Breastfeeding-Related Maternity Care Practices

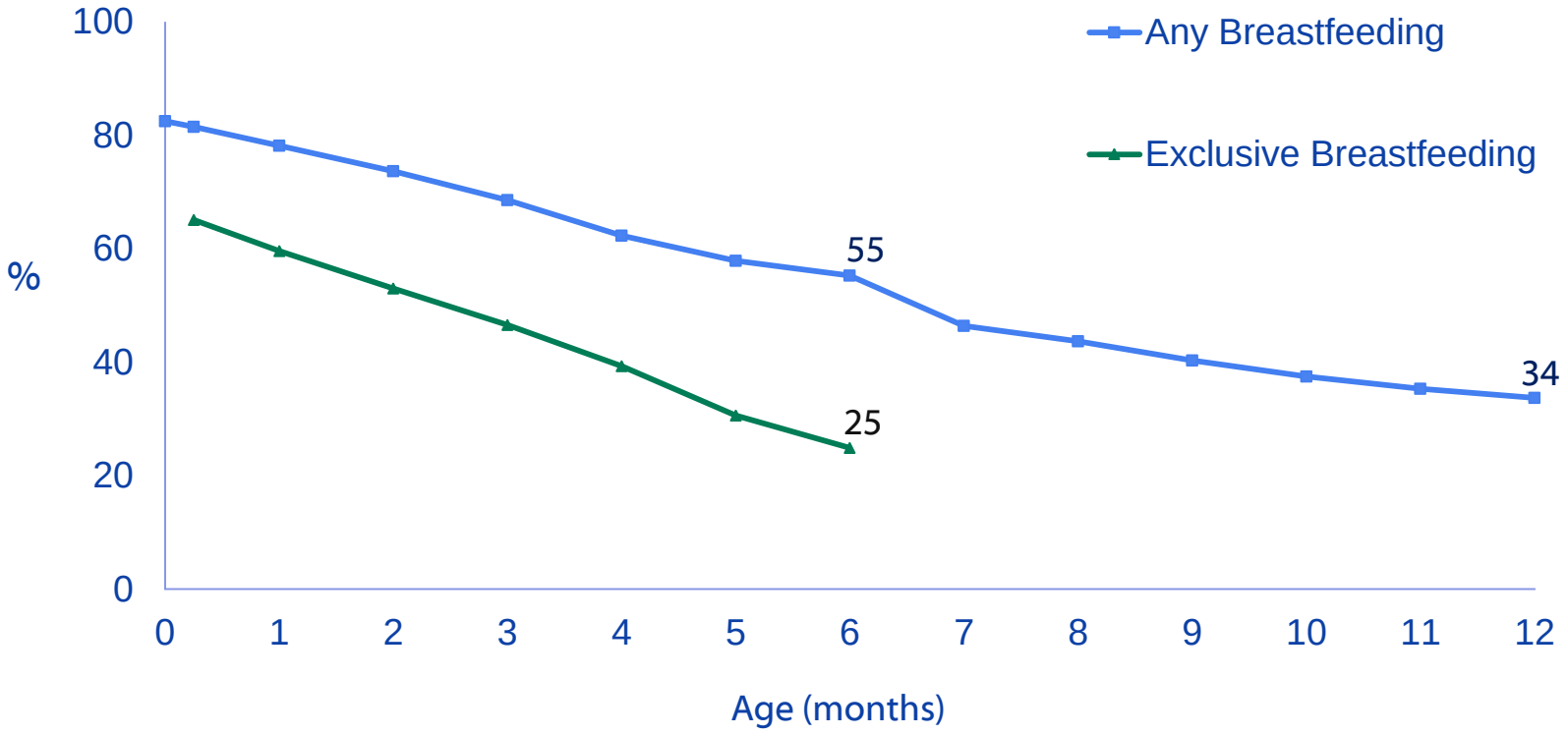
Jennifer M. Nelson, MD, MPH, FAAP

for the CDC Breastfeeding Working Group

Why is breastfeeding important?

- Benefits to infants
  - Decreased incidence of illness and infection
- Benefits to mothers
  - Decreased incidence of breast and ovarian cancers
  - Decreased cardiovascular disease
- Benefits to communities
- American Academy of Pediatrics (AAP):
  - Exclusive breastfeeding for 6 months
  - Continued breastfeeding for at least 1 year with complementary food introduction

Percentage of U.S. Infants Breastfeeding



Exclusive breastfeeding is defined as only breast milk and needed medications or vitamins

CDC's National Immunization Survey, among children born in 2014

