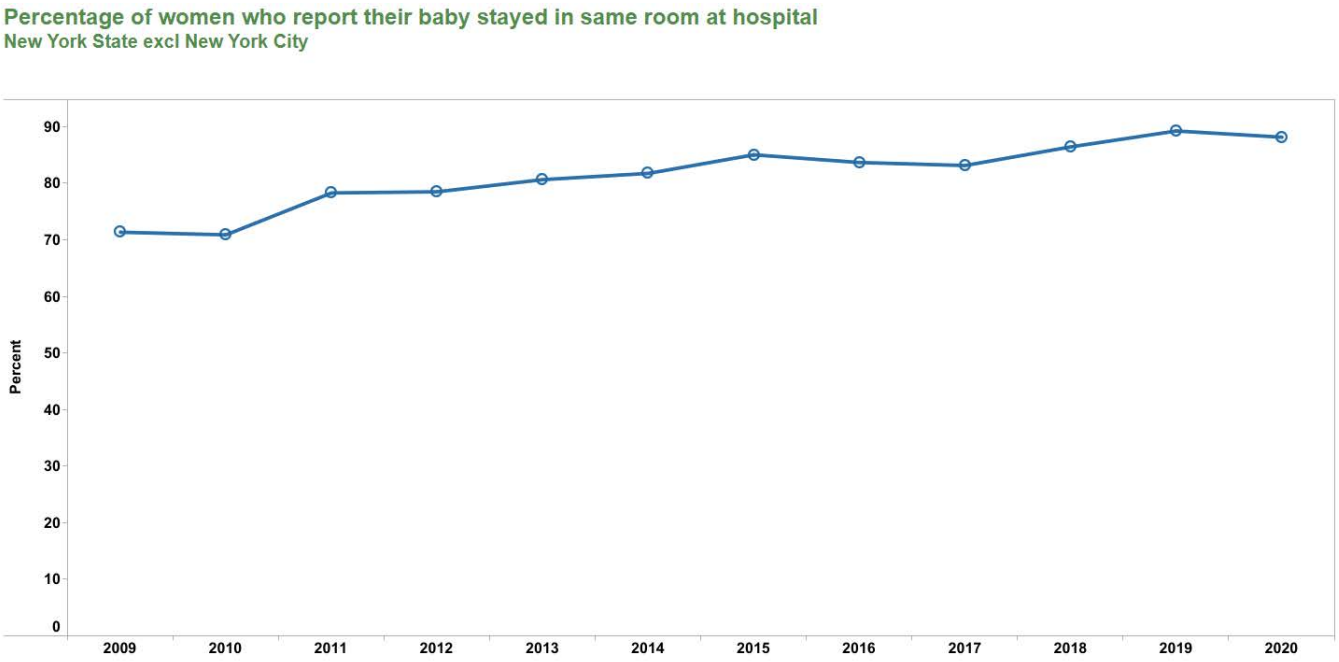


Table IX.III: Percentage of women who report their baby stayed in same room at hospital (NYS excl NYC)

NYS excl NYC

Year	NYS excl NYC Percentage (95% CI)
2009	71.3 (67.1-75.2)
2010	70.9 (66.8-74.6)
2011	78.3 (74.6-81.6)
2012	78.5 (74.5-82.0)
2013	80.6 (76.8-83.9)
2014	81.7 (78.1-84.8)
2015	85.0 (81.8-87.8)
2016	83.7 (80.3-86.5)
2017	83.1 (79.1-86.5)
2018	86.4 (82.8-89.4)
2019	89.2 (86.1-91.7)
2020	88.1 (84.6-90.9)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women who report their babies stayed in the same room in the hospital in New York State outside of NYC has increased in the last decade and half from 71.3% in 2009 to 88.1% in 2020.

Figure X.I: Percentage of women who report their baby stayed in same room at hospital (New York State)

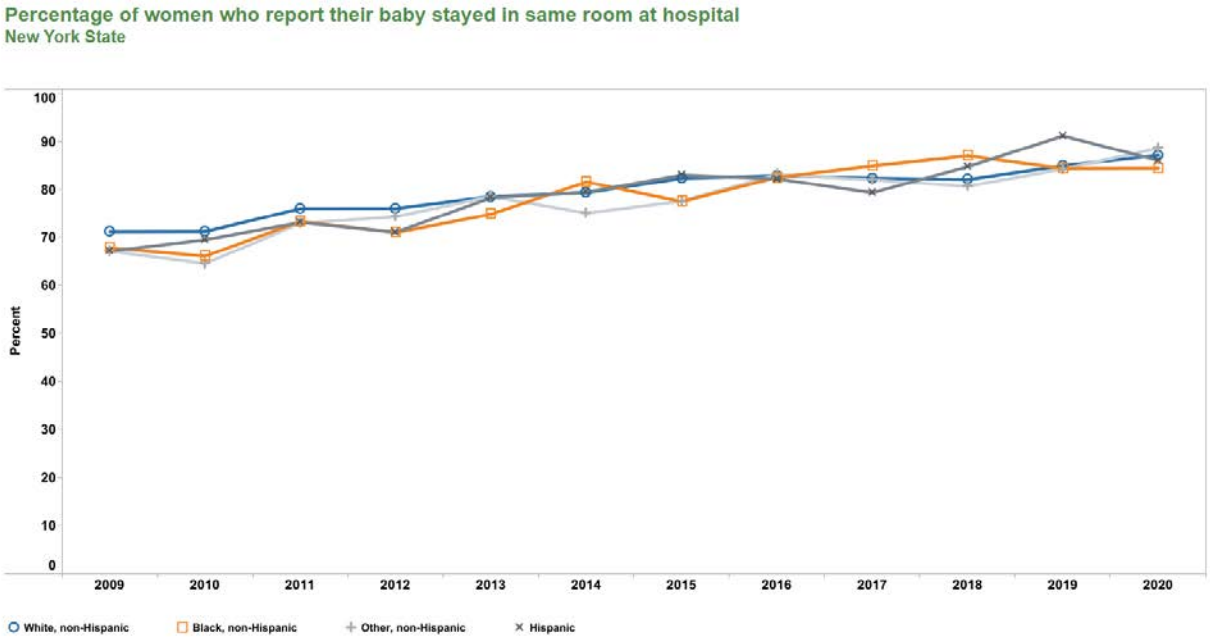


Table X.I: Percentage of women who report their baby stayed in same room at hospital (New York State)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	71.2 (67.2-74.8)	67.8 (60.5-74.3)	67.1 (59.2-74.2)	67.1 (62.0-71.9)
2010	71.2 (67.4-74.8)	66.1 (59.1-72.5)	64.6 (56.6-71.7)	69.5 (64.5-74.1)
2011	76.0 (72.5-79.2)	73.3 (66.6-79.1)	73.0 (66.3-78.7)	73.1 (68.1-77.6)
2012	76.0 (72.4-79.3)	71.0 (63.5-77.5)	74.3 (67.3-80.3)	71.1 (66.0-75.7)
2013	78.5 (74.9-81.7)	74.9 (67.9-80.7)	78.5 (71.8-84.0)	78.3 (73.5-82.4)
2014	79.3 (76.0-82.3)	81.5 (76.2-85.9)	75.0 (68.6-80.5)	79.4 (75.0-83.2)
2015	82.3 (79.4-84.9)	77.5 (71.7-82.4)	77.6 (71.6-82.6)	83.0 (78.8-86.4)
2016	82.9 (79.9-85.5)	82.5 (77.2-86.8)	83.1 (77.7-87.4)	82.2 (78.1-85.7)
2017	82.3 (78.9-85.3)	84.9 (80.2-88.7)	82.0 (76.6-86.3)	79.3 (73.5-84.1)
2018	82.0 (78.7-85.0)	87.0 (82.9-90.2)	80.7 (74.1-85.9)	84.7 (79.8-88.6)
2019	84.9 (81.9-87.6)	84.4 (77.2-89.6)	84.3 (78.8-88.5)	91.1 (88.1-93.4)
2020	87.1 (83.8-89.8)	84.4 (77.4-89.6)	88.6 (83.0-92.5)	86.0 (82.1-89.3)

CI denotes confidence interval.
\+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State who reported their babies have stayed in the same room at the hospital has increased since 2009 for women from different race/ethnic groups.

The 2020 rates are,

White, non-Hispanic – 87.1%
Black, non-Hispanic – 84.4%
Other, non-Hispanic-88.6%
Hispanic-86.0%

Figure X.II: Percentage of women who report their baby stayed in same room at hospital (New York City)

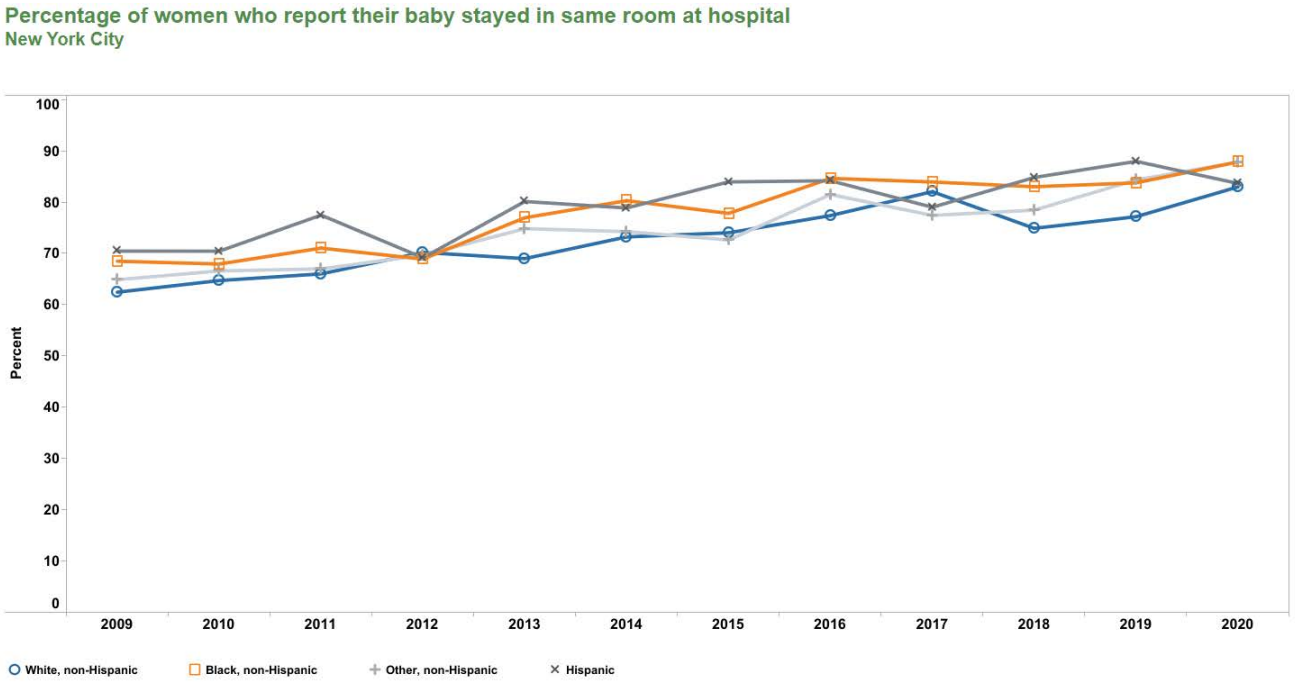


Table X.II: Percentage of women who report their baby stayed in same room at hospital (New York City)

	White, non-Hispanic	Black, non-Hispanic	Other, non-Hispanic	Hispanic
Year	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)	Percentage (95% CI)
2009	62.4 (55.4-69.0)	68.5 (60.7-75.4)	64.9 (55.7-73.1)	70.4 (65.0-75.4)
2010	64.7 (58.0-70.8)	67.9 (60.2-74.8)	66.6 (57.8-74.3)	70.4 (64.8-75.5)
2011	66.0 (59.7-71.8)	71.0 (63.5-77.6)	67.0 (58.6-74.4)	77.5 (72.3-81.9)
2012	70.2 (64.4-75.4)	68.9 (61.3-75.6)	69.6 (61.4-76.8)	69.1 (63.4-74.4)
2013	69.0 (62.6-74.7)	76.9 (70.0-82.7)	74.8 (66.8-81.4)	80.1 (75.1-84.3)
2014	73.2 (68.0-77.9)	80.3 (74.4-85.1)	74.2 (67.2-80.2)	78.8 (74.2-82.9)
2015	74.0 (69.2-78.3)	77.8 (71.8-82.8)	72.6 (65.6-78.7)	83.9 (79.9-87.3)
2016	77.4 (72.7-81.4)	84.6 (79.6-88.6)	81.5 (75.5-86.3)	84.2 (80.2-87.4)
2017	82.0 (77.5-85.8)	83.9 (78.3-88.3)	77.4 (70.9-82.8)	79.0 (74.1-83.2)
2018	74.9 (69.9-79.3)	83.0 (77.3-87.5)	78.4 (71.4-84.1)	84.8 (80.3-88.4)
2019	77.1 (71.9-81.7)	83.8 (77.1-88.8)	84.3 (78.7-88.6)	87.9 (83.9-91.1)
2020	83.0 (77.8-87.1)	87.8 (82.4-91.8)	87.8 (81.7-92.1)	83.6 (78.7-87.6)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

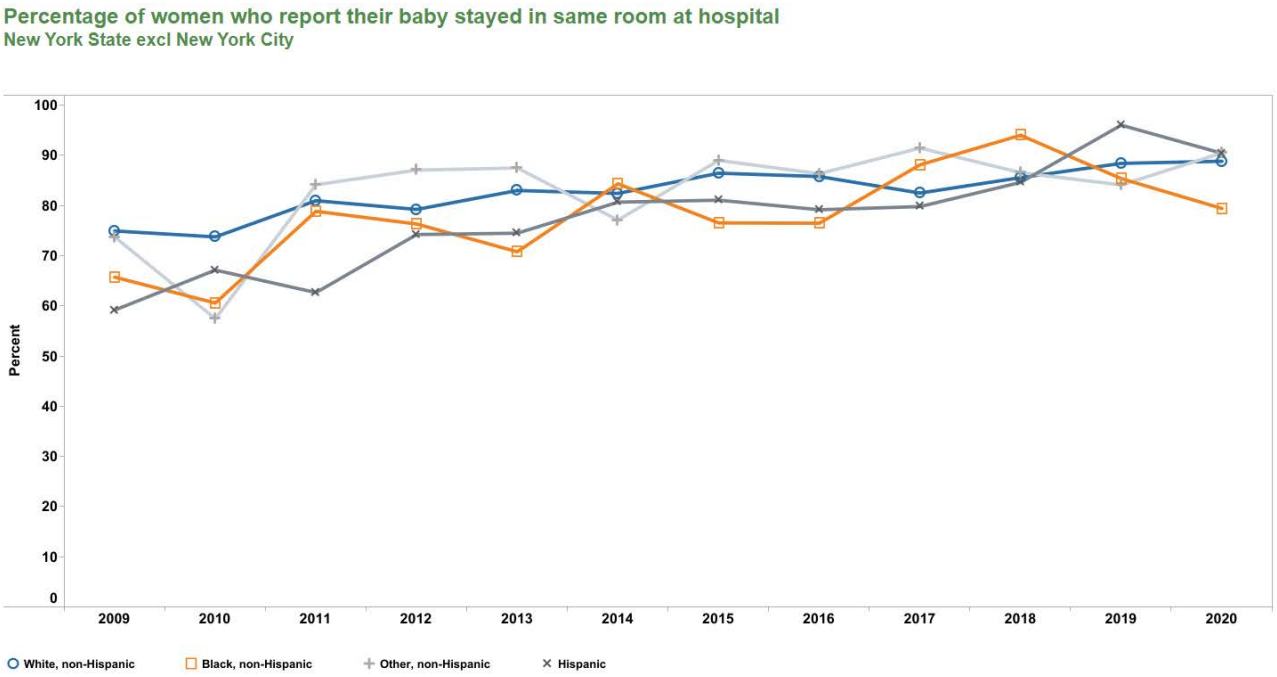
Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York City who reported their babies have stayed in the same room at the hospital has increased since 2009 for women from different race/ethnic groups.

The 2020 rates are,

White, non-Hispanic – 83.0%
Black, non-Hispanic – 87.8%
Other, non-Hispanic-87.8%
Hispanic-83.6

Figure X.III: Percentage of women who report their baby stayed in same room at hospital (NYS excl NYC)



Year	White, non-Hispanic Percentage (95% CI)	Black, non-Hispanic Percentage (95% CI)	Other, non-Hispanic Percentage (95% CI)	Hispanic Percentage (95% CI)
2009	74.9 (70.1-79.2)	65.7 (47.5-80.3)	73.7 (57.6-85.3)	59.2 (47.6-69.7)
2010	73.7 (69.0-78.0)	60.6 (44.3-74.8)	57.4 (39.2-73.9)	67.1 (56.1-76.6)
2011	81.0 (76.7-84.6)	78.8 (63.4-88.9)	84.2 (73.3-91.1)	62.6 (50.8-73.1)
2012	79.2 (74.5-83.2)	76.3 (55.9-89.1)	87.1 (72.1-94.6)	74.2 (64.2-82.2)
2013	83.0 (78.6-86.7)	70.8 (54.7-82.9)	87.5 (73.2-94.7)	74.5 (63.5-83.1)
2014	82.4 (78.1-86.1)	84.3 (71.9-91.9)	77.1 (61.5-87.6)	80.7 (70.0-88.2)
2015	86.4 (82.7-89.5)	76.5 (60.9-87.2)	89.0 (76.3-95.3)	81.1 (70.9-88.3)
2016	85.8 (81.9-89.0)	76.5 (61.0-87.1)	86.3 (73.8-93.4)	79.2 (70.3-85.9)
2017	82.5 (77.8-86.4)	88.1 (78.3-93.8)	91.5 (80.7-96.5)	79.8 (65.9-89.0)
2018	85.6 (81.0-89.2)	94.0 (90.4-96.3)	86.5 (67.4-95.2)	84.6 (71.8-92.2)
2019	88.4 (84.6-91.4)	85.4 (67.3-94.3)	84.1 (68.8-92.7)	96.0 (91.0-98.3)
2020	88.8 (84.5-92.1)	79.4 (63.1-89.7)	90.5 (74.0-97.0)	90.4 (83.3-94.7)

CI denotes confidence interval.
+ Fewer than 10 respondents in the numerator; therefore, estimates are unstable. ** Estimates are not presented for categories with fewer than 30 respondents.

NYS = New York State. NYC = New York City. NYS excl NYC = New York State excluding New York City

Note: NYS excluding NYC data not available prior to 2009.
This report excludes respondents who never breastfed their baby and respondents whose baby was not born in the hospital.

The percentage of women in New York State outside of NYC who reported their babies have stayed in the same room at the hospital has increased since 2009 for women from different race/ethnic groups. However, Black, non-Hispanic women report the lowest rates of having their babies stay in the same room at the hospital.

The 2020 rates are,

White, non-Hispanic – 88.8%
Black, non-Hispanic – 79.4%
Other, non-Hispanic-90.5%
Hispanic-90.4%

The Pediatric Nutrition Surveillance System (PedNSS)

<table>
<tr><td>Name of Data Source:</td><td colspan="2">The Pediatric Nutrition Surveillance System (PedNSS)</td></tr>
<tr><td>Link (if available online):</td><td colspan="2">The Pediatric Nutrition Surveillance System (PedNSS)</td></tr>
<tr><td>Brief Description:</td><td colspan="2">The annual PedNSS report provides data on the prevalence and trends of nutrition-related indicators for low-income children (< 5 years of age) enrolled in Special Supplemental Program for Women, Infants and Children (WIC).

Data are collected at the clinic level then aggregated at the local agency, region and state levels. All data are collected and reported through the WIC MIS system within the Division of Nutrition.</td></tr>
<tr><td>Sample/Population Represented:</td><td colspan="2">Census of all infants and children participating in WIC each year.</td></tr>
<tr><td>Methods:</td><td colspan="2">Data from PedNSS represented in the report were collected from participants in the NYS WIC program between 2008-2021.</td></tr>
<tr><td>Breastfeeding Indicators:</td><td colspan="2">Indicator(s):
1. Breastfeeding Initiation
2. Breastfeeding ≥ 6 Months
3. Breastfeeding ≥ 12 Months
Disaggregated by: Infant Race/Ethnicity and infant age *note that total values are available as well
Reported as: number and proportion (%)</td></tr>
<tr><td rowspan="2">Other Relevant Measures:</td><td colspan="2">New York State PedNSS reports also include data on the following indicators for infants and children participating in WIC:</td></tr>
<tr><td>• Birth Weight
• Short Stature
• Weight and Height
• BMI</td><td>• Anemia
• Breastfeeding
• Smoking in Household
• TV viewing</td></tr>
</table>

<table>
<tr><td rowspan="4">Demographic Data:</td><td colspan="2">Race/Ethnicity</td></tr>
<tr><td>Non-Hispanic White
Non-Hispanic Black
Hispanic/ Latino</td><td>American Indian/ Alaskan Native
Asian/Pacific Islander
Multiple Races
Others</td></tr>
<tr><td colspan="2">Age Distribution</td></tr>
<tr><td>0-11 Months
12-23 Months
24-35 Months</td><td>36-47 Months
48-59 Months</td></tr>
<tr><td>Dates of Data Available:</td><td colspan="2">Annual data are currently available from 2008-2021 for breastfeeding initiation and from 2008-2017 for breastfeeding ≥ 6 months and breastfeeding ≥ 12 Months

Data for a given year are typically updated in June of the following year. Due to the transition from a check-based to a new EBT-friendly WIC Management Information System (MIS) during portions of 2018 and 2019, only data on breastfeeding initiation are available from 2018-2021.</td></tr>
<tr><td>Notes:</td><td colspan="2">If you have any question regarding the PedNSS reports, please send your inquiry to WICDATA@health.ny.gov with PedNSS as the subject title.</td></tr>
</table>

New York State Pediatric Nutrition Surveillance System

Breastfeeding Data Summary

Downloaded from NYS PedNSS

Population: Infants and children aged 5 years and under enrolled in the NYS WIC Program during the calendar year

Data source: NYS WIC Program data

List of Indicators:

1. Percentage of infants who were ever breastfed (breastfeeding initiation)
2. Percentage of infants breastfed for at least 6 months
3. Percentage of infants breastfed for at least 12 months

Indicator Notes: Infants born during the reporting period are included in the 'ever-breastfed' analysis. Infants who turned 6 months of age during the reporting period by/on their date of visit included in the 'breastfed at least 6 months' analysis. Children who turned 12 months of age during the reporting period by/on their date of visit included in the 'breastfed at least 12 months' analysis.

Years Included: 2008-2021;

Figure I: Percentage of infants who were ever breastfed among all infants enrolled in WIC

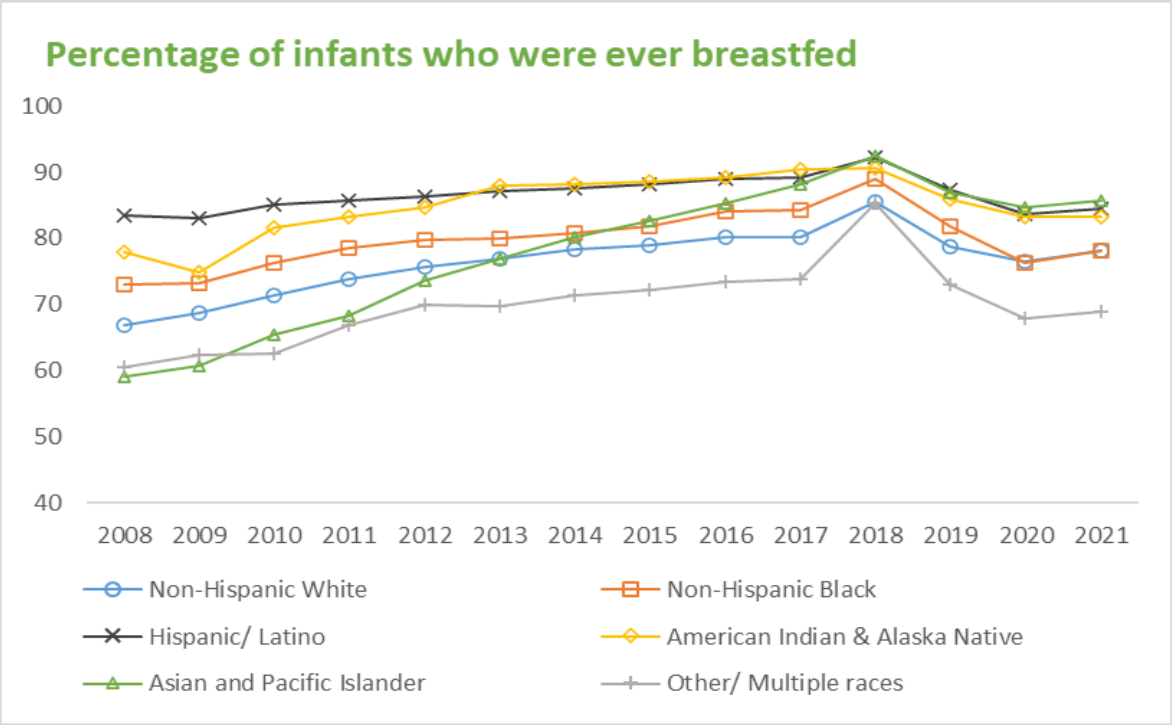


Table I: Percentage of infants who were ever breastfed among all infants enrolled in WIC

Race/Ethnicity	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Non-Hispanic White	66.9	68.7	71.4	73.9	75.6	76.9	78.3	79.0	80.1	80.1	85.4	78.8	76.5	78.1
Non-Hispanic Black	73.0	73.3	76.2	78.5	79.7	79.9	80.8	81.9	84.1	84.3	88.9	81.8	76.3	78.2
Hispanic/Latino	83.4	83.1	85.0	85.7	86.3	87.2	87.6	88.2	89.0	89.2	92.3	87.4	83.7	84.4
American Indian & Alaska Native	78.0	74.8	81.7	83.3	84.7	87.9	88.1	88.6	89.2	90.4	90.7	86.0	83.3	83.2
Asian and Pacific Islander	59.1	60.8	65.4	68.3	73.7	76.9	80.1	82.7	85.3	88.1	92.4	86.9	84.6	85.6
Other/ Multiple races	60.6	62.3	62.5	66.8	69.9	69.8	71.4	72.2	73.4	73.8	85.2	73.0	68.0	68.9

Among infants enrolled in the WIC program, the percentage of infants breastfed (i.e., breastfeeding initiation) increased from 2008 to 2021 for all racial/ethnic groups. The greatest increase was observed among Asian and Pacific Islander infants at 26.5 percentage points.

Despite the encouraging increase, racial/ethnic disparities are still present. The prevalence of breastfeeding initiation is highest for Asia/Pacific Islander, Hispanic/Latino infants, and American Indian/Alaskan Native infants, and higher for Non-Hispanic (NH) Black infants compared to NH white infants. In 2021, breastfeeding initiation varied from 85.6% of Asian and Pacific Islander infants to 78.1% of NH white infants.

Figure II: Percentage of infants breastfed for at least 6 months among all infants enrolled in WIC

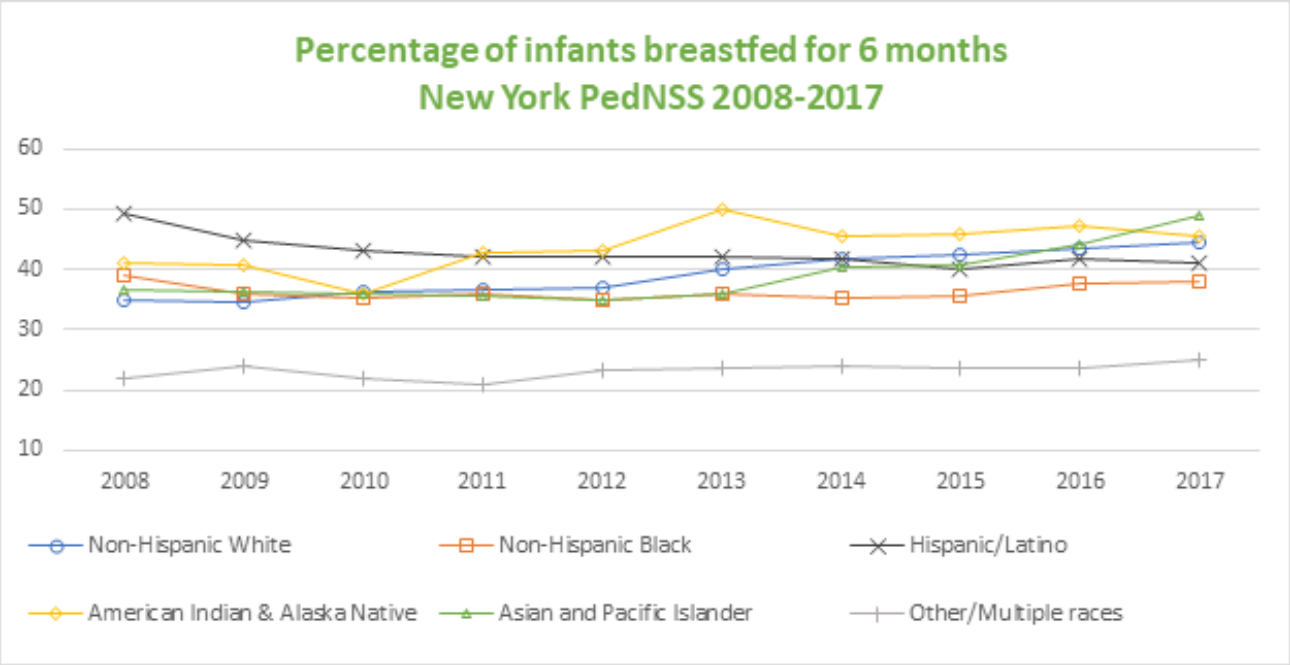


Table II: Percentage of infants breastfed for at least 6 months among all infants enrolled in WIC

Race/Ethnicity	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Non-Hispanic White	34.9	34.7	36.2	36.7	37.0	40.0	41.8	42.3	43.5	44.5
Non-Hispanic Black	39.0	35.9	35.2	36.1	34.9	35.9	35.2	35.5	37.7	38.0
Hispanic/Latino	49.2	45.0	43.1	42.2	42.0	42.0	41.9	40.1	41.8	41.2
American Indian & Alaska Native	41.2	40.6	36.0	42.9	43.1	50.0	45.4	45.7	47.3	45.6
Asian and Pacific Islander	36.6	36.3	35.9	35.5	34.9	36.0	40.4	40.7	44.3	48.8
Other/ Multiple races	21.9	23.8	21.9	20.9	23.1	23.7	23.9	23.7	23.7	25.1

Among WIC participants, the percentage of infants who were breastfed for at least 6 months increased from 2008 to 2017 among all racial/ethnic groups except Non-Hispanic Black and Hispanic/Latino The percentage of infants breastfed for at least 6 months did not change among Non-Hispanic Black WIC participants and decreased for Hispanic or Latino WIC participants during the same period.

This pattern highlights disparities seen in breastfeeding duration among NYS WIC infants. Breastfeeding duration rates (breastfeeding at least six months) are lower for Non-Hispanic Black infants compared to Non-Hispanic White infants. In 2017, the percentage of infants breastfed for 6 months was 38% among Non-Hispanic Black, and 44.5% for Non-Hispanic White.

Figure III: Percentage of infants breastfed for 12 months among all infants enrolled in WIC

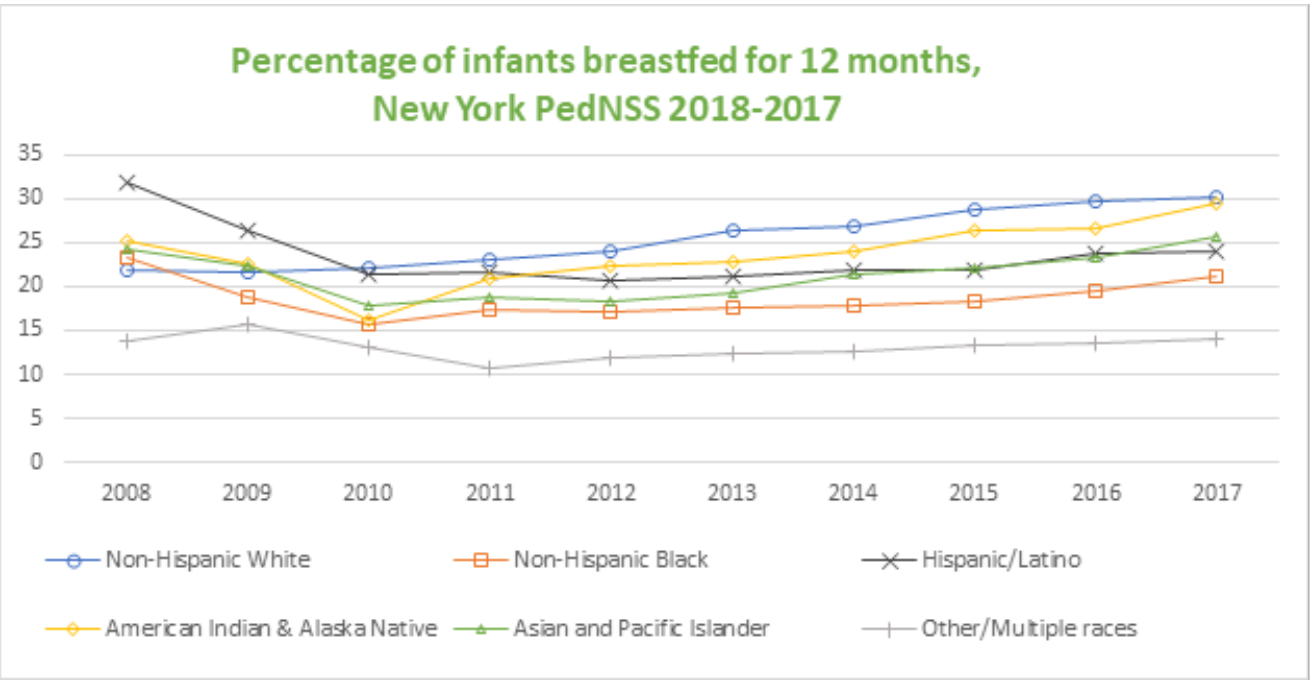


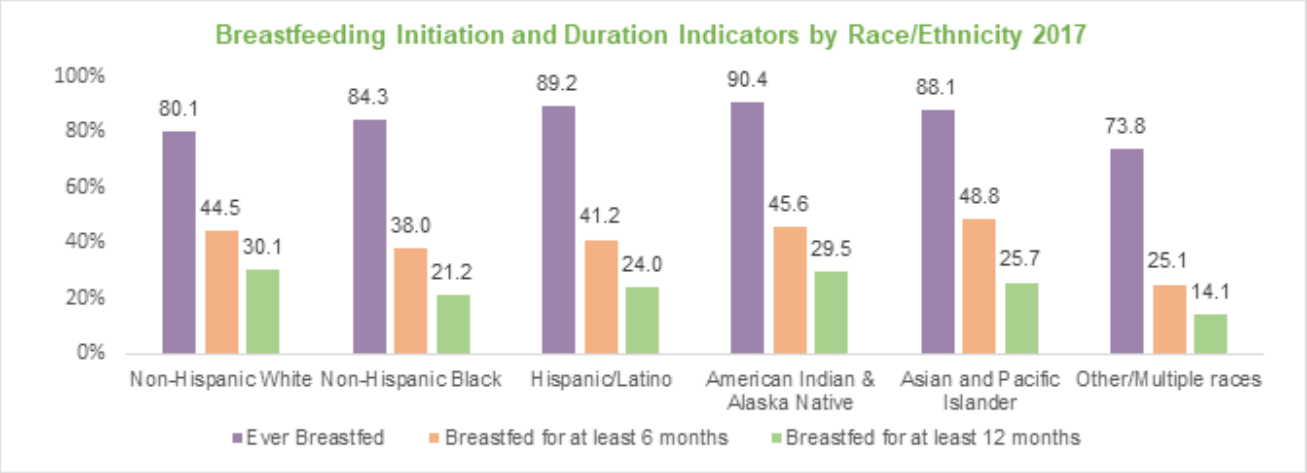
Table III: Percentage of infants breastfed for 12 months among all infants enrolled in WIC

Race/Ethnicity	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Non-Hispanic White	21.9	21.7	22.1	23.1	24.1	26.4	26.8	28.8	29.8	30.1
Non-Hispanic Black	23.2	18.8	15.6	17.4	17.2	17.5	17.9	18.3	19.4	21.2
Hispanic/Latino	31.8	26.5	21.4	21.6	20.7	21.2	21.9	21.9	23.8	24.0
American Indian & Alaska Native	25.3	22.5	16.1	20.9	22.4	22.8	23.9	26.5	26.7	29.5
Asian and Pacific Islander	24.2	22.3	17.8	18.7	18.2	19.3	21.4	22.0	23.2	25.7
Other/Multiple races	13.8	15.6	13.2	10.6	11.9	12.4	12.7	13.3	13.6	14.1

From 2008 and 2017, The percentage of infants breastfed for at least 12 months decreased by 2.0 percentage points among non-Hispanic Black infants and by 7.8% among Hispanic infants. In contrast, there was an 8.2 percentage point increase in the percentage of non-Hispanic White infants breastfeed for at least 12 months.

These trends have widened disparities in breastfeeding at 12 months. In 2017, the percentage of infants breastfed for 12 months among Non-Hispanic Black infants (21.2%) and Hispanic/Latino infants (24.0%) is lower than the percentage of Non-Hispanic White infants breastfed 12 months (30.1%).

Figure IV: Breastfeeding initiation and duration by Race/Ethnicity among all infants enrolled in WIC



Racial and ethnic disparities in breastfeeding indicators among infants participating in the NYS WIC Program in 2017 are apparent at 6 months and expand by 12 months. For example, 44.5% of Non-Hispanic White infants were breastfed for at least 6 months compared to 38.0% of Non-Hispanic Black infants. At 12 months, 30.1% of non-Hispanic White infants were breastfed as opposed to 21.2% of non-Hispanic Black infants.

Compared to the 84.3% of non-Hispanic Black mothers who report any breastfeeding, only 38.0% report breastfeeding at 6 months and 21.2% at 12 months. The decline in breastfeeding rates is not as dramatic among non-Hispanic White mothers. Of the 80.1% who report any breastfeeding, 44.5% report breastfeeding at 6 months and 30.1% at 12 months.

Healthy Families New York (HFNY) Management Information System (MIS)

Name of Data Source:	Healthy Families New York Management Information System (HFNY MIS)
Link (if available online)	Healthy Families New York Management Information System
Brief Description:	HFNY operates 44 programs across NYS and offers home-based services to expectant parents and new families with an infant under 3 months who live in communities that are at high risk for adverse child and family outcomes. Families are eligible if the parents are under 21, unmarried, receive inadequate income, and/or late or no prenatal care. Families are further assessed for risk using the Parent Survey to determine eligibility for intensive home visits. All families who are assessed receive referrals to appropriate community partners based on the needs identified in the Parent Survey. The HFNY MIS is a web-based application used by all HFNY program sites and HFNY Central administration. Data elements are collected and entered in MIS by home visiting staff at each site.
Sample/Population Represented:	All eligible expectant parents and new families with an infant under 3 months living communities that are high risk for adverse child and family outcomes are invited to participate. Between April 1, 2018, and March 31, 2019, 14,340 families were screened, and 2,219 were enrolled in the program.
Methods:	Home visiting staff collect data from PC1 (biological mothers) at 6 and 12 months follow up visits.
Breastfeeding Indicators:	Indicator(s): 1. Breastfeeding initiation (ever breastfed) 2. Breastfeeding ≥ 3 months 3. Breastfeeding ≥ 6 months Disaggregated: Infant Race/Ethnicity Reported as: Proportion (%)

<table>
<tr><td rowspan="4">Demographic Data:</td><td colspan="2">Race/Ethnicity</td></tr>
<tr><td>Non-Hispanic White
Non-Hispanic Black
Hispanic</td><td>Non-Hispanic Asian
Others Non-Hispanic</td></tr>
<tr><td colspan="2">HNFY also collects a variety of other demographic factors including:</td></tr>
<tr><td>Age of primary caregiver
Education level of primary caregiver
Service connections at enrollment (i.e., TANF, WIC)</td><td>Employment status
Marital status
Parity
Primary language
Length of program enrollment</td></tr>
<tr><td>Other Relevant Measures:</td><td colspan="2">Social Indicators: Parent survey score, issues related to domestic violence, mental health, or substance abuse
Programmatic Indicators: home visit content (curriculum taught), number of home visits, time between screening and assessment, trimester at intake, service referrals, retention rate, and reason for discharge
Outcome measures: Outcomes relate to 4 major goals, positive parent-child bonding, optimal child and family health, development and safety, family self-sufficiency, and preventing child abuse and neglect. These goals fall under 3 domains: Health and Development Targets, Parent Child Interaction Targets, and Family Life Couse Targets, and all 21 outcome indicators fall under one of these domains. For example, breastfeeding at 3 and 6 months falls under “Parent Child Interaction Targets.”
HFNY can provide additional information about the various measures as needed.</td></tr>
<tr><td>Dates of Data Available:</td><td colspan="2">Annual data are reported for 2011-2020.
HFNY data are historical back to early 2000. Breastfeeding data is available for families enrolled at least 6 months prior to 2011.</td></tr>
<tr><td>Notes:</td><td colspan="2">The data represents indicators for infants of families enrolled in HFNY population who are at high risk for adverse child and family outcomes. This group composition may be different from the general population of NYS, and thus not generalizable beyond the program population.</td></tr>
</table>

Healthy Family New York (HFNY) Program

Breastfeeding Data Summary

Population: Eligible expectant parents and new families with an infant under 3 months who live in communities that are at high risk for adverse child and family outcomes. Families are screened for potential eligibility and then further assessed for risk using the Parent Survey to determine eligibility for intensive home visits.

Source: Healthy Family New York Management Information System (MIS)

List of Indicators:

1. Percentage of infants who were ever breastfed
2. Percentage of infants who were breastfed for at least 3 months
3. Percentage of infants who were breastfed for at least 6 months

Years Included: 2011-2020

⚠Caution: Generalizability of the findings

The data represents indicators for infants of families enrolled in HFNY population who are at high risk for adverse child and family outcomes. This group composition may be different from the general population of NYS, and thus not generalizable beyond the program population.

Figure I: Percentage of infants who were ever breastfed among all infants enrolled in Healthy Families New York (HFNY)

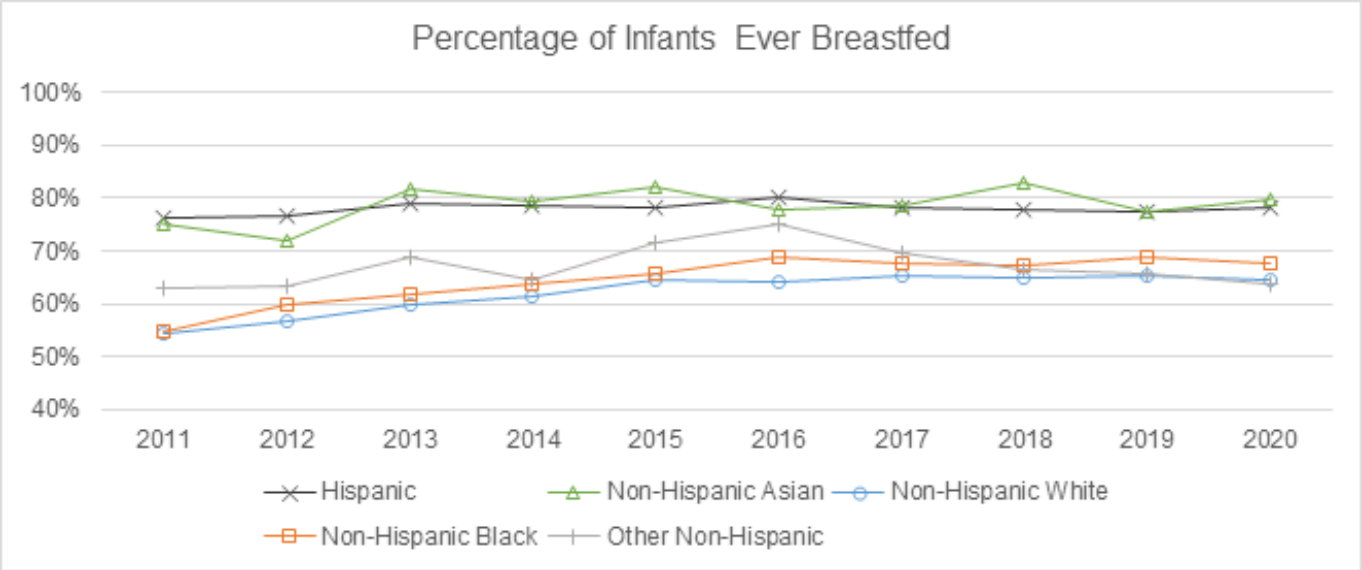


Table I: Percentage of infants who were ever breastfed among all infants enrolled in Healthy Families New York (HFNY)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hispanic	76.4	76.5	79.1	78.6	78.3	80.2	78.3	77.8	77.6	78.4
Non-Hispanic (NH) Asian	75.0	71.8	81.6	79.6	82.2	77.9	78.8	82.9	77.3	79.8
Non-Hispanic (NH) White	54.6	57.0	59.7	61.5	64.5	64.1	65.4	65.1	65.2	64.7
Non-Hispanic (NH) Black	54.8	60.0	61.8	63.9	65.8	68.8	67.5	67.3	68.8	67.8
Other Non-Hispanic (NH)	63.0	63.6	68.7	64.7	71.5	75.2	69.5	66.4	65.8	63.8

The percentage of infants ever breastfed (i.e., breastfeeding initiation) has increased from 2011 to 2020 for infants of all racial and ethnic backgrounds participating in the HFNY program. The largest increase is observed among Non-Hispanic (NH) White infants (from 54.6% in 2011 to 64.7% in 2020) and NH Black infants (from 54.8% in 2011 to 67.8% in 2020).

Despite the increase in breastfeeding initiation, disparities still exist between NH Black infants and those of other racial/ethnic groups. In 2020, rates of breastfeeding initiation were highest for Hispanic (78.4%) and NH Asian (79.8%) and lower for NH Black (67.8%), NH White (64.7%) and Other NH (63.8%) infants.

Figure II: Percentage of infants breastfed for at least 3 months among all infants enrolled in Healthy Families New York (HFNY)

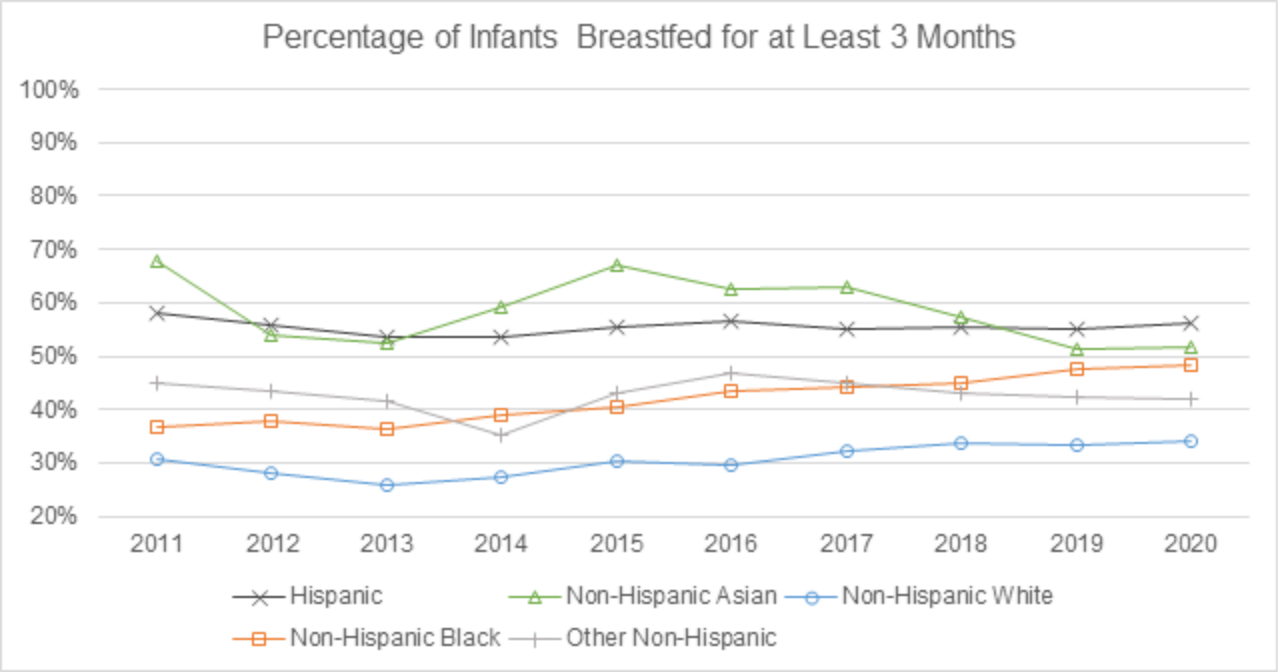


Table II: Percentage of infants breastfed for at least 3 months among all infants enrolled in Healthy Families New York (HFNY)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hispanic	58.1	55.7	53.8	53.5	55.4	56.7	55.0	55.4	54.9	56.2
Non-Hispanic (NH) Asian	67.9	53.9	52.6	59.1	67.1	62.5	62.8	57.3	51.3	51.6
Non-Hispanic (NH) White	30.6	28.1	25.9	27.3	30.2	29.7	32.3	33.6	33.2	34.0
Non-Hispanic (NH) Black	36.9	37.8	36.5	39.1	40.3	43.6	44.1	44.9	47.5	48.5
Other Non-Hispanic (NH)	45.1	43.4	41.6	35.4	43.0	47.0	44.8	43.1	42.3	41.9

Between 2011 and 2020, the percentage of infants breastfed for at least 3-months increased for NH White and NH Black infants. There was a slight decrease in breastfeeding for 3 months for Hispanic and Other NH infants, and a greater decline for NH Asian infants (67.9% in 2011 vs. 51.6% in 2020). However, a higher percentage of NH Asian infants were breastfed at 3 months compared to infants from all other racial/ethnic groups for all but 3 years from 2011 to 2020.

Figure II emphasizes NH White infants participating in HFNY had the lowest measures of breastfeeding duration at 3 months, compared to all other racial/ethnic groups. In 2020, 51,6% of NH Asian infants were breastfed for at least 3 months, compared to 34.0% of NH White infants (17.6 percentage point difference). This demonstrates that disparities are duration are greater than those in initiation and are experienced predominately by NH Black, NH White, and Other NH infants.

Figure III: Percentage of infants breastfed for at least 6 months among all infants enrolled in Healthy Families New York (HFNY)

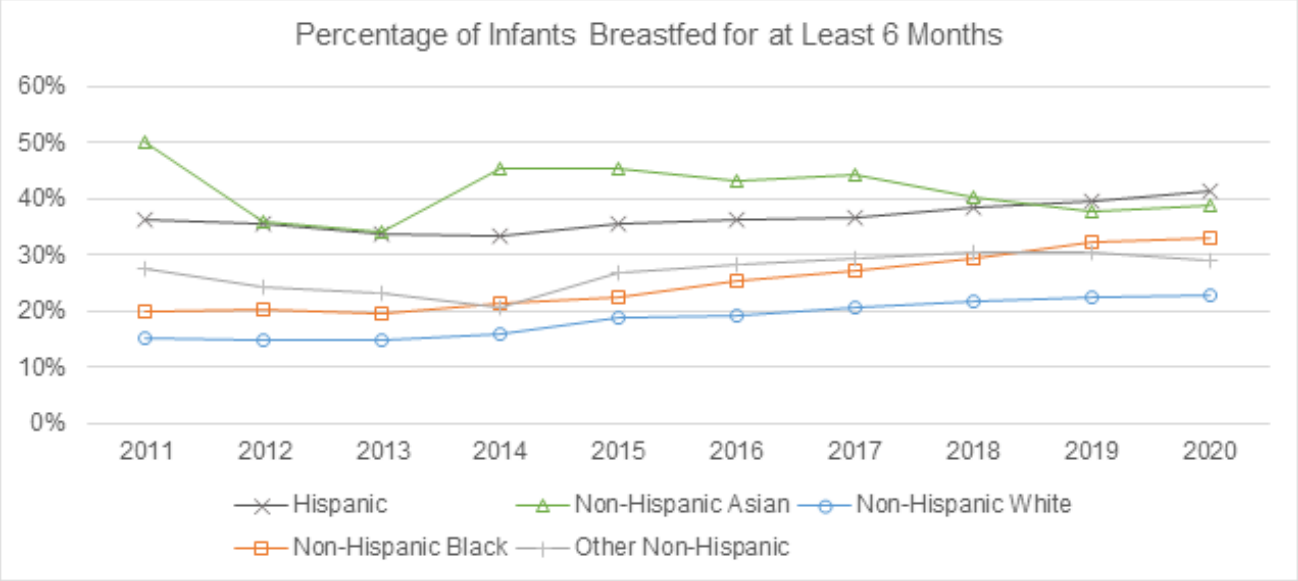


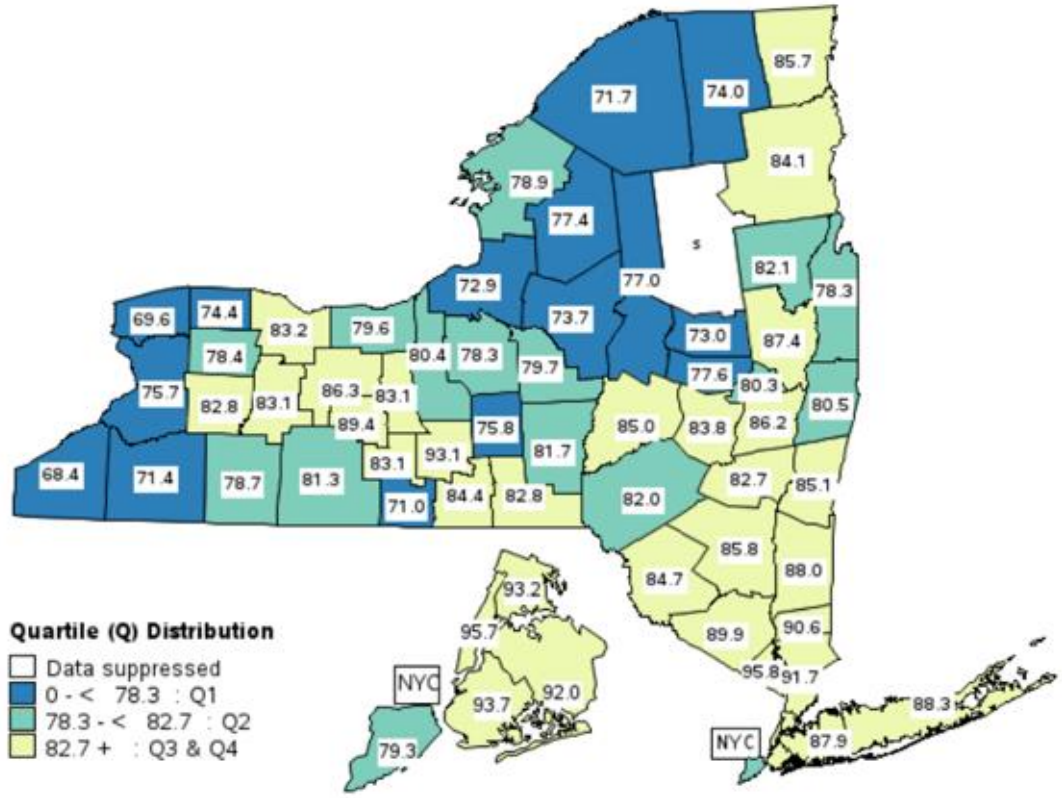
Table III: Percentage of infants breastfed for at least 6 months among all infants enrolled in Healthy Families New York (HFNY)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hispanic	36.4	35.6	33.9	33.2	35.6	36.4	36.5	38.2	39.6	41.3
Non-Hispanic (NH) Asian	50.0	35.9	34.2	45.5	45.2	43.3	44.3	40.2	37.8	38.7
Non-Hispanic (NH) White	15.3	14.7	14.8	16.0	18.9	19.2	20.6	21.8	22.3	22.9
Non-Hispanic (NH) Black	19.9	20.3	19.5	21.3	22.4	25.5	27.1	29.4	32.1	33.1
Other Non-Hispanic (NH)	27.7	24.1	23.1	20.5	26.7	28.3	29.2	30.4	30.4	28.9

Between 2011 and 2020, the percentage of infants breastfed for at least 6 months increased for all racial/ethnic groups participating in the HFNY program, except NH Asian infants. The largest increase was observed among NH Black infants, 13.2 percentage points. Although measures of breastfeeding at 6 months decreased for NH Asian infants, they were still breastfed at a higher rate than NH Black, NH White, and Other NH infants.

NH White infants participating in the HFNY program experienced the lowest measures of breastfeeding continuation at 6 months for all years between 2011 through 2020. In 2020, only 22.9% of NH White infants were breastfed for at least 6 months, compared to 33.1% of NH Black infants and 38.7% of NH Asian infants participating in the HFNY program.

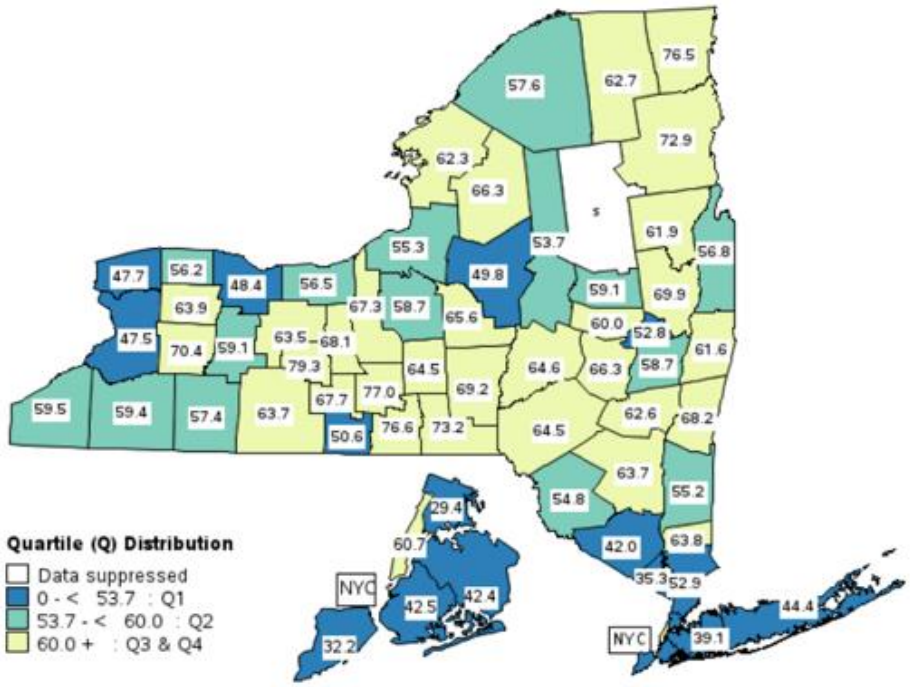
Figure I. Percentage of infants fed any breast milk in delivery hospital by county, New York State Vital Statistics



s: Data do not meet reporting criteria

Data Source: Vital Statistics as of June 2020

Figure II. Percentage of infants fed exclusively breast milk in delivery hospital by county, New York State Vital Statistics



s: Data do not meet reporting criteria

Data Source: Vital Statistics as of June 2020

Figure III. Percentage of infants fed exclusively breast milk in delivery hospital among non-Hispanic Black mothers by county, New York State Vital Statistics

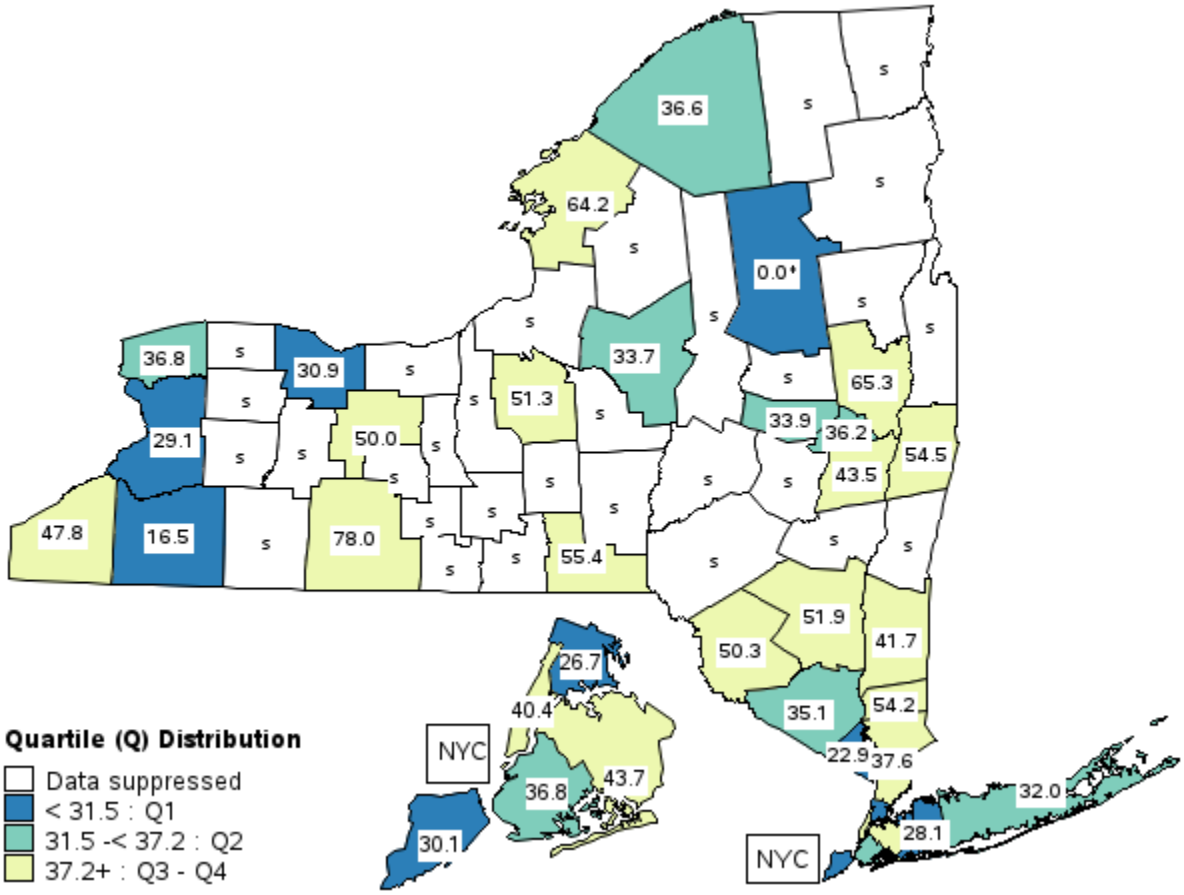
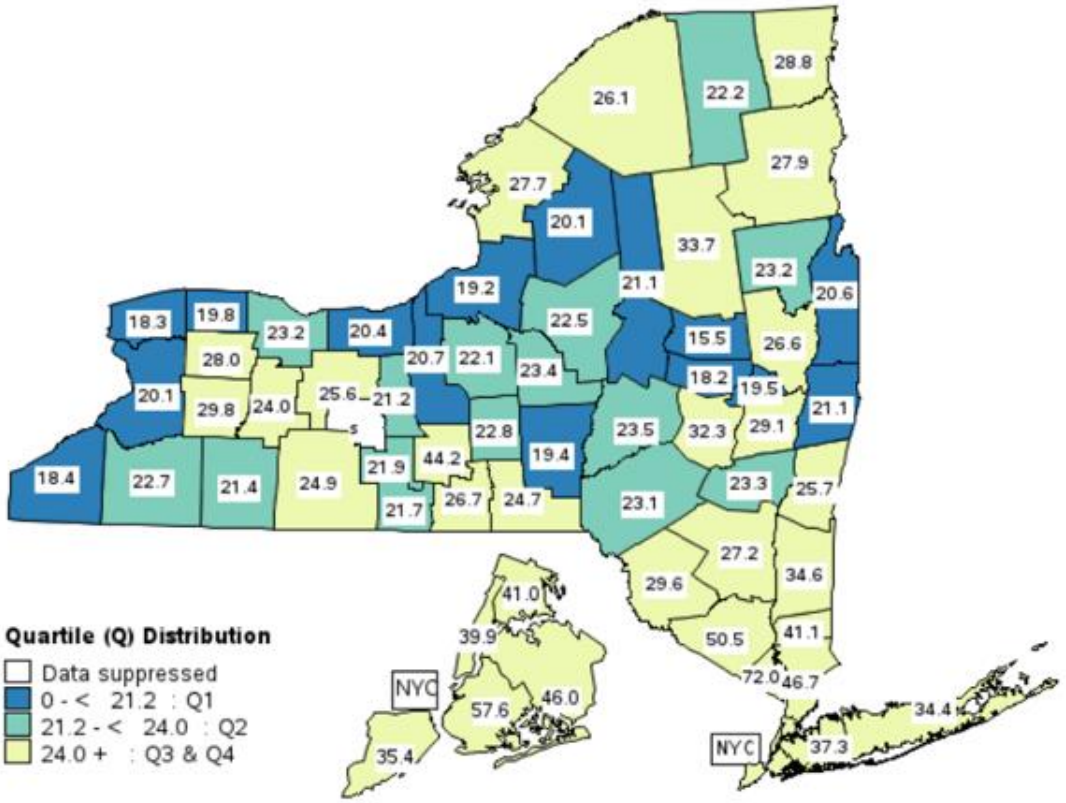


Figure IV. Percentage of infants participating in WIC breastfeeding at least 6 months, by county, 2015-2017



s: Data do not meet reporting criteria

Data Source: NYS Pediatric Nutrition Surveillance System Data as of June 2018

Figure V. Percentage of Live Births at Baby-Friendly Hospitals by New York State Region, 2017

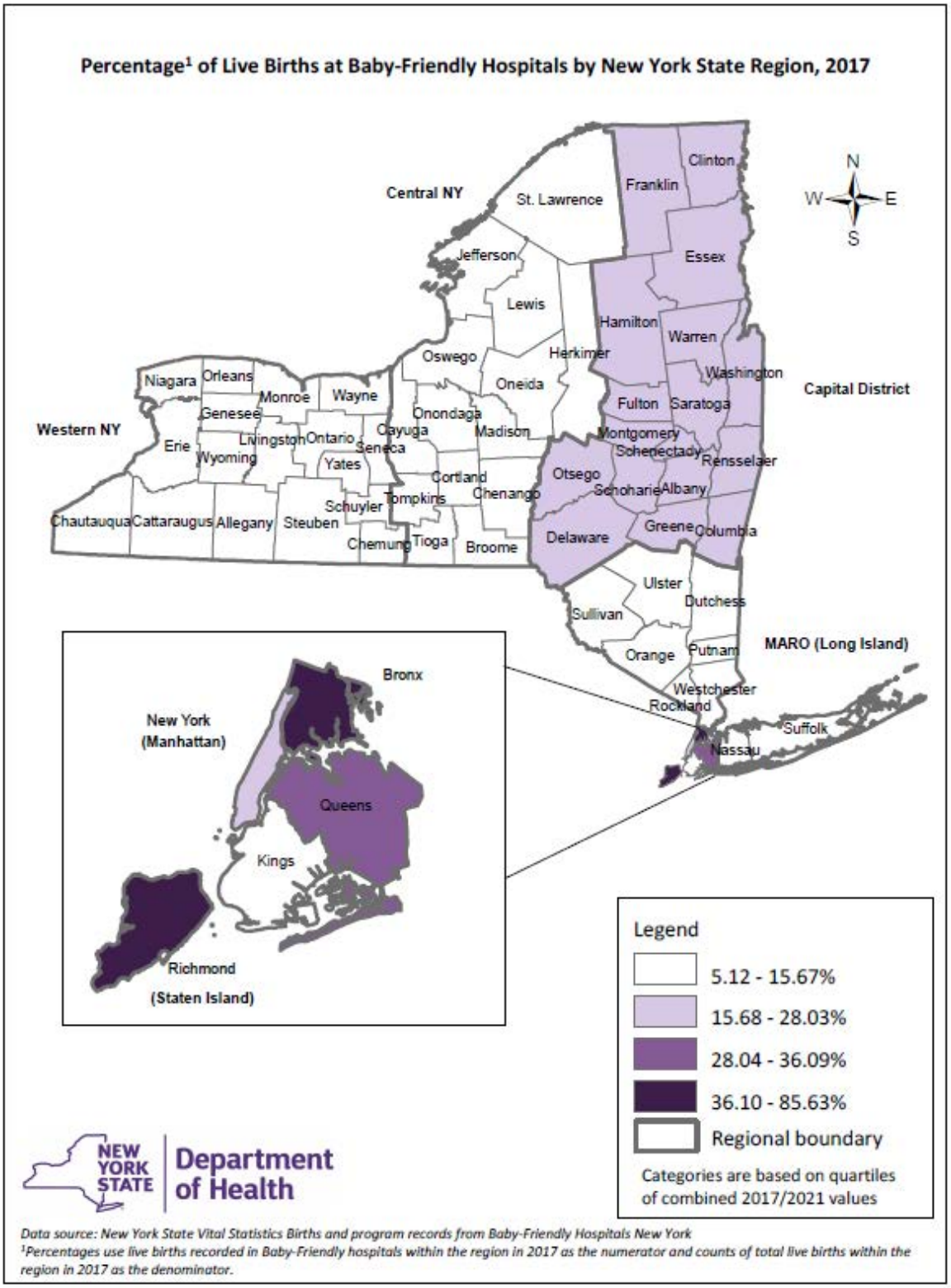
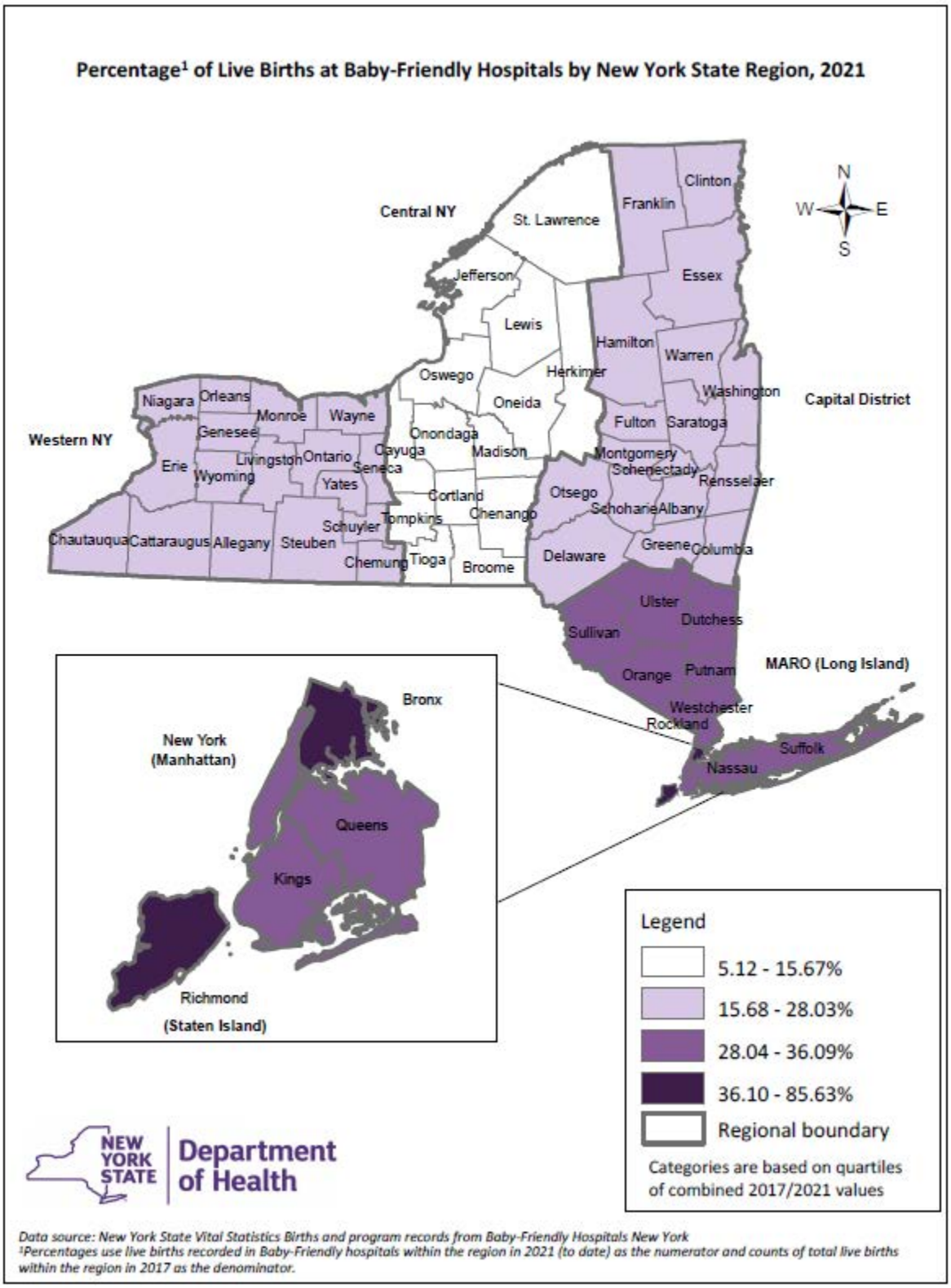


Figure VI. Percentage of Live Births at Baby-Friendly Hospitals by New York State Region, 2021



Baby-Friendly Hospital Locations in New York State

Long Island

1. St. Catherine of Siena Medical Center, Smithtown, NY
2. NYU Langone Hospital, Mineola, NY
3. Long Island Jewish Medical Center, New Hyde Park, NY
4. Mount Sinai South Nassau, Oceanside, NY

NYC

1. St. John's Episcopal Hospital, Far Rockaway, NY
2. Jamaica Hospital Medical Center, Jamaica, NY
3. Queens Hospital Center, Jamaica, NY
4. Flushing Hospital Medical Center, Flushing, NY
5. New York Presbyterian, Flushing, NY
6. Long Island Jewish Medical Center- Forest Hills, Forest Hills, NY
7. Elmhurst Hospital Center, Elmhurst, NY
8. Wyckoff Heights Medical Center, Brooklyn, NY
9. Woodhull Medical & Mental Health Center, Brooklyn, NY
10. NYU Langone Hospital- Brooklyn, Brooklyn, NY
11. Coney Island Hospital, Brooklyn, NY
12. Richmond University Medical Center, Staten Island, NY
13. NYC Health + Hospitals- Bellevue, New York, NY
14. NYU Langone Hospital, New York, NY
15. Metropolitan Hospital Center, New York, NY
16. Harlem Hospital Center, New York, NY
17. Lincoln Medical and Mental Health Center, Bronx, NY
18. SBH Health System, Bronx, NY
19. Montefiore Jack D. Weiler Hospital- Einstein Campus, Bronx, NY
20. Jacobi Medical Center, Bronx, NY
21. NYC Health +Hospitals- North Central Bronx, Bronx, NY
22. Montefiore Medical Center- Wakefield Hospital, Bronx, NY

Downstate

1. Phelps Hospital, Sleepy Hollow, NY
2. New York Presbyterian/Hudson Valley Hospital, Cortlandt Manor, NY
3. HealthAlliance Hospital- Broadway Campus, Kingston, NY

Eastern NY

1. St. Peter's Hospital, Albany, NY

Central NY

1. St. Joseph's Hospital Health Center, Syracuse, NY
2. Newark Wayne Community Hospital, Newark, NY

Western NY

1. Rochester General Hospital, Rochester, NY
2. Unity Hospital, Rochester, NY
3. United Memorial Medical Center, Batavia, NY
4. John R. Oishei Children's Hospital, Buffalo, NY

Appendix C.

New York State's Efforts to Promote, Support and Protect Breastfeeding and Reduce Disparities

Table of Contents

State-level

Breastfeeding Leadership Team

Division/Bureau: Division of Chronic Disease Prevention/Bureau of Community Chronic Disease Prevention

Purpose and Description: The Breastfeeding Leadership Team serves as a collective of internal NYSDOH partners, other NYS agencies and organizations and advocates that focus on breastfeeding protection, promotion, and support in NY. Internal NYSDOH partners include the Division of Nutrition and the Division of Family Health. External partners include the NYS Department of Labor, the American Academy of Pediatrics, American College of Obstetricians and Gynecologists, the NY Statewide Breastfeeding Coalition, and the NYS Association of Licensed Midwives.

The Breastfeeding Leadership Team supports the CDC Cooperative Agreement for the State Physical Activity and Nutrition Program and the breastfeeding strategies to implement interventions supportive of breastfeeding that address continuity of care, community support and workplace compliance with the federal lactation accommodation law. The purpose of the meeting is to provide and share topically relevant and project-specific updates and identify emerging issues.

Reach: Through the partners, the reach extends to the membership of each partner.
Funding Source: None

Potential for Expansion: Funding for this initiative could support staff to coordinate the Breastfeeding Leadership Team and expand the reach and impact of the statewide group of breastfeeding experts to advance breastfeeding policies, strategies and initiatives.

Key Resources: None

Health Care Setting

Online Breastfeeding Training Modules for Health Care Providers

Division/Bureau: Division of Chronic Disease Prevention/Bureau of Community Chronic Disease Prevention

Purpose and Description: The NYS DOH worked with the University at Albany School of Public Health's (SPH) Center for Public Health Continuing Education and Subject Matter Experts to produce four one-hour online modules on *Supporting and Promoting Breastfeeding, Chestfeeding and Lactation in Health Care Settings:*

Module 1: Prenatal Settings
Module 2: Hospital Care – Part 1
Module 3: Hospital Care – Part 2
Module 4: Postpartum Settings

The modules are designed for clinical providers who work with pregnant people, infants and families during the prenatal, hospital, and postpartum period. These trainings are available on-demand at no cost to health care and public health professionals. The SPH provides continuing education credits to medical, nursing, lactation, and public health professionals. The modules were updated and rereleased in Spring 2022 to reflect current recommendations, best practices, and more inclusive language.

Reach: These training modules, first released in March 2014, are the SPH's most popular on-demand trainings. Since March 2014, the four modules were played over 51,000 times, and over 60,500 continuing education (CE) credits were provided to health care and public health professionals.

The number of total views for each module from March 2014 – March 2022 are displayed in Table 1.

Table 1. View statistics from recording host by module

Webinar Name	Plays
Supporting and Promoting Breastfeeding in Health Care Settings Module 1: Prenatal Care	21,496
Supporting and Promoting Breastfeeding in Health Care Settings Module 2: Hospital Care, Part 1	11,494
Supporting and Promoting Breastfeeding in Health Care Settings Module 3: Hospital Care, Part 2	9,379
Supporting and Promoting Breastfeeding in Health Care Settings Module 4: Early Postpartum Postnatal Care	8,887

The number of cumulative CE credits provided to viewers by CE type for each module from March 2014 – March 2022 are displayed in Table 2.

Table 2. Cumulative CE credits provided

	Cumulative CE Credits Provided					
Webcast	**CME**	**CNE**	**CHES**	**LCERPS**	**General**	**Totals**
Prenatal Care	4,211	5,200	250	1,966	4,535	16,162
Hospital Care, Part 1	4,348	4,959	163	1,695	4,238	15,403
Hospital Care, Part 2	4,111	4,657	212	1,606	4,046	14,632

Early Postpartum/Postnatal Care	3,926	4,534	236	1,583	4,077	14,356
TOTALS	16,596	19,350	861	6,850	16,896	**60,553**

Acronyms:

CME – Continuing Medical Education
CNE – Continuing Nursing Education
CHES® - Certified Health Education Specialist
L-CERPS - Continuing Education Recognition Points for lactation consultants

The occupations of those requesting CEs are provided in Tables 3a and 3b.

Table 3a. Occupations of those requesting CEs

Webcast	**Occupations**		
	MD	**Nurse**	**Other**
Prenatal Care	7,531.00	8,924.00	3,944.00
Hospital Care, Part 1	7,344.00	7,806.00	3,142.00
Hospital Care, Part 2	6,980.00	7,264.00	2,980.00
Early Postpartum/Postnatal Care	6,732.00	7,322.00	3,030.00
TOTALS	28,587.00	31,316.00	13,096.00

Table 3b. Job titles (count and percentage) of those requesting CEs

Job Title	**Prenatal Care**	**Hospitals Part 1**	**Hospitals Part 2**	**Early Postpartum**
Nurse	7755 (38.0%)	6730 (36.8%)	6234 (36.2%)	6326 (37.0%)
Physician	7526 (36.9%)	7333 (40.1%)	6975 (40.5%)	6726 (39.4%)
Nurse Practitioner/ Physician Assistant	1169 (5.7%)	1076 (5.9%)	1030 (6.0%)	996 (5.8%)
Nutritionist/Dietitian	726 (3.6%)	572 (3.1%)	525 (3.0%)	536 (3.1%)
Health Educator or Trainer	323 (1.6%)	217 (1.2%)	224 (1.3%)	232 (1.4%)
Home Health Aide/Medical Assistant	141 (0.7%)	109 (0.6%)	101 (0.6%)	116 (0.7%)
Public Health Professional	112 (0.5%)	67 (0.4%)	65 (0.4%)	74 (0.4%)
Public Health Student	76 (0.4%)	54 (0.3%)	55 (0.3%)	51 (0.3%)

Other Public Health Technician	88 (0.4%)	72 (0.4%)	72 (0.4%)	69 (0.4%)
Community Outreach/ Field Worker	87 (0.4%)	70 (0.4%)	72 (0.4%)	71 (0.4%)
Public Health Educator or Trainer	71 (0.3%)	49 (0.3%)	38 (0.2%)	46 (0.3%)
Support Staff (e.g., administrative assistant, clerk)	71 (0.3%)	41 (0.2%)	34 (0.2%)	39 (0.2%)
Social Worker	36 (0.2%)	18 (0.1%)	15 (0.1%)	25 (0.1%)
Hospital Administrator/ Management	27 (0.1%)	29 (0.2%)	26 (0.2%)	30 (0.2%)
Teacher/Faculty	27 (0.1%)	11 (0.1%)	17 (0.1%)	14 (0.1%)
Therapist (e.g., physical, occupational, speech)	21 (0.1%)	19 (0.1%)	19 (0.1%)	17 (0.1%)
Other	2105 (10.3%)	1800 (9.8%)	1694 (9.8%)	1685 (9.9%)

Funding Source: NYS funding for obesity and diabetes programs supported the production and release of updated modules in 2022-2023.

Potential for Expansion: Addition funds would allow for additional online modules and trainings on supporting and promoting breastfeeding in community settings.

Key Resources: Supporting and Promoting Breastfeeding, Chestfeeding and Lactation in Health Care Settings

Breastfeeding Friendly Practice Designation

Division/Bureau: Division of Chronic Disease Prevention/Bureau of Community Chronic Disease Prevention

Purpose and Description: The New York State Breastfeeding Friendly Practice Designation program was developed to help guide and assist physicians, health care providers and staff to improve their breastfeeding policies and procedures in outpatient settings. The New York State Ten Steps to a Breastfeeding Friendly Practice Implementation Guide is a practice-based tool that details specific implementation strategies to embed the Ten Steps into practice.

Health care providers play an integral role in promoting and supporting the decision to breastfeed. This promotion and support begin during preconception care and continues through prenatal, postpartum and ongoing care of the parents, infants, and families.

Providers are vital sources of expertise to communicate the advantages of breastfeeding and the risks of not breastfeeding, help promote exclusivity and enable long-term breastfeeding success based on the breastfeeding parent's intentions. Becoming designated as a Breastfeeding Friendly Practice indicates dedication to improving and establishing optimal maternity and newborn care in support of breastfeeding. This designation provides opportunities to promote the quality of your services to your community.

This designation is available to all primary care practices in NYS that develop or update a breastfeeding friendly office policy and test, refine, and implement, at a minimum, all Ten Steps and the Required Implementation Activities and Office Policy Component. The Creating Breastfeeding Friendly Communities grantees are working directly with primary care practices to achieve this designation.

Reach: The Creating Breastfeeding Friendly Communities Grantees potential reach through health care practices is 29,172 infants, approximately 13% of NYS infants.

Funding Source: None

Potential for Expansion: Funding for this initiative could support additional staff to manage the designation process, which would allow for expansion of the initiative beyond the Creating Breastfeeding Friendly Communities grantees' catchment areas.

Key Resources:
Letter of Introduction: NYS Breastfeeding Friendly Practices Designation (PDF)

NYS Breastfeeding Friendly Practice Designation Assessment Survey (Fillable Survey) (PDF)

NYS Ten Steps to a Successful Breastfeeding Friendly Practice Handout (PDF)

NYS Ten Steps to a Breastfeeding Friendly Practice Implementation Guide (PDF)

New York State Breastfeeding Friendly Practice: Education Module for Staff (PDF)

Breastfeeding Friendly Practices by County

Community Setting

Creating Breastfeeding Friendly Communities

Division/Bureau: Division of Chronic Disease Prevention/Bureau of Community Chronic Disease Prevention

Purpose and Description: The Creating Breastfeeding Friendly Communities initiative is a coordinated, multi-sector initiative designed to build/expand community-based breastfeeding partnerships and advance broad-based policy, system, and environmental changes to protect, promote, and support breastfeeding in community settings, including worksites, childcare settings, and health care practices. The initiative also seeks to reduce the racial/ethnic and community disparities in the prevalence of breastfeeding, especially exclusive breastfeeding in NY.

This approach supports and aligns with the NYS DOH Prevention Agenda (2019-2024) and the Centers for Disease Control and Prevention (CDC) NYS Physical Activity and Nutrition Program (2018-2023).

Six contractors across NY State were funded for five years (2017-2023) to:

1. Build or expand community-based breastfeeding coalitions.
2. Increase the knowledge and skills of staff and employers in community-based organizations, primary care providers, childcare directors and.
3. Increase the number of obstetric, family medicine, midwifery and pediatric practices serving Medicaid-eligible women and their children that achieve the NYS Breastfeeding Friendly Practice designation.
4. Increase the number of childcare centers and day care homes serving families that achieve the NYS Child and Adult Care Food Program Breastfeeding Friendly designation.
5. Increase the number of worksites that provide accommodations for breastfeeding employees.
6. Increase the number of Baby Cafés® in faith-based, community-based or health care organizations in communities.

Key contractors include:

- Clinton County Health Department
- Fund for Public Health in New York City
- Long Island Jewish Medical Center
- Rockland County Department of Health
- Northeast Health Foundation
- University of Rochester

Reach: The potential reach of the 2017-2023 Creating Breastfeeding Friendly Communities grantees' activities across sectors is more than 61,139 infants, children, and parents. The potential reach by sector is:

- Health Care Practices – 29,172 infants
- Childcare Settings – 396 children through child care homes and 351 children through child care centers
- Worksites – 30,744 female employees
- Baby Cafes – 476 breastfeeding parents

Funding Source: New York State funding for obesity and diabetes programs. The annual funding amount from 2017-2023 was $1,152,100, which can support only six contractors.

Potential for Expansion: Increased funding for this initiative would expand the number of grantees that could be funded to implement improvements in policies, systems, and environments that are supportive of breastfeeding mothers, infants and families. The intermediate and long-term outcomes of expanding the initiative are increased rates of breastfeeding initiation, exclusivity, and duration; improved maternal and child health; and decreased obesity rates. A new Request for Applications for the 2023-2028 Creating Breastfeeding Friendly Communities initiative will be released in summer 2022. With current funding, seven community applicants are expected to be awarded contracts.

Key Resources:
New York Statewide Breastfeeding Coalition

Breastfeeding Friendly Practice

Breastfeeding Friendly Child Care

Breastfeeding Support Information for Employers

Baby Café USA

Child and Adult Care Food Programs Breastfeeding Promotion & Support

Division/Bureau: Division of Nutrition, Bureau of Child and Adult Care Food Programs (CACFP)

Purpose and Description: The NYS DOH's Child and Adult Care Food Program (CACFP) values breastfeeding as the gold standard for infant feeding and nutrition, and encourages child care centers and family day care homes to support breastfeeding families. NYS CACFP efforts to protect, promote, and support breastfeeding include:

- **Breastfeeding Friendly Designation** - CACFP encourages child care centers and day care homes to actively support breastfeeding families and recognizes these programs with a Breastfeeding Friendly certificate. A child care center or home that is Breastfeeding Friendly helps mothers to continue breastfeeding when they return to work or school. Child care center and day care home staff complete an assessment that attests they support breastfeeding families by providing an atmosphere that welcomes breastfeeding families and helping mothers continue breastfeeding or feeding expressed breast milk when they

return to work or school. They also offer written materials on breastfeeding topics, feed all infants on demand and coordinate feeding times with the infant's normal feeding schedule, train staff to support breastfeeding parents, and have a written policy reflecting the center's or home's commitment to support breastfeeding.

- **CACFP Reimbursement for Infants** - CACFP provides reimbursement for infant meals consisting of human breastmilk and allows child care centers and day care homes to claim meals and snacks when a mother breastfeeds on-site.

- **CACFP Reimbursement for Children -** Parents may request that caregivers continue feeding their baby human breast milk after their first birthday. Breast milk is an allowable milk substitute for children of any age participating in CACFP.

- **Training Opportunities** - CACFP provides a training called "Feeding Infants in CACFP- Regulations and Best Practices". Topics in this training include: Information on supporting breastfeeding; caring for breastfed infants and how to become Breastfeeding Friendly. CACFP also developed web-based trainings designed for participating centers and fomes to obtain their Breastfeeding Friendly designation titled "Make Mine Breastfeeding Friendly."

Reach: All child care centers and day care home providers in NYS can participate in the Breastfeeding Friendly Designation program. The table below shows the count and capacity of licensed child care settings in NYS, including NYC.

Licensed Child Care Settings in NYS (including NYC)		
Setting	**Count**	**Capacity**
Day Care Center (DCC)	4,139	314,637
Family Day Care Homes (FDC)	2,749	21,515
Group Family Day Care Homes (GFDC)	7,437	114,485
School Age Child Care (SACC)*	2,768	325,984
Total	17,093	776,621

Office of Children and Family Services (OCFS) data as of June 2, 2022.
*SACC are not eligible for Breastfeeding Friendly designation.

As of July 2022, there were 173 Breastfeeding Friendly Child Care Centers and 756 Breastfeeding Friendly Child Care Homes, which reflects only 4% and 7% of all centers and homes, respectively.

Funding Source: CACFP Federal funding

Potential for Expansion: The potential reach for this initiative across centers and homes is 4,139 child care centers, 10,186 child care homes, and 450,367 infants and children.

Key Resources:
Breastfeeding Friendly Child Care

Perinatal and Infant Community Health Collaborative

Division/Bureau: Division of Family Health, Bureau of Women, Infant and Adolescent Health (BWIAH)

The Perinatal and Infant Community Health Collaborative (PICHC) was launched 7/1/2022 as the next iteration of the Maternal and Infant Community Health Collaborative program (MICHC)

Purpose and Description:
The Perinatal & Infant Community Heath Collaboratives (PICHC) program goals are to:

- Improve maternal and infant health outcomes for Medicaid-eligible, high need, low-income clients, and their families;
- Reduce persistent racial, ethnic, and economic disparities in health outcomes; and
- Impact key MCH health outcomes including preterm birth, infant mortality, low birth weight, and maternal mortality.

PICHC programs use strategies to improve the health and well-being of individuals of reproductive age and their families with a focus on individuals in the prenatal, postpartum, and inter-conception periods. PICHC programs use individual-level approaches to improve perinatal health behaviors, and community-level approaches to address the social factors that impact health outcomes. The core individual-level strategy is the use of Community Health Workers (CHWs) to outreach and provide supports to eligible individuals at risk for, or with a history of, poor birth outcomes. CHWs in the PICHC program work collaboratively to address relevant community issues such as safe housing, availability and accessibility of resources and services (e.g., health care, mental health, substance abuse services, home visiting, family support resources), social norms (e.g., related to use of preventive care services, breastfeeding, or personal health behaviors), and community mobilization to effectively identify and address community problems.

CHWs help families connect, use or enroll in enhanced social support resources and programs including parenting classes, peer support groups, childbirth education, and breastfeeding education. CHWs can directly support a client to develop a birth plan or provide resources to help them develop a birth plan and postpartum care plan. CHWs who have completed the Certified Lactation Counselor (CLC) program can provide breastfeeding and lactation counseling.

The PICHC program provides professional development support for CHWs to deliver these services, including annual training on how to talk with families about difficult topics

such as mental health or depression, how to manage emergency situations, and using a trauma informed care approach.

Reach: The recent MICHC program supported 23 programs in 31 counties across NYS. In 2019-2020, CHWs provided services to 4,898 clients. Using the number of Medicaid births in the counties served for each program, the estimated percentage of the eligible population served under MICHC was 4.9%. The current PICHC program awarded 26 programs issued in 31 counties across NYS for the period 7/1/22-6/30/27. Through PICHC, the Department anticipates funding up to 126 CHWs with the capacity to serve approximately 5,040 birthing individuals and families annually. The estimated percentage of the eligible population to be served under PICHC is 6.2%.

Funding Source:
PICHC 7/1/22-6/30/27
General Fund – Aid to Localities: Prenatal Care Assistance ($1,835,000 annually); Universal Prenatal Postpartum Home Visitation ($1,847,000 annually); Medicaid-Reducing Maternal Mortality ($3,121,075 annually), and Special Revenue Fund-Aid To Localities Medicaid Match ($6,803,075 annually).
Funding Amount: $68 M ($13,606,150 annually)

Recent Expansion: On July 1, 2022, the MICHC program segued to the Perinatal & Infant Community Health Collaboratives (PICHC) program. Through the RFA process, and with additional state funding to reduce maternal mortality, three additional programs were approved (total 26 statewide).

Key Resources: Perinatal and Infant Community Health Collaborative

Maternal, Infant and Early Childhood Home Visiting Program

Division/Bureau: Department of Health Division of Family Health, Bureau of Women, Infant and Adolescent Health; Office of Children and Family Services Child Welfare and Community Services-Bureau of Program and Community Development

Purpose and Description: The purpose of the Maternal, Infant and Early Childhood Home Visiting (MIECHV) program is to improve the health and well-being of at-risk children and families. The MIECHV initiative uses evidence-based family support programs to help improve outcomes for mothers and babies. The goals of the initiative are to improve birth outcomes for high-risk pregnant individuals and their babies, improve children's health and development, and strengthen families. Nurse Family Partnership and Healthy Families New York are the two home visiting models in NYS that are supported with MIECHV funding and assist families with breastfeeding.

One of the main goals of **Nurse-Family Partnership (NFP)** is to improve preventive health practices during pregnancy and immediately after delivery. To meet this goal,

nurses provide education to parents on the benefits of breastfeeding. According to research performed by the NFP, NFP participants are more likely to have ever breastfed and maintain breastfeeding through six months than those not enrolled in NFP. As part of contract requirements with DOH, MIECHV-funded NFP programs report on their breastfeeding rates compared to statewide rates. Programs are also requested to explain the progress that has been made on reaching their benchmark. Education and support from nurse home visitors are often cited as the reason for improving breastfeeding rates. NFP also offers breastfeeding resources on their website.

Healthy Families New York (HFNY) is an evidence-based home visiting program with goals that include supporting positive parent-child bonding and relationships, preventing child abuse and neglect, promoting optimal child and family health, development, and safety, and enhancing family self-sufficiency. The Office of Children and Family Services oversees 44 total HFNY programs across the state, including the 11 programs funded by the MIECHV program. For more information, refer to the program summary for Healthy Families New York.

Reach: The Department of Health implements 19 home visiting programs (eight NFP and eleven HFNY) in nine counties across the state with MIECHV and State Local Assistance (SLA) funds: Bronx, Dutchess, Erie, Kings, Monroe, Nassau, Onondaga, Queens, and Schenectady counties.

Funding Source: The Department of Health receives MIECHV funds from the federal Health Resources and Services Administration to implement the NFP and HFNY programs. Only the highest need counties (n=16) per the 2020 New York State Maternal, Infant, and Early Childhood Home Visiting Statewide Needs Assessment Update are eligible for MIECHV federal funding. The funding was originally authorized under the Affordable Care Act and was reauthorized in 2018 under the Bipartisan Budget Act of 2018 through FY2022. SLA funding also supports NFP and HFNY. Two NFP programs are funded with SLA only (Chautauqua and Chemung). Legislative add-on funds are typically authorized by the State Legislature for NFP programs annually.

In FFY2022, these programs will receive approximately:
$4.2 million in one-time MIECHV American Rescue Plan funds
$7.3 million in MIECHV funding
$1.8 million in Legislative Add-On funds
$10 million in SLA

Planned Service Expansion: In 2021, the NYS MIECHV initiative was allocated additional funding from the American Rescue Plan Act. Programs are utilizing these funds to expand services to new families as well as provide infant care supplies, prepaid grocery cards, and internet connectivity to families. For the NFP program, 11.2% of eligible clients are served in the counties where the Department of Health funds an NFP program. HFNY programs serve between 10-15% of the Medicaid births in their target area(s). For large counties/zip codes, the percentage is much lower. Additional funds are required to support program expansion.

Key Resources:
New York State's Family Support Programs for Pregnant and Parenting Families (ny.gov)

NYS Child Care, After School, and Home Visiting Programs Locator

Healthy Families New York website

Healthy Families New York Research website

Healthy Families New York

Agency/Division/Bureau: Office of Children and Family Services, Child Welfare and Community Services-Bureau of Program and Community Development

Purpose and Description: Healthy Families New York (HFNY) is an evidence-based home visiting program with goals that include supporting positive parent-child bonding and relationships, preventing child abuse and neglect, promoting optimal child and family health, development, and safety, and enhancing family self-sufficiency. HFNY outcomes include improved knowledge of parenting and child development, enhanced parent-child interaction, less hostile and coercive parenting practices, increased social supports, improved prenatal practices and birth outcomes, improved safety practices, increased access to community resources, and increased breastfeeding and other healthy feeding practices.

Since breastfeeding is associated with optimal child and family health, one of the program's primary goals, encouraging breastfeeding and sharing education and materials associated with breastfeeding is a focus of the work home visitors do with families. HFNY measures breastfeeding status when the infant is 3 months and 6 months old across all HFNY families. The goal is that at least 30% of primary caretakers still breastfeeding their target child through age 3 months and 6 months.

Reach: Families, who are pregnant or have at least one child less than three months of age, are eligible to be referred to Healthy Families New York. Once enrolled in Healthy Families New York, families can stay enrolled in the program until the target child is five years old or enters school. The Office of Children and Family Services oversees 44 HFNY programs across NYC, including the 11 programs funded by the Department of Health's Maternal, Infant and Early Childhood Home Visiting (MIECHV) Program.

Funding Source: Healthy Families New York is both state and federally funded and supports 44 programs across NYS with current total funding of $34,284,108.

Potential for Expansion: Healthy Families New York has potential to expand to the remaining 21 counties that currently do not have a program in their county. On average, HFNY programs serve between 10-15% of the Medicaid births in their target area(s). For large counties/zip codes, the percentage is much lower. Additional funds are required to support program expansion.

Key Resources:
Healthy Families New York

Healthy Families New York Research page

Special Supplemental Nutrition Program for Woman, Infants, and Children [WIC]

WIC Breastfeeding Promotion & Support

Division/Bureau: Division of Nutrition, Bureau of Supplemental Foods (Special Supplemental Nutrition Program for Woman, Infants, and Children [WIC])

Purpose and Description: New York State (NYS) WIC recognizes that breastfeeding is the normative standard for infant feeding and nutrition and provides numerous health benefits for the mom and the infant. A major goal of the WIC program is to improve the nutritional status of women and infants; therefore, unless medically contraindicated, WIC staff provide education and anticipatory guidance to women about breastfeeding, encourage women to breastfeed for as long as possible, and provide appropriate support for the breastfeeding dyad. The United States Department of Agriculture's (USDA) authorizing legislation provides a strong basis for WIC's role in breastfeeding promotion and support. NYS WIC program efforts to protect, promote, and support breastfeeding include:

Supportive Breastfeeding Environment - WIC local agency staff provide participant-centered services in an environment that communicates respect and is conducive to participants achieving positive health outcomes. Educational and promotional materials in the local agency portray breastfeeding as normative and optimal method of infant feeding. Breastfeeding is encouraged anywhere in the clinic, or in a designated space for those wishing to breastfeed and/or express milk in private. WIC staff ensure that participants are aware of NYS breastfeeding laws, including the right to breastfeed in public.

Credentialed and Competent Breastfeeding Staff - All WIC local agencies have a designated Breastfeeding Coordinator (BFC) who is trained as a Certified Lactation Counselor (CLC) or an Internationally Board-Certified Lactation Consultant (IBCLC). The BFC is allotted time for specific duties, which include breastfeeding training for all WIC staff, managing the Peer Counselor and Breast Pump programs, incorporating

breastfeeding friendly practices into WIC clinic services, and outreach/collaboration efforts with hospitals, health care providers, and community partners. Competency-based staff training is provided to all levels of WIC staff to ensure the provision of high quality and comprehensive breastfeeding education, promotion and support. The NYS WIC Training Center offers training focused on building competencies of WIC local agency staff in areas of breastfeeding assessment, breast pump assessment/issuance, counseling, and understanding infant feeding cues.

Breastfeeding Assessment and Education - WIC staff conduct breastfeeding assessments that are specific to the breastfeeding participant's situation. Targeted counseling and services are provided to breastfeeding participants and, as appropriate, their families (e.g., partner/spouse, grandmother) to best meet the needs of the breastfeeding dyad. Staff provide culturally appropriate breastfeeding education and support strategies, current breastfeeding management techniques, and offer referrals when an issue or concern is outside of a staff person's scope of practice. WIC staff also conduct breastfeeding promotion and support groups for pregnant and breastfeeding participants to provide an opportunity to share experiences and learn from one another.

WIC provides an enhanced food package for fully breastfeeding women that provides a greater quantity and variety of healthy foods, including fresh vegetables and fruit, whole grains, low fat dairy products, protein/iron rich legumes, eggs, canned fish, and peanut butter to support the breastfeeding participant's increased nutritional needs. To protect the participant's milk supply and to encourage continued breastfeeding, WIC does not routinely provide infant formula to breastfed infants less than one month of age. Based on a thorough breastfeeding assessment, WIC staff tailor food packages to meet the needs of the breastfeeding dyad and assist participants in meeting their breastfeeding goals.

Breast Pump Program - WIC local agencies teach breastfeeding mothers about hand expression of breast milk and provide breast pumps to mothers who need them. WIC offers hospital grade electric pumps, personal use electric pumps and manual pumps that meet designated standards. The type of breast pump issued is based on the participant's need identified after an individualized breast pump assessment, conducted by trained WIC staff. Given that many women in the WIC program receive breast pumps through their health insurance carrier, e.g., Medicaid, and are thus not tracked in the NYWIC database, and that the COVID-19 pandemic has posed an impediment to the distribution of breast pumps over those two years, meaningful information of breast pump issuance is not currently available.

Public Health Detailing (PHD) - WIC staff conduct public health detailing visits to medical practices that see larger numbers of (eligible) WIC participants in their communities. During these visits, WIC staff raise awareness of the breastfeeding resources available through WIC, including the availability of trained and experienced WIC staff who can provide breastfeeding support and peer counselors who can provide critical peer support. The table below shows the numbers of medical practices reached annually through PHD.

Region	Medical Practices reached through Outreach/Public Health Detailing Annually
Central	253
Western	80
MARO	678
Capital	125
Total	1,136
Source: WIC Administrative Data	

Community Partnerships - WIC local agencies coordinate breastfeeding promotion and support activities with key stakeholders and community partners to increase breastfeeding rates of initiation, exclusivity, and duration. These collaborations allow WIC to form referral networks; highlight WIC's role as an advocate and resource for breastfeeding promotion and support; ensure accurate and consistent messages; improve continuity of care for participants; and develop strategies to address and help women overcome barriers to breastfeeding. Many local agencies are involved with outside mother support groups such as La Leche League, Baby Cafés, ROSE breastfeeding clubs or have developed their own groups that offer drop-in breastfeeding support services.

Annual World Breastfeeding Week (WBW) Promotion - During WBW, local agencies hold a variety of events across the state to celebrate breastfeeding women and raise public awareness of the importance of breastfeeding. Staff also use this week to emphasize WIC's commitment to breastfeeding promotion and support, promote the expertise and services that WIC provides, and how WIC can work with community partners in their efforts to support breastfeeding mothers. In honor of WBW, the NYS WIC program partners with the University at Albany School of Public Health (SPH) to develop the annual Breastfeeding Grand Rounds Broadcast. This is a 2-hour live webcast, intended to reach a broad audience including local and state public health professionals, clinicians (physicians, health care providers, nurses, nutritionists) and lactation specialists. The webcast features clinical experts paired with public health experts to provide continuing education on current breastfeeding health issues with both clinical and public health significance.

WIC Breastfeeding Awards of Excellence – Each year USDA announces the WIC Breastfeeding Award of Excellence program. The award program was established to recognize WIC local agencies that have provided exemplary breastfeeding promotion and support activities. The intent is to provide models and motivate other local agencies to strengthen their breastfeeding promotion and support activities and ultimately increase breastfeeding initiation and duration rates among WIC participants. The award is given at three levels of performance that build on one another: Gold, Premiere, and Elite. From its inception in 2015 to 2021, the NYS WIC program has awarded 40 Gold awards and one Gold Premier award to local agencies across the state.

Reach: The population reached by these efforts is low-income prenatal and breastfeeding women participating in the WIC Program. More than 112,000 women are eligible for WIC breastfeeding promotion and support in NYS each year. The table below shows the numbers of women in WIC in 2020-2021 eligible for breastfeeding promotion and support, stratified by race and ethnicity.

Women Eligible for Breastfeeding Promotion & Support by Race and Ethnicity				
New York State WIC, 2020 - 2021				
	2020		**2021**	
Race/Ethnicity	Number Eligible*	%	Number Eligible*	%
Am Indian/Alaskan	919	0.82	961	0.86
Asian	9,782	8.71	9,798	8.73
Black	25,245	22.49	23,805	21.21
Multiracial	1,905	1.70	1,918	1.71
Native Islander	456	0.41	451	0.40
White	33,546	29.88	33,229	29.61
Hispanic	40,412	36.00	42,056	37.48
Unknown	156	0.14	171	0.15
Total	**112,265**	**100.00**	**112,218**	**100.00**
***Women who certified in calendar year as pregnant, breastfeeding fully, breastfeeding partially, or post-partum.**				

Funding Source: WIC Nutrition Services Administration (NSA) federal funding.

Potential for Expansion: These NYS WIC breastfeeding promotion and support efforts are current and ongoing.

Key Resources:
USDA WIC Breastfeeding Support: Learn Together, Grow Together

WIC's Promotion and Support of Breastfeeding Making Breastfeeding Accessible and Equitable for the WIC Population

WIC Breastfeeding Peer Counseling Program

Division/Bureau: Division of Nutrition, Bureau of Supplemental Foods (Special Supplemental Nutrition Program for Woman, Infants, and Children [WIC])

Purpose and Description: The WIC program serves as an important adjunct to the breastfeeding services and support provided by WIC staff. Breastfeeding Peer Counselors (PCs) are mothers who have personal breastfeeding experience and are trained to provide counseling and assistance to other women with whom they share various characteristics, such as language, race/ethnicity, and socioeconomic status. They are available to work with WIC participants in the clinic, via phone, at their homes, and in the hospital, often beyond usual clinic hours. All NYS WIC local agencies have a BFPC Program, in which an average of 300 PCs are employed statewide. WIC PC services are offered to all prenatal and breastfeeding WIC participants.

Reach: The population reached by this program is low-income prenatal and breastfeeding women participating in the WIC Program. In 2020, 36,030 women were referred to a peer counselor and 26,332 women were contacted by a peer counselor. In 2021, 49,449 women were referred and 36,563 were contacted (Table: Breastfeeding Peer Counseling by Race and Ethnicity). The table below shows the number of eligible women participating in WIC, who received a referral, and were contacted by the WIC Breastfeeding Peer Counseling Program, stratified by race and ethnicity.

	Breastfeeding Peer Counseling by Race and Ethnicity New York State WIC, 2020 - 2021									
	2020					2021				
Race/Ethnicity	# Eligible*	# Referred	% Referred	# Contacted	% Contacted	# Eligible*	# Referred	% Referred	# Contacted	% Contacted
Am Indian/ Alaskan	885	322	36.38	230	25.99	922	521	56.51	389	42.19
Asian	10,346	4,053	39.17	3,050	29.48	10,106	5,742	56.82	4,615	45.67
Black	22,926	8,184	35.70	5,932	25.87	21,654	10,767	49.72	8,238	38.04
Multiracial	1,674	612	36.56	429	25.63	1,618	754	46.60	574	35.48
Native Islander	470	164	34.89	121	25.74	420	198	47.14	149	35.48
White	29,910	9,410	31.46	6,601	22.07	29,702	11,124	37.45	8,457	28.47
Hispanic	38,258	13,285	34.72	9,969	26.06	39,510	20,343	51.49	16,141	40.85
Unknown	113	9	7.96	3	2.65	125	25	20.00	17	13.60
Total	104,469	36,030	34.49	26,332	25.21	103,932	49,449	47.58	38,563	37.10
*Women who certified in the calendar year as pregnant, or breastfeeding fully or partially.										

Funding Source: USDA provides states with discrete funding for breastfeeding peer counselor programs. NYS receives 5.4M from USDA.

Potential for Expansion: Increased funding would allow the NYS WIC Program to hire more PCs to decrease the caseload and allow for PCs to have more time with their participants. With additional funding, the NYS Program could increase the salary for PCs in an effort to stay competitive and decrease turn over.

Key Resources:
WIC Breastfeeding Model Components for Peer Counseling

Breastfeeding Peer Counselors: A Successful Program That Should Be Expanded

You Can Do It

Division/Bureau: Division of Nutrition, Bureau of Supplemental Foods (Special Supplemental Nutrition Program for Woman, Infants, and Children [WIC])

Purpose and Description: NYS WIC developed a WIC-based intervention, *You Can Do It*, to promote exclusive breastfeeding. Between July 2014 through October 2015, it was pilot-tested in 12 diverse local WIC clinics across NY. The *You Can Do It* intervention aimed to enhance promotion of exclusive breastfeeding through staff training and by providing increased support during prenatal screening, individually tailored and trimester-specific breastfeeding counseling sessions, and ensuring timely postpartum follow-up to mothers. An outcome evaluation demonstrated that the intervention was associated with increased exclusive breastfeeding at 7 days, 30 days, and 60 days, particularly among non-Hispanic Black women and Hispanic women (Edmunds, *et al.*, 2017).

Eligible WIC participants. WIC participants were eligible if they were in their first trimester of pregnancy, aged 18 years or older, intended to breastfeed or were undecided, and were able to read and understand English or Spanish.

Staff training. Over eight training sessions, supervisory, professional, and paraprofessional WIC clinic staff were provided training on each intervention component, practical information (including the basics of breastfeeding), necessary implementation skills and technical assistance.

Tailored and trimester-specific breastfeeding-related counseling. Tailored breastfeeding counseling was informed by responses to the Breastfeeding Attrition Prediction Tool (BAPT), a validated 26-item survey, administered to enrolled mothers during the first trimester of pregnancy to assess prenatal attitudes, confidence, and support to breastfeed. During the second trimester, a nutritionist provided tailored counseling to address areas identified by BAPT through a combination of personalization, feedback, and content matching. During the third trimester, a targeted group discussion was conducted by nutritionists and peer counselors to prepare prenatal mothers for the hospital experience, including educating them about hospital practices that can support breastfeeding and how to communicate their i feeding plan to the birth support team.

Timely postpartum follow-up was also a main component of *You Can Do It*. In the first 1-3 days postpartum, a nutritionist contacted the new mother by phone to offer support and referrals and to assess the hospital experience, breastfeeding, and recognition of their infant's feeding cues. Within 3-5 days postpartum, a second postpartum call was also conducted by a nutritionist or peer counselor to assess breastfeeding and baby behaviors and to educate the mother about the benefits of exclusive breastfeeding and delaying the introduction of formula until at least 6 months of age. Finally, new mothers were encouraged to recertify in WIC within 2-4 weeks postpartum.

Additional details regarding *You Can Do It* components are described in two published articles (Edmunds*, et al.,* 2017; Eldridge, *et al.,* 2017).

Reach: During the *You Can Do It* intervention enrollment period, 826 women from the 12 participating WIC clinics were identified as eligible to participate. Four hundred eighteen women consented to participate, and 362 of these mothers remained in WIC through birth. Participating WIC staff report perceived improvement in their breastfeeding counseling competency, which potential might benefit subsequent WIC participants (Eldridge, *et al.,* 2017).

Funding Source: This initiative was funded and administered through the NYS WIC program.

Potential for Expansion: After the successful implementation of *You Can Do It* in the 12 local WIC clinics, the NYS WIC program provided the intervention materials and made the trainings available to all NYS WIC local agencies and clinics. Through the NYS WIC Training Center, staff learn how to administer the BAPT and use it to develop tailored and targeted prenatal counseling and schedule early postpartum follow-up. Best practices and lessons learned from the original pilot evaluation are also discussed in the available trainings. Additionally, the NYS WIC management information system is now equipped to collect and store BAPT data to enable the NYS WIC program to streamline the process and track usage of the BAPT protocol statewide. Many local WIC agencies have implemented the full BAPT program, while others have implemented key pieces. Implementing the BAPT program in full requires increased planning, coordination, and additional time with participants. These challenges have prohibited some local WIC agencies from adapting the program. Additional funding to cover this additional time would allow more local WIC agencies to implement the program with more clients.

Key Resources:

Edmunds LS, Lee FF, Eldridge JD, Sekhobo JP. Outcome evaluation of the *You Can Do It* initiative to promote exclusive breastfeeding among women enrolled in the New York State WIC program by race/ethnicity. *J Nutr Educ Behav*. 2017;42:S162-S168.

Eldridge JD, Hartnett JO, Lee FF, Sekhobo JP, Edmunds LS. Implementing a WIC-based intervention to promote exclusive breastfeeding: challenges, facilitators, and adaptive strategies. *J Nutr Educ Behav*. 2017;49(Suppl 2):S177-S185.

Appendix D.

New York State (NYS) Breastfeeding Disparities Qualitative Research Study Report

Submitted by: Christine Bozlak, PhD, MPH, Lindsay Ruland, MPH, MBA, CHES®, and Britnee Eskew, MPH, CHES®

University at Albany School of Public Health

March 31, 2022

2021-2022 New York State Breastfeeding Disparities Study Report

TABLE OF CONTENTS

2021-2022 New York State Breastfeeding Disparities Study Report

BACKGROUND

The following report details the findings from the New York State (NYS) Breastfeeding Disparities Qualitative Research Study conducted by Christine Bozlak, PhD, MPH, Lindsay Ruland, MPH, MBA, CHES®, and Britnee Eskew, MPH, CHES® at the University at Albany School of Public Health (SPH). This study was conducted in 2021 in collaboration with the New York State Department of Health's (NYSDOH) Bureau of Community Chronic Disease Prevention and Division of Chronic Disease Prevention. Please see Table 1. for the list of acronyms and their full terms that are used in this report.

This study was mandated by the New York State legislature through Amended Bill S.6707 and A.6986-A[1] which required that a report be created for the purpose of identifying statewide and regional racial and ethnic disparities in breastfeeding rates. The bill mandates the solicitation of recommendations from persons specializing in the fields of: neonatal and post-neonatal pathology; maternal and infant health; breastfeeding medicine; minority health advocacy; or other related fields; and stakeholders representing racial and ethnic minorities in geographic areas that have the lowest breastfeeding rates.

The report was also mandated to include information on:

(a) Barriers to successful breastfeeding, especially among racial and ethnic minorities and populations with low breastfeeding rates;

(b) Strategies to reduce barriers to successful breastfeeding, especially among racial and ethnic minorities and populations with low breastfeeding rates;

(c) Strategies to improve access to prenatal and postpartum health care services, including lactation support, in the state; and

(d) Strategies to increase breastfeeding rates and reduce racial and ethnic disparities in breastfeeding rates in the state.

Breastfeeding, although a natural human phenomenon, can be challenging for birthing individuals, especially in current U.S. society.[2] Healthy People 2030 has a current objective of increasing the proportion of infants in the U.S. who are breastfed at 1 year to 54.1%, which would be an 18.2% increase from 2015 baseline data.[3] In 2017, 84.1% of U.S. infants were breastfeeding at birth, however, only 58.3% were breastfed at 6 months.[4] This is comparable to the 59.8% of New York infants who were breastfeeding at 6 months in 2017.[4]

Although current breastfeeding rates are promising, and there have been recent increases in breastfeeding rates for all racial and ethnic groups, breastfeeding disparities are apparent, especially between non-Hispanic White and non-Hispanic Black infants.[5] In New York, the breastfeeding disparity gap, especially for

breastfeeding initiation, is smaller than when compared to the U.S. rates; however, disparities still exist.[6]

According to the literature, the causes of breastfeeding disparities vary, and there is not one clear solution to address them. Systemic barriers and cultural factors must be taken into consideration, including historical traumas and healthcare access barriers faced by many groups who are also most likely to experience breastfeeding barriers and disparities.[7,8] The local context must also be examined to determine the impact of specific environmental factors and settings that may be contributing to breastfeeding disparities.[9]

Goal and Purpose of the Project

The goal of this study was to better understand breastfeeding disparities in New York State and how to address them. Although international and national guidance exists on addressing breastfeeding disparities.[9,10] It is strongly recommended that breastfeeding disparities are studied at the state and local levels in order to understand the prevalence of breastfeeding disparities in these areas, the local factors that may be causing these disparities, and the community-specific interventions that may be most successful in addressing them.[9] The purpose of this study was to understand breastfeeding disparities by conducting a qualitative study of New York State breastfeeding experts from all 5 regions of the state who directly work with the communities most at risk of experiencing breastfeeding disparities, and also to capture expertise and recommendations from national breastfeeding experts.

METHODS

Introduction

This study was approved by the University at Albany's Institutional Review Board (IRB Protocol: 21X130). The New York State Department of Health's IRB was also consulted and made aware of the study prior to data collection. The SPH study team led all study design, data collection, and data analysis for this report. They met regularly with the NYSDOH study team to consult with them on all elements of the study, and the NYSDOH staff approved all data collection instruments.

The study consisted of key informant interviews and an online Qualtrics survey of NYS and national breastfeeding experts. As detailed in the following sections, every effort was made to recruit participants who work with the priority population (i.e. persons most impacted by breastfeeding disparities).

Overall Recruitment Strategy

For both the key informant interview and the online survey participants, national and NYS experts working in breastfeeding promotion were recruited for the study. Study team members identified specific groups that were legislatively mandated to be included in the study. The NYSDOH team provided a list of nationally-known breastfeeding experts, as well as experts within New York State. The SPH team also has expertise in

breastfeeding promotion and contributed names and organizations that are experts in breastfeeding promotion. In addition, a specific effort was made to recruit participants who are directly working with the priority populations (e.g. individuals in NYS who are most at risk of experiencing breastfeeding disparities). For both data collection methods, the participants included: National experts working in breastfeeding promotion in another state and/or at the international level; health care professionals (experts in neonatal and post neonatal pathology, maternal and infant health, breastfeeding medicine, especially those who serve individuals in low income areas); NYS Creating Breastfeeding-Friendly Communities (CBFC) contractors; health educators who primarily work with maternal and child health (MCH) populations; Women, Infant and Children (WIC) program personnel - especially peer counselors; individuals and stakeholders representing racial and ethnic minorities in geographic areas that have the lowest breastfeeding rates; and those engaged in minority health advocacy.

For both the key informant interviews and the online survey, no incentives were provided for participation in the study. In addition, the study sample was continuously monitored and discussed by the study team throughout data collection to ensure the sample was diverse (e.g. regarding professional role, individuals they served, and ensuring that the groups and areas experiencing disparities were represented) and that the sample included participants from across New York State. In addition, for both data collection methods, the study team used a snowball sampling method in which participants were asked to provide the names and contact information of other breastfeeding experts who they felt were important to include in the study. This proved to be a very effective method of identifying and recruiting individuals for this study.

As the study progressed during discussions with the study participants, it became apparent that other groups experiencing breastfeeding disparities (e.g. individuals with disabilities, members of the LGBTQIA+ community, individuals who reside in a rural area, etc.) should also be contacted for participation in the study, so additional efforts were made to recruit health professionals working with these communities.

Specific Recruitment Activities and Sample Description – Key Informant Interviews

Once a large potential participant list for the key informant interviews was provided by the NYSDOH, the SPH team began contacting individuals for recruitment purposes. Participants were first contacted via email, and if they did not respond after the second email attempt, then a phone call was placed for recruitment purposes, if a phone number was available. All participants provided verbal informed consent at the beginning of the interview.

Forty-five key informant interviews were completed from August – December, 2021. This includes 35 key informant interviews with NYS experts, and 10 key informant interviews with national experts. In total, 74 individuals were contacted to participate in the interview. Fifty-six NYS experts were emailed and 35 completed the interview (63% response rate). For the national experts,18 were emailed and 10 completed the interview (55% response rate). The following were reasons provided for declining to participate in the interview: no response after follow-up; unavailable during study time-

frame; recommended someone else within their organization; wanting to "put energy into addressing solutions in our community" (indicating that the issue has already been studied enough and attention now needs to turn to solutions); could not participate due to their role at the organization and/or did not feel they were a good fit given the purpose of the study; and one request for compensation that was not possible.

In terms of the professional role of the forty-five key informant interview participants, the following is a brief list of their organizational and/or related affiliation:

- 5 worked in the healthcare setting;
- 10 were Creating Breastfeeding-Friendly Community contractors;
- 3 worked with the WIC program;
- 9 were based at academic institutions;
- 12 worked at a community-based organization;
- 5 worked in government;
- 1 stated they worked in a non-profit, private lactation practice.

Please note that for the CBFC contractors, they are all affiliated with different settings (e.g. healthcare, etc.) and/or organizations as well. However, their primary professional role for the purpose of this report is being reported as a NYSDOH CBFC contractor.

Specific Recruitment Activities and Sample Description – Online Survey

As indicated above, the study team worked to obtain survey responses from breastfeeding experts throughout NYS, especially in areas experiencing breastfeeding disparities, and national experts. The main emphasis for the survey, however, was recruiting NYS breastfeeding experts.

In order to recruit participants, the IRB-approved recruitment email was sent to all potential participants. As mentioned, the list of potential study participants developed by the NYSDOH and SPH study team was first consulted and the recruitment email was sent to the individuals who were not already recruited for the key informant interviews. In addition, the NYSDOH sent the recruitment email to the following DOH listservs:

- WIC (Breastfeeding Coordinators and Peer Counselors);
- Maternal and Infant Health Collaborative (MICHC);
- Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program;
- NYS Birth Equity Improvement Project;
- NYS Obstetric Hemorrhage Project;
- NYS Opioid Use Disorder in Pregnancy and Neonatal Abstinence Syndrome Project;
- Creating Breastfeeding-Friendly Communities contractors.

The use of the NYSDOH-maintained listservs proved to be a very effective recruitment method and increased survey participation by at least 50%. As mentioned, a snowball sampling recruitment method was also utilized. Participants were recruited to complete the online survey from August – December, 2021.

Survey responses closed at 294. Of these 294 responses, Qualtrics indicated 247 surveys with 100% completion. These 247 records were reviewed by the SPH study team, and it was found that 7 responses did not meet the eligibility criteria (i.e. age, consent, and experience working in breastfeeding promotion). Consequently, these 7 responses were removed from the dataset. Four individuals completed the survey twice (as indicated by the optional name field). For these 4 individuals, the most complete record was included in the analysis and their other response was removed from the dataset. The SPH study team them reviewed the addition 47 responses that Qualtrics classified as "partial completions" (as indicated by a progress of less than 100%). Seventeen of these survey responses with a completion progress of 54% or greater were added back to the dataset, as these represented partial completions of the survey.

A total of 253 records, representing 253 individuals, were included in the dataset for final analysis. Due to the recruitment methods used, a final response rate cannot be calculated. For the 253 completed surveys, the following is the demographic information for the participants.

The 5 NYS regions provided by the NYSDOH Bureau of Community Chronic Disease Prevention were used to classify the areas in which the survey participants worked. Participants selected their particular region. The following is the breakdown of survey participants by NYS region: Capital District (35); NYC (67); MARO (47); Central (53); Western (40); National expert (3), which is also included in Table 2. Eight respondents selected more than one response for the regions they serve.

In terms of professional expertise, Figure 1. shows participants indicated the following professional roles: Health care professional (96; 33%); WIC (115; 39%); Academic professional (9; 3%); Community-Based Organization (44;15%); Government (18;6%); Other (13;4%). In the "other" category, participants indicated the following: Private lactation consultant practice, human milk bank employee, national and statewide non-profit organization employee, and home visiting.

Nearly half the survey respondents had over ten years of breastfeeding promotion experience (112 respondents). Please see Figure 2. for additional information on the number of years of breastfeeding promotion experience for the survey participants. If the individual indicated they had no experience working in breastfeeding promotion, the survey ended for them and they were not included in the study sample.

Data Collection Method – Key Informant Interviews

Due to the COVID-19 pandemic, key informant interviews were conducted virtually using Zoom teleconferencing software. All interviews were scheduled for 30 minutes, and in some cases, the time for the interview was extended, with permission of the study participant. Prior to the interview, all study participants were provided with the informed consent form and semi-structured interview guide that was used to conduct the interview. All participants provided verbal informed consent and confirmed they were at least 18 years of age. When participants consented, interviews were recorded using Zoom, and all interviews were audiotaped and transcribed using Zoom live transcription.

The researchers also took handwritten notes during the interview as a back-up and then cleaned the transcription using these notes.

One key informant interview guide was created for the interviews with the NYS experts (Appendix A.), and a second key informant interview guide was created for the interviews with the national experts (Appendix B.). The key informant interview guides were designed to capture the study participant's expertise and perceptions on: the facilitators and barriers to initiating and continuing breastfeeding; identification of groups of people and communities who were most likely to experience breastfeeding disparities, causes for these disparities and discussion of ways to address them; and overall recommendations for specific solutions to addressing breastfeeding disparities in NYS. The key informant interview guides are located in the Appendices A and B.

Data Collection Method – Online Qualtrics Survey

An online survey was developed and implemented using Qualtrics software maintained and housed at the University at Albany. The survey could be completed using any electronic device, including a phone with Internet access. It was designed to take no longer than 20 minutes to complete, and participants could complete it anonymously. After administration of the survey, approximately 4 participants stated it took longer than 20 minutes to complete. The survey was primarily qualitative with open-ended questions designed to capture perceptions on the breastfeeding disparities in NYS, as well as barriers/challenges to addressing them. It was used to capture recommendations for how best to address breastfeeding disparities in New York State. The survey also included closed-ended questions to capture professional and regional information about the participant and their perspectives on key facilitators, barriers, and effective interventions to address breastfeeding disparities in NYS. Participants were also asked to expand upon their responses using open-ended questions. All participants provided written informed consent at the beginning of the survey. A Word version of the questionnaire used in the online survey is located in Appendix C.

Analysis – Key Informant Interviews

In preparation for analysis of the key informant interviews, each SPH team member who conducted the interviews also took handwritten notes during the interview. After the interview, they reviewed and cleaned the transcription generated by Zoom. In some cases, it was necessary to review the Zoom recording of the interview for this task. In addition, the study team conducted inductive and deductive coding – meaning that a start list of codes was created prior to data analysis based on the interview guide and purpose of the study, and then codes were created during the analysis process as themes emerged. All three team members used the same code directory for analysis purposes.

After all transcripts were ready for analysis, the study team members each took the same key informant interview transcript and coded it. Team members then met to discuss this process and determine inter-rater reliability (IRR) to ensure that each member of the study team was coding the data in the same way, and to modify the

codes as needed. The team members also did this for a second interview transcript. At this point, inter-rater reliability reached over 80%, which is a standard often used when there are multiple investigators coding qualitative data.[11] From this point forward, the three SPH team members coded the data from their own interviews that they conducted, and they met on at least a weekly basis to discuss the coding process to ensure uniformity during analysis and also to discuss emerging themes. ATLAS.ti (v.9) was used by all team members for the key informant interview analysis. During and immediately after the coding process, team members took individual notes and reflections on the data and emerging themes, and then discussed them in depth. Using ATLAS.ti, data were grouped by code within larger categories by study question, and then within those categories emerging themes were discussed by the team members and confirmed. These overarching categories (e.g. barriers to initiation, barriers to continuation, etc.) and themes were then summarized and synthesized into the tables and narrative sections included below.

Analysis – Online Qualtrics Survey

As detailed above, once the online survey dataset was cleaned and the final sample (n=253) was determined, the data were added back to Qualtrics to utilize some of the analytical tools available in this online survey software. The responses to the open-ended questions were also analyzed using Excel, which proved the most effective and efficient way to code the data using the existing code directory and to identify emerging themes. Two of the SPH team members were responsible for the analysis of the majority of the survey data, and they met on a regular basis to discuss the emerging themes and key findings from the survey. Results from the survey data analysis are presented below.

RESULTS

In this section, the results from the key informant interviews and the online survey are presented. At the end of the section, there is a brief synthesis of the findings from both methods.

During data collection, several study participants encouraged our team to think about facilitators and barriers to breastfeeding using the social ecological model. The social ecological model is a commonly used model in public health to help explain people's behavior within the context of their environment.[12] Study participants emphasized that an individual's ability to successfully breastfeed and reach their breastfeeding goals is most dependent on factors within their environment, and not due to their individual behaviors. This was especially emphasized when discussing the root causes of breastfeeding disparities in New York State and in other places throughout the United States. The following results from both the interviews and the surveys consistently demonstrate and emphasize the environmental factors impacting breastfeeding in NYS, and thus, several of the tables are organized to highlight the facilitators, barriers, and recommendations by levels of the social ecological model: intrapersonal (or individual) level, interpersonal (or close peers/family members) level, community level, various organizational settings (such as workplaces), and policy level.

In addition, in qualitative research, it is common to present results by theme and with quotes that exemplify that theme. Themes are typically defined as a concept that frequently emerges from the data related to the research topic and questions. It is less of a practice to use descriptive statistics, such as frequency counts, which is more commonly used with quantitative data. The primary reason for this is that every participant's input is equally valued in qualitative research, and often, there are helpful and enlightening solutions offered that should be reflected upon, even if it's just by one person. In this study, this is especially true given that all study participants were determined to have expertise on the topic. However, it is important to highlight the density of the themes or show those themes that were more frequently discussed by study participants. In order to show themes that were frequently mentioned by study participants, those themes are bolded in the proceeding tables.

Finally, the SPH study team carefully reviewed and analyzed all the data, including by NYS region. There were no significant differences found when reviewing the responses from study participants in the 5 NYS regions – with the exception of study participants who served primarily rural populations. Consequently, findings are not separated by region in the tables below, and a section on "Rural Considerations" under the "Combined Findings" section is included to highlight notable themes that emerged for individuals working in rural NY areas. In addition, the findings from the NYS expert interviews and the national expert interviews are combined, except where noted in the tables, due to very similar responses received from both groups of experts when discussing facilitators and barriers to breastfeeding, as well as causes of breastfeeding disparities.

Results - Key Informant Interviews

The results of the key informant interviews are primarily presented in tabular form and sequenced in the order in which the questions were asked during the interviews. As mentioned, for most sections, results from the NYS expert interviews and national expert interviews are combined due to a lack of significant differences in the responses received, and thus findings, from the interviews with these two groups of experts. The exception is the recommendations table (Table 6.) that concludes this section.

Breastfeeding Facilitators

Please see Table 3. for the key themes and demonstrative quotes related to factors that facilitate breastfeeding, as perceived by the NYS and national experts interviewed for this study. As can be seen, the following were the key breastfeeding facilitators, as identified by the interview participants for the study: supportive personal networks, community resources that are both supportive and accessible, and consistent support from the healthcare sector.

Study participants strongly emphasized having supportive personal networks as a critical breastfeeding facilitator. For example, these networks include partners and family members who emotionally support the breastfeeding individual but who also assist them with other family-life demands to allow the breastfeeding individual time

needed to establish and sustain breastfeeding. Participants stressed that support of family members and peers, particularly from those who have positive experiences with breastfeeding, can offer emotional support for the individual and serve as a positive influence. In addition, study participants expressed that a generational history of breastfeeding creates a norm and expectation within the family dynamic and provides role models, which further encourages and supports the birthing individual to breastfeed.

Study participants emphasized that another major facilitator for breastfeeding individuals is having supportive and accessible community resources - and particularly if they do not have supportive personal networks. Community support groups and resources, such as Baby Cafés, Le Leche support groups, and WIC peer counselors, not only provide trusted and culturally relevant support and education for individuals on topics related to breastfeeding, but also assist them with accessing resources to address other social and environmental factors which create barriers to breastfeeding, such as where to obtain food assistance.

In addition, study participants emphasized that birthing individuals need to have consistent and regular support from the healthcare sector. This includes healthcare providers who are truly supportive of breastfeeding, work in supportive environments like Baby-Friendly Hospitals, and who are knowledgeable of breastfeeding. Participants also discussed the importance of providers who understand the unique needs and concerns of breastfeeding individuals and how their personal experiences, environment, and culture impacts their ability to breastfeed and the specific challenges they may face. They stressed that it was important for providers to understand their own knowledge and limitations pertaining to addressing breastfeeding challenges and providing supports and to know when to make referrals and to whom, stressing that these referrals need to be culturally and linguistically relevant and made as early as possible. Providers who have connections with the community resources or lactation support services can help to better assist and support the birthing individual. Study participants also discussed the need for adequate insurance coverage for pumps and lactation support after being discharged, for example home visiting lactation services. Participants also discussed that having access to a birthing hospital that is Baby-Friendly where prenatal education, consistent messaging, and supports are placed at a high standard can help to facilitate breastfeeding for individuals.

Additional facilitators discussed by the study participants include: access to prenatal education for the birthing individuals and providing this education as soon as possible; exposure to breastfeeding in the community, school, and their general environment to normalize breastfeeding and make the individual feel more comfortable breastfeeding in public; and knowing they have a supportive workplace and paid family leave benefits to allow them to establish breastfeeding and pump when they go back to work.

Barriers to Breastfeeding Initiation

Please see Table 4. for the key themes and demonstrative quotes related to factors that are barriers to the initiation of breastfeeding, as perceived by the NYS and national

experts interviewed for this study. It should be noted that there is broad consensus in the literature that the factors that may be barriers to the initiation of breastfeeding are often different than the factors that are barriers to the continuation of breastfeeding. Consequently, study participants were asked separate questions pertaining to these two different time periods related to breastfeeding.

As can be seen in the table, the key themes identified from the interview data pertaining to initiation barriers include the following: returning to work, lack of education of the breastfeeding individual, and unsupportive personal networks.

Study participants strongly emphasized that individuals who perceive work to be a barrier to breastfeeding will not start. Specifically, if breastfeeding individuals do not expect to have workplace support, do not want to pump, do not have jobs that accommodate flexibility or provide adequate space to pump, or believe it will impact their milk supply, they will often decide to not initiate breastfeeding. Study participants also emphasized that if the breastfeeding individual knows they must return to work early due to financial reasons, they will not initiate breastfeeding because they do not see the point in doing so when they expect to have to stop once they go back to work.

Study participants emphasized that a lack of education of the birthing individual is also a major barrier to breastfeeding initiation. They stressed that the birthing individual may not understand the benefits or know what to expect. They may be afraid to initiate breastfeeding because of what they hear from others, such as pain or trouble latching. Without prenatal education, external factors can then influence their perceptions of breastfeeding and ultimately contribute to their decision to not initiate breastfeeding. Participants discussed that breastfeeding is a skill and it requires the birthing individual to have knowledge for them to want to do it and to be successful in initiating.

Unsupportive personal networks were also emphasized by study participants as a main barrier to initiation. Participants discussed how the demands of childcare and family life often influence the time individuals can dedicate to breastfeeding and ultimately influence their decision to not breastfeed, particularly if they do not have a supportive environment at home, the family is split, or the breastfeeding individual is single. Participants discussed that if formula use in families (generationally and culturally) or in peer social circles is a “norm,” and if there are no family members to serve as role models for the breastfeeding individual, they will not likely do it themselves.

Additional barriers to initiation discussed by the study participants include several community level factors. Participants emphasized a general feeling of “unacceptance” to publicly breastfeed due to lack of community norms and also emphasized how formula is seen as the “American way” by immigrants or those who may breastfeed in their culture or home country. They also discussed a lack of community resources to support the birthing individual after they have been discharged from the healthcare setting after birth.

Additionally, a lack of support from the healthcare sector was also discussed by the study participants. More specifically, participants mentioned a lack of lactation support

in clinical settings as well as diverse lactation professionals who are representative of the communities they serve. Participants stressed the lack of provider education on lactation which leads to them promoting the use of formula, conflicting messages from providers, and implicit bias and assumptions about who will not breastfeed (e.g. overweight individuals, individuals from certain racial and ethnic groups). This may also result in practices that separate the infant and birthing individual or encourage discontinuation of breastmilk for the management of medical problems in infants. There was also a concern about the lack of access to Baby-Friendly Hospitals in communities that are more likely to experience breastfeeding disparities.

Social determinants of health were also stressed by study participants. Particularly if an individual has unmet basic needs such as financial, housing and/or food insecurity, lack of transportation, or personal safety issues, they are less likely to initiate breastfeeding. Finally, a lack of access to affordable quality breast pumps and the promotion of formula in healthcare and community settings were also discussed.

Barriers to Breastfeeding Continuation

Please see Table 5. for the key themes and demonstrative quotes related to factors that are barriers for breastfeeding continuation, as perceived by the NYS and national experts interviewed for this study. As indicated in the table, the most prominent themes from the interview data pertaining to continuation barriers included the following: return to work, lack of education of the birthing individual, and unsupportive personal networks.

Study participants strongly emphasized returning to work as a major reason to stop breastfeeding. Participants discussed how individuals who experience breastfeeding disparities also experience financial insecurity and often must return to work early (before the 12 weeks paid leave time benefit ends) which does not allow them sufficient time to establish breastfeeding. In addition, participants emphasized that many breastfeeding individuals who experience disparities have part-time jobs or multiple jobs and may not have paid leave time benefits at all. Participants also stressed that when returning to work, breastfeeding individuals do not always have supportive work environments to allow them flexibility in their schedule and appropriate accommodations (e.g. dedicated space; refrigerator for breastmilk storage) to pump at work. Individuals who have challenges or feel uncomfortable pumping at work do not often want to ask for accommodations for fear of losing their job or do not confront their supervisor or administrator because it is just easier and less intimidating to decide not to breastfeed. Several study participants discussed the lack of support and accommodations for breastfeeding individuals working in schools as well as service industries, such as fast-food workers, grocery clerks, transportation employees, and police officers. In addition, participants emphasized that pumping at work often creates a milk supply issue for the breastfeeding individual that ultimately leads to the supplementation with formula.

Study participants emphasized that a lack of education of the breastfeeding individual is a major barrier to breastfeeding continuation. They specifically discussed how individuals who lack prenatal education do not understand the mechanics of breastfeeding and milk supply production, nutritional requirements of infants, infant

cues/behavior, etc. They stressed that because they do not know what to expect or how to manage expected challenges, they are more likely to stop breastfeeding when they experience pain or discomfort and/or perceive a low milk supply. Perception of low milk supply as a reason to stop breastfeeding was stressed by several participants. Contributing to this issue is when healthcare providers, especially the infant's pediatrician, expresses concern with the infant's growth and then discusses the possibility of a low breastmilk supply with the breastfeeding individual, but then does not make a referral for lactation counseling.

Unsupportive personal networks were also discussed by study participants as a major barrier to the continuation of breastfeeding. Participants indicated if an individual is single and/or has multiple children or other family-life demands, they will be more likely to stop breastfeeding if they do not have supportive partners, family members, or peers. Other points discussed by participants includes partners' expressed opinions on the purpose/use of breasts or the concern about time spent away from family while breastfeeding. Also, family members may share personal stories of breastfeeding challenges which negatively influences the breastfeeding individual.

Additionally, a lack of support from the healthcare sector was also discussed and emphasized by the study participants. They stressed several barriers related to limited lactation support in clinical settings, such as lack of lactation support professionals in general but also a lack of diverse professionals who are representative of the communities they serve. Study participants also discussed barriers to become a certified lactation consultant, such as the cost of the exam. Delays in receiving specialized care for medical issues, such as tongue tie and lack of insurance coverage for lactation support, were also mentioned.

Participants also discussed a lack of medical provider education and support. Some examples provided include lack of cultural competence, lack of referrals to lactation services, and the lack of time to provide needed support to the birthing individual. Participants discussed how clinicians commonly emphasize the use of formula to manage complex cases or to increase weight gain and do not often engage in the coordination of care between providers and lactation professionals. Additionally, participants expressed concerns with clinicians making assumptions as to who will and will not breastfeed. They also discussed the need for wider implementation of the Baby-Friendly Hospital designation.

Additional key concerns discussed by key informant study participants relate to how the social determinants of health impact the continuation of breastfeeding, such as poverty, housing and food insecurity, safety issues, and structural barriers, such as systemic racism. Participants also discussed the topic of continuation barriers associated with breast pumps and provided the following examples: a lack of insurance coverage for high-grade pumps, not being provided with a pump and other lactation supplies after delivery, and the cost and lack of insurance coverage for lactation supplies, such as bags. Finally, participants emphasized that formula is widely promoted in the healthcare

and community settings, and they expressed concerns with targeted formula marketing to those communities most at risk of experiencing breastfeeding disparities.

Recommendations to Address Breastfeeding Disparities

Table 6. details the recommendations to address breastfeeding disparities provided by both the NYS and national experts. As can be seen, extensive recommendations are provided, especially related to the environmental settings and support networks for birthing individuals in order to ensure breastfeeding success. Other than stating that birthing individuals could benefit from additional education about the benefits of breastfeeding and how to find resources, the majority of recommendations pertain to factors external to the individuals themselves.

For example, it was repeatedly emphasized in the interviews that the people closest to the birthing individual (e.g. partner, child's grandparents - especially the grandmother, and friends/peers) need additional educational opportunities on the benefits of breastfeeding and how to support their breastfeeding loved one. Study participants provided numerous examples of the issues breastfeeding individuals experience when trying to successfully breastfeed but their closest peers and loved ones are not supportive and then they do succeed in continuing to breastfeed. Study participants emphasized that including these individuals in prenatal education related to breastfeeding and then during lactation support visits after the birth of the child are key.

In order to ensure the initiation of breastfeeding, study participants emphasized the need to do more work within the healthcare sector. One of the most significant recommendations that was heard in this study was the need to substantially increase the amount of pre-service clinical education related to breastfeeding for medical residents and require continuing education for obstetricians and pediatricians. It was also emphasized that lactation counselors should be in every pediatric office to provide education and support to breastfeeding individuals and their breastfed children, and some healthcare systems have started to implement this approach. In addition, there were several recommendations to ensure that lactation counselors, including doulas, be allowed to visit birthing individuals in the hospital to provide support at the time of initiation.

Regarding the Baby-Friendly Hospital (BFH) designation, many study participants expressed strong support for it, but also discussed some of the issues associated with this initiative. One national expert emphasized that more emphasis should be placed on the 10-steps themselves, rather than the designation specifically. There was widespread recommendations that BFH need to be prioritized for the hospitals serving the communities that are experiencing breastfeeding disparities, and that funding and support needs to be provided to help these hospitals achieve this designation and also maintain it.

Study participants also emphasized the importance of the community and the organizations in which individuals interact within the community in order to ensure breastfeeding continuation once it has been initiated at the time of birth. More broadly,

they discussed the need for breastfeeding to be more normalized within each community, especially those communities experiencing breastfeeding disparities. Many study participants emphasized the need for statewide and community-based breastfeeding campaigns including images and messages that normalize breastfeeding. In addition to this, and in an effort to prepare future individuals to successfully breastfeed, there were several recommendations to work with the NYS Department of Education to do more breastfeeding education in the K-12 system. This would help to normalize breastfeeding in the community, but also be proactive so that this education is not beginning during prenatal care or at birth. One participant mentioned that Canada utilizes a K-12 curriculum that has been successful.

There was a significant amount of recommendations related to the need to place breastfeeding supports within the community, especially lactation support, such as IBCLCs and CLCs. Participants repeatedly emphasized that it is critical that lactation counselors be trained, be recruited from the community, and serve as peers to the birthing individual. There was significant discussion about the need to ensure that scholarships and other funding support be provided to train community-based lactation counselors because the training costs can be a major barrier to getting the most appropriate people trained and certified in lactation counseling.

Within the community spaces, various settings were discussed. Many individuals noted the importance of engaging community settings that are most comfortable to and visited most frequently by the priority population. For example, there were recommendations to continue to expand the Baby Café concept, but have them be placed in locations such as local libraries, which are often accessible to individuals. There were also several recommendations related to engaging faith-based institutions in messaging campaigns but also as a space to provide lactation support and education. There were also recommendations pertaining to designating breastfeeding-friendly locations, such as with the often used “Breastfeeding Welcome Here” decals that are displayed at the entrance of these locations.

Study participants also emphasized the need to engage childcare settings. However, there was a recognition that it can be challenging to have them engage in breastfeeding promotion efforts, especially those that are home-based or unlicensed. Recommendations were made to ensure that childcare staff understand the importance of supporting breastfeeding individuals and their breastfed children and to provide education on how to store breastmilk and properly feed a breastfed child.

Workplace recommendations were a key area of concern and focus for the study participants. The workplace may be the primary potential barrier to successful breastfeeding, as indicated by the study participants. Consequently, they recommended continuing to engage with workplaces to ensure they are abiding by all laws and ensuring that breastfeeding employees are given the proper supports – including, and not limited to: a designated lactation room (other than a restroom), adequate time and breaks throughout the workday, and sufficient paid parental leave after the birth of a child to successfully establish breastfeeding. They also recommended that a significant amount of accountability is needed to ensure that workplaces are abiding by the laws,

and that this should never be left to the breastfeeding individual. Consequently, some ideas they provided were to have a 24-hour hotline that breastfeeding employees could call to anonymously report an employer without fear of retaliation and to consider making enforcement part of existing regulatory efforts, such as through building inspections. California may be a model to review regarding how they are enforcing that workplaces support breastfeeding employees.

Study participants discussed the impact and importance of policy interventions to address breastfeeding disparities with Paid Family Leave (PFL) being the most frequently mentioned policy. Although participants recognized the beneficial impacts of PFL on breastfeeding in New York, several stated that it should be enhanced to include more time off and that all the time should be paid. They also expressed concerns for individuals who may ineligible for PFL. In addition to PFL, participants emphasized the need to implement the Affordable Care Act's breastfeeding-related provisions and to close the gaps and expand upon these provisions. Participants also discussed ways that NYS could increase access to critical lactation supports through policy, such as ensuring CLCs and doulas can play a role in lactation support during the critical initiation stages at birth and making it easier for lactation counselors from communities most impacted by disparities to become trained and certified.

Although participants acknowledged the challenges associated with trying to address the widespread use and marketing of formula, they emphasized that steps must be taken at the federal, state, and local levels (primarily through hospitals) to decrease the marketing of formula to families and birthing individuals. Participants stated that even within Baby-Friendly Hospitals, formula is easily accessible. Participants felt that although it would be most effective to address formula marketing at the federal level, there are steps that NYS government could take to limit it, especially within hospital and healthcare settings.

Study participants also discussed the role of public health in addressing breastfeeding disparities. Most notably, they emphasized specific initiatives and services that NYS could fund to increase access to lactation support in the healthcare and community settings. Current state contractors working on breastfeeding promotion as part of the Creating Breastfeeding-Friendly Communities grant were interviewed for this study, and several of them made specific recommendations for how the funding requirements could be enhanced and/or improved to ensure that breastfeeding individuals are supported in all regional areas in which they live, learn, work, and play.

Finally, study participants discussed ways that public health professionals could further promote breastfeeding and reduce disparities. They provided recommendations on creating widespread messaging campaigns to normalize breastfeeding, understanding the root causes of disparities, building coalitions, and understanding how to empower and support the communities to take action on the issue.

Results – Online Survey

Respondents' Background Information

All (100%, n=253) respondents included in these results indicated they were at least 18 years of age, consented to participate in the study, and they work in the area of breastfeeding education and/or promotion in some way.

As can be seen in Table 2., the survey respondents were fairly evenly geographically spread throughout New York State, with 26.5% of respondents stating their organization provided services to breastfeeding individuals in New York City, 20.9% in the Central Region, 18.6% in the Metropolitan Area Region, 15.8% in the Western Region, 13.8% in the Capital Region, and 3% of respondents indicating they worked in more than one region. One percent of respondents indicated they were national experts.

As can be seen in Figure 1., the majority of survey respondents indicated that their role in breastfeeding promotion is lactation consultant, dietician/nutritionist, other public health professional, and health educator. Other responses less frequently reported included: Professor/researcher, doula, social worker, nurse practitioner/physician assistant, midwife, and student.

When selecting "Other Public Health Professional," respondents were asked to write in their response. The responses most frequently provided include: Lactation Counselor (8), Peer Counselors (6), and Breastfeeding Coordinator (3). Other responses included: Administrator, program administrator, data manager, director, manger, office manager, portfolio manager, program coordinator, quality specialist, hospital corpsman, and WIC Director. As can be seen in Figure 2., over 44% of the survey respondents had over 10 years of experience working in breastfeeding promotion, and over 60% had at least 6 years of experience.

When asked if participants were more likely to work with individuals or groups who were less likely to breastfeed, 187 or 74% responded "yes" and described the following groups most frequently:

- Low-income individuals;
- Racial /ethnic groups – Black and African American were most frequently listed (Hispanic, Latino/Latina/Latinx, BPIOC, Asian, Native American/Indigenous, Chinese, communities of color, Spanish, and Caribbean were also listed);
- Younger individuals or teens.

Facilitators to Initiate Breastfeeding

See Table 7. for the perceived main facilitators for an individual initiating breastfeeding immediately after the birth of a child. In the table, the percentage of the total sample that selected that specific response option is included for each perceived facilitator listed.

Note that respondents could select more than one. Consequently, the percentages do not add to 100%.

Fifty-three respondents wrote in a response when asked to describe other facilitators for individuals initiating breastfeeding immediately after the birth of a child. Many respondents indicated “lack of knowledge” or “lack of education” as a breastfeeding initiation facilitator, but did not indicate specifically if they were referring to the breastfeeding individual or someone else, such as a healthcare provider. Respondents also frequently described the following breastfeeding initiation facilitators:

- Supportive personal networks;
- Community resources available after delivery – continuous support from community groups, home visiting, peer counselors;
- Community and social normalization of breastfeeding.

The following are a sample of key quotes from the online survey related to the primary facilitators for an individual breastfeeding immediately after the birth of a child:

- *“I believe that family support is a critical factor and that sometimes the focus on Mom is counterproductive - Mom needs to be in an ecosystem that supports her.”*
- *“Consistent contact, support and resources shared from a peer counselor throughout pregnancy and after birth.”*
- *“Pro-breastfeeding social norms in the mother's family and community; support from extended family and friends.”*

Barriers to Breastfeeding Initiation

When asked to describe the main barriers to breastfeeding initiation, respondents overwhelmingly reported multiple barriers and “lack of support.”

Specific barriers most frequently described include:

- Lack of knowledge/education of the birthing individual;
- Lack of support from hospitals and healthcare providers;
- Unsupportive personal networks;
- Return to work.

Key quotes related to lack of knowledge/education of the birthing individual and barriers to breastfeeding initiation include:

- “*Lack of education or understanding of how breastfeeding is established.”*
- *“Many women in the groups I work with do not believe they are healthy enough to breastfeed.”*

- *"Unrealistic expectations about how often and how much milk a newborn should drink from the breast."*
- *"The main thought that formula is what is normal for baby feeding."*
- *"Lack of parent knowledge regarding benefits of breastfeeding prior to delivery."*
- *"Lack of prenatal education, misconceptions about expected supply after birth."*
- *"Lack of prenatal education. Our hospital offers free prenatal childbirth and breastfeeding classes to all but still many first-time parents do not participate."*

Key factors mentioned related to lack of support from hospitals and healthcare providers include:

- Lack of access to specialized lactation support or limited time spent with patients;
- Short stays leading to limited education to breastfeeding individual provided before being discharged;
- Hospital practices not supporting breastfeeding;
- Uneducated, unsupportive, or biased staff;
- Lack of staff to provide education and support;
- Formula encouragement/samples;
- Misinformation from providers;
- Medicalized births (C-sections, etc.);
- Lack of prenatal education by providers;
- Lack of access to breastfeeding friendly hospitals;
- Practices which separate breastfeeding individual and baby.

Key quotes related to lack of support from hospitals and healthcare providers and barriers to breastfeeding initiation include:

- *"Nurses with good intentions but don't know much about breastfeeding, lack of support from family and hospital team, interruptions between mom and baby skin-to-skin bond."*
- *"C-section is pushed on everyone even if they didn't request it or medically not necessary. Lack of understanding about breastfeeding. Some hospitals do not have enough person (staff) to help with the support (of) persons who wants to go on that journey."*
- *"Hospitals pushing formula, free formula samples, not enough support, baby and mom being separated after C-section, formula encouraged if baby is jaundiced."*
- *"I think one barrier can be the "forcefulness" of breastfeeding from providers at the hospital. I have found that moms have stated that they weren't sure they wanted to but then felt forced to do it which in turn made them not do it.*
- *"Medicalized, heavily managed births that can leave parents and infants exhausted and traumatized, lacking skin-to-skin time, and baby-led latch opportunities."*
- *"Lack of hospital lactation support due to racial biases, and staff size."*

- *"Lack of prenatal care education/counseling on breastfeeding; hospitals that are not baby friendly (do not encourage rooming in, frequently remove baby to nursery, nurses offer formula, nurse enthusiasm for breastfeeding is lackluster, lack of access to lactation)."*
- *"Most moms don't have enough support or encouragement to take the time and energy to develop a good nursing routine in the first weeks of life. If there is any issue with the baby, doctors usually push formula right away."*
- *"Inconsistent information from HCPs at hospital - sometimes overwhelming, sometimes confusing, sometimes too hands-on so parents lack skill building and confidence."*
- *"Parent plans to use formula and may not be presented with the option of initiating breastfeeding if their long-term feeding preference is formula. They may be asked 'breast or bottle?' at hospital admission."*
- *"Not having access to a trained staff member that has enough time to observe the first couple of breastfeeding (attempts), but preferably a few feedings and evaluate positioning, latch, milk transfer and offer clarification and potential solutions to the mom."*

Key factors mentioned related to unsupportive personal networks and breastfeeding initiation barriers include:

- Lack of general social support;
- Lack of lactation knowledge from family/friends;
- Negative and/or misinformation;
- Pressure to supplement and/or use formula;
- Lack of partner support;
- Family or friends did not breastfeed.

Key quotes related to unsupportive personal networks and barriers to breastfeeding initiation include:

- "*Mother's responsibilities of working, caring for other children and living conditions. Lack of support from other family members."*
- *"Breastfeeding not widely practiced in mother's extended family and community."*
- *"History of friends and family who use formula."*
- *"Pressure from family members to formula feed."*
- *"Barriers to breastfeeding initiation include hearing negative experiences from other moms."*
- *"(Not) Having an empowered partner to support lactation (many partners would do more, they just don't know how or what to do to)."*

Key factors mentioned related to return to work and breastfeeding initiation barriers include:

- Need to return to work early;
- Insufficient or no paid leave;
- No support/accommodations at worksite;
- Low-income.

Key quotes related to return to work and barriers to breastfeeding initiation include:

- *"Lack of sufficient paid maternity leave and workplace support. (Moms who know that they have to go back to work in a few weeks in a workplace that doesn't support breastfeeding often don't see the point in breastfeeding even in the baby's first days.)"*
- *"Pressure to return to work – Yes, women are already worried about work days after delivery and it impacts their decisions to breastfeed in the first few days."*
- *"The prospect of pumping while working without full support or time available to pump while working."*
- *"Patient's lifestyle - they have to go back to work. The employers and society don't support working moms and breastfeeding."*

Facilitators to Breastfeeding Continuation

Table 8. provides the perceived main facilitators for an individual continuing breastfeeding after initiation. In the table, the percentage of the total sample that selected that specific response option is included for each perceived facilitator listed. Note that respondents could select more than one. Consequently, the percentages do not add to 100%.

Fifty-one respondents wrote in a response when asked to describe other facilitators for an individual continuing to breastfeed. Respondents most frequently indicated lactation support and family support. Prenatal education and normalizing breastfeeding were also described, but less frequently.

Key quotes from survey respondents included the following:

- *"Real time, one on one help with lactation. There needs to be an on-call system, so families can get the help when they need it."*
- *"Normalizing breastfeeding, especially in public. Ongoing education and accountability of healthcare providers in supporting breastfeeding, especially when challenges come up."*
- *"Lactation home visits covered by insurance."*

- "*Learning and continuing proper techniques to help develop a routine and proper latch."*
- *"Having the support of the baby's father and knowing that there is reliable help/support system in the community that can help find solutions when situations or questions arise."*

Barriers to Breastfeeding Continuation

When asked to describe the main barriers to breastfeeding continuation, respondents overwhelmingly reported "lack of support."

Specific barriers most frequently described include:

- Return to work;
- Unsupportive personal network;
- Lack of community support and resources;
- Lack of support from hospitals and healthcare providers.

Key factors provided related to <u>return to work</u> and barriers to breastfeeding continuation include:

- Need to return to work early;
- Insufficient or no paid leave;
- Introduction of pumping impacting supply;
- No support or accommodations at worksite;
- Balancing work-family life demands.

The following are key quotes for <u>return-to-work</u> and barriers related to breastfeeding continuation:

- *"In order to maintain financial stability, many new mothers have to return to work immediately after giving birth. Many of these women work in companies that are not supportive of breastfeeding moms who require space and time to pump during the work day."*
- *"Lack of paid parental leave. And not just 6 or 8 weeks. Three months minimum is needed for most breastfeeding relationships to be established in a way where they are sustainable once a mother returns to work. "*
- *'Maternity leave. Many don't want to start or continue breastfeeding because they feel like they need to be able to feed formula when they go back to work."*
- "*Having a proper accommodations and time to pump when returning to work."*
- *"Going back to work sets up a mother for concern about how she is going to manage breastfeeding."*
- *"Returning to work is the #1 reason people stop breastfeeding."*

- *Not having an available place to pump or store breastmilk, Environment that does not support breastfeeding or pumping. Return to work/school are some of the common reasons for moms to stop breastfeeding before they intend to."*

Key factors provided related to lack of supportive personal networks and barriers to breastfeeding continuation include:

- Lack of general support at home;
- Managing other family demands;
- Pressure from family to share in the feeding routine;
- Pressure to bottle-feed and supplement;
- Lack of family experience with breastfeeding.

The following are key quotes related to lack of supportive personal networks and barriers to breastfeeding continuation:

- *"Family members who want to bottle feed the baby."*
- *"Lack of family support, pressure by family to supplement formula."*
- *"Lack of support - whether it be from family, friends or the workplace. People within the family's individual circle play a vital role in helping mothers sustain breastfeeding."*
- *"Time, managing other children in the household, lack of support from partner/family members when they get home from the hospital."*
- *"Feeling like they want their partner to be able to feed the baby."*
- *"Family or friends undermining BF efforts."*

Key factors provided related to lack of community support and resources and barriers to breastfeeding continuation include:

- Breastfeeding is not normalized in communities;
- Lack of access to community lactation resources (time, availability, scheduling, insurance);
- Lack of diverse professionals who can provide culturally relevant community-based lactation services;
- Lack of referrals to lactation professionals.

The following are key quotes related to lack of community support and resources and barriers to breastfeeding continuation:

- *"We *really* need to work at diversifying the workforce in lactation support. I can normalize my experience, but there is missing context as I am a white woman who comes from a privileged background. We need more non-English speaking CLCs/IBCLCs! We need more BIPOC CLCs/IBCLCs. We need more support*

groups that center on the experiences of marginalized communities. We need to be vocal, accepting, and normalizing breastfeeding, chestfeeding, exclusively pumping, using donor milk. Breastfeeding is not a linear path, it's not all or nothing."

- *"Stereotypes/ the societal norm of "how long" a mom should breastfeed their child."*
- *"And society's expectations of parents going back to their pre-baby lives, minus a little sleep - pressure sometimes to leave baby (whether to go to work or to socialize or do other things for themselves), for babies to sleep through the night. Attachment parenting, feeding on demand, etc. are seen as less normal, more difficult, and are harder to practice."*
- *"Lack of a diverse lactation workforce.....lack of funding for peer counselor programs and other support programs; lack of cultural and racially relevant support.... medical humility to recognize when it is prudent to refer to and work as a team with lactation specialists; Lack of evidence-based breastfeeding support with issues with bilirubin, preterm and early term... Our society still has a casual or even antagonistic, mother-war mentality around infant feeding"*
- *"Minimal representation of IBCLCs who come from low-income backgrounds"*
- *"Lack of funds to pay out of pocket for IBCLC care especially when insurance won't reimburse"*
- *"1) Racially concordant lactation personnel; 2) Need for paid positions for IBCLCs (that aren't also trained health care workers) that can bill for their work to Medicaid."*
- *"It is very common to run into challenges in the early weeks. With professional support, most problems are fairly easily overcome, however parents often do not have professional support readily available to them. They may seek help from a provider who is not knowledgeable about their specific concern and may fail to refer when appropriate. They may reach out to friends and family or a support group and find encouragement but not solutions. If they locate an IBCLC, they may not be able to pay upfront for a visit when insurance does not have in-network lactation consultants, or there may not be scheduling availability for weeks. When a parent does not get high-quality lactation care quickly, the risk for discontinuing breastfeeding is very high."*

Key factors provided related to <u>lack of support from hospitals and healthcare providers</u> and barriers to breastfeeding continuation include:

- Lack of general support in the hospital to encourage individuals to breastfeed;
- Inconsistent/conflicting messaging from healthcare providers;
- Promotion of formula for weight gain;
- Lack of healthcare provider education and misinformation;
- Mother-infant separation practices;
- Lack of referrals to lactation specialists.

The following are key quotes related to lack of support from hospitals and healthcare providers and barriers to breastfeeding continuation:

- *"Lack of support by hospital staff in the first hours."*
- *"Hospital care lacking consistent messaging and support."*
- *"Lack of support from pediatricians/pediatricians not properly referring out for complicated lactation cases. Tongue-ties/Lip ties."*
- *"Not enough education regarding breastfeeding with hospital staff and pediatricians so they can properly help and encourage moms to continue to breastfeed. It seems as though health care providers are only looking at weight gain and encourage moms to supplement a lot."*
- *"Medical staff post-delivery (from hospital staff to pediatric/family practice offices) quick to jump to supplementation due to lack of BF training/true understanding."*
- *"We live in a county with no OB/Gyn's and no birthing hospitals. Many women would have to travel an hour to see and MD or CLC. This can lead to lack of follow-up in the first days after breastfeeding initiation which is when women experience issues."*
- *"Lack of healthcare provider education, accountability, and commitment to problem-solving when breastfeeding challenges arise. Medical humility needed to refer to, bring in, and work as a team with lactation specialists."*
- *Incorrect or outdated information from health care providers on how much breast milk a baby should get/advised to start formula by health care provider without a referral to a lactation professional first."*
- *"Pediatricians are not educated in lactation and often do not give good advice that supports breastfeeding efforts when breastfeeding problems arise. Parents look to the advice from their pediatrician for feeding recommendations, and it seems when talking to mom's about previous breastfeeding issues, their pediatrician did not recommend follow up with a lactation consultant."*

Perspectives on Health Disparities related to Breastfeeding

Eighty-three percent of respondents stated that there are individuals or groups who they think are less likely to initiate, continue breastfeeding, or not meet their personal breastfeeding goals. When asked to describe who they think are less likely to meet their breastfeeding goals, respondents stated the following most frequently:

- Racial /ethnic groups – Black and African American were most frequently listed ("Minority, BIPOC, Hispanic, Latino/Latina/Latinx, Caribbean, Indigenous, and Asian" were also listed);
- Low-income individuals;
- Individuals who have to return to work;

- Individuals who do not have family support, have no family history of breastfeeding, or who are single;
- Younger individuals/teens.

The following are key quotes from survey respondents regarding who they perceive are less likely to initiate, continue breastfeeding, or not meet their personal breastfeeding goals:

- *"Moms who have not had encouragement from family. Moms that have had generations telling them just to feed formula because it is free."*
- *"BIPOC parents, transgender and potentially other LGBTQIA+ - folks who are not as seen and understood by the health care system. Folks who need to return to work sooner."*
- *"In my community the population is largely rural and Caucasian. Here, we see low income individuals are less likely to initiate, continue breastfeeding or meet breastfeeding goals."*
- *"Teen moms, low-income families without access to lactation support and breastfeeding -supportive childcare, LGTBQ+ community (concern for stigma), abused pregnant persons, people with unstable housing situations/homeless/shelter."*
- *"People who rely on a minimum wage or fast food type job, mothers in school, teen mothers, mothers struggling with addiction, single parents, mothers with preemie babies, mothers with multiple children."*
- *"Those without proper support, typically low-income, rural, and people of minority populations."*
- *"African American, LatinX, Asian, teen parents, working families, mothers with disabilities, LGBTQ+, low income families without access to lactation support or breastfeeding supportive child care, homeless or unstable housing."*

When asked about the reasons why these individuals or groups are less likely to meet their breastfeeding goal, most respondents described multiple barriers and "lack of support."

Specific barriers more frequently reported included:

- Return to work;
- Unsupportive personal networks;
- Lack of knowledge and education of the breastfeeding individual;
- Community and cultural norms supporting the use of formula.

Regarding <u>return to work</u>, the following were the key factors mentioned in regards to breastfeeding disparities:

- Need to return to work early due to financial constraints;

- Insufficient or no paid leave;
- Fear of losing job;
- No support or accommodations at worksite;
- Balancing work-family life demands.

The following are key quotes related to <u>return to work and breastfeeding disparities</u>:

- *"After delivery they may even be pressured financially to go back to work within weeks of delivery. Many low income jobs are not baby-friendly and pose challenges for new mothers to pump during their work day."*
- *"...they often have many other stressors in their lives that can take away from their ability to give the attention and consistent effort that breastfeeding requires, especially in the early months, and they often have to go back to work sooner than more wealthy individuals which makes it more difficult to establish and maintain a successful breastfeeding relationship with the infant."*
- *"Families living at or below the poverty level often do not place a high level of focus on their health or maintaining healthy behaviors. They are focused on providing the bare necessities to their families and find maintaining breastfeeding, pumping at work, milk storage etc. stressful and unrealistic."*
- *"...stressed, income-based mothers have less flexibility in leaving a workplace that will not accommodate their needs, may need to work unpredictable hours reducing any chance of establishing a pumping/nursing routine, and stress in general from lack of financial support, will cause low milk supply, irritability, and exhaustion."*
- *"For employees: Breaks during the day for lactating working women - as a nurse, it is hard to plan breaks, but not pumping regularly can negatively affect your supply."*
- *"...they are more likely to return to work quicker compared to their white counterparts."*
- "*Lack of structural support - lack of paid leave; lack of paid time at work to pump and clean, private space to pump; exhaustion from work and childcare."*
- *"Many times, working mothers are strapped for time, even when provided what is legally allowed by NYS to pump or breastfeed in the workplace."*
- *"Not knowing their rights/ afraid to lose their job."*
- *"Mothers who rely on a minimum wage or (a) fast food type job may feel they don't have enough support in the workplace. They may also have a hard time getting their employer to give them breaks."*

Regarding <u>lack of supportive personal networks</u> and their relation to breastfeeding disparities, the following were the primary factors mentioned:

- Lack of general support at home;
- Managing other family demands;

- Lack of family experience with breastfeeding;
- Cultural norms and beliefs in family;
- Single individuals.

The following are key quotes pertaining to lack of supportive personal networks and breastfeeding disparities:

- *"It could be a generational thing. Not getting support from their family or not getting support at the hospital because people assume they will not want to breastfeed or there are no resources to promote breastfeeding."*
- *"Hispanic moms tend to not believe that colostrum is enough food to sustain their baby, frequently. African- American mothers do not have the support of their partners when trying to breastfeed. I find that it is usually that their own mothers/ grandmothers did not breastfeed."*
- *"Mothers who have no family and friends often experience a lot of difficulty with balancing taking care of the children, taking care of the family home, working, and taking care of themselves."*
- *"They have heard it's hard and doesn't work out for everyone, feeling pressure from surrounding family to just feed formula, or other family members wanting to be involved in the feeding process."*
- *"I believe they are less likely to initiate or continue due to the lack of exposure of seeing friends and family members in their day-to-day lives and the simple desire to do it. They know it's beneficial; however, that is not enough to make a commitment."*
- *"They are less likely because they are misinformed by their family elders."*
- *"They do not know or understand the benefits to breastfeeding. It is a big commitment, and the mother is generally the only one who can feed the infant in the first several weeks. It also takes practice and time. So, if you do not have a partner that is also onboard with a new mother breastfeeding, if makes it difficult for her to continue to do so."*

Regarding lack of knowledge/education of the birthing individual and breastfeeding disparities, the following were the primary factors mentioned:

- Unaware of community resources;
- Lack of prenatal education;
- Misconceptions about milk supply;
- Not understanding mechanics of breastfeeding.

The following are key quotes pertaining to lack of knowledge/education of the birthing individual and breastfeeding disparities:

- *"Low income mothers are often juggling several jobs and do not have the income to pay for breastfeeding education, such as classes or books, nor do they have time to read."*
- *"Lack of or no confidence in breastfeeding skills or knowledge."*
- *"They may be hesitant, thinking it is painful. Not having proper knowledge."*
- *"Lack of understanding or confidence in breastfeeding and perceived low milk supply with early supplementation of formula; being encouraged by family."*
- *"Lack of participation in prenatal education; lack of knowledge of breastfeeding issues."*

Regarding the use of formula due to cultural and community norms and breastfeeding disparities, the following were the primary factors mentioned:

- Formula is seen as the "American way;"
- Historical trauma and breastfeeding;
- WIC creating culture of "formula use" as the norm for low-income families.

The following are key quotes pertaining to use of formula due to cultural and community norms and breastfeeding disparities:

- *"It is not the cultural norm in their families and community."*
- *"I think there is a lack of normalization of breastfeeding in our American culture. We need to see more people in the media and community breastfeeding."*
- *"Historic lack of exposure/experience with breastfeeding as a community/cultural practice."*
- *"Breastfeeding trauma related to colonization."*
- *"I feel that with the WIC families, they know they can get formula very easily and if there are any challenges in breastfeeding instead of correcting it they quickly resort to formula."*
- *"Formula is more convenient, and generations of women now have been using it causing the normalization of formula feeding instead of the natural way. The marketing of formula by private advertisers has only exacerbated the problem."*

Most Effective Interventions to Support Breastfeeding in NYS

Respondents were asked to state their perceived most effective interventions (or practices) to support breastfeeding promotion and address breastfeeding disparities, with a focus on New York State. They were asked to select their top three choices from a list of provided responses. In the table, the percentage of the total sample that selected that specific intervention is included for each intervention option. Note that respondents could select more than one intervention. Consequently, the percentages do not add to 100%.

In addition to these interventions, survey respondents were provided with an open-ended question to provide any other interventions or strategies not provided in the previous question that they believed would be effective in supporting breastfeeding promotion in New York State. Forty-one percent (n=103) of survey respondents took the opportunity to provide written responses of additional interventions or strategies that they thought could be effective in supporting breastfeeding promotion in NYS. Table 10. provides the key themes and supportive quotes from these responses. Most of the responses pertained to additional education needed for the birthing individual before and after pregnancy; additional efforts that should be made to normalize breastfeeding in all settings and to educate the public about breastfeeding; specific recommendations related to lactation support within and outside the hospital setting; needed workplace supports; and considerations related to formula marketing and availability.

Challenges Experienced within and by their own Organizations

In the survey, study participants were asked to provide examples of breastfeeding promotion practices that their organization is implementing but that are the most challenging to implement. One hundred forty-nine respondents provided examples of interventions that they implement in their organization. Please see Table 11. for the key themes and quotes that exemplify the responses received. Due to the sample for this study, the responses are primarily categorized by the following: workplace factors; providing breastfeeding supports within the community setting; and hospital and healthcare practices. Although the responses mirror the responses these same respondents provided for the questions in the survey pertaining to breastfeeding barriers, the decision was made to provide this table to demonstrate specific challenges the respondents and their organizations have faced when implementing breastfeeding practices.

Policies that are Perceived to Positively Impact Breastfeeding in New York State

Approximately 53% of respondents stated there are federal, state, local or organizational policies that they believe have positively impacted breastfeeding rates in New York State. Ten percent of respondents stated there were no policies that they believed positively impacted breastfeeding rates in the state, and 37% stated they didn't know. For those who stated there are policies that they believed have positively impacted breastfeeding in NYS, the following are the policies and practices that respondents felt have had the most positive impact on breastfeeding in New York State: New York State NYS Labor Law Section 206-C Breastfeeding in the Workplace Accommodation Law; NYS Paid Family Leave; and laws pertaining to protecting breastfeeding in public/civil rights laws.

In addition, respondents specifically stated by writing them in that the following policies and practices have had a positive impact:

- WIC policies pertaining to food packages and peer counselor funding;
- Breastfeeding Bill of Rights;
- Healthcare plans providing supplies/pumps;
- Businesses who display “Breastfeeding Welcome Here” signage:
- Baby-Friendly Hospital certification;
- Work from home policies due to COVID;
- Telehealth services as a covered expense;
- NYS Medicaid Coverage of Pasteurized Donor Human Milk;
- Breastfeeding awareness month;
- Funding for doulas;
- Funding/reimbursement for midwives;
- Home-visiting programs promoting and support breastfeeding;
- Pregnancy Protection Act;
- AAP breastfeeding policy;
- Updated perinatal guidelines and model breastfeeding policy supporting the Ten Steps;
- Hospitals not giving out formula samples when baby is born;
- Breastfeeding standards in the perinatal section of the NYS Hospital Code.

The following are a sample of key quotes related to policies that have positively impacted breastfeeding in New York State:

- *“NYS paid family leave, and FMLA leave being combined has greatly helped.”*
- *"NYS has a good start to PFL, but many people still don't quality. PFL at a state or federal level should be granted to ALL employees; both pregnant women and their partners. Because as said previously, having the support around you while breastfeeding is key. And once everyone and their partners are eligible, raising the amount each party can collect and extending the time parties are allowed to be off of work. I'm not an economist so I don't know how the logistics and funding happen- I just know that mothers and their families need more support and less stress!"*
- *“Paid family leave (must be expanded!);Baby Friendly Hospital Initiative Workplace lactation rooms Airport/travel lactation pods Insurance coverage of donor milk when it is medically indicated.”*
- *“The Affordable Care Act requirement for insurance companies to cover lactation supplies and support has been very beneficial, but how insurance companies meet the requirements varies greatly, resulting in major disparities between those with "good" insurance and those with "bad" plans or on Medicaid. Additionally, the NYS workplace accommodation laws are helpful.”*

- *"Including peer counselor in lactation in the WIC programs has had a positive impact. Through the programs we have been able to have access to all mothers who breastfeed or are prospects."*
- *"Lactation coverage (though it is VERY limited in who can be paid--needs improvement). Gov. Cuomo's NYS breastfeeding friendly initiative."*
- *"NYS supporting, celebrating and setting programs for the BF awareness month every August and setting apart last week of August to recognize and encourage the black community that BF."*
- *"The hospital is currently participating in the NYS Birth Equity Improvement Project to identify how individual and systemic racism impacts birth outcomes."*
- *"During a BQIH program I took part in, it was mandated that every maternity floor had a lactation professional on staff. This was absolutely necessary, but I'm not sure if it was a NYS policy or something to do with NICHQ/BQIH."*

Policies that are Perceived to Negatively Impact Breastfeeding in New York State

When asked if there are any policies that they thought have negatively impacted breastfeeding rates in New York State, 15.2% (36) of respondents stated "yes," 21.9% (52) stated "no," and 62.9% stated they "don't know." For those who answered "yes" regarding policies that have negatively impacted breastfeeding, the following are the examples of policies they provided:

- Insurance companies covering lactation services provided by RN/MDs, but not IBCLCs
- Paid Family Leave
- Lack of 24/7/365 access to lactation support in hospitals
- Lack of consistent breastfeeding and infant feeding policies in hospitals
- COVID restrictions for WIC offices
- Need to review the Medicaid policy regarding breast pumps
- Lack of regulating the formula companies and marketing
- Considerations regarding marijuana use by breastfeeding individuals (e.g. WIC does not encourage mothers who smoke marijuana to breastfeed as much as mothers who do not breastfeed)
- Concern for rewording from "breastfeeding" to "chestfeeding."

The following are a sample of key quotes received related to policies that were perceived by survey respondents to negatively impact breastfeeding in New York State:

- *"Paid Family Leave is not long enough and/or not available to all. It also does not pay the entire salary (e.g. 8 weeks paid but 12 weeks of leave), and it's only for documented employees"*
- *"Baby Friendly (Hospital Initiative) drives meeting check boxes, and not PDSA cycles directed at barriers."*

- *Regarding the Back to Sleep Campaign: "I suspect it forces some women who breastfeed to lie about how they are caring for their children and may inadvertently result in the unintended consequence of SUIDS when women fall asleep breastfeeding in chairs or on sofas because they were told not to breastfeed in bed or sleep with their babies."*
- *Regarding marijuana "In communities like the one I work in, many mothers smoke marijuana. Mothers may choose to not breastfeed for a longer duration. Mothers will 'closet-feed' hiding the fact that they are indeed breastfeeding."*
- "*The work of caring for a newborn is not given any value whatsoever in NY State, therefore, the state sends a clear message that we as a society do not see value in mothering. Mothers do not even earn one paid day for giving birth. Not ONE day of pay. I could get more paid time off for going to (a) conference that relates to my job than I could get time for birthing a child. So, the message is clear: spending 40+hrs each week just to feed said worthless dependent is of course a frivolous endeavor reserved only for the extremely wealthy or the extremely well supported. Moms work up to their due dates and go back to work days or weeks after giving birth. When earners are not actively making money, they're not valued in their household or in society."*
- *"There is a need to look into the Medicaid policy regarding coverage for breast pumps: I don't know for sure but I would love to know the percent of moms covered by Medicaid that intended to breastfeed that received a prescription for a breast pump. Often breast pumps in Medicaid are seen as something that only gets prescribed if there is a problem while every middle class or upper class mom has one prior to delivery."*
- "*Renaming these breastfeeding terms to "chestfeeding," moms to "birthing people," takes away from the femininity mothers proudly hold. Many women with the power of nature, breastfeed. It is hard work they say, and they feel it should not be renamed to accommodate others' feelings when they naturally and physically cannot breastfeed."*

Final Comments from the Online Survey

At the conclusion of the survey, respondents were able to provide final thoughts and/or reflections on the topic of breastfeeding disparities in New York State. Several comments were received, and the following are a few key quotes that are demonstrative of these final comments:

- *"There are wildly differing opinions and attitudes in the medical field and in society in general regarding breastfeeding. If there was a positive and informative campaign (e.g. commercials, billboards, provisions, praising and providing incentives to businesses that support breastfeeding) we could help countless families in their breastfeeding efforts!"*

- *"I think if there can be bill boards of woman in underwear and bras, there can be pictures of women breastfeeding. Normalize it!!!"*
- *"Increase professional and peer lactation providers of color that represent the full diversity of NYS."*
- *"I wish we could have more funding so we could hire more staff to be available in the nights when mothers may need support the most."*
- *"We need access to high quality low-cost prenatal breastfeeding education in the variety of languages spoken here--English/Spanish/Chinese at least".*
- *"Make paid maternity leave of at least 12-18 weeks mandatory."*
- *"I think it's important to provide the support needed during prenatal visits and delivery hospitalization. I also think the if breastfeeding is difficult for the patient after delivery that they shouldn't feel as if they are failing. In the end, fed is best."*

Combined Findings

For the following topics, the interview and survey findings were reviewed to determine key themes that emerged from the data.

Breastfeeding Disparities in New York State

The entire study, and thus data collection instruments, was framed to focus on reducing breastfeeding disparities in New York State. Thus, it can be assumed that all responses given from study participants were provided with that lens in mind. However, in order to provide key themes and quotes from the study related to specific cultural considerations and barriers for individuals from specific communities, Table 12. Overview of Study Findings Regarding Breastfeeding Disparities was included that has combined themes and selected demonstrative quotes that emerged from the key informant interviews and the online survey specifically discussing breastfeeding disparities and how to address them.

As can be seen in the table and was emphasized in the findings from the study, many study participants stated that certain racial and ethnic groups do experience breastfeeding disparities at higher rates than others. However, it was emphasized by the majority of study participants that these disparities are more often the result of the social determinants of health, how individuals are treated within U.S. society, and structural barriers, rather than due to any particular cultural factors. Poverty, housing and food insecurity, having to work multiple jobs, lack of paid time off to establish and sustain breastfeeding, and lack of education were all mentioned as primary causes of breastfeeding disparities in New York State.

When discussing race and ethnicity, study participants acknowledged cultural factors and beliefs that must be taken into consideration when designing breastfeeding interventions. However, the primary factors that study participants mentioned when discussing racial and ethnic breastfeeding disparities, other than other social determinants of health, was discrimination pertaining to health care providers who have preconceived ideas about which individuals are more likely to breastfeed, and thus, use

that perception to determine who they will devote their time and energy to support. Consequently, if a healthcare provider believes that an individual is unlikely to be successful in breastfeeding, the provider may not invest their efforts helping the individual to be successful. This was a common concern expressed by study participants. In addition, participants emphasized that the healthcare workforce, and especially lactation counselors, must be diversified and be from the communities most likely to experience breastfeeding disparities. Participants acknowledged the significant barriers associated with clinical training, and also specifically lactation counseling training and certification (e.g. time, cost, exams only available in English).

Study participants also emphasized that breastfeeding disparities exists for individuals with disabilities and those with chronic diseases and conditions. There were significant concerns raised for individuals from the deaf community due to there being very limited numbers of, or complete lack of providers who are trained to assist them. Study participants also emphasized the need to do more to support individuals from communities who have historically experienced difficulties accessing the healthcare system, including members of the LGBTQIA+ community, due to structural barriers that exist within this system.

The data were also reviewed to determine whether or not differences existed in responses from study participants serving different regions in New York State. There were no significant differences found by region. For example, individuals in every region made recommendations included in the tables throughout this report. However, individuals from those areas serving rural populations expressed concerns with lack of available breastfeeding services, lack of transportation and accessibility to services for birthing individuals, an aging lactation counseling workforce with a limited workforce pipeline, more conservative beliefs about breastfeeding in public, and a strong influence of external family members on the birthing individual. Although some individuals recommend more telehealth services to address accessibility issues, it was acknowledged that not everyone in rural areas has access to the Internet. Some study participants also stated that it was challenging to receive state funding to support their work in rural areas.

This study also demonstrated that more attention is needed on the disparities that exist due to experiences in the workplace by birthing individuals. Study participants discussed the challenges that some individuals face because they are working multiple jobs, they have employers who do not know and/or follow labor laws related to breastfeeding, and/or they work in positions and in settings that are not supportive of breastfeeding. Transportation-related jobs, such as bus drivers, fast food workers, grocery store workers, and police officers and public safety personnel frequently surfaced as examples of jobs where it is challenging for the employee to take breaks for lactation purposes, especially in a private setting. The educational sector (i.e. teachers in K-12 school settings) were also frequently mentioned by study participants due to the lack of time provided to teachers to take breaks for lactation purposes and the lack of private space for lactation purposes. Study participants shared stories of teachers pumping behind white boards and in their cars in the school parking lot. Study participants also mentioned that it is difficult to make entry into school settings to work

with them on breastfeeding promotion. However, one study participant stated that they recently had success when approaching a business administrator in a school. Addressing workplace challenges is seen as key to closing the gap on breastfeeding disparities because, as many study participants stated, if an individual does not feel they will be supported in breastfeeding once they return to work, they will not even try to initiate it at the time of birth.

Impact of COVID-19 on Breastfeeding and Access to Breastfeeding Supports

Although the intention of this study was not to capture the impact of COVID-19 on breastfeeding and access to breastfeeding supports and services during the pandemic, due to this study being conducted during the COVID-19 pandemic, several study participants mentioned its impact on breastfeeding.

The following were key themes from the interviews and online survey related to COVID-19's positive impact on breastfeeding:

- Work from home can be used as a model to increase BF opportunities;
- Some study participants saw virtual breastfeeding services increase participation and access to these services.

The following were the key themes from the interviews and online survey related to COVID-19's negative impact on breastfeeding:

- Shortened hospital and provider visits led to less support - less communication; less face-to-face time; referrals slipped through the cracks or were made for everyone, instead of selectively;
- Misinformation regarding whether or not it is safe to BF during COVID;
- Low SES compounded with COVID, which led to additional stressors;
- Medical staff were stretched thin;
- CLC certifications were challenging to get during this time;
- Remote services were not as accessible or as well-received – participation was low; parents had to share equipment (computers) with children in school; some populations do not have access to the Internet;
- Less prenatal education available during this time;
- Doulas and interpreters were not able to be present during births.

The following are key quotes from study participants related to the above themes regarding how COVID-19 has impacted breastfeeding and access to breastfeeding supports:

- *"I think a lot of nurses are pulling double duty between the maternity ward and wherever else that they are required to be especially during COVID which is a whole different conversation to have. So I think they really struggle with, 'How are we going to get people certified and then do we even have anybody who wants to become certified?"*

- *"A lot of our in person supports had to go virtual, and a large portion of our population who we serve, is the ultra Orthodox Hasidic population and they do not have access to Internet. So, they can't really access the virtual supports that we're offering right now. So that's a big problem."*
- *"And it's the socio economic status has such a big impact because that does impact the ability to take time off from work to alleviate other stressors around life to sometimes get those appointments with breastfeeding specialist, depending on insurance and things of that nature or even having transportation to get to those appointments, right, or someone to watch your other kids during COVID - you can't bring older kids with you to the doctor's appointments for the younger kids."*
- *"So the information is out there, but unless WIC or the prenatal providers are telling the mothers to go take these classes, we don't see the same participation, right? So that's part of the thing that all fell apart was with COVID and no more in person stuff, and then we had provider changes and all that other stuff that just happens."*
- *"We used to do centering where people would come in and they would get a big block of time to talk about it. So, now with COVID and everything they're not really doing that so we're, we're doing it over the phone, and telemedicine and shortened visits. Maybe that's with everyone as well but I did find that having, like the Centering Pregnancy was very helpful."*
- *"At this time, WIC participants are not being seen in clinic due to the pandemic so the in person latch assist isn't as common as it was pre-pandemic. Phone counseling has been largely successful but moms really do benefit from the historical in-person assistance."*
- *"The promotion of the open door policy at WIC for in-person latching guidance is most promising. It is challenging to implement because we currently work remotely. Allowing home visits from breastfeeding peer counselors would help greatly both now and in the future."*
- "*We have a breastfeeding education class that's offered, but it was difficult to get people to attend before COVID and we are unable to hold them due to COVID."*

Final Summarized Recommendations on How to Address Breastfeeding Disparities in New York State

In this report, there were extensive recommendations on how to address breastfeeding disparities in New York State. The key informant interview participant recommendations were included in Table 6. and a narrative section is included above. For the online survey, intervention recommendations are also included above and in Tables 9. and 10. In order to provide a succinct, synthesized view of the key recommendations that emerged from this study, Table 13. is provided.

DISCUSSION

As discussed in the "Combined Findings" section above, a summary table of key recommendations received from all study participants is included in this report (Table 13.), as well as individual tables of recommendations received from the key informant

interviews and the online survey (Tables 6., 9., and 10.). Study participants emphasized that breastfeeding education is critical for the birthing individual, and their close partners/family members, across the continuum (during pregnancy and after pregnancy). Previous studies have indicated there is a need for additional research to determine whether breastfeeding education, especially during the prenatal period, results in better breastfeeding outcomes.[13] However, in order to normalize breastfeeding, study participants recommended that New York incorporate breastfeeding education into the K-12 curriculum, as is done in some other localities. A 2015 systematic review by Glaser and colleagues[14] found that school-based breastfeeding education interventions had positive effects on the students' attitudes and perceptions toward breastfeeding and increased their intent to breastfeed later in their life. Normalizing breastfeeding was emphasized by all participants in this study, and many participants expressed support for a statewide breastfeeding campaign and/or local campaigns in communities where culturally and linguistically responsive messages would be used in many different settings (e.g. billboards, buses, social media, etc.). This recommendation is also supported by the literature.[15]

Breastfeeding education was also repeatedly recommended for healthcare providers, especially obstetricians and gynecologists, as well as pediatricians. There were numerous accounts of individuals believing they had to stop breastfeeding and/or start using formula due to pediatricians stating the breastfeeding individual had a low milk supply and needed to provide formula for the infant to gain weight, instead of referring the individual for lactation counseling. Again, study participants strongly recommended "pre-service clinical education" for medical residents, nurses, and anyone who may be encountering the birthing individual and providing clinical guidance and/or education. There are emerging studies demonstrating the effectiveness of this type of training on increasing clinicians' confidence in providing breastfeeding support.[16]

As discussed throughout this report, in order to address breastfeeding disparities, study participants repeatedly emphasized the need to diversify and grow the lactation counseling workforce – a recommendation also stressed in the literature in order to address breastfeeding disparities.[17] Participants made recommendations regarding recruiting lactation counselors from the communities most impacted by breastfeeding disparities, reducing the barriers to receiving training and certification, and expanding the workforce.

Study participants discussed Baby-Friendly Hospitals and stressed that implementing the 10 steps was more important than the designation. There is a concern that BFHs are not funded to support the continued implementation of the steps and that there is not enough accountability for them to keep their designation. Some participants also expressed concern that Baby-Friendly Hospitals only seem to exist in those areas where breastfeeding rates are already high, which may lead to increasing disparities in New York State. A 2016 systematic review conducted by Pérez-Escamilla et al[18] found a dose–response relationship between the number of Baby-Friendly Hospital steps women are exposed to and the likelihood of improved initiation and duration breastfeeding outcomes. In addition, Step 10, involving community support, was essential to sustain these impacts in the long term.

Study participants also emphasized that breastfeeding supports need to be available to breastfeeding individuals "24/7" because these individuals often need assistance in the middle of the night and in different settings. Consequently, there should be additional efforts to make services, such as Baby Cafés and peer-to-peer support groups, available in many settings in the community that are easily accessible. Virtual options should also be provided, but ideally, only when in-person options are also available.

There must be continued efforts to provide breastfeeding support within the workplace. Although state and federal laws exist to protect and support breastfeeding individuals, the majority of study participants stated that many employers still do not know and/or implement these laws, and that they have concerns because right now, it is up to the breastfeeding individual to complain when their employer is not abiding by the law. Study participants felt this was unrealistic for a number of reasons and that this responsibility of enforcing the laws should not be placed on individual employees. In addition, employers should also be required to provide an adequate and private lactation space that is not a restroom, and refrigerators for storing breastmilk. Notably, returning to work has been found to create the most breastfeeding barriers for African American women.[19]

Regarding policy supports, Paid Family Leave was discussed by participants throughout the study. Although they stated that PFL can be helpful in supporting individuals to successfully breastfeed, study participants discussed gaps in the law that need to be addressed (e.g. eligibility, length of time, and ensuring the entire leave is paid). Participants also acknowledged the breastfeeding-related supports provided by the Affordable Care Act but that there were still aspects of the law that needed improvement. In addition, they felt that insurance, including Medicaid, needed to cover more breastfeeding supports, especially high quality breast pumps, for all individuals. Recommendations were also made to consider coverage for lactation counselors, midwives, and doulas. There was also significant support for New York State taking action to limit formula marketing in all settings, but especially the hospital setting where participants stated it still exists. Finally, although breastfeeding-specific interventions are recommended by study participants, there was widespread acknowledgement that more must be done to address the social determinants of health to successfully address breastfeeding disparities in New York State, a recommendation in line with other experts focused on reducing breastfeeding disparities in the United States.[20]

Study Limitations

Although this qualitative study is robust due to the extensive collaborative study design process, the number of key informant interviews representing a diversity of breastfeeding expertise, and the number of completed online surveys from across New York State, the study does have limitations. Every attempt was made to address these limitations. However, the following must be considered when reviewing the study's findings.

The study was conducted during one point in time (August-December 2021), and thus, the data represents the perspectives from this distinct point in time that was also during

the COVID-19 pandemic – a period of time that disruptive to many healthcare and community services.[21] However, the majority of study participants had been working in breastfeeding promotion for many years, and thus, it was apparent that they were drawing on their experiences working to support breastfeeding individuals across that longer period of time. The study also did not include birthing and breastfeeding individuals who would be able to validate the perceived barriers and facilitators identified by key informants and survey respondents. The NYS legislature's resolution was utilized to determine the study sample. However, several of the study participants stated that they had breastfed in the past and experienced challenges, and they were all experts on breastfeeding. Every effort was made to recruit study participants who worked directly with breastfeeding and birthing individuals, especially in those communities most likely to experience breastfeeding disparities.

Data collection time was limited due to the need to quickly provide findings and recommendations. Although the study sample was large, the research team would have benefited from a longer timeframe to recruit experts who serve additional populations who experience breastfeeding disparities that are not as well understood, such as indigenous populations, immigrants/refugees, LGBTQIA+ individuals, and persons with disabilities.

Key informants may have experienced recall bias of past events and perceptions of barriers and facilitators experienced by breastfeeding individuals. Also, key informants' personal experiences with breastfeeding may have impacted their perceptions of barriers and facilitators. In addition, the key informant interviews and survey were only available in English. Therefore, this may have excluded important NYS and national experts who have additional perspectives on serving diverse breastfeeding individuals, particularly those who speak and read in a primary language other than English.

A lack of racial/ethnic diversity of the research team could have had an impact on the analysis, as well as the responses provided by key informants during the interviews. Although every attempt was made to reduce bias in this study, the researchers' personal biases and experiences with the topic could also have had an impact on analysis and identification of major themes.

Finally, although the data collection instruments were carefully designed and shared with NYSDOH staff for review and comments, they could have benefitted from additional piloting prior to widespread use for this study. The research team experienced challenges when coding and analyzing breastfeeding facilitators due to the key informant interview participants often only focusing on barriers to breastfeeding when asked this specific interview question.

CONCLUSIONS

This study captured the perspectives of 298 New York State and national breastfeeding experts during mid-late 2021. Data were collected during a widespread worldwide and national crisis, the COVID-19 pandemic, which has likely exacerbated breastfeeding

disparities, like it has for most all other health-related disparities in the United States. National and New York State experts acknowledged that NYS has taken steps to support breastfeeding in the state. However, they made a significant number of recommendations to further support birthing individuals, especially those individuals most at risk of experiencing breastfeeding challenges and disparities.

Although providing more breastfeeding education is a central theme in this report, this is only one recommendation, and specific recommendations were made regarding how, when, and who should be educated and/or providing this education. As discussed at the beginning of the report, study participants emphasized the need to take a social ecological approach to designing interventions to address breastfeeding interventions. As can be seen from the findings, most recommendations provided by the study participants did not focus on the birthing individuals themselves, but rather their environmental settings, including the peers, family, employers, community and healthcare providers with whom they interact.

Although this study was mandated to investigate ways to address breastfeeding disparities pertaining to race and ethnicity, study participants emphasized that it is important to understand that disparities do not exist due to race. Disparities exist due to the implicit biases and historical and systemic racism that have existed over time that have caused significant issues and structural barriers related to the social determinants of health (e.g. poverty, housing and food insecurity, etc.) and a lack of access to services. Study participants also emphasized that there are numerous examples of immigrants and refugees, from many races and ethnicities, who would often breastfeed in their home countries but when they arrive in the United States, they see using formula as “the American way,” and thus, they do not proceed with breastfeeding. Consequently, this demonstrates the impact the environment and the U.S. culture have on breastfeeding, including in New York State.

Study participants also emphasized that it is critical to ensure that breastfeeding disparities are also considered for other individuals and groups. This includes people working in certain types of jobs, individuals with disabilities, individuals who have mental health issues and/or who have experienced trauma (e.g. domestic violence, sexual abuse), and individuals who are from communities who often experience barriers accessing culturally appropriate healthcare (e.g. members of the LGBTQIA+ community).

In sum, this report provides insights and recommendations on how to address breastfeeding disparities in New York State from individuals whose primary role is to support birthing individuals. Many of these findings are specific, repeatedly emphasized, and could serve as the basis for funding and policy considerations. However, for next steps before any policies or programs are developed, it is recommended that members of the priority population are engaged in discussion to ensure that the interventions created are responsive to their specific needs, and their communities can be involved in designing, implementing, and evaluating any actions taken to support breastfeeding individuals in New York State.

REFERENCES

1. New York State Public Health Law 2500-1. 2019. S6707/A6986. https://www.nysenate.gov/legislation/bills/2019/s6707 Accessed March 28, 2022.
2. Sriraman NK, Kellams A. Breastfeeding: What are the barriers? Why women struggle to achieve their goals. J Womens Health. 2016; 25(7):714-722. http://doi.org/10.1089/jwh.2014.5059.
3. Office of Disease Prevention and Health Promotion. Healthy People 2030. U.S. Department of Health and Human Services. n.d. https://health.gov/healthypeople/objectives-and-data/browse-objectives/ Accessed March 20, 2022.
4. Centers for Disease Control and Prevention. Division of Nutrition, Physical Activity, and Obesity. Breastfeeding report card, 2020. https://www.cdc.gov/breastfeeding/pdf/2020-Breastfeeding-Report-Card-H.pdf Accessed March 20, 2022.
5. Li R, Perrine CG, Anstey EH, Chen J, MacGowan CA, Elam-Evans LD. Breastfeeding trends by race/ethnicity among US children born from 2009 to 2015. JAMA Pediatr. 2019;173(12):e193319. doi:10.1001/jamapediatrics.2019.3319.
6. Chiang KV, Li R, Anstey EH, Perrine CG. Racial and ethnic disparities in breastfeeding initiation — United States, 2019. MMWR Morb Mortal Wkly Rep. 2021;70(21):769-774. doi:10.15585/mmwr.mm7021a1.
7. Brown HL, Small MJ, Clare CA, Hill WC. (2021). Black women health inequity: The origin of perinatal health disparity. J Natl Med Assoc. 2021; 113(1):105-113.
8. Center for Social Inclusion. Removing barriers to breastfeeding: A structural race analysis of first food. 2015. https://www.raceforward.org/system/files/pdf/reports/2015/CSI-Removing-Barriers-to-Breastfeeding-REPORT.pdf. Accessed March 7, 2022.
9. U.S. Department of Health and Human Services. Office of the Surgeon General. The Surgeon General's Call to Action to Support Breastfeeding. 2011. https://www.cdc.gov/breastfeeding/resources/calltoaction.htm Accessed March 20, 2022.
10. World Health Assembly, 71. Infant and young child feeding. World Health Organization. 2018. https://apps.who.int/iris/handle/10665/279517 Accessed March 20, 2022.
11. McDonald N, Schoenebeck S, Forte A. (2019). Reliability and inter-rater reliability in qualitative research: Norms and guidelines for CSCW and HCI Practice. In Proceedings of the ACM on Human-Computer Interaction. 2019. 3(72). https://doi.org/10.1145/3359174
12. Snyder K, Hulse E, Dingman H. et al. Examining supports and barriers to breastfeeding through a socio-ecological lens: A qualitative study. Int Breastfeed J. 2021;16(52).https://doi.org/10.1186/s13006-021-00401-4.
13. Lumbiganon P, Martis R, Laopaiboon M, Festin MR, Ho JJ, Hakimi M. Antenatal breastfeeding education for increasing breastfeeding duration. Cochrane

Database Syst Rev. 2016; Issue 12. Art. No.: CD006425. https://doi.org/10.1002/14651858.CD006425.pub4
14. Glaser DB, Roberts KJ, Grosskopf NA, Basch CH. An evaluation of the effectiveness of school-based breastfeeding education. J Hum Lact. 2016;32(1):46-52. doi:10.1177/0890334415595040
15. Hirani S. Breastfeeding in public: Challenges and evidence-based breastfeeding-friendly initiatives to overcome the barriers. Clin Lact. 2021;12(3):137-144. doi:10.1891/CLINLACT-D-21-00010
16. Albert JB, Heinrichs-Breen J, Belmonte FW. Development and evaluation of a lactation rotation for a pediatric residency program. J Hum Lact. 2017;33(4):748-756. https://doi.org/10.1177/0890334416679381
17. Asiodu L, Bugg K, Palmquist AEL. Advancing breastfeeding equity and justice in the Black community: Past, present, and future. Breastfeed Med. 2021;16(6):447-451. https://doi.org/10.1177/0890334416679381.
18. Pérez-Escamilla R, Martinez JL, Segura-Pérez S. Impact of the Baby-friendly Hospital Initiative on breastfeeding and child health outcomes: A systematic review. Matern Child Nutr. 2016;2(3):402-417.
19. Johnson AM, Kirk R, Muzik M. Overcoming workplace barriers: A focus group study exploring African American mothers' needs for workplace breastfeeding support. J Hum Lact. 2015;31(3):425-433.
20. Standish KR, Parker MG. Social determinants of breastfeeding in the United States. Clin Ther. 2022; 44(2):186-192.
21. Papautsky EL, Rice DR, Ghoneima H, McKowen ALW, Anderson N, Wootton AR, Veldhuis C. Characterizing health care delays and interruptions in the United States during the COVID-19 pandemic: Internet-based, cross-sectional survey study. J Med Internet Res. 2021;23(5):e25446. doi: 10.2196/25446

TABLES

FIGURES

APPENDIX

A. Key Informant Interview Guide – Individuals who work in breastfeeding promotion in NYS

B. Key Informant Interview Guide – National Breastfeeding Experts

C. NYS Breastfeeding Disparities Study Survey

Table 1. Acronyms used in this report	
AAP	American Academy of Pediatrics
BFH	Baby-Friendly Hospitals
BIPOC	Black, Indigenous and People of Color
BQIH	New York State Breastfeeding Quality Improvement in Hospitals Collaborative
CDC	Centers for Disease Control and Prevention
CDTA	Capital District Transportation Authority
C-Section	Cesarean Section
CHAMPS	Communities and Hospitals Advancing Maternity Practices – program implemented in Mississippi
CHES	Certified Health Education Specialist
CLC	Certified Lactation Counselor
CME	Continuing Medical Education
CMS	Centers for Medicare and Medicaid Services
COVID-19	Coronavirus pandemic that began in 2019
DEI	Diversity, Equity & Inclusion
FMLA	Family Medical Leave Act
HEDIS	Healthcare Effectiveness Data and Information Set
HCP	Healthcare Provider
IBCLC	International Board-Certified Lactation Consultant
IRR	Inter-rater reliability
LGBTQAI+	Lesbian, gay, bisexual, trans, queer, asexual, intersex
MICHC	NYS Maternal and Infant Community Health Collaboratives Initiative
MIECHV	NYS Maternal, Infant, and Early Childhood Home Visiting Initiative
MBA	Master of Business Administration
MD	Medical Doctor
MOA	Mechanism of Action (drug safety)
MPH	Master of Public Health
NICHQ	National Institute for Children's Health Quality

NICU	Neonatal Intensive Care Unit
NYSDOH	New York State Department of Health
OB	Obstetrician
OUD	Opioid Use Disorder
PFL	Paid Family Leave
PCOS	Polycystic Ovary Syndrome
PDSA	Plan, Do, Study, Act
PhD	Doctor of Philosophy
RN	Registered Nurse
ROSE	Reaching Our Sisters Everywhere
PRAMS	Pregnancy Risk Assessment Monitoring System
SDOH	Social determinants of health
SES	Socioeconomic status
SPH	School of Public Health (University at Albany)
UNICEF	United Nations Children's Fund
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
WHO	World Health Organization

Table 2. NYS Regions in which Respondents' Organization Provides Breastfeeding Support Services (Note: Respondents could select all that apply.)	
New York City (Bronx, Brooklyn, Manhattan, Queens, Staten Island)	26.5%; (n=67) of respondents selected this response
Central Region (Broome, Cayuga, Chenango, Cortland, Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego, St. Lawrence, Tioga, Tompkins)	20.9%; (n=53) respondents
Metropolitan Area Region (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester, Nassau, Suffolk)	18.6%; (n=47) respondents
Western Region (Allegany, Cattaraugus, Chautauqua, Chemung, Erie, Genesee, Livingston, Monroe, Niagara, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Wyoming, Yates)	15.8%; (n=40) respondents
Capital Region (Albany, Clinton, Columbia, Delaware, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington)	13.8%; (n=35) respondents
Selected more than one	3%; (n=8) respondents
I am a national expert/I do not work in New York State	1%; (n=1) respondents

Table 3. Breastfeeding Facilitators – New York State and national key informant interview results		
	Key Themes	Select Quotes
Individual/Intrapersonal level		
Considerations for the Birthing Individual	• Access to prenatal education (and the sooner the better)	"Prenatal breastfeeding education classes and preferably before the woman every considers even becoming pregnant (in middle school/high school settings)." "So, but again, it all comes back to the prenatal education. If the mother knew ahead of time that this is what's going to happen - she's only going to have drops of colostrum. You know you would walk around with this on, you know, how small the baby's belly is and their expectations are normalized, right? They don't know that this is what's going to happen to them … because that's what they think, the baby is starving. So, education, that's really helpful."
Interpersonal		
Supportive Personal Networks	**Supportive personal networks is a main facilitator for breastfeeding.** • Generational support / role models • Supportive partner/family/peers	"Yeah, so having friends, neighbors, trusted people family who are supportive of that option or an even better did it themselves is a huge positive influence." "Either partner support or having you know someone else in the house that's encouraging them to breastfeed and not discouraging them." "Breastfeeding role models in the family or near friends, a supportive spouse. " "So, a supportive, informed or really willing to learn an adaptable family, including the partner, the grandparents, their peer circle, you know, those who had a family members who have breastfed, and had some level of success with breastfeeding. So, you know, those that respect the direction that this parent has made around the decision to breastfeed." "If it's the family norm, then they'll do it."
Community Level		
Community Norms	• Community and school exposure	"...positive and frequent exposure to breastfeeding in the community." "People breastfeeding. I mean when people see things that make it normative wherever they see them. Hearing your faith leaders say we support breastfeeding hearing again trusted members of your community, whoever they are speaking to this and then having the resources to do it successfully." "When I've asked people who are traditionally in groups or who have said that their family, no one in their family has breastfed, and I say well how did you choose. Many of them actually say high school projects or other projects that they've done in school or at university where they've learned about it and decided that it's the best course for them."

		"..the influencers in their immediate kind of family and friends circle, kind of what's the general norm in their community, and then how the institutions treat people." "I just feel like it's the community and the environment they're placed in, you know? Does it nurture their desire to breastfeed? Does it support that?" "I also think feeling comfortable breastfeeding in public, are all sort of most important things."
Community Resources	**Having access to resources in the community is a main facilitator for breastfeeding.** • Access to trusted sources/allies to build relationships • Culturally-relevant support • Access to support groups (e.g., Baby Cafes), WIC peer counseling, home visiting programs, etc. • Support that addresses the SDOH	"Talking to those who have similar situations helps them to build their confidence." "And so until we can help them meet their basic needs, that's how our Baby Cafes are more than just breastfeeding. It's weird - stuff is on sale, where you could get emergency diapers, oh I heard they're hiring over here, or with COVID, I'm just so scared." "Community groups that can answer the questions that they may have in the context of their everyday living." "I'm really focusing on breastfeeding support in the community as we talked about kind of across the community from community members matters, there's a language, there's a set of similar assumptions that people make, a similar background." "And, with the way that OB appointments are set up currently, that's not something that they really have a significant amount of time to be able to talk about. And that's where baby cafes, breastfeeding classes, things of that nature come in and our nurse home visitors are really well positioned because they're dealing with parents from at least 28 weeks at the latest to delivery, to be able to have those conversations over a period of time."
Healthcare Sector - **Support from the healthcare sector is a main facilitator for breastfeeding.**		
Lactation support	• Lactation resources covered by insurance • Early access to support • Community referrals • Home visiting lactation services • Diverse and knowledgeable lactation support professionals	"Through a dedicated IBCLC or some type of home visiting program with a person knowledgeable in lactation consulting." "Breastfeeding support obviously with a specialist at first feeding attempts when possible right after birth. Breastfeeding or pumping within the first six hours after birth." "The support in the hospital. Right, so the idea that we don't knee-jerk to formula that you know early supplementation actually really does matter, and then having adequate access to outpatient support. That is not an out-of-pocket fee delivered by somebody who doesn't look like you or understand your background. So, somebody who understands your background, understands where you're from and can be reimbursed by insurance."

		"I think people need support throughout – prenatally, immediately after birth, and during the critical period of establishing milk supply, which is really within that first month - it can vary based on the situation."
Medical Provider and Systems Support	• Continuity of care across settings • Care managers to assist with referrals • Culturally appropriate care • Consistent messaging • Relationships with community groups	"..they all have care managers right on staff, they hook these girls up with. And then they are making sure that referrals are made." "...especially here in the hospital, consistent messaging is really important." "So, providers that can easily access and have relationships with community groups, that respect the community groups of having a skill set that complements the work that they're trying to achieve." "So, if all of those organizations across the prevention continuum enforce policies that are supportive of breastfeeding so that parents can make an informed choice, then people are more successful." "Most of our interface with the patients is at the level of the hospital, and so I think that's been helpful - when you have every single individual in the hospital regardless of what your role is in the hospital being a support for breastfeeding…..staff being able to speak regarding breastfeeding, etc. is very helpful, and also actively saying 'We recommend that you breastfeed' as well as talking about sort of the benefits of breastfeeding, as well as the risks of not breastfeeding -- you know, what can happen when you don't breastfeed. So I think when we explicitly state that, that's really helpful. And patients knowing that we support them and want to help them." "And we need to converse with them and help them understand what can be done to address challenges and concerns that they've raised and not lecture them what they should be () with their lives and their families. They themselves are the experts in their own lives so I think meaningful conversations with them about their goals and their circumstances, and what challenges they're facing and how we might work together to address those challenges. So I think that's the first and foremost thing is to really focus in on individualized care and appropriate conversations."
Educated Healthcare Professionals	• Knowledge on when referrals are needed • Understanding the unique needs/situations impacting individuals (SDOH) • Understanding how culture, health literacy and language impact health	"...be knowledgeable and skilled in being able to support breastfeeding, assess breastfeeding and know where to get support if additional expertise is needed." "Being able to refer where they need to go to for resources or additional help with the feedings and the questions." "An individual having language competency, health literacy, and knows how to provide families with proper information to prep for breastfeeding."

	and breastfeeding outcomes • Mental health support • Implicit bias training • General training on breastfeeding for all healthcare providers serving breastfeeding individuals • Lactation training that is available in other languages	Staff who has cultural humility, patience, and cultural empathy plays a huge part in if an individual will breastfeed." "...access to mental health services because we do know that the research shows that women who have untreated depression or other mental health issues, or it could potentially be...an impact on their ability to breastfeed or bond with a child." "So I think being knowledgeable about which ethnic groups are more likely to initiate breastfeeding and be interested in doing it. One should not make any assumptions, and should always address the issue with the woman. You should also be prepared for that active counseling, initial reluctance or lack of knowledge."
Baby-Friendly Hospitals	• Access to high level supports and education	"And so, certainly the positive impact I think is prenatal exposure, you know, education or counseling on the benefits of breastfeeding support in the hospital, that's baby friendly hospitals - the gold standard for maternal care practices related to infant feeding support postnatally." "...success depends on other parts of the continuum being supportive of breastfeeding starting with hospitals. So, If all of those organizations across the prevention continuum enforce policies that are supportive of breastfeeding so that parents can make an informed choice, then people are more successful." "..a lot has to do with her hospital being supportive and Baby-Friendly is a big part of it." "Women make many of their decisions on the basis of the advice that they get from their clinicians and not just at the time of making that decision, not just during prenatal care but messages that they get kind of throughout their experiences in healthcare."
Workplace	• Policies that support accommodations • Supportive employers, supervisors who help individuals transition back to work • Flexibility and adequate space to pump • Provision of childcare • Paternal leave	"..touching base with their employer and making sure that their employer is supportive and that they have a plan for how she's going to transition back to work." "And then of course safe workplaces and adequate pay in those workplaces, adequate flexibility in their jobs to be able to take the time to express milk, as well." "Being able to pump at work and being able to have time." "So be able to have that support in the workplace, so that they can combine breastfeeding, with being able to provide financially for their families." "the maternity leave, and preferably paternity leave to go with it because it gives the fathers a different stake in raising the child and particularly the breastfeeding piece."

Paid Family Leave	• Access to leave benefits • A fully paid 12 weeks	"I would say policies at the local, state, and federal level around paid family leave is generous paid family leave, where you can afford to take time to establish breastfeeding." "...adequate paid leave for new mothers including time off for moms to heal themselves as well as learn from and bond with their newborns during the so called fourth trimester." "So the policies, you know paid family leave and making sure it trickles down to the people that can't advocate as much for themselves, you know, in some in the workplace because the fear of being fired and all that. So, even the ability to file a complaint should not be nebulous and should not be in a way where retaliation can happen."
Other	• Access to donor milk • Access to breast pumps	"Introduction of donor milk as, and you might be thinking that it's counterintuitive, right you think you're giving donor milk. You're making it easy for the woman but if the donor milk serving as a bridge milk for mothers until their milk comes in like for full term babies." "We tend to focus on what I have termed 'blaming the mother.' So we try to kind of fix the mother when in fact, much of the reasons why women are not able to either establish or sustain breastfeeding has to do with what happens in the systems around them in particular, some of the institutional practices that happen that are either breastfeeding specific practices or other practices that go on that undermine breastfeeding and in a direct or indirect way." "They should have access to breast pumps prenatally. I think sometimes there are tools that are needed, not always, but if there's latch issues or preterm deliveries, everything else milk supply issues, and it is helpful to have that."

Table 4. Barriers to Initiation of Breastfeeding – New York State and national key informant interview results		
	Key Themes	Select Quotes
Individual/Intrapersonal level		
Considerations for the birthing individual	**Lack of prenatal education is a major barrier to initiation** • Difficult pregnancies and/or birthing experiences • Lack of prenatal education (e.g. knowledge of mechanics, low milk supply perceptions, latching challenges, infant nutritional requirements, overall benefits, etc.) • Age factor (e.g. teens) • Cultural beliefs that breast milk is not enough • Personal, mental and physical well-being • Medication and misinformation on contraindications • Substance abuse • Fear of pain or discomfort • Personal choice/convenience	"I think people who have had difficult pregnancies and difficult birth experiences, it ends up being just one more thing at a very difficult path, that's just sometimes a little bit too much and they say 'I just can't do this." "They also fear that baby will not get enough milk and the health implications that come from that." "And cultural beliefs that breastmilk is less than formula, so infant needs both." "I think that prenatal counseling is so important as far as the health benefits. I don't think in some cases that women are knowledgeable about the health benefits and consider formula equivalent to breastfeeding." "I think it probably also has to do with the more natural birth experiences - feeling better after birth having fewer medical complications, right and then actually feeling physically capable of initiating." "These moms may not even be able to initiate because of having a NICU baby or perhaps they start breastfeeding and then have to stop to address these healthcare needs." "There are women who have substance abuse challenges, and you know it may not be recommended even for them to breastfeed you know. They may have stopped drinking or using substances when they were pregnant and are starting to do so again. They may have started oral contraceptives. Again, I think there's a lot of information misinformation out there about whether you can start back on the pill and continue to breastfeed." "And those families really struggle with navigating the birth, their provider their support team, and their mental health status, and now trying to breastfeed a baby." "They might be afraid of the pain from what other people have described from their experiences." "And, you know, pain, not being able to figure out the latch right; the difficulties of not being able to figure out the latch and not being able to figure out newborn behaviors that

		are either normal or, you know the baby likes the bottle better - lots of those kinds of experiences as well." "So there might be some people that just don't want to have a baby on their breast." "I think everybody knows that breast milk is better than formula, but they see it as convenience, right? Just convenience."
Interpersonal Level		
Unsupportive Personal Networks	**Unsupportive personal networks is a major initiation barrier** • Single individuals • Unsupportive partner/family • No family history or role models • Negative stories from family or friends • Family members wanting to share in the "feeding" to bond with the child • Perception of the use/purpose of breasts • Balancing demands of family life, multiple children	"I think that some cultures are not particularly encouraging of breastfeeding it's just less common, women didn't see their sisters doing it, their friends doing it." "So, that might be the case in a lot of Black American families - if you come from a background where you don't really have any role models who have done it or doing it or no family members or friends who've done it, and you don't really know anybody who's doing it, then you're not likely to do it yourself." "So, the folks that choose not to breastfeed, a lot of times they have no one in their community and in their social network that has breastfed." "Family could not successfully breastfeed and sharing bad stories reduces their confidence to try breastfeeding." "Certainly, individual influences - you know the grandmother saying, 'Oh I didn't breastfeed. So, you know, and you've turned out fine." "Those are mine - not for the baby." (Referring to the partner's perception) "What I see is they're not usually first-time moms. Their second or third time, and they know how hard it can be. And, or they need help, and they know they are just going to do the formula because daddy, or the partner, or their mother is going to help them and that there's no talking to them."
Community Level		
Community Norms	• Feelings of unacceptance • Formula use is the "American way"	"I think that when you have a community of people who mostly don't breastfeed then choosing to breastfeed not only feels like a challenging thing to do, like physically, but also sort of like emotionally and socially, where you feel like you know 'I want to go to the park and with all the other moms, but people give me looks when I'm feeding my baby." "I think in some cases there's not experience or knowledge with breastfeeding and some of these populations and I think some of the immigrant populations. They traditionally

		would breastfeed in their home country, they come here and they want formula, because they think it's better for mom." "So, for example, some immigrant women may decide that they're not going to breastfeed because even if they've breastfed previous children in their home country, because they think that formula is the American way, they want to assimilate."
Lack of Community Resources	• Lack of support after birth (access and cost) • Lack of community resources	"You get support you need in the hospital, but then when you leave the hospital there's such little support out there." "I know I've had women in my office who they've paid a lot of money to get support when they needed it too so making that accessible to women, and making it known that it's available too and that's a whole other issue but I think there's just so many different layers."
Healthcare Sector		
Limited Lactation Support	• Lack of access to specialized support in clinical settings • Lack of diverse providers to serve diverse populations	"Perhaps there's not as many lactation staff on the hospital staff to promote and encourage them to at least try it." (research participant who serves rural population) "There's so many barriers unfortunately to women who have lesser means becoming, you know IBCLC and that's promulgated by the lactation consultant community, in terms of what the requirements are that we end up with a proliferation of women who are white .....we are lactation consultants who really don't have the kind of cultural humility and the skills necessary to support women who look different."
Lack of Medical Provider Education	• Lack of cultural and structural competence • Lack of mental health support and counseling • Limiting to "breast is best" messaging • Use of formula to manage complex/challenging cases	"And sometimes I hear a lot of education of breast is best, but providers are not giving the actual education. So, I think that's important - the providers are educated and being able to kind of like tease out "Okay well your blood pressure is high' and make it important to them because nobody wants to do what everybody saying is best; they want to do what makes sense in their particular situation." "And there's pretty good literature that health care providers are supportive of breastfeeding in words, but then don't have the skills to really help women, so they don't do a good job with counseling, because they don't. They get these kinds of mixed messages often. They say, 'Well I don't really want to talk about it because I don't want to make the mother feel guilty.' But then when there are problems with breastfeeding, as there are for many women, we can't say that this is, you know, always so natural." "Their health care providers need to have the skills to help mother when the latch is not going right, when her milk supply isn't coming in as you thought it would, when she's having some issues, and they need to be able to deal with those issues. And most healthcare providers don't know what to do. They will just say, 'Keep trying. Try harder.'

		And they kind of throw up their hands when there are issues to deal with, and the easy answer is ‘Well you probably should supplement that baby.”
Lack of medical provider support	• Mixed messaging with formula promotion in offices • Competing influences from family members • Less support for overweight women • “It’s easier” attitude • Conflicting guidance from medical providers and lactation professionals • Lacking staff that are representative of the community they serve • Assumptions individual will not want to breastfeed in subsequent pregnancies • Separation of birthing individual-infant after delivery	“Some are very supportive of breastfeeding and some have formula available in the peds office.” “But the support piece I think is a really big part of it because when a health care system tells people you should breastfeed, but then we don't offer breastfeeding support within the system, we're basically saying ‘You should, but it's not actually important, like it doesn't really matter because we're not doing anything to make that happen for you. Not doing anything to educate you; we're not doing anything to support you, and when you do have problems, we're going to offer you formula instead.’ That really kind of sends the opposite message of the words ‘You should breastfeed.” “...the medical care staff in the hospital no longer sees them as a woman who wants to breastfeed, they see them as a woman with obesity with major metabolic problems, and they don't prioritize helping them to breastfeed if they know how to.” “I've even been told by some moms, and this is not hearsay, this came directly from the mom's mouth, ‘Well then bottle feed. It's easier.” “My sense is that we may also not spend as much time working with women who didn't breastfeed for their first child, but making the assumption that they aren't going to want to breastfeed, you know, for this one so there may be some missed opportunities in working with women in subsequent pregnancies because we certainly have seen the evidence showing that if it's the mother to be her last child, she may be more motivated to breastfeed because she kind of wants to do the best you can, for this child.” “And then of course infant separation, which is often one of the real barriers, right? If the infant has to be separated for even jaundice right anything that could be managed together, but isn't for issues of, you know how the rooms are built, or how the staffing is laid out; those kinds of separations I think are really impactful.” “You know, where we've already, kind of labeled people as who we think may be successful breastfeeding, so I think there's a lot of kind of implicit bias that's going on with this and, down to even people who are lactation specialists.”

Baby-Friendly Hospital Barrier	• Limited access to these hospitals for disparate populations • Implementation not always seen as positive by staff	"One of our local hospitals, which I'm very happy to hear is going to be applying to be breastfeeding friendly, so I know they're trying very hard. But because they're trying very hard, a lot of the participants are taking it the wrong way...but they don't want to be told what to do. So they see the nurses are forcing some participants to breastfeed and won't give them the formula right away."
Workplace		
Return to Work	**Returning to work is a major initiation barrier** • Accommodations not being provided, particularly in service industries, schools (for both staff and students), and healthcare settings • No dedicated lactation space • Unsupportive supervisors/employers • No flexibility with breaks • Birthing individuals unaware of policies that would support them at work • Birthing individuals' perceptions that they will not be supported when returning to work • Fears of losing job • Childcare not on site	"Moms think that if they're going to have to jump through all these hoops that seem impossible 'What's the point in even starting to breastfeed?" "A big thing is when we have parents that are having to return back to work at 7,10,14 days after delivery. You know, there's so much going on and initiating breastfeeding knowing that they're not even really going to have a solid feeling on how this is going when they're having to go back to work full time and in an environment that might not be breastfeeding-friendly even with the protections that are in place. Sometimes they're just going to choose not to." "The job may not even have a space for lactation. I look at some of these fast-food places because you know, like some of these chains have certain configurations choices to how the building can be constructed." "Afraid to start something and then having to end it because they are going to go to work. And they might not have the support or policy, or they're not aware of, policies that support them." "I think, more commonly I hear you know misinformation about breastfeeding and needing to return to work or school and not feeling there's going to be adequate accommodations." "I mean I've heard these crazy stories about women in certain positions like a bus driver story where she said CDT a bus driver and we get a 15 minute lunch break to pump and couldn't efficiently do it in 15 minutes plus - Where did she go? She ended up in the emergency department so engorged that she could not get the milk out because her job didn't support her."

Paid Family Leave	• Limited or no paid leave benefits due to type of job/part-time work • Unable to take full paid leave for financial reasons; leave benefits insufficient for low SES individuals	"..is the fact that the American women do not have maternity leave. So, our mothers here are returning back to work after being NICU patients. They going back to work, to keep their sick leave, and families that they have unpaid leave." "If an individual is fortunate enough to have Paid Family Leave, that's one thing, but others have to rush back to work shortly after having a baby."
Additional Key Concerns/Categories		
Social Determinants of Health	• Lack of transportation • Housing insecurity • Poverty / Low income • Safety Issues • Lack of Education	"Um, the other thing is several unmet basic needs: housing, work, safety, food, those living in shelters sofa surfing - their day is tenuous, they don't know what the day is going to look like." "We want people to meet their goals. But when I look at it, it's more of like if you're low income, if you have a low education level. So, it's just a trend - the lower the income you are or the low, the low-income neighborhood if you live in a lower income neighborhood, then you're not as likely to initiate breastfeeding. Even though I feel like we still have pretty good initiation rates. That's so it's really the circumstances, I think, I think income. Education is just a huge factor."
Breast Pump Access	• Affordability and access to high grade pumps • Teen moms having access to pumps in school settings	"It's the poor in our community so you know some are like 'Well I can't afford that, and my insurance isn't going to cover that." "But with hospital grade pumps, we are having trouble with that still seems to be scarce in the community. The hospitals stopped renting them. I don't know why, could be insurance things going on, but we've it's come up in our coalition meetings and so again for those moms who have NICU babies have trouble initiating breastfeeding. Whether it's something the mom's dealing with or the baby's medical issues. They need a hospital grade pump, and it's very difficult when they go home to rent one. " "Because again, like I said, NICU babies, early breastfeeding initiation challenges with moms and babies - a hospital grade pump is the number one way to help bring in your supply."

Availability of Formula	• Formula promotion in hospital and doctor office, samples from registries • Rooming-in challenges	"...oh well that's easy - formula is in this office, I'm just going to do formula feeding." "So, the marketing, I think the marketing formula companies are very insidious, and I think that also, you can get a prenatal appointment at your doctor and a week later you will get a case of formula delivered to your door, so I think that has a lot to do with it." "So, in rooming is a challenge, participants who come to WIC, they want their break, they don't want, they still want the nursery. And so, you know, they don't mind the baby being supplemented. You know their baby will be fine."

Table 5. Barriers to Continuation of Breastfeeding – New York State and national key informant interview results		
	Key Themes	Select Quotes
Individual/Intrapersonal		
Considerations for the birthing individual	• **Lack of education of the birthing individual is a major barrier to continue to breastfeed** • Lack of prenatal education (e.g. knowledge of breastfeeding mechanics, nutritional requirements, benefits, baby cues, etc.) • Perception of low milk supply • Age factor (e.g. teens) • Personal, mental, and physical health • Victims of domestic violence, personal trauma • Fear of pain/discomfort • Medication and drug Use (impacting ability to produce milk, also withdrawal issues) • Obesity and chronic disease impacting milk supply • Tongue tie	"Mothers do not receive instruction on how to properly breastfeed or how to manage any pain that may come with breastfeeding. They are not aware of techniques that may help them work through pain or get more milk or even how to properly hold the baby. Some women may think they aren't producing enough because they just don't have the education of what is "normal" or "right." Women get frustrated with these setbacks so they just stop." "Well, so, a lot of people stop because they have the impression that they're not making enough milk." "...they have a tongue tie or you know something, anatomically going on. " "Again, it hurt. It hurt. It hurt; they ran out of milk." "So, these moms are quite young, but we see a lot of diabetes, hypertension, chronic stress, mental health issues, and all these things can impact the body." "Lack of education – they believe they do not make enough milk; baby is fussy during growth spurts and cry pushes them to use formula to satisfy baby's hunger - but do not know that this is normal and that breastfed babies need it more frequently." "I'm not certain that we're really adequately teaching about baby behavior." "...mothers on maintenance drugs like buprenorphine and suboxone, they're tending to have a harder time to start or keep breastfeeding. They are getting that messaging from their primaries that they should breastfeed to begin with, but once they continue, it's hard to keep up with that because of the way the drugs interact with their bodies and producing breast milk." "You know, when people are having problems that arise - either pain, soreness, that perceived or perception of a low milk supply when it's not going the way they expected it to go. I think people start to rationalize, and that emotional regulation and shift when they can't get support or help and somebody's not there, then they don't continue."
Interpersonal Level		

Unsupportive Personal Networks	• **Unsupportive personal networks are a major barrier to breastfeeding continuation** • Single individuals • Unsupportive partner/family • Negative stories or experiences • Perception of the purpose/use of breasts • Balancing demands of family life, multiple children	"A father, who literally said to me 'My wife's breasts are for me, they're not for breastfeeding.' The mother was struggling - she wanted to provide the breast milk but at the same time she didn't get the support, and the support being so close I mean being in her home." "They don't always hear from those who have successfully breastfed - they tend to hear from those who either themselves, or someone else had so many challenges." "Does she have support at home to take care of this baby? And by that, I mean, at least one other adult in the household, who is supportive of breastfeeding?" "Now they're out in their environment and their home setting and that environment that home environment may be so chaotic and sometimes too chaotic, to be able to find that space and place to breastfeed…"
Community Level		
Community Norms	• Feelings of unacceptance (may vary by setting) • Formula use is the "American" way	"My mom was going to give me formula because that's what they were doing here, and she had her American baby and this is what they do for babies in America." "So, an unsupportive community because the community doesn't understand breastfeeding, as well." "But I think there's also - what does it look like in the community? When it's not the middle of COVID, can I go out and get a cup of coffee and feed my baby at the restaurant, or the coffee shop or whatever it is? Or can I take my baby with me...or I will take my baby with me when I'm in the grocery store or, you know, shopping for school clothes for my other kids and the baby's hungry what happens when I just pull over the little cart and plug the baby in? What are the messages that are sent?" "Yet, they have pressure from all fronts, and I think equally across the various institutions from hospitals to their worksites to where they can breastfeed in public and all that."
Lack of Community Resources	• Lack of referrals • Lack of access • Lack of individualized support	"And in their community, like where are the support groups, how can I reach a lactation consultant? And I think the physicians don't know as well and they could certainly be a source for disseminating that information. I think breastfeeding can be very isolating yeah and I was lucky to find a La Leche group." "Why would you allow them to commit breastfeeding suicide because you don't want to refer them to us?"

		"...that connection wasn't made that if I'm having this difficulty then I reach out to my WIC peer counselor or to my lactation consultant." "Sometimes I'll find that moms will deliver like in the city, but they live out here in the rural area, so they're not necessarily referred to me. Sometimes the pediatricians will refer them to me if they like work downstairs, but other times will be like, 'Well I found your number on this piece of paper.' And so they just happen to stumble upon it." "The group means you might not feel comfortable that you know they don't share the same experiences that that you experience so you're afraid you might feel you're being judged. So, it's important to have more spaces within their specific neighborhoods in the context of their life, where they can exchange ideas, get the support they need. And wrap around support - so I'm going to help you with latch, but I also know of this place here that's hiring, and they are pretty good at, you know, they're flexible."
Healthcare Sector		
Limited Lactation Support	• Barriers to becoming certified such as cost, language • Lack of access to individualized support in clinical settings • Lack of diverse providers to serve diverse populations • Delays in receiving specialized care (e.g. tongue tie) • Lack of insurance coverage for lactation support	"And the (lactation certification) test costs money. It's not free - it's $600 or more." "...but we also found that some of the (lactation consultant) trainings are only in English. And even though their English is not as good as their Spanish, in particular and picking about the Spanish, and one of them took the training course, and you know failed the test twice and it was really, just wasn't that she's not knowledgeable. It wasn't available in Spanish and that's her primary language." "You know when you don't get a lot of support, there's not a lactation counselor that you can tap into readily, you're not sure who to go to, you know your baby's not latching correctly but nobody has really assessed that for you." "So, if you can catch them when they need so whether that's lactation consultant in the hospital, they're available or outpatient lactation consultants, I think that that is a reason or lack of access to them, that's a reason not to continue." "You need the person - you need them available, need the money to pay them. And you have to be able to schedule a meeting with them and get to it. Get them to come to you, whatever it is that has to happen." "Lack of adequate follow up and support in even pediatric practices, some have lactation people, but very rarely do they see everyone."

		“A lot of times they make it into the pediatrician and the pediatrician you know watches it for a moment and then they get into, you know, they get an appointment and it's four or five six days before they end up in front of someone that can correct your tongue tie.” “And then of course that community cultural piece of knowing someone who has done it, having your lactation consultants understand where you're coming from.” “Also, we do not have, which is very important from the disparity point of view, a lot of women who are IBCLC. There is a real paucity of Black and Latina, and other cultural women who are IBCLCs, so we may have somebody that we depend on in the Bronx, but that doesn't help us in Brooklyn, or you know, or Manhattan, or any of the other areas and so there really needs to be a big change in that and the way that an IBCLC is formulated is not accessible to a lot of Black women.“ “...one on one with the moms that what they're up against is insurance not covering all the visits and stuff. We're not finding somebody in the community that can help them.”
Lack of Medical Provider Education	• Lack of cultural and structural competence • Not knowing when/where to refer • Lack of counseling support • Use of formula to manage complex, challenging cases or weight gain • Providers and lactation consultants not working together • Implicit bias	“And with time, the residents and then then the established doctors, put a body of knowledge about the anatomy and the hormonal and various other aspects of the stages of lactation, and also didn't know how to support women to breastfeed. So, we become very uneducated and not able to support mothers. “ “Switching to formula because the pediatrician says low birthweight.” “I mean most of the disagreements have, in my view, right, being that person in the middle, have to do with the lack of education of providers, and therefore the distancing of the lactation consultants, right? Because if the lactation consultants are not brought into the fold, and ...have nobody to trust in the medical community to interpret these data for them, then they're going to believe whatever they hear on community platforms or education or whatever right and so I think both sides needed to come together - the lactation consultants deserve a professionalized experience.” “In some hospitals at times they’re approached as if they don't want to breastfeed, the Medicaid population.” “And so when we see people stopping at three and four weeks, people may have reached what they had as their goal, so I think part of it is understanding, making certain that when we're doing any kind of analysis, we understand what an individual's goal was.” “Sometimes women are not able to articulate their health care needs in English which can cause frustration. Some minority women and women of low SES oftentimes have the

		decision made for them. Either because a healthcare professional just assumes they won't breastfeed or they're experiencing some type of domestic violence or lack of support in other circles in their lives..“
Lack of Medical Provider Support	• Conflicting guidance; lack of coordinated care • Lack of time to provide support	“Yeah, I think, conflicting information from health professionals, lack of skilled support.” “And I think populations without or with an inadequate access to that postpartum support are also less likely to continue breastfeeding, even if they do initiate it.” “I think pediatricians are quick. This is my assumption. This is just from what I'm hearing, are quick to push formula when they don't feel that the baby is growing appropriately. You know, like ‘It's not a fat baby’ and I'm like ‘Well it doesn't have to be a fat, baby. It just has to be a healthy baby and those are two different things, you know.’ So, I think they're really quick to push the formula aspect for a lot of moms and I'm not exactly sure why that is.” “I'm not certain that we provide adequate anticipatory guidance to mothers - of course you know they've just given birth. We're trying to give them so much information. And it's not just about breastfeeding but about all kinds of aspects of kids, you know, take bringing your baby home, safe sleep, and all that.” “So, trying to determine the root cause of the low supply -- is that maybe it isn't mom, is it baby, is it both, is there a latch issue? It's hard because of the pediatric office, there's a limited amount of space or time. And time is needed to assess, take a history, determine, like what is going on.” “I think sometimes they need someone to advocate for themselves. Downstairs they may see someone and say ‘Hey, can you see somebody today? Sure, send them up and come up,’ and they are just really discouraged, they are dragging their feet, so I don't know if it would be helpful to go out of the way to make the connection but because the pediatrician advocated for them so by the time we're done, we are like ‘Was that helpful?’ and They're like, ‘Oh yeah so there's so much happier.’ So, I think just having somebody that can speak for them is helpful.” “There needs to be good collaboration between providers and lactation, whether it be on the phone or through written documentation, and it can be ongoing. Obviously, we want to support each other. Pediatricians say we need to add formula, then the plan should be supporting that but at the same time supporting moms to breastfeed.” “Providers can sometimes not be supportive, not in that they don't want to be supportive, but they may not know how to provide the support-- they may not know the resources.”

Baby- Friendly	• Wider implementation of Baby-Friendly designation	"And these and other issues are addressed by the 10 steps to successful breastfeeding of the baby from the hospital initiative. That being said, I think we have a long way to go in terms of both implementing that policy at more hospitals, implementing it in a systematic way, and of perceiving equity."
Workplace		
Return to Work	• **Returning to work is a main barrier to breastfeeding continuation** • Early return for financial reasons or do not have paid time leave (especially for low-SES, rural populations, individuals with multiple or part-time jobs, etc.) • Milk supply issues due to initiation of pumping • Do not want to pump • Unsupportive work environments - particularly in service industries, schools (for both staff and students), and healthcare settings • Lack of dedicated space to pump • Lack of supportive supervisors/employers • No flexibility with breaks • Fears of losing job	"There are laws but it's not enforced. "Who are people going to call? They can't call the cops. Women feel they don't have rights and can be replaced." "It seems to always be work related. Either they work for companies that are not supportive or are too small and do not offer family leave." "Moms that are returning to work you know, stop earlier than they expected because it's a lot of work to pump at work and maintain a full-time job and almost all of our moms that have jobs have to go back to work quickly. " "Actually, specifically recently there was a worksite that we are working with that was a school, and one of their mothers was breastfeeding in an archive closet. She contacted us basically saying that she needed a proper space at work." "You hear or see programs on TV where people go pump at work and do all these great things, but a lot of underserved minority people don't have those types of jobs -- you're on your feet, you're working you don't have time to go to a sweet little room where you're going to pump and do all these things - it is not realistic for a lot of people." "Some of it has to do with return to work, especially return to work, whether they have support at work to be able to take breaks to pump and what type of work do they do. Everyone has all different types of jobs…, they may not have that type of job where they can take those breaks to three-hour breaks or have access to places where they can set you know feel comfortable pumping - the bathroom, etc., a place to wash your hands, etc." "So, I had someone that worked for schools, and she would walk over to our action centers, just to breastfeed and it was about a 15-minute walk, and it was because she didn't want to deal with her principal and getting her lactation room accommodations, she walked all the way to our action center to use it on a daily basis." "I have a mom right now who is a teacher...she shares the room with a male colleague- she doesn't have a lactation room and I'm working with the principal right now to accommodate and so three other women that are expecting and one that's returning. And she understands that their lactation room is going to be accommodations for her, but she's already two weeks

		in and she says that she doesn't want to go through the hassle to deal with her principal – it's heartbreaking." "I think the kind of job you have matters; you know, can you get a space? Can you take the time I mean, you know, the people who work at McDonald's have this problem, schoolteachers have this problem, nurses have this problem -- just assuming that breastfeeding is happening and working, everything else around that, as opposed to saying no, this is your job, and you have to work the breastfeeding around that." "But certainly, if you're working in a low income (job), you know where there isn't really an area that's private. It can be very challenging. And also, if you if you don't have paid leave, then you know people can't afford to take the time off. So I think that's a huge barrier. Breastfeeding success is much greater if the person has time off." "A lot of times women won't complain about lack of accommodation in the workplace for pumping or breastfeeding their infant because they don't know, they're afraid of losing their job." "Some of the women that returned to work were returning to grocery stores as cashiers, and then wasn't just so easy to slip away and pump or close the door to pump. Some of our moms had to you know take buses to work, and they were taking buses to multiple jobs, you know they work in the morning in the grocery store and then in the afternoon someplace else and you know busing place to place and just, you know, challenging circumstances." "I think the key is that the fact that women have to return back to work which necessitates them to pump, not breastfeed. And this makes pumping harder. Pumping by itself is associated with shorter duration of breastfeeding and perhaps is physiologic like hormonally triggered because the sensations and emotions and the hormonal response of the body of a woman with pumping is very different than in breastfeeding." "I could probably count on my hand the number of moms who actually stood up for themselves who went to their () in person and said, 'You know, no you don't that pump is here right. Give me, you know 15 minutes.' So, that's the other piece of it too. Those are populations that really need the help, are not supported in most of their workplaces. "
Additional Key Concerns / Categories		
Social Determinants of Health	• Lack of transportation • Housing insecurity • Poverty / Low income • Safety Issues • Lack of Education	"The other thing is, if they're in a house that they don't need to be in that house. Rats, roaches every kind of thing that you would not want to live with is in that house, they're too busy fighting off those things where it's just, they can't store their milk. They can't leave anything out for a few minutes."

	• Food insecurity • Systemic Racism	"I believe she was living in a shelter so there wasn't, you know that family to support or friends. And then made it, and then she just unfortunately, she gave up." "They did not have transportation - mom might be pregnant, she might have one or two other children." "Yeah, poverty. They don't have stores close by so their diets are not the best. They're to the point where they have to choose what they're going to buy if it's going to be a can of Spaghetti O's or some fresh vegetables and some fruit. Um, yes, they do get, they called the Royal package, if they're in WIC program, but if you don't have a grocery store in your neighborhood and you have to buy it from the corner store it's going to be double the price." "So we've talked about systemic racism and we talked about inequities – it's not just the resources, maybe from a provider perspective, but what about other things such as a store where you know you patronize at least every week?"
Use of Breast Pump	• Lack of insurance coverage for a high-grade breast pump • Not being sent home after delivery with a pump • Cost of pumping supplies (e.g. bags) are expensive and are not covered by insurance or provided by hospitals	"And then, I see there being a big difference between women who are able to get a breast pump that has a high-quality motor versus a breast pump that does not have a high-quality motor." "So when they do deliver, why is it that they don't leave out of there with a quality breast pump? They don't leave with a breast pump at all and it's always, "Oh well we have to check your insurance.' You know, my insurance - I've been pregnant for almost a year, so you want my insurance, is totally ridiculous. The support is not there." "The other thing is supplies to go along with that. Okay well I got this pump, we got these bottles, people don't think these bags. Those bags that you use to freeze are expensive. The prices are going up and up. That's never addressed or accommodated. So these things may seem like nothing to somebody else but it's a lot to a person who does not have that money or those funds."
Formula Promotion	• Provider recommended for weight gain or managing complex issues • Early supplementation impacting supply • "American way" • Targeted formula marketing	"Another one is breastfeeding challenges when things don't always go as planned and the first few days then formula ends up getting introduced." "They don't understand how it works so they don't understand that supplementation is going to almost immediately cause them to decrease their supply, especially in the beginning." "Pediatricians will suggest supplementing formula to help with weight gain early on and this sabotages their ability to meet the demands of the baby." "Or, you know, often what will happen is they'll have introduced formula. And that will have affected their milk supply and it started them on a road to weening unintentionally because

		their milk supply will drop and they wouldn't have gotten the support they need so that's one thing that sometimes happens to people." "they get mixed messages from their pediatricians about giving formula. I think some of the refugee mothers think that formula is what they should be doing because it's the western thing to do." "I also think women set very short term goals for themselves. And so, some of this is because people have said 'Oh just do it for a week or do it for two weeks.' And so when we see people stopping at three and four weeks, people may have reached what they had as their goal so I think part of it is understanding, making certain that when we're doing any kind of analysis we understand what an individual's goal was." "...and we've had people say 'Oh is this the formula that has breastmilk in it?,' So you know unfortunately the formula industry is as bad as if not worse than the tobacco industry." "..it's positioning the company 'Oh this is a company that knows what they're doing' and so when you're having some doubts, and you're having some difficulties, it's very easy to turn to you know 'Well, here's a way to feed the baby it's, it's over here.' And obviously there's a place for that, but the marketing pushes it as the solution to every problem a mother has rather than actually finding the solution to the problem." "...unethical marketing of breast milk substitutes like infant formula, which is often touted of similar or even better benefits for the child and breast milk in terms of physical health, brain development, and other factors."

Table 6. Recommendations to Address Breastfeeding Disparities – New York State and national key informant interview results		
	Key Themes	Select Quotes
Individual/Intrapersonal level		
Considerations for the birthing individual (NYS experts)	• Provide mental health supports • Provide education on breastfeeding	"And the other piece is the mental health piece that I think is dropped because you're already a lot of women with postpartum. And sometimes breastfeeding is not easy. I would like to see a mental health component, a large mental health component surrounding breastfeeding, because it's frustrating and you're already dealing with other stressors as well. And I don't see that being provided at all. Even though some lactation nurses are very nice, but we need something formalized." "Take into consideration mental health of women by not strictly forcing something that just isn't possible for some of them." "We also have to educate our families that have comorbidities on the medication compatibility when it comes to breastfeeding."
Interpersonal Level		
Social Support (NYS experts)	• **Need to educate the individuals around the pregnant and postpartum individual** • Significant support expressed to educate dads and grandmas • Support individuals who are experiencing other situations (e.g. domestic issues, jealous partner, substance use) • Sometimes birthing individual does not report the dad is in the family's life due to concerns about ineligibility for programs	"Educating the dads and grandmas… because there's a lot of old wives' tales and myths on the street that you know if you breastfeed your little boy they're going to be a "sissy" and they won't survive on the streets and grandmas who are like 'we don't do that anymore. Yeah, I didn't do that you don't have to do that you turned out fine." "Training dads on how to bond with baby outside of just feeding them – moms get guilted into pumping bottles so their significant other can feed and bond with baby – there are other ways they can bond and maybe they just need to be shown how."
Social support (National experts)	• Don't forget the dads and partners	"Let's not forget the dads. And, you know, they are an untapped resource but they're clueless. Some will say, 'Well, I can't say anything because you know that's her decision' but you know what the father can do to help, and to support that is.that's not just for breastfeeding but for other aspects of postpartum recovery. I remember when we were running our group, the men talked about, and this was really interesting, 'protecting the mother, so she could breastfeed."

		"And for the African American community, what we found was that a lot of it was about people's male partners in particular and people feeling comfortable breastfeeding in public so we had a lot of our ads - there were like a woman with her partner or breastfeeding in public, like in a park or on the subway breastfeeding with her partner/her family." "Having more Baby-Friendly hospitals and areas that serve those women is important, but that also has to be backed up with stuff that happens outside the hospitals - their partners have to be supportive, which is really important. People have to feel comfortable nursing around their partners. That was one thing that we found that sometimes that was important in a lot of black communities is people had to feel really comfortable, you know, had to have the support of their partners and felt comfortable nursing around their partners. That was super important for them to continue to breastfeed."
Community Level		
Community Support (NYS experts)	• Address community-specific needs • Engage and empower members of the community • Meet the priority population where they are (e.g. church, school, library; younger generation technology preferences) • Provide resources in the communities (especially transportation) • Make support groups that focus on more than just breastfeeding to help attract people to the group and take a comprehensive approach to their well-being	"We do need to hone in more on specific communities, and not the, you know, the lumping doesn't work. And if you start to peel back who's breastfeeding, then it looks a little different, especially in the minority communities, when you take a community by community. The needs of individual communities are different." "These are the folks that we need to educate and maybe my ideas have been to educate a team of grandmas to go out and educate other grandmothers in their churches." "We have a huge population that they'd like to hang out at the library. So maybe some place in there. Any place they go to congregate." "Over 50% of the time, we're transporting our clients to even a prenatal visit because they don't have the transportation;" and "So what we started doing was providing Uber cards for transportation" Our Baby Cafes are phenomenal. They've been partially grant funded through the New York State. …So being able to expand those (so) that there's more of them and keep them going is, that's one of those ways like I was saying when it's difficult to get in, we can refer someone to a Baby Cafe and you know that they're going to be dealing with some professionals and the public breastfeeding peer counselors can be available with them as well. And then they are able to establish a community. If you have someone that does not have anyone in their social circle that breastfed, they can meet someone else that looks like them,

		whether it's experiencing some of the same things with them and have the opportunity to see that (and) know that they're not alone." "Bring back in-person WIC services." "I do know there are some community-based programs, parents circles and things like that that where parents can meet and not just in WIC because, mothers groups and things, but I think if programs really dig into their organizational practices and hire people that are appropriate for the job and are responsive to their community and are finding out what their customers, patients, participants, whoever they are, who their community partners are for referrals and innovative ways of managing their programs, a lot of cultural responsiveness will happen."
Community Support (National experts)	• Need to incorporate diversity and inclusion into breastfeeding promotion • Be innovative when thinking of support within the community (e.g. parent circles, look at models in other communities; Paula Meyer at Chicago's Rush Hospital – brought in former NICU moms to support current NICU moms; use home-visiting more; Review the CHAMPS initiative; Review Kimmie Goldhammer from Seattle – indigenous lactation counselor program) • Value the expertise of the community and let them lead • Have more support across the entire pregnancy and postpartum continuum • Affordable Care Act limitations and community considerations	"Advice training, and structure. That includes strategic planning around the public health breastfeeding support services that really involves DEI throughout every aspect of that plan to make sure that the goals that are set forth are measuring disparities and that there are interventions that can address discrepancies when they occur, and really tapping into the community to help provide the information that's needed to the healthcare professionals to be better,, to do a better job to hear from the community,, to truly listen to the community and see what their needs are, so that their breastfeeding barriers can be overcome." "I think the weakest part, and this isn't necessarily unique to New York State, I think some of the weakest parts is what happens after discharge, and the lack of community supports. And when people have done Baby-Friendly, you know the 10 steps that community supports them as a place where many places fall off." "the leaders from the different communities to be part of that planning process" "we need a much broader base, broader, you know, ethnic, cultural base of people who have the expertise. Because they can go into their communities and they can teach us, all of us." "we need to be thinking outside the box about who needs to be at the table so that they don't have to have a folding chair or they don't have to invite themselves." "And so, how do we put our resources directly in the communities where breastfeeding is not as far along? Take one example - the Affordable Care Act was a huge step forward in guaranteeing that these services are paid for by

		healthcare. And yet, a lot of the communities that we're most concerned about still don't have access to healthcare…We were partially fixing that with the Affordable Care Act, we haven't completely fixed the problem. And so when we're relying on that as our mechanism to provide lactation care, we're continuing this problem, over time."
Community Norms (NYS experts)	• Increase visibility • Normalize breastfeeding • Engage restaurants and other businesses, churches, schools to support breastfeeding (e.g. display breastfeeding welcome here decal)	"I would love for breastfeeding to be more visible in the community." "Have restaurants display something that says they're breastfeeding friendly. Have bus ads and bulletin boards." "We've been doing a normalize breastfeeding campaign. So, promoting breastfeeding not only on just our social media but we have it in newspapers across all five counties on public transit buses, on like different billboards around the county. And what we've been seeing is that people have actually been seeing it, taking pictures of it, and sending it to us like, 'Hey, didn't know this was even a thing in our county that you know we have these resources.' So, I just think that having more promotion on the media is really important, especially for I'll say my generation, it's, we're all about technology."
Community Norms (National experts)	• Need to normalize breastfeeding	"I think departments of health go into this with the assumption that breastfeeding is normal and we need to implement that in our culture universally."
Specific setting: Child care		
Child care (NYS expert)	• Provide education and resources for child care settings to support breastfeeding individuals	"Childcare staff or directors feel like they're dealing with some sort of toxic substance when bringing in breast milk. But it's almost like bodily fluids coming out of a person. Family daycares especially will not accept babies that are breastfed because they don't want to deal with people's breast milk."
Child care (National expert)	• Child care consideration and access to the child care setting during the workday	"Daycare is important, and I know daycare is a hot button topic right now. But to include that in our thoughts about how we do daycare and workplace flexibility around access to daycare so forth and so on, you know, to actually see the baby."
Education sector/Primary and Secondary Education (NYS experts)	• **Significant theme: Need to incorporate breastfeeding education into the K-12 curriculum** • Recognize that schools have teen parents who need support and education while in the school system • Consider reviewing Canada's curriculum pertaining to breastfeeding education	"The breast in this country is not being taught as a something to nourish a human. You know, an infant right it's regarded as a sexual object and I think it's not bought in school as this is the purpose of the breath. Right now, needs to be taught early on, and, and reinforced throughout the science curriculum. And if there's anything that comes out of this talk today, if somehow you have a connection with the Board of Education. Somehow this needs to be incorporated." "The DOH really needs to put more money into breastfeeding education. We teach pregnancy prevention but not how to feed and care for a baby."

		"So one population that we've kind of realized with our county coalition is mothers who are younger, usually 18 to maybe 25, mid 20s, have low breastfeeding rates in our community. So what we are starting to do … is sending out school nurse surveys to see if they would be interested in including maybe a breastfeeding chapter into their health curriculum. So, if they're interested in that we are thinking about bringing it to our grant and asking maybe if Department of Education would think about adding back curriculum to a health class, mainly to just boost that normalization of breastfeeding at a younger age."
Healthcare Sector		
Baby-Friendly Hospitals (NYS experts)	• Ensure accountability for Baby-Friendly Hospitals • Provide funding for Baby-Friendly Hospital implementation and sustainability	"And seriously think about how to build in the state's accountability to the people. To support this, I think that they need to mandate Baby-Friendly Hospitals - every hospital needs to become Baby-Friendly…give them three years because that's how long it takes, and then build in funding (from) the state." "All these hospitals are Baby-Friendly; they're not mother-baby friendly." "Well, I do feel that I'm fortunate (to) work in a Baby-Friendly Hospital. I feel like those practices are very helpful to breastfeeding. So, I see a huge difference. These moms are not here for very long, maybe 24 hours or 48 hours depending on how they delivered. And I see that these babies will latch on for the most part, quite easily. No matter what their nipple shapes look like - like I'm surprised sometimes...the skin to skin and the early breastfeeding makes a huge difference, versus, well, what I used to see babies were all swaddled and we were giving them formula on the spot. It just, there's a huge difference."
Baby-Friendly Hospitals (National Experts)	• Legislating BFH • Support for BFH • Some concern expressed with emphasizing BFH – suggestion to focus more on the 10 steps • BFH need to be located in areas where disparities exist • New York should consider adopting the new BFH toolkit and socioeconomic status competencies	"In California, there's a new law that says that hospitals either have to be Baby-Friendly, or an equivalent alternative by January 2025, so it's forcing the hospitals in the state, and there's over 200 hospitals - maternity care hospitals to implement best evidence-based best practices." "I think in terms of policy that is evidence-based, the Baby-Friendly Hospital Initiative, rather than simply the 10 steps, because in my experience, and there's some research that shows, that you need some external assessment to affirm that the 10 step practices are actually in place." "So I would focus first on Baby-Friendly. I think there's a lot that can be done to make the standards the 10 steps. Get away from Baby-Friendly designation. I think there's a lot of advantages to designation but I don't think that's the be all and end all. It's really about - do we get the practices. You know, stopping the distribution of gift packs and distribution of formula to the newborn babies. But, the 10 steps themselves are pretty clear. This should be the standard of care and

		those can be put into healthcare standards across the state. New York has actually been a leader in doing a lot of that, so I think you're already ahead of the game for across many other states. But I still think that there's a fair amount of gap. Within that, things are suggested but the teeth aren't quite there in the standards. So I think that's a key one that I would focus on - health care provider education. I know that isn't always done at the state level. They can be educated in their pre-service training from somewhere else and then move in. But I think the states have a fair amount of control over continuing medical education, what the expectations are of the providers in their hospitals." "You have to address hospital policies is one. So there's a lot of disparities in hospitals and how hospitals will treat black women, for example, who want to breastfeed. There's documented discrimination there, and there's more women more likely to be have their infants given formula and have their breastfeeding undermined so. So having those hospitals be more likely to be Baby-Friendly, and having more Baby-Friendly Hospitals and areas that serve those women is important, but that also has to be backed up with stuff that happens outside the hospitals." "So I think that's a big part of this - it's putting the services where they need to be. It's a little bit of a mindset. But I think there is a problem in that we sometimes assume certain communities are not going to breastfeed. And therefore, we don't provide them the care that they need. This has been seen a fair amount with the Baby-Friendly initiative that you just see in the hospitals, like well you know that mom can breastfeed anyways so do we really need to make sure we're getting her the right counseling? And so they kind of let it go on assumptions. And so we have to break those assumptions and say 'No, everyone deserves high quality care. And let's let's focus where the gaps are." "So I would encourage New York to look at, Baby-Fiendly with SES competencies, which really align most...They include all of the international ones and have six additional performance indicators that are specifically geared towards safety issues that have been in the press."
Provider education (NYS experts)	• **The need for more provider education was a significant theme throughout the study.** • Consider funding an institute or entity to offer breastfeeding education for providers	"There's so many providers that take care of a breastfeeding dyad that influenced their breastfeeding experience, right? Like, we've got obstetrics. We've got hospital staff. We've got nurses. We've got pediatric providers. There's so many different settings that this little dyad moves through. And if they're getting consistent advice, evidence-based care through all of those settings, then they're much more likely to succeed."

	• Ensure culturally appropriate training for providers that can then be shared with birthing individuals • Engage all providers, especially obstetricians, pediatricians, and residents; also ensure it is part of CME and consider it for licensing. Consider partnering with State Dept. of Education to ensure it's part of pre-service education	"Force encouragement through proper patient and staff education. Emphasize the long-term impact of breastfeeding and if a mother can't breastfeed, bringing in the partner to help and assist with feeding in any way they can." "They need culturally appropriate materials. They need individuals that look like them, and they need to be in touch with these people prenatally because mothers make the decision to breastfeed they say in the first three months of their pregnancy." "Provide (educational) resources for residency programs, pediatric programs". "And then they (the DOH) really need to go into OB offices and pediatrician's offices to assess what materials and services they have there and find a way for them to offer individualized care around breastfeeding; 2) diversifying education to reach all types of people; 3) diversifying the support people to look like their patients."
Provider education (National experts)	• **Support more provider education** • Consider having OBs provide breastfeeding education • The Surgeon General's Call to Action includes provider education	"I'd like all the hospital staff trained on how to provide breastfeeding support, and also like that operationally they don't say, "Oh, you have a question about breastfeeding, well wait until the lactation person comes in." That's not an effective model. Unfortunately, with staffing, that's what happens is that if you can delegate it to somebody because you have six people that you're trying to take care of, you're going to delegate it and so the woman is not going to get adequate support." "So one of the things that that I think would be really important to work on and I don't know how New York State might be able to do this, this might be a collaboration between the health department and state education department, but pre-service education. You know, it's really a shame that breastfeeding is not a part of pre-service education for physicians." "Casey Rosen Carol who implemented a model...for an OB setting using some motivational interviewing concepts to talk to mothers about breastfeeding. She was able to demonstrate that, yes, mothers reported that they heard more about breastfeeding in terms of a pre-post analysis and that they were more likely to intend to breastfeed and the documentation about it got better."
Expanding lactation support (NYS experts)	• Need more lactation support in the hospitals and in pediatric offices (e.g. WIC and other counselors into the hospitals) • New York needs a milk bank	"The number one thing I have is the need for pediatric offices to have a dedicated breastfeeding professional on staff. I don't mean a nurse that has her CLC. I'm talking about somebody that is dedicated to breastfeeding, and that's because a lot of the hospitals, a lot of pediatric offices are just getting their nurses certified, but these nurses, their goal is not breastfeeding and their focus is not

	• New York needs an institute for learning about breastfeeding • Need more IBCLCs and have it be a licensed credential • Provide scholarships for CLCs and make sure the CLCs are from the community and look like the priority population • Need more virtual breastfeeding resources, including a virtual telehealth visit soon after discharge • Need more home-visiting lactation consultants that are only focused on lactation support • Implement care coordination for breastfeeding • Include mental health support because breastfeeding is challenging	breastfeeding. … It does not make sense to me that a pediatric office doesn't have a CLC on staff." "And I think every newborn should be seeing a lactation consultant at every newborn follow-up visit." "Doctors - stop speaking beyond your expertise, and expand the tent of whom you respect as providers." "I know that there are areas where it is one IBCLC for three counties. They need to appropriate funding or so that every county in the state, and it can be population based to some point, but every county has someone who can approach people because we didn't find that the issue was people weren't interested. What we found is that there are not enough resources. And so we're still on the resource poor side of this." "We need more lactation consultants of color because we have no lactation consultants of color in (Western Region), zero. And although I have openings and I could hire and I could hire and train, we have significant recruiting difficulties and I'm sure you are aware of the pathways to become a lactation consultant. But, even for a non-lay individual and medical practitioner, they're incredibly complex and ridiculously expensive for a career in which you're going to be unlicensed, unlike even your hair dresser, right, has a license to touch you or which means that your unlicensed, you're at risk., and you may or may not get a job at the end." "And then we need lactation clinics run by midwives and nurse practitioners who chart where there is no fee involved at all." "And sometimes breastfeeding is not easy. So we need to have, I would like to see a mental health component, a large mental health component surrounding breastfeeding, because it's frustrating and you're already dealing with other stressors as well. And I don't see that being provided at all."
Expanding lactation support (National experts)	• Consider the different types of lactation counselors • Diversify the lactation counselor workforce • Consider models from other states and communities	"I think IBCLCs are really important, and I am not one because it's way more clinical than my training allows me to be. I do think that there is a very important role. I also think that these other levels of training and community education, the CLC, all of those are also crucial and those are the ones that are really there, the first line."

	• Ensure lactation staff are not pulled into other duties in the hospital • Ensure proper lactation spaces that are also in convenient locations • Ensure support is in the community where the individuals are located	"I think that doula care needs to be legislated and doulas do a lot more than provide breastfeeding support but it is included in a lot of in the purview of a lot of community-based doulas, and the literature has consistently demonstrated the ability of doula care to help narrow racial disparities and breastfeeding outcomes. …Medicaid coverage of doula care at the state level is needed. And while many are on their way, including California whose Medicaid program is supposed to begin covering the service in January of next year. As you may know, only two states have implemented the policy statewide. I believe New York has a pilot program going on in which it's covered in one county. I think that this is a policy that would help reduce disparities in that 40 something percent I believe of all births in the US are covered by Medicaid." "Increasing the visibility and the training of people at other levels of training matters and will allow the IBCLCs to really focus on what they're best trained. To welcome these other groups, and that includes broadening the training that includes paying them a living wage." "Departments of public health really need to be an integral part of that conversation of broadening out the cultural, ethnic, racial makeup of our breastfeeding support and to really push for that." "Things that we have done are for a number of years we've had scholarships, most of them for WIC employees to focus on nutrition, but we're broadening that to include lactation. The way we're audited, it's a little bit harder to track a lactation scholarship for nutrition, but we're trying to figure that out. But what we're doing right now to try and help the agencies is we've hired a consultant, and the agencies are going to start at least for a year, have monthly meetings to look at organizational practices. And she's done a lot of organizational change management-related work. And so some of the agencies are already doing that but some just don't have the capacity so that's going to be our contribution to them and to ourselves, too, you know, dig deep and continue to make changes." "We have to remember a lot of this happens at the very local level. It's down to the community. It's down to the mother-to-mother support group, the peer counselors that are accessible, whether it's through the WIC program or through other health systems that provide peer counseling. Those get delivered very locally. And so we have to have systems that connect mothers up with those systems."
Specific setting: Workplace		

Workplace support (NYS experts)	• There are many areas in need of attention related to breastfeeding in the workplace – **time and appropriate private space for lactation purposes surfaced as the key concerns** • **A major theme is ensuring the laws are enforced and the breastfeeding individual does not have to be the one to worry about enforcing the law or filing a complaint** • Some workplaces are more challenging than others, such as K-12 schools – A Long Island school has received media attention for positive supports. Also, one participant shared that working with the school business administrator can be effective. • Consider having a campaign to reinforce the breastfeeding laws for workplaces • Ensure breastfeeding equity across types of workplaces, including small businesses	"Worksites – always room for improvement. I can't think of one thing. So much need to support the mom. Don't be so strict on breaktime…Need to take care of the women in the workplace. I can't pinpoint one thing – breaks, space for them. The laws are there but they need to be emphasized in all workplaces. Moms would agree. I hear the constant struggles women have trying to go back to work." "And then the workplace thing is just, I have never once had a patient actually take a complaint to the state, and I have had so many patient complaints managers don't know. I've had moms recently been told that they need to seek a new job because it wasn't going to work. People in healthcare being told that, 'Oh no that's not going to work. You have to work on a different unit. You have to find a different place to be. We can't cover that. We can only give you this amount of time. You know, you gotta go do it in your car.' I mean, this is happening all the time, and no one is reporting because they're, you know the time between losing your job and getting the lawyer and paying the money for the lawyer, and then it's just not happening. And this is constant." "If you don't have a place to come and you know that's supposed to be state law, besides your boss. Like, who do you go to? Is there like a hotline at the state you can call and say your employer is not doing what they're supposed to be doing? Like nobody would know who to go to and who to complain to or who didn't even get, where do you find the information they need? It could be something as simple as it's part of employee orientation." "Schools - I've been wanting to get in there but it's so challenging. They need it for employees and teenage pregnancies. I just can't get into the door. It's a huge battle. Teachers can't find a place to breastfeed. It's terrible." Schools – "…they have such a short either lunch break or prep break, and they really need to be pumping probably a couple of times a day and have such a short period of time to do it if they don't have a good pump. They're spending their whole lunch breaktime having to go sit in their car. I've heard of teachers having to go put curtains up in the car. It's ridiculous and such a big population of childbearing workers (in) our schools." Schools – "I've heard terrible stories from teachers saying. "You know, I hid behind a chalkboard or a whiteboard."

		"I guess my only recommendation is when I work with those specific worksites, some of them will give an excuse that, "We don't have any breastfeeding you know mothers here, so it's not really a big deal to have a breastfeeding area."
Workplace support (National expert)	• **Consideration for breastfeeding support in the workplace** • Potential resources for workplace supports • Hold workplaces accountable to the law • Review potential models from other states	"And I think it's really important for workplaces to keep in mind that for any one mother in any whatever job she has – that this is a time-limited problem. That, even if the mom continues to breastfeed for longer, the need to pump, it's really rarely more than a few months, six months, seven months, eight months. In the grand scheme of a workplace, that's not that long and it's not that much time. So it has to be worked around. If someone is a teacher, you have to work around it but we need to be able to think outside the box a little bit. There are (an) awful lot of women in workplaces, women in their childbearing years in workplaces that are very difficult to make breastfeeding-friendly, like health care and education. And those kinds of places where women are running around and do not have their own offices, and I think that that will have longer term and broader benefits of helping us all to learn to slow down a little bit." "There are also really creative solutions to it (workplace supports). …Cathy Carruthers' organization has a lot of creative solutions around the whole workplace." "I am not a legislator. I don't have any brilliant ideas but that's the weak link in the law. If there's some way that some creative legislation could come around, it would have to be federal but to get employers to do the right thing without having to make the women complain. Yes, that would be good. I don't even think like having whistleblower protection or something is going to work…they're gonna get the women who complain – (no) matter what you do to them, they're going to get them. So there's gotta be some other way to get these companies to do this, like, you know, make it a criteria of their building inspection or something. Maybe that's the way to do it - in their building inspection." "It's a requirement in California that workplaces have a policy in place. And so anytime, and even before that was a requirement, we were always going to workplaces and recommending that because it's clear…We were part of developing the nine steps to breastfeeding-friendly guidelines for community health centers and outpatient settings. And again, it starts with policy. We are now at the point here, you know no funding came along with promoting the nine steps. It was just developed so now we are seeking funding to develop a designation process that is not cumbersome and involves many partners but doesn't rely on funding. If it were to dry up, then you can't have the designation anymore. So those things, those do motivate workplaces, I have noticed when

		we have done our work for workplaces, anything where there's some kind of recognition. I think that's always tricky and how to keep those going, the sustainability of those programs - are they tied into other programs that are already happening?"
Paid Family Leave (NYS experts)	• **Significant support for paid family leave and enhancements of it**	"We need paid parental leave not just for the lactating parent but for the support person as well." Regarding NY PFL: "I think that it should be universal. I know that there are some unions and organizations that don't adhere to the state paid family leave policy." "There's still a lot more work to be done. I mean we're fortunate that New York State, or our, you know, policies are better than the national ones, but still we need national paid leave so that moms can stay home and not worry about starving the rest of the family if they're not working."
Paid Family Leave (National experts)	• **Paid Family Leave is essential and must be equitable** • Ensure there is job protection with Paid Family Leave • Recognize that there is federal movement on Paid Family Leave but it should start with the states	"Paid leave is just so vital…has to be equitable across the board and it (can't) be one state versus the next." "A long enough paid parental leave matters. We've seen that across the world. It matters. And it matters not only at a practical level of giving people the opportunity to establish that breastfeeding, establish that relationship with the baby. It also is a statement of the society that your family life is important, and we do not value that in this country." "So paid family leave with job protection…And there is the federal Family Medical Leave Act FMLA, but not everybody qualifies for that and there's TDI that's temporary disability insurance so you know there's a number of ways to cover some maternity leave, but in PRAMS I looked at some state data not too long ago, and it shows that women are afraid to lose their job, or can't afford to take maternity leave. So, with paid family leave with job protection, makes it a very large difference I think for those underserved populations." "States definitely can move on this, and, and that's something, you know, I think that would be a high priority."
Other Workplace Policies (NYS experts)	• Recommendation for penalties for workplaces who do not adhere to breastfeeding laws • Ensure employers are posting the laws	"But policy changes - a penalty for employers that do not adequately support the nursing mothers in their workplace law, right? Department of Labor Law. California has, I think, it's a $5,000 fine." "There are laws right for breastfeeding in the workplace and what it should be permitted with people number one I say people but maybe employers' number one, we find that they don't understand or know those laws and those laws are

	• Require employers to have lactations rooms and time for pumping • Ensure workplaces are making their policies known • Ensure breastfeeding equity across all types and sizes of businesses	not enforced. And that's the biggest thing that we have an issue with is that if an employer is supposed to put in a place where women can breastfeed. But nobody ever does anything about it if they don't, then what's the point of the law, and we see this a lot." "Is there nothing that requires businesses to post (about breastfeeding laws)?. I would think that the Department of Labor, put (it) on their mandatory list of things that you have to post, like notifying employees about the ability, and you allow breastfeeding."
Other Policies		
Healthcare policy (NYS experts)	• Need continuity of coverage and continuous eligibility • Every person should have a telehealth breastfeeding consultation after discharge • Give every person a pump at discharge after delivery • Modify how breastfeeding is measured in the hospital and beyond	"First, mandate hospitals to have a lactation consultant and establish the norms, regulations of how many CLCs based on number of deliveries, existing breastfeeding rates in the community…" "Do what every other developed nation does, which is have a midwife-led system perinatal system - every birth is attended by a midwife, every birth and complicated births as opposed to "high risk births," complicated births have a midwife, and a specialist." "I would like to see every woman who has agreed to, or wants to, or even thinking about breastfeeding, to be given the pump upon discharge." (Regarding measurement) "There should be two categories - so maybe that's a recommendation you know attempted, and then follow through (breastfed "multiple times")."
Healthcare policy (National experts)	• Consider state policies that can increase who can provide lactation support	"There is a thing that CMS put out in 2017 I think that says that unlicensed providers, under the jurisdiction of a licensed provider, can provide preventive services. So that opens it up for like in California lactation consultants, peer counselors, any number of lactation or, also nutrition people. And so California decided to take a run at that, focusing on community health workers, and they're trying to define that. But that was another outgrowth of health care reform that CMS put down and states could take advantage of that."
Insurance (NYS experts)	• **Insurance should cover lactation support** • Reimburse doulas "at a livable rate" • Help insurance companies understand why it's important to cover lactation costs	"Postpartum coverage through insurance continuity and just the idea like, you know, not having to know your insurance right when you're in the middle of trying to breastfeed. It's stressful." "Somehow we have to help insurers understand that it saves them money to cover lactation care. It costs insurance $1000 to $1500 less for the first year of life for breastfed child, than it does for a formula-fed child."

	• Insurance should cover hospital grade insurance pumps • Insurance needs to cover donated milk, especially for underserved communities • Look at demonstration projects, such as the one Tri-care is doing in New York	"It's only this year that my clinic has actually gotten adequate reimbursement. And that's after years of fighting with and using a huge medical system to push these things. And so imagine if you're an independent practitioner, who's trying to get reimbursed. And there have been cases, I mean, there have been lawsuits in other states and the insurance companies keep losing because they're not providing this reimbursement. And they need to provide the reimbursement." "The other thing that I think is really essential is this idea that you can't get your breast pump until after birth, and that you require a prior authorization needs to be illegal." "Light licensure for lactation consultants or, interestingly, Tri-care which is military insurance, they're actually doing a demonstration project starting in January that they're actually going to reimburse doulas, birth doulas, postpartum doulas and lactation counselors and consultants. So these are people that don't have to have a license in their state. The military actually looked into this and said, "How, how much better breastfeeding, how much better. You know, emotional health, mental health is when the moms get this kind of support and it's really a relatively small cost, you know, pay the lactation consultant for whatever she makes to have this baby breastfed and the lower costs incurred because the baby's not at the doctor's office every week with an ear infection." So I'm excited about that. It is just through Tri-care in my community. We have West Point so I have a lot of military families."
Insurance (National experts)	• **Ensure insurance reimbursement for breastfeeding support**	"Insurance reimbursement for breastfeeding support is really important…A lot of times physicians, either don't have the training or the capacity to do breastfeeding support. It is billable but the reimbursement rates are pretty low. So I think insurance reimbursement. There's a Blue Cross Blue Shield in Mississippi that's doing some really interesting things with hospitals there, and implementation of the 10 steps or you know the Baby-Friendly Hospital Initiative. Those hospitals gain points so they get higher reimbursement for evidence-based best practices in the hospital. And so the insurance company, Blue Cross Blue Shield, is giving them credit or points for and greater reimbursement for those practices so I think that you know the way to get these ingrained is to pay for them." "So another issue in California is the health plans subcontract to other health plans or to medical groups and then all the benefits change. And, responsibility changes…And, and where WIC has some definitions of breastfeeding, what a breast pump needs to be. The state has no definition of that, so you have a low

		reimbursement rate, you have a crappy pump because somebody is being paid a low price to provide the breast pump. "I think, across the board minimal bureaucracy insurance coverage for a wide range of lactation, and new parent perinatal services is huge... But there are beginning to be places where they're looking at broad perinatal continuum of services from education prenatally, the, you know, the ubiquitous breast pump."
Additional Key Concerns/Categories		
Formula (NYS Experts)	• **Educate pregnant individuals about formula and marketing related to formula** • Sign on to the code related to formula marketing • Ensure no access to free formula in hospitals • Policies often need to start with the U.S. Breastfeeding Committee	"I'd love it if we signed on to the code of formula marketing. I mean, as a country we should have signed on to the code long ago. If we could do it as a state that would be even better." "The fact that the formula companies have free access to advertising. They have not been stopped, like other countries because our government, our federal government decided to, you know, bow down to the formula company lobbyists who have a lot of money. Advertising is just crazy. The mothers in my groups tell me that they're breastfeeding, and they're still getting coupons and samples of formula just in case breastfeeding doesn't work. 'Here's our free sample for breastfeeding moms.' I think it would really make a huge difference in breastfeeding rates because the most advertising is to the women in those disparate populations." "The other thing with formula is the free provision to hospitals, like that's legal is insane because I know that the perinatal regs say that we're not supposed to give it out. And my policies locally say that we're not supposed to give it out but the reality is, if you have a six pack and you're a busy nurse because they put in these cute little six packs, that's what you leave in the room."
Formula (National experts)	• Support the International Code of Marketing of Breast Milk Substitutes and an international expert on the Code lives in NYS – David Clarke, a former attorney for UNICEF • Concerns about the formula industry • Consider educational campaigns • Concerns about immigrant and refugee populations who come	"So the US is one of the only countries that hasn't signed on to the International Code of Marketing Substitutes. And I think that we don't do a very good job about marketing unhealthy products to children but this marketing of formula to the population is problematic and there's this new wrinkle with these toddler formulas which are not very healthy; they're higher in sugar, and they're being marketed to mothers of children under one year of age so I find that very problematic. So I think we should have legislation, reducing the influence of formula companies if possible." "We had two campaigns in (another state). One was aimed at Latino women, and one was black women. And, they were specifically targeted to those messages…specifically had market tested messages for those women and I know that they had specific materials targeted for Black populations. But, we had

	to the U.S. thinking that formula is the primary way people feed their babies in the U.S., so it becomes normalized for them • Consider policies (other than BFH) that regulate formula use in the hospital setting	found that for Latino population, one issue was they wanted to mix formula and breastfeeding and that was a big problem. So, we had done some interviews, qualitative research with women and found that stuff that resonated, they thought formula had chemicals and what they really wanted was natural stuff. And so we had these images that sort of promoted breastfeeding is natural and free of chemicals and we had advertising that was that, and posters that played on that message. So that was one thing because that was something a lot of women had mentioned that was good about breastfeeding that they did not like about formula - that formula was chemicals." "I think looking at how formula is managed in hospitals where it has to be an order, or it has to be behind a locked (door)."
Funding Suggestions (NYS experts)	• Fund the breastfeeding coalitions • Provide funding for IBCLCs in all counties • State needs to fund public health • Fund baby-friendly hospitals • Provide scholarships for lactation counselors • Need to focus on rural communities for funding • State needs to fund more than the county health department • Sustain the funding for breastfeeding promotion grants • Provide funding for lactation supports, including lactation room equipment • Expand Creating Breastfeeding-friendly Communities • Accountability related to funding • Allow contractors to expand outside a designated area because people live and work,	"I think that the coalitions are very important, but don't have the kind of reach that they should because they don't have money." "The coalitions need to be funded. Give me a halftime person, or something, you know something, so that I can do this work because most people in New York State are doing this work out of the goodness of their hearts." "The state has to own the responsibility. It cannot put it on the backs of community-based organizations to be responsible." "So much of the funding has gone for this, these communities. They ignored, well in New York State, the Upstate rural areas, in my opinion." "And when the state funds, they fund the county and the county health department. They may have one person that does this but that one person doesn't necessarily have any experience whatsoever in breastfeeding or whatever the case might be, but the rationale is 'Well we know our people and we know what needs to be done well.' So no, I think there needs to be a partnership." "The DOH really needs to put more money into breastfeeding education...We teach pregnancy prevention but not how to feed and care for a baby." "That the funding that we have for breastfeeding work is long term funding, so we don't get started and then as you're finally gaining momentum that the funding ends - to have a sincere long-term commitment to funding and finding ways of encouraging it….not just through special grants."

	etc., in different parts of a region	"I would say expand the Creating Breastfeeding-friendly Communities grant to other areas of zip codes that we you know was very limiting to what zip codes that we were allowed to work with. There's plenty other areas that are high need." "I think we need funding for lactation support programs, right? So doula initiatives, lactation consultant academies, lactation reimbursement breastfeeding medicine academies, breastfeeding medicine reimbursement, and parental leave." "I want accountability to all organizations who receive funding for breastfeeding. Accountability, they need to be held accountable. I would like to see some type of accountability, some type of oversight and some type of report. I want to know everyone who is making money and receiving money off our poor underserved communities and what exactly are they doing. What real service have you provided in the community? That's one huge thing, a huge piece that's missing." Regarding state funding: "…same with childcare. The children have to be from those two towns, which is very limiting. So, it's wonderful for these areas but we are becoming a little oversaturated, especially for the childcare piece. We're running out, and we would love to expand but you know we can't because the grant holds us to (the) area."
Funding Suggestions (National Experts)	• Support for Baby-Friendly Hospitals • Fund the partnerships necessary to do the work	"One other policy thing that could be legislated - increase funding for BFHI hospitals. You know one of the things we started to hear, towards the end of my time of being from us a lot of hospitals said, "We've incorporated these practices, and thank you for your work, you know, we're going to drop out because there's no financial benefit for them to stay…"
Public health's role in breastfeeding (NYS experts)	• NYSDOH's role • Need to support all birthing individuals, regardless of whether or not they breastfeed • Need to focus more on rural populations • Messaging needs to be improved; call for a state focused campaign. Normalize breastfeeding in all locations – billboards, bus ads, etc.	"(I) think the biggest thing that the department could do right now is part of what you're doing now, a reassessment of where we have been." "We're not trying to make everyone in the world breastfeed. What we're trying to do is have opportunities for women who want to breastfeed to be supported. And it's our job as a government to see that that happens." "There's just some of that messaging that needs to be improved and some of that outreach to some of these groups and trying to find educational materials for some of these refugee groups - just basic breastfeeding fact sheets, very simple."

	• Review the NYS task forces and ensure they are also discussing breastfeeding • Review breastfeeding surveillance practices in NYS	"There's a bunch of us on those groups (NYS task forces) that are working on postpartum changes that has to do with anything maternal, but breastfeeding sort of hangs out there, by itself, it's like the dangling fruit that nobody touches." "So, we're always measuring exclusive breastfeeding upon discharge, but we're not so good after that. I think that in the EMR, not as a narrative, but it should be. You should be able to check off whether or not this mom is exclusively breastfeeding, mixed feeding or what and then you can have a little narrative, because you also need the data for action."
Public health's role in breastfeeding (National experts)	• Allow communities to lead • Ensure diversity of breastfeeding support • Support partnerships and coalitions and provide them with data for advocacy purposes (for example: California) • Significance of state support • Need for local data • Need for clear messaging • Consider the overall approach	"At some point we need to be aware of when we as the kind of public health leadership need to back off and allow ourselves to be learners not just teachers, because the public health community kind of pride ourselves on being teachers. And we're not always as good of learners. And to let communities do what they do, you know, to come in and fix it all the time. You know there are times when things are egregious and you have to come in and fix it, but sometimes we need to learn to back off a little bit. And really engage in meaningful partnerships around the table, which we're also not very good at yet." "First of all, having that core of people who really know each other and can strategize together and support each other…. So, over that time we've been able to keep moving forward with our partners and then just pushing on those policy improvements and our first strategy was at the California Department of Public Health clinics' newborn feeding data. And so without being advocates, they've been advocates because with that data, we produce hospital breastfeeding reports that list all the hospitals because the data is there, and then written reports with University of California-Davis - having pulled in an academic institution. In those reports and fact sheets that drill down to the communities and then allow the advocates to go out and make their changes and then backing that up with the, you know, kind of a long line of different bills we've passed…" "This isn't exactly a best practice but something that's worked really well in California is to have a pretty large group of advocates, working together within a working relationship, which includes hospital consortia or breastfeeding coalitions or WIC staff. California WIC has a position called a 'regional breastfeeding liaison' that's kind of a unique position that works on systems and policies." "I think we were really, really lucky that the state (California) has posted the newborn feeding data, because they don't have to. And it was there for a while, nobody did anything about it. And, they continue to post it. And so, without saying

		so, they're doing advocacy and, this is something that I wish other states had because they could do more with that." "It is always nice if whatever you're doing has the stamp of approval from the state." "I actually think that if we could collect more data…because right now I realized New York State runs the programs but the number of mothers who participate is pretty low. I mean across the state, it's representative at the state level, but drilling down to communities, it's not. So I think, trying to work with health departments to run the programs in certain communities and more communities and so you're collecting an adequate amount of data locally, that you can actually say something meaningful at the local level because I think breastfeeding is very much about 'think globally act locally.' Yeah, like that, environmental justice stuff. And, you know, you can see statewide data but it's like, 'Yeah, but that doesn't help me with what's going on here.' So I think that if, if we're going to be funding more projects where the state is trying to, you know, increase breastfeeding in these certain low areas that there should be a concomitant data collection around that period so that you can see what has changed." "I also think one of the things we need to do a lot better with is the issue of how to manage complementary food introduction. Sometimes babies, and I mean like two week olds, are getting things that they should never be given to eat at that age. And that's an area that we have not done enough good messaging about, and one of the things we found is that women will pay attention to their doctor about whether they should breastfeed or formula feed. But when it comes to complementary food, the doctor is not necessarily the go-to person. For that they go to grandma or find out what their mother fed them. Babies become non-exclusive, not because they've been given formula but because they've been given porridge, or another (). And so I think we need to do a better job with clear messaging." "So at (organization name), we were doing a lot of protection promotion - trying to change healthcare systems, trying to change the overall landscape around breastfeeding…We don't like to use the word "promotion" because that's kind of telling people what they should do, there is a place for that but it really wasn't (org.'s) approach. It was much more about how do we support breastfeeding, so that those women who choose to breastfeed, don't run into the barriers? How do we actually remove the barriers to breastfeeding was really our focus. And I'd say the WHO has a very similar approach as well."

National Policy (not already addressed above) (NYS experts)	• U.S. Department of Labor should mandate businesses support and post about breastfeeding laws • Affordable Care Act should include more organizations • Need for National Paid Family Leave • U.S. Breastfeeding Committee should take the lead on supporting the World Health Organization code related to formula	"Also, all organizations, not just large ones, should fall under the Affordable Care Act about breastfeeding time." "We need national paid leave so that moms can stay home and not worry about starving the rest of the family if they're not working."
National Policy (not already addressed above) (National experts)	• Need to have formula marketing regulated at the federal level • Refer to existing national recommendations and guidelines (e.g. Surgeon General's Call to Action) • Review how other related things have been legislated and modify it for breastfeeding	"When it comes to the marketing, I think that's very hard to do at the state level, we're going to have to see some federal movement on that and it's a complicated environment. I think there's a lot that can be done within healthcare systems, about the marketing. But it's a little difficult to legislate on that front. So I would focus first on Baby-Friendly." "Maybe I should just say, "Go look at the Surgeon General's Call to Action." "How can we use some of these models that are currently in place and duplicate them for lactation services? But I think that HEDIS measure (related to maternal mental health at the federal level) is really key to measuring utilization management guidelines."

Table 7. Perceived Facilitators for Breastfeeding Initiation – Survey results (Note: Respondents could select as many options as they would like.)	
1. Consistent conversations supporting breastfeeding during prenatal visits	84.6%; (n=214) respondents selected this response
2. Hospital practices, such as rooming in and skin-to-skin contact	79.8%; (n=202) respondents
3. Prior knowledge of health benefits for both mother and infant	79.4%; (n=201) respondents
4. Experiencing care from lactation specialists, such as IBCLCs or CLCs	68.4%; (n=173) respondents

Table 8. Perceived Facilitators for Breastfeeding Continuation – Survey results (Note: Respondents could select as many options as they would like.)	
1. Adequate paid time off/paid maternity/family leave	80.2%; (n=203) of respondents selected this response
2. Workplace accommodations such as provision of lactation rooms and flexible hours to feed	79.8%; (n=202) respondents
3. Postpartum linkages or referrals to breastfeeding support groups	79.4%; (n=201) respondents
4. Breastfeeding peer counselors	71.5%; (n=181) respondents
5. Mental health support for experiencing postpartum depression or anxiety	64.4%; (n=163) respondents
6. Breastfeeding friendly childcare environment	62.5%; (n=158) respondents
7. Home-visiting programs	60.5%; (n=153) respondents

Table 9. Perceived Most Effective Interventions (or Practices) to Support Breastfeeding Promotion and Address Disparities in New York State – Survey Results **(**Note: Respondents could select as many options as they would like.)	
1. Parental leave after the birth of a child	67.6%; (n=171) of respondents selected this response
2. Breastfeeding information for partners and family members of breastfeeding individuals	64.8%; (n=164) respondents
3. Lactation information incorporated into prenatal classes	60.9%; (n=154) respondents
4. Breaks during the day for breastfeeding employees	56.1%; (n=142) respondents
5. Lactation rooms in public buildings and workplaces	51%; (n=129) respondents
6. Lactation support 24 hour hotlines	47.4%; (n=120) respondents
7. Providing free lactation supplies	46.2%; (n=117) respondents
8. Baby Cafes and support groups	45.8%; (n=116) respondents

Table 10. Additional Interventions or Strategies - Survey Results		
	Key Themes	Select Demonstrative Quotes
Individual/Intrapersonal level		
Considerations for the birthing individual (NYS experts)	• **Provide education on breastfeeding earlier in life (i.e. K-12 education**) • **Provide breastfeeding education earlier and more often during the pregnancy, as well as after pregnancy**	"Beginning early education in public schools would be a great way to introduce the normal way to feed a baby and educate young adults what to expect when having a baby. Also, I feel if there were more time during prenatal visits to educate the parents on what to expect with breastfeeding they would feel more confident in nursing their baby before delivery instead of being completely overwhelmed in a 2 hour breastfeeding class than here at the hospital after giving birth. Having more time to prepare for the reality of breastfeeding would be better." "Add breastfeeding to the Dept. of Education's science/ health/ biology curriculum." "The Hospital Experience provided by the Department of Health is a great handout preparing and educating mothers on what to expect in the hospitals at the time of birth and also addresses mothers, concerning breastfeeding after birth." "Openly address the physical challenges of breastfeeding for the mothers and support them at work and home. Sometimes we don't acknowledge that it can be painful and frustrating to nurse a baby exclusively and patients choose not to do it. Sometimes it interferes with their sexual self-image. Sometimes the patient 'wants their body back" and the constraints that it places on her are not something everyone is ready to accept for prolonged periods of time."
Interpersonal Level		
Social Support (NYS experts)	• **Need to educate the individuals around the pregnant and postpartum individual**	"Family education (aunts, grandparents, sisters, cousins-whoever may be included as the mother's support)." "Generational meetings within families."
Community Level		
Community Norms and Messaging	• **Normalize breastfeeding** • **Implement a widespread campaign on breastfeeding**	"Social media campaign to normalize breastfeeding." "Need a celebrity spokesperson to help market it. More exposure and make it the norm for all to do."

		"More public ads in transportation, magazines, radio, movies and T.V that support breastfeeding as the norm and the go-to food for infants." "Informative, positive ad campaigns promoting breastfeeding would be amazing! Helping the public understand the health, emotional & financial benefits for babies and moms who are breastfeeding could go a long way toward normalizing breastfeeding. Teaching the benefits of breastfeeding in health classes in school would also be beneficial. It has been said that breastfeeding isn't just a personal choice but a public health issue and we really need for the public to be better educated in order for our children to have the advantages of being successfully breastfed." "Breastfeeding messages that include the fathers." "State Dept. of Health social media campaign to draw out misinformation and address it, and share good information from real people so information is deemed trustworthy and impactful."
Healthcare Settings and Lactation Support Considerations		
Baby-Friendly Hospitals	• **Support for BFH and 10 Steps**	"Baby-Friendly Hospitals" "Stop giving formula in the hospital. Make it mandatory to have lactation consultants in the hospital. Not only nurses but qualified lactation consultant. Lactation Consultants that speak languages other than English."
Provider education	• **The need for more provider education was a significant theme throughout the study.**	"Training for Labor & Delivery staff and pediatricians. We hear a lot of misinformation is being given to moms in the hospital or at the pediatrician offices. It's hard to combat this misinformation as parents tend to listen to the HCPs more." "Making sure hospital staff and health care providers are educated on breastfeeding and support/encourage a mom's choice to breastfeed. A lot of times, a mom starts supplementing before they even leave the hospital. Hospitals should have lactation professionals available to support moms." "Discussing baby stomach size is crucial to breastfeeding. Most moms express that they did not have enough milk after birth, because they do not understand that newborn babies in their first 7 days need less than 1.5 oz. Day 1 is about 3 drops of colostrum. If hospital workers and pediatricians were mandated to learn about proper infant care and stomach size, all mothers would have a better chance at breastfeeding."

Expanding lactation support	• **Ensure access to IBCLCs and CLCs, especially from communities most impacted by breastfeeding disparities** • **Ensure 24/7 lactation support** • Provide sufficient lactation supplies • Tailor lactation support to individualized needs • Consider the use of technology in lactation support • Provide support for other household responsibilities to ensure breastfeeding success	"IBCLC in every pediatric practice that sees every breastfeeding individual (or a dedicated CLC whose only role is lactation support). Every county public health program having dedicated lactation professionals." "I think it is important to define supplies - a working electric pump is a godsend and it is very difficult to get this for moms on Medicaid or WIC." "Clear, concise information from WIC about the importance of initiating breastfeeding after birth and building a supply to be prepared during natural disasters or public health crises like COVID-19 EVEN if a mother does not intend to exclusively breastfeed. It is important to ensure you always have a way to feed your baby. Formula is not a reliable option even in America during times of crisis." "Ensuring 24 hour access to lactation support in any language." "Integration of prenatal lactation consults from a lactation consult/RN for high risk pregnant patients. For example, pregnant patients with gestational diabetes could benefit from early education about the immense benefits of hand expression in the first hour of life and education about the hypoglycemia protocol the baby will be on. This consult could impact the patient better managing their glucose levels. Also, with a prenatal lactation consult for any mothers, breastfeeding best practices could be reviewed, breast assessment, review of medications, and identification of any risk factors." "More lactation consultants in ALL hospitals - they are continually getting cut, FTEs reduced, etc. which leads to much less adequate support of breastfeeding in the hospital. Home visits by lactation consultants. train more lactation consultants and support more women of color in the field." "More incentive for continued education for CLC and IBCLC certification." "A phone App to support lactation." "The importance of breastfeeding and its health benefits for mother and child education needs to begin prenatally. OB/GYN's need to provide this education to their patients and refer patients to prenatal BF groups, Community Health Workers and other resources to help reinforce this message throughout the pregnancy." "Provide support for other household responsibilities."

Workplace and Childcare Considerations		
Workplace support and support within childcare settings	• **Provide time and appropriate private space for lactation purposes in the workplace** • **Support for Paid Family Leave** • Need for supportive childcare settings	"Offer campaign and advocacy for breastfeeding-friendly space at workplace and school - Increase maternity leave for both parents." "Fridge at workplace for mothers to store their breastmilk after pumping." "Increasing maternity leave to at least 18 weeks of paid maternity leave so that moms have the time to heal and bond with their baby as well as build up a milk supply." "Ensuring paid leave." "Support for breastfeeding-friendly daycare programs."
Additional Considerations		
Insurance	• **Ensure insurance reimbursement for breastfeeding support**	"Enhanced Medicaid payment for maternity care in Baby-Friendly accredited hospitals." "Higher Medicaid reimbursement rates for Baby-Friendly designated birthing facilities (and encourage other insurance companies to do the same)." "Expanded insurance coverage for lactation support."
Formula Considerations	• **Monitor and restrict formula provided by the healthcare sector and community-based programs** • Restrict breastmilk substitutes • Support the International Code of Marketing of Breast Milk Substitutes	"Decrease breastmilk substitutes distribution by WIC programs. Strict monitoring of breastmilk substitutes marketing." "Stopping formula companies from giving free samples or false info." "Not allowing any hospital to provide formula at discharge." "Adopting the WHO Code federally but creating laws in NYS to do the same."

Table. 11. Survey Respondents' Examples of Breastfeeding Promotion Practices that their Organization is Implementing that are Most Challenging	
Supporting their employees when breastfeeding	"Providing time for breastfeeding employees when short staffed." "Breaks in the workplace, because the law language for breastfeeding moms in NYS can get tricky if we are not educated on it." "Giving women time to breastfeed. You have to manage that around work schedules. Specifically in an early childhood facility, you need someone to cover you in a classroom in order to breastfeed/pump."
Breastfeeding supports – especially supports accessible within the community (Note: These respondents were working at organizations that provided breastfeeding supports outside the hospital setting)	"Free Support Groups - difficult due to COVID; Free & unlimited access to IBCLCs during inpatient stay, Outpatient Lactation Consultations - related to hospital so usually covered by insurance vs. private practice. All of these are difficult because the hospital has to pay us and ensure we have enough coverage to cover all these duties. When we are down employees we have to cut access to these things." "Every WIC typically has a goal to reach out to pediatric offices, OB offices and family practices to offer information about WIC services, particularly breastfeeding supports for easy referrals. Also, some WIC agencies have their peer counselors in the hospital for general breastfeeding support on the maternity floor. Both are challenging to implement due to time/role responsibility, red tape, and challenges with bringing organizations together." "At WIC we have the breastfeeding peer counselor (PC) program but in reality not many moms will keep in touch with their PC prenatally or when in the postpartum period. Peer counselors have a very limited scope of practice so they are not able to help with many common problems due to this. If moms responded to texts or calls and if PCs were able to help with more breastfeeding problems, this program would be promising." "WIC promotes BF but is known as the place to get formula." "Breastfeeding classes are great and very helpful but many moms don't join. Some are not able to participate due to caring for kids, work, doctor appointments, etc." "Connecting women to lactation support due to other barriers they may face such as lack of transportation, lack of childcare for other children in the household, or just simply lack of access to lactation support specialists." "Baby Cafes for recipient families of donor milk. Lack of funding and staff available to lead Baby Cafes." "Breastfeeding cafes - hard to find a good space as well as scheduling the best time of day."

	“We refer mothers to our local (deleted specific name) Baby Cafe with volunteers that are BIPOC but continuing education to become an IBCLC is difficult because of cost and time which many BIPOC cannot afford due to socioeconomic status. Also, (need) more PCs that know different languages like Haitian creole and spanish.” “Support groups, both prenatal and postnatal- encouraging participation/attendance is difficult.” “Ongoing support groups – groups get large and one person is not able to handle helping many dyads along with those that just need psychological support vs. actual clinical lactation support.” “Home visits, liability and crime rates make it hard.” (Western Region WIC peer counselor) “Individual in-home lactation visits in the first couple weeks postpartum make a huge difference, but the cost is a significant barrier for many.” “Free visit with the LC. Tricky to get the moms to come to the office with newborns. We should go to their homes.” “Peer counseling- challenging due to staffing with high case load.”
Hospital and healthcare practices	“Our organization is a Baby-Friendly Hospital, and we consider it a highly promising breastfeeding promotion practice. Being a Baby-Friendly Hospital requires continued staff training and monitoring of the Ten Steps implementation.” “We are a Baby-Friendly hospital. Sadly, the system is not mommy friendly. There is no place for respite. When mom is exhausted, the day of cesarean, or after receiving magnesium, she needs to sleep. Baby does not have to be at the bedside.” “In the hospital setting, consistent lactation support is critical but often unavailable in our institution. Outpatient lactation consultation that is easily accessible is also critical but also difficult to find.” “Rooming in. Our parents are exhausted and in the night they usually cave and ask if we can feed them a bottle. If they have been hand-expressing to offer colostrum they often feel it isn't enough or are in pain and don't understand the baby needs to be close to them.” "We do conduct Public Health Detailing to health care providers to educate them on breastfeeding and the resources available from WIC. Our biggest challenge with this is actually getting any face time with providers to provide more than just a hand out that they may not look at. We have also done some support groups. A challenge we face is getting moms to come and be involved given we are a small, rural community." “Having PCs in the hospitals or getting discharge reports from the local hospitals. HIPPA and MOA with the hospital has been a challenge as well as COVID.”

	“We help moms order a breast pump before delivery-but oftentimes moms will not make the effort to do this before giving birth. It is sometimes difficult and I often wish that their OBs would assist in the ordering process for them so that they had it when they give birth.” “Breastfeeding Medicine department. They are incredible but hardly ever have same day appointments which is so important for targeting lactation trouble in the first few days/weeks.” "Observation of the first or first few breastfeeds in the hospital by a trained staff that has ample time to observe the entire feeding and provide corrective action plans based on the family's BF goal in a language that is fully understood by the patient. The staff conducting the observation/assessment should have knowledge of the resources available in the patient's community so that an adequate referral could be given. Right after birth is the most critical time to assess how the dyad is doing and which adjustments need to be made since whatever situations that were predicted/assessed prenatally may change. The challenge is that staff in the hospital do not have enough time to offer this service due to poor staffing or not having any IBCLC on staff. Another challenge may be that LC or HCP in the hospital may not be aware of where to refer the dyad for further 1:1 help when needed. Also, most hospitals do not even have budgeted the recommended number of LCs based on the number of deliveries; using staff that does not have the experience or expertise in BF assessments and management of, may do more of a disservice to the dyad. " "The absolute most challenging problem I have is getting the staff to comply with not giving formula to breastfeeding mothers. I especially see problems with the night shift. Since there is no nursery for the baby to go to any longer, parents are exhausted. I believe in rooming in, but do think that parents should be able to bring their babies to a staffed nursery for a few hours of sleep at night. I believe if we had another IBCLC on weekends and evenings, we would have better success." “Exclusive breastfeeding- oftentimes mothers plan to exclusively breastfeed, however due to exhaustion ask the nurses to feed the baby using formula.”

Table 12. Overview of Study Findings Regarding Breastfeeding Disparities			
	Key informant interviews (NYS and national experts – combined)	**Online survey**	**Key supportive quotes**
Discussion of racial and ethnic breastfeeding disparities	• Black individuals – historical trauma, distrust of the medical system • Supplementation with formula in Hispanic population; no colostrum • Indigenous communities – developing relationships to foster breastfeeding promotion	• Black individuals - historical trauma, lack of partner support, lack of generational breastfeeding, discrimination from the medical community • Hispanic individuals – cultural beliefs related to colostrum; preferences for "healthy weight" infants	******KII Quotes***** "African American community in the US were breastfeeding your slave owners' children was traumatizing; the freedom to not have to breastfeed was considered liberating and empowering. And so that's a very personal decision, and often comes with some history that is very traumatic." "With the Latino population, there's a language barrier. And there are cultural barriers. So one of the cultural barriers is that they say "no leche" in the first few days, and that's the colostrum." "And I think in the Hispanic communities, there's a tendency to want to overfeed; they think the chubby babies as the healthy baby and this makes them doubt that mom's getting enough milk into the baby because they cannot see it, like with the bottle." "..we do provide medical care in a differential manner. And so there are minority women, women of color that get different breastfeeding support, get less time, get less referrals, are deemed maybe, not going to breastfeed anyway so why bother kind of help.." "...that's what structural racism has done is create as many myths about the black body. Everything from black people don't experience pain as much as white people and can tolerate more pain, to the idea that there's something wrong with the black body." "As I mentioned, African American women... may breastfeed more than we think. And it's sort of like not a homogenous group. So I think we have to really think about all the other factors that can impact that so you know women who have education, higher education may be more likely to breastfeed now. So I think you know the narrative is that "Oh, Black women don't breastfeed but that may not necessarily be accurate." "The other thing I'll just mention about the disparities is that it's easy for us to examine disparities in big picture issues; we kind of have to from

			a data perspective, lump everybody into categories because you can't do data if you don't lump to some degree. But we mask a lot of differences. Hispanics, as a rule, breastfeed about the same as Caucasians, probably a little bit higher. But that varies dramatically on how long they've been in the country and where you are. So we lump very high rates of breastfeeding with low rates of breastfeeding across different communities. And so when we start talking and we say, 'Oh, we don't need to worry about Hispanics.' Well, you kind of need to understand who your Hispanic community is first. I think similar thing with the African Americans. Recent immigrants from Africa tend to have very high rates of breastfeeding. And so you have to be careful about the assumptions that you make when you're targeting these programs." ''I'll circle back also to how do we get more women of color. Native American women involved in the lactation community. You're going to accept the message more from somebody who you think is like you." *******Survey Quotes******* "Historic and current racism against Black women from the medical community - fostering mistrust, racializing the issue of breastfeeding altogether (white doctors lecturing black women)." "Culturally, there is a lot of pain associated with breastfeeding for Black women. They lost the routines and support that were once innate in previous generations. Many things that we know work in the BF journey time, support, relaxation are not afforded to these families in ways "they" can utilize them. I see the best change in attitudes, behavior, and overall empowerment when people of color are supported by someone that looks and speaks like them." "History of black slaves as wet nurses." "..frequently, African- American mothers do not have the support of their partners when trying to breastfeed. I find that it is usually that their own mothers/grandmothers did not breastfeed." "Hispanic moms tend to not believe that colostrum is enough food to sustain their baby.."

Perspectives on who is most affected by breastfeeding disparities (other than race and ethnicity)	• LGBTQ+ individuals • Persons with disabilities (physical limitations, hearing impairments, etc.) • Immigrants, refugees, migrants, migrant farm workers • Undocumented individuals • Low-income • Individuals who experienced trauma • Individuals with English as a second language • Families under CPS surveillance	• Individuals with overly medicalized or traumatic births • Individuals with babies in NICU or preterm infants with low birth weight • WIC families • Single individuals • Individuals with mental health challenges • Individuals with chronic disease (e.g., diabetes, obesity) • Individuals with disabilities • Individuals on medication • Individuals with English as a second language • Undocumented individuals • Teens/Younger individuals • Victims of domestic violence • Social determinants of health (e.g., lower income individuals, housing insecurity, etc.)	******KII Quotes********** “Some of the homes for the disabled, those moms had expressed difficulties pumping.” “There is a big disparity in working with deaf moms who want to breastfeed. They'd like to breastfeed but they need help, and there aren't many CLCs or IBCLCs, or even nurse CLCs that can sign, and it's challenging to have to have an interpreter in there to teach breastfeeding. With the CLC, a number of them have tried to take the CLC certification course through Healthy Children, and it's not available in closed caption or any way for either deaf doulas or deaf other health care professionals that want to take the course, so we've tried to emphasize this...really would like to see more outreach and more members of the deaf community that are trained in breastfeeding to support other moms. So that's a big one for our community.” “Women have had issues with their body or issues with their own personal trauma that have led them to have a negative feeling towards their own body or lack of self-efficacy..” “Past history with Children Services. Because in black and brown communities, their parenting is policed...so supplementing isn't just in case. I don't want them to think that there was some ill intent...but somehow they are great nannies.” *****Survey Quotes***** “Medicalized, heavily managed births that can leave parents and infants exhausted and traumatized, lacking skin to skin time, and baby-led latch opportunities.” “Although WIC promotes breastfeeding, the ease of access to infant formula through the program presents a problem itself.” “Mothers in school/teen mothers may feel shamed for having a baby young and may not want to draw attention to themselves in school by pumping...may also feel a lack of support, or struggle to find time to pump while away from baby and BF after school while also doing things like homework.”

			“Breastfeeding cannot be a priority with the family (who) is homeless, hungry, lack heat, lack a good pump is needed.” “Women with OUD- these mothers and their babies have unique issues. For the mothers, they have many competing demands related to their own recovery and decreased self-efficacy some times. For the babies- their withdrawal impacts latch and establishment of breastfeeding. “The lower income women have so much on their plates as it is, in my experiences they tend to see it as ‘one more thing to do." “Mothers with mental health issues can feel like they have to choose between mental health and carrying for child.”
Rural area considerations	• Lack of transportation for support services • Lack of internet access • Low-income/ poverty • Less points of access in rural healthcare systems • Shortages of providers and lactation consultants • Lack of community lactation and educational resources • Fewer Baby-Friendly Hospitals • Delays in getting access to pumps • Conservative norms do not support breastfeeding • Need for more funding support for rural communities	• Lack of access to support and resources in rural areas • Cultural considerations within rural communities	******KII Quotes***** “...there's no public transportation there's no bus...you're one of these moms with a new baby stuck out in the middle of nowhere on a farm. Want to talk about challenges, getting to support services. If you don't have someone that can drive you during the day, you're not going to get anywhere.” “You don't have internet access or can't afford to pay for Internet acces.s” “It's extra challenging for families to get prenatal breastfeeding support because there are fewer places where they can take a breastfeeding class.” “Shortages of pediatricians in area.” “So, it may take a couple of days to get those pumps. It can take maybe an hour to get into the city and a lot of our patients are not comfortable. They may not have a car but they're not comfortable driving into the city they would rather just wait so that can be an issue.” “..rural populations tend to be much more conservative. And so a little bit less supportive of women breastfeeding in public.” “So much of the funding has gone for these (urban) communities. They ignored, well in New York State, the Upstate rural areas, in my opinion.

			And that's why I've been trying to get us to get some funding to go out and work in these rural areas." *******Survey Quotes******* "Many women would have to travel an hour to see an MD or CLC." "My program is located in a small rural community with little cultural diversity - however I feel that addressing the older generation's influence on younger moms. Many grandmothers were from a generation that normally did not breastfeed." "Rural moms have a lack of access to free support services if they fall above the WIC income threshold. Providing and promoting free 1:1 and group support to moms of all income demographics and locations (would be helpful)."
Breastfeeding facilitators for those most impacted by disparities	• Cultural competency of providers	• Addressing health issues of the breastfeeding individual prenatally • Access to insurance coverage for lactation support, home visits and pumps • Breastfeeding education for teens/adolescents	********KII Quotes******** "So I think being knowledgeable about which ethnic groups are more likely to initiate breastfeeding and be interested in doing it. One should not make any assumptions, and should always address the issue with the woman, you should also be prepared for that active counseling, initial reluctance or lack of knowledge." *******Survey Quotes******* "...addressing issues that may create breastfeeding challenges prenatally (e.g. breast reduction surgery; PCOS, structural issues).." "Lactation home visits covered by insurance."

Breastfeeding barriers for those most impacted by disparities	• Lack of inclusive breastfeeding policies for LGBTQIA+ individuals • Lack of provider education on LGBTQIA+ unique breastfeeding needs • Fear of losing job (undocumented workers) • No insurance • Afraid to “enter the system” to seek support • Generational history of not breastfeeding or cultural beliefs passed down that breast milk is not enough • Lack of racial concordant care • Language barriers and lack of interpretation services	• Implicit bias • Discrimination from medical providers • Lack of additional support for individuals with complicated births • Lack of medical provider outreach to diverse groups to promote breastfeeding • Lack of diversity in lactation professionals • Lack of provider knowledge of medication contra-indications with breastfeeding	*******KII Quotes******* “LGBTQ community are important and we struggled. I remember to write a policy and procedure to utilize the department had breastfeeding rooms...then somebody came in and said, ‘Oh, What about the LBGT community.’ And then we have to sit down and we had to think it through and we're like, ‘Well, what do you put on the door.’ So even people like health departments are struggling with this, as well as the coalitions are struggling with it.” “Also I am aware that there are chestfeeding and breastfeeding individuals who do not necessarily go under the title of woman, or female....and you have to have an understanding of the culture and the language in order to successfully work in that area.” “..but there's a lot of farms and slay quarries..so we have a lot of immigrant population. They won’t seek the help, because they're afraid of their status.” “..they're an illegal immigrant, they're afraid to enter the system at all..” “... some of the population that we do see in WIC are undocumented. So, they might not have some of the accommodations that others may have with maternity leave, being able to pump at work. Some of the participants we would work with are afraid to ask for accommodations from their employer because they feel like they're just grateful to have their job ...so they don't want to rock the boat, you know, for their accommodations.” “...and then the white lactation consultants are insulted when somebody only wants to talk to somebody who's Black, for example, or Hispanic or Native American...” “And then we have Mexican Latino...so there's a language barrier. We've used iPhones, we've used online interpreters or services, I think in person is a lot better with the communication.” “I just reached out to someone in an organization out there to let them (ref: Spanish migrant workers) know about our virtual support groups but again I don't know if these women are going to even know how to use a computer.”

			*******Survey Quotes******* “Support for women experiencing complications related to their delivery or to breastfeeding. (Examples: emergent c-section, difficulty latching, infants with low sugar values.)” “Not enough initiative from local CLCs and medical providers in promoting breastfeeding education. A few of the organizations aren't really doing enough to reach different diverse groups.” “Providers should also use best practices when prescribing medication...many providers blanketly tell women to stop breastfeeding with any medications without verifying the actual risk level.” “Lack of cultural and racially relevant support.” “There is a significant lack of representation among midwives, CLCs, IBCLCs, and other providers. When googling or searching for support that you may identify with there are very little images of BIPOC mothers breastfeeding.” “Language barriers- lack of available services, bilingual lactation consultants....” “Racial biases by healthcare workers and lactation consultants who are not the same ethnicity/race as the individuals.” “My most challenging is reaching out to the lower income family as they are afraid of costs and I am not able to easily be a participating provider for insurance companies.”

Cultural factors/beliefs impacting breastfeeding and breastfeeding supports and materials	• Assimilating to American norm of formula use • Perception that colostrum is “bad” • Cannot use Internet for online virtual support • Considerations related to messaging • Jewish respite homes for birthing mothers encouraging others to feed	• Need to respect cultural beliefs in messaging while also making efforts to provide evidence-based information (e.g. skin-to-skin messaging, how milk is produced and sustained) • Remember that everyone has their own individual beliefs, regardless of their cultural identity	****KII Quotes***** “We need to be careful about our approach to the immigrant community, such that they're not converting to American standards....a lot of people are embarrassed, they think that they're not good... they're not American if they breastfeed. Right, because they don't see anybody breastfeeding.” “One of the things we hear the most about especially for women who come from other countries, is that our country as a whole, like, it's like the culture in America is not supportive of breastfeeding whereas these women who come from the Caribbean countries are like ‘Wait a second,’ and they've said to us, ‘Everybody breastfed where I come from, but here it's not that same way.” “So, for example, some immigrant women may decide that they're not going to breastfeed because even if they've breastfed previous children in their home country because they think that formula is the American way, and they want to assimilate.” “I’ve heard from some women that they believe that colostrum is bad, so their colostrum is being discarded.” “We had a campaign, and we had two campaigns in Massachusetts. One was aimed at Latino women, and one was, and black women... But, like, we had found that for the Latino population, one issue was they wanted to mix formula and breastfeeding and that was a big problem...We had done some interviews qualitative research with women and found that they thought formula had chemicals and what they really wanted was natural stuff. And so we had these images that sort of promoted breastfeeding is natural and free of chemicals and we had advertising that was that, and posters that played on that message....But one thing that they did like about formula, they valued fat babies. So, it really is dependent on the group, not everybody responds to the same message. And for the African American community, we found was that a lot of it was about people's male partners in particular and people feeling comfortable breastfeeding in public so we had a lot of our ads there were like a woman with her partner or breastfeeding in public, like in a park or on the subway breastfeeding with her partner and her family.”

			“If you're not culturally responsive, you're really not being that effective. You're missing a whole bunch of people that are not going to have the empowerment to make the decision they want to make. So, I think we all have these responsibilities, and it takes a deep and broad look at everything. And I think at this point, a lot of us aren't experts in that and you have to utilize experts to enlighten you so that we can all be lifted up and more become more woke and responsible.” “A large portion of our population who we serve, is the ultra-Orthodox Hasidic population and they do not have access to internet. So they can't really access the virtual supports that we're offering right now. So that's a big problem, and gets challenging and ease of access of early breastfeeding support.” *****Survey Quotes***** “Our clinic primarily serves an orthodox Jewish community. There are many rules around imaging and modesty and what types of promotional materials we can send. We often have to cover the photos on the brochures that show breastfeeding with post its out of respect for the community.” “For Black families, frequent skin to skin must be promoted. It is a common thought amongst Black people that a baby can be ‘spoiled." “Black moms feel they produce less milk, but we talk about supply and demand and how milk supply is determined by how often you nurse and not just your background.” “Some women of color do not want to breastfeed because they still feel breasts are not for feeding because they will lose their shape. Breasts are sexualized to them and their community.” “We have a large Hasidic population who deliver at our facility who do breastfeed and have family support, however their families encourage them to ‘rest’ at night in order for the mother to gain strength to be able to help the mother breastfeed at home or during the day. They mostly choose to give formula overnight despite being offered a breast pump in an attempt to give colostrum instead; Within the Spanish community we educate infant belly size and importance of the "first milk" colostrum.”

			“Rather than assume everyone from a similar culture believes the same way, I would focus on each individual. What are their beliefs?”
Key intervention considerations	• Expand lactation protocols for LGBTQIA+ individuals • Expand eligibility of donor breast milk • Develop/expand breastfeeding promotion for individuals with disabilities • Collect data at the local level to better assess needs	• Community-based educational programs for young adults • Destigmatize services, especially for low income individuals	*******KII Quotes****** “And it's really a discussion of what are the lactation possibilities and what are the barriers for people in those populations. Specifically induced lactation, lactation assistive devices, and donor milk being a huge disparity right so it's a disparity not just for Black and African American babies who are less likely to be born at hospitals that provide donor milk, but also for LGBTQI individuals who can't make milk and their babies, therefore can't get any breast milk, unless they get donor milk, but they're not on the lists of the milk banks as being eligible for donor milk in terms of insurance reimbursement.” “The deaf and hard of hearing communities need more information and materials specifically targeted to them." “I think, you know, looking at differences by income and I also think looking at differences by rural, urban is rural, suburban and urban because I think that the rural areas have not been attended to. I think they have issues that we don't yet understand, and some of that's because we don't have, we really don't have good data to determine what are the needs and what are the supports.” “We take care of in particular an Afro Caribbean population now and so there might be more likelihood to breastfeed among that population... because they may have done so in their own country of birth and...I don't think we've really drill that down into the different category of Black women...everyone is African American per se and so I think we need to look at that a little bit more so.” *******Survey Quotes******* “Young mothers will need to be engaged in community-based programs that educates them about pregnancy care and perinatal and post-partum care.” “In serving low income individuals, making it apparent that these services are something that anyone is able to access, not just low income/Medicaid eligible individuals. Making your services and breastfeeding priorities high for all groups helps to take away any stigma attached to accessing services.”

Specific recommendati-ons to address racial/ethnic disparities	• Develop and use culturally and linguistically appropriate promotional materials • Ensure healthcare providers are properly trained and use different colored breasts in trainings • Collect and assess sub-population data to better understand disparities and use data to educate providers • Address social norms in breastfeeding promotion for individuals/families • Offer CLC/IBCLC trainings/tests in language other than English and address the prohibitive costs associated with training to increase opportunity for diverse professionals to become certified • Provide patient care in the patient's native language • Diversify lactation support specialists and include doulas and ensure they're from the communities	• Diversify lactation support specialists • Support provided in native language • Provide education, especially during prenatal care, but also after birth • Ensure providers are trained in breastfeeding best practices, but also cultural humility, anti-racism, and diversity • Provide support on a 1-1 basis when needed to ensure comfort • Group settings can also be helpful for people to share experiences with other people like them	******KII Quotes***** "There's just some of that messaging that needs to be improved and some of that outreach to some of these groups and trying to find educational materials for some of these refugee groups just basic breastfeeding fact sheets very simple." "Educating the dads and the grandmas because there's a lot of old wives' tales and myths on the street that you know if you breastfeed your little boy they're going to be a 'sissy' and they won't survive on the streets and grandmas who are like 'we don't do that anymore." "...we also found that some of the trainings are only in English....and one of them took the training course and failed the test twice and it just wasn't that she's not knowledgeable. It wasn't available in Spanish and that's her primary language." "The Historically Black Colleges and Universities (HBCUs) now have lactation programs. What's disappointing is none of them have a midwifery program so we need to crack that divide to diversify the field, but we don't have HBCUs in New York historically but we do have minority-serving institutions." "Many of the images that we see...we talked about the breast and we say, 'If the breast is pink, know more about this.' What does a brown breast look like? So there are things that health professionals aren't taught to look at when they're taught about mastitis and when they're talking about (other breast conditions). It is only against the white breast and they aren't trained enough to detect some of those very same problems in the black or brown breast. Do they manifest themselves a little bit differently in a different colored breast? And is that incorporated in the training that we're doing?" "Making sure that materials are available and accessible forms in whatever language, not everybody is hooked up to the Internet all the time...and in what languages are most appropriate for whatever communities you have that you are working with. Not everybody speaks English and Spanish..." "So having those hospitals be more likely to be Baby-Friendly, and having more Baby-Friendly hospitals and areas that serve those women is important."

	most impacted by disparities • Increase Baby-Friendly Hospitals and policies aimed at inclusive breastfeeding promotion • Consider interventions, such as CHAMPS • Focus on Diversity, Equity, and Inclusion in breastfeeding promotion practices		"I think that doula care needs to be legislated and doulas do a lot more than provide breastfeeding support but it is included in a lot of in the purview of a lot of community-based doulas, and the literature has consistently demonstrated the ability of doula care to help narrow racial disparities and breastfeeding outcomes." "We need a much broader base - broader ethnic, cultural base of people who have the expertise. Because they can go into their communities and they can teach us, all of us." "We need more black and brown lactation professionals." "The CHAMPS project - not just training hospitals in maternity care practices, but they also put in cultural training, diversity training, and Kimmarie (Buggs) also worked within the communities to train peer support teams to support mothers within the community. So they looked at what's happening in the hospital but essentially step 10 outside of the hospital and making sure there were adequate support groups of people who look like mother, that were having difficulty breastfeeding and making sure those community transformers worked directly with mothers but they also worked with institutions within their communities like the churches and community centers." "Advice, training, and structure. That includes strategic planning around the public health breastfeeding support services that really involves diversity, equity, and inclusion (DEI) throughout every aspect of that plan to make sure that the goals that are set forth are measuring disparities and that there are interventions that can address disparities when they occur, and really tapping into the community to help provide the information that's needed to the healthcare professionals to do a better job to hear from the community, to truly listen to the community and see what their needs are, so that their breastfeeding barriers can be overcome." *******Survey Quotes******* "We *really* (need) to work at diversifying the workforce in lactation support. I can normalize my experience, but there is missing context as I am a white woman who comes from a privileged background. We need more non-English speaking CLCs/IBCLCs! We need more

			BIPOC CLCs/IBCLCs. We need more support groups that center on the experiences of marginalized communities." "Latino moms need more support with education in Spanish and within a heritage/culture support environment." "The breastfeeding promotion practice that best addresses cultural factors is breastfeeding education for mothers and family. Most African Americans tend to stick to their tradition. Some grandparents will mention that they never breastfed. Therefore, they encourage formula usage causing a misconception that formula is equivalent to breastmilk." "Providing individual support is best to address cultural factors. Moms are more willing to share if they feel they are not being judged or looked at differently for what they believe is correct." "Prenatal lactation consults. In this region (Western NY), we see a small population of Arabic women. Many women of this culture do not breastfeed in the hospital, or do not like healthcare staff to assess a feeding. The mom's mom often is supporting mom giving a bottle. If prenatal lactation consults were done during pregnancy with the use of interpreter services, this could increase education and support. Often-times, the father of the baby wants to translate for mom, and interpreter services should be used whenever possible so that all information is translated." "For any cultural group that we are not familiar with, we try to listen and learn from the moms about the attitudes and beliefs of that group around breastfeeding. We have posters, handouts, booklets, and Facebook posts featuring women from many different cultures breastfeeding. We have Facebook posts during world breastfeeding month highlight the designated racial/cultural group for each week." "Staff are trained in some of the cultural factors that may influence breastfeeding. For example, during Ramadan we focus on incorporating breastfeeding in a culturally appropriate manner and discuss breastfeeding with leaders of our local mosques."

			“Lactation consultants, counselors, nurses and doctors should receive training that includes cultural humility, anti-racism and diversity.”

Table 13. Final Summary of Recommendations

Individual/ Interpersonal Level	• Provide more education to individuals before and after pregnancy on the benefits of breastfeeding, mechanics of lactation, where to access resources and NYS Labor law for worksite accommodations - ensure education is culturally responsive • Start this education early, including in the K-12 school system • Provide mental health support
Interpersonal Level	• Provide more educational opportunities to immediate and extended family members on the benefits of breastfeeding, how to support the breastfeeding individuals and where to access resources
Community Level	• Work with business partners to normalize and support breastfeeding for customers as well as employees • Increase access to breastfeeding resources and lactation rooms in the community to meet individuals where they are (churches, schools, etc.) • Expand services provided by support groups to address SDOH (e.g. transportation, food insecurity) • Incorporate diversity into breastfeeding promotion activities • Incorporate community partners in breastfeeding promotion • Conduct a widespread breastfeeding ad campaign across sectors to normalize it in every setting
Healthcare Sector	• Provide training and CE opportunities to providers (across the continuum of care and especially in OB/GYN and pediatric offices) on how to deliver culturally and linguistically appropriate care on breastfeeding • Expand lactation services in the community; Also home visiting; hotlines and telehealth; and ensure it is accessible 24/7 • Ensure the diversity of certified lactation counselors (e.g., training and scholarships for exams, offer the exam in languages other than English; ensure lactation counselors represent the communities they serve) • Ensure accountability for Baby-Friendly Hospitals and include a greater focus on 10-steps; provide funds for wider implementation in areas of need
Specific Setting: Workplaces	• Provide education to administrators and supervisors on Labor Law and also how to support breastfeeding individuals when they return to work • Ensure enforcement of Labor Law compliance - potentially through penalties or incentives; conduct campaign to reinforce the law • Provide mechanisms to report lack of worksite compliance with Labor Law (and promote it widely and frequently using various channels and through different settings, not just worksites) • Work with service industries and schools to increase accommodations • Ensure workplaces have private lactation spaces and sufficient breaks for breastfeeding employees
Specific Setting: Childcare	• Provide education and resources to support breastfeeding individuals in childcare settings • Improve worksite flexibility to allow for access to childcare or encourage employers to include childcare services as a benefit
Funding Suggestions	• Fund community collations and partnerships, expansion of Baby-Friendly hospitals, community lactation support, Creating Breastfeeding-friendly Community grants, support to rural and other high need areas.
Policy Suggestions	• Enhance Paid Family Leave benefits (increase amount of time) and job protections • Work to implement the provisions in the Affordable Care Act • Expand continuing coverage and insurance for lactation support, home visiting, telehealth and lactation supplies • Modify breastfeeding metrics (hospital and beyond) and provide data to communities to use for advocacy and monitoring.

Figure 1. Number of Survey Respondents by Role in Breastfeeding Promotion

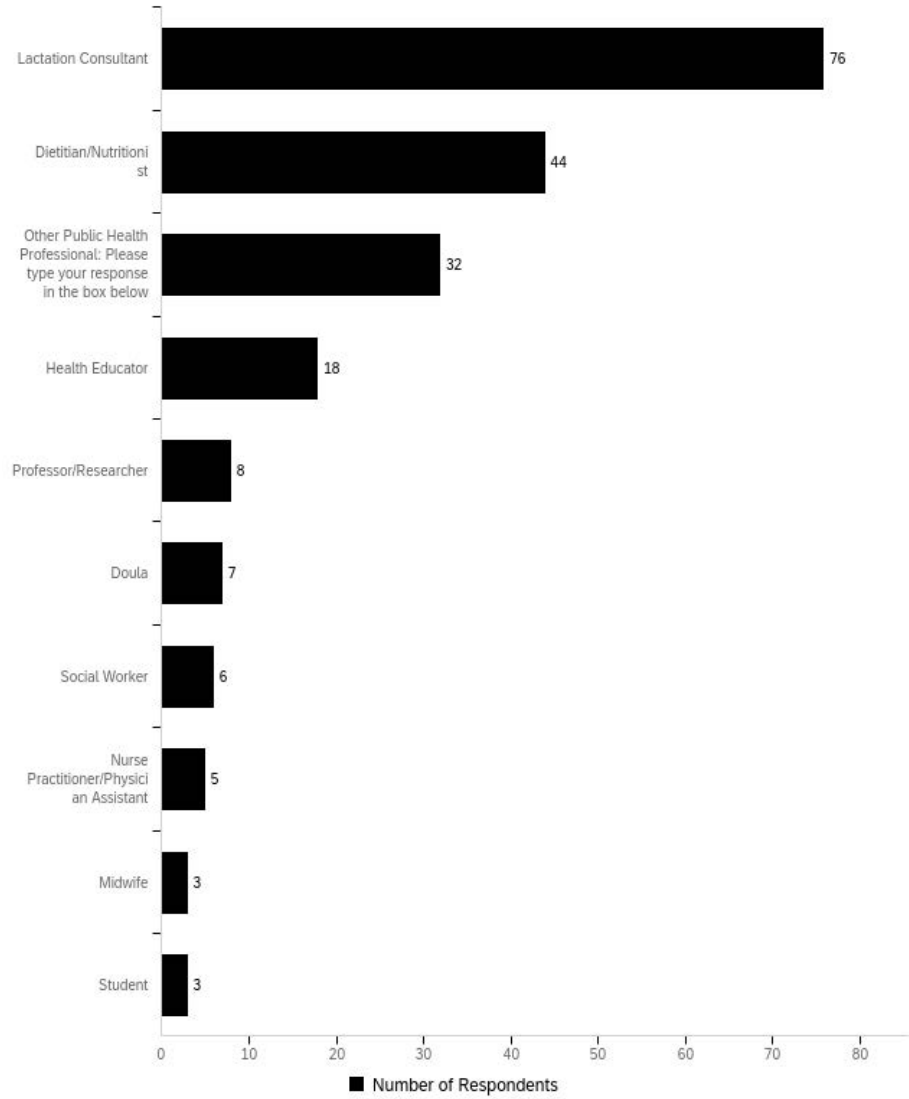


Figure 2. Number of Survey Respondents by Length of Breastfeeding Promotion Experience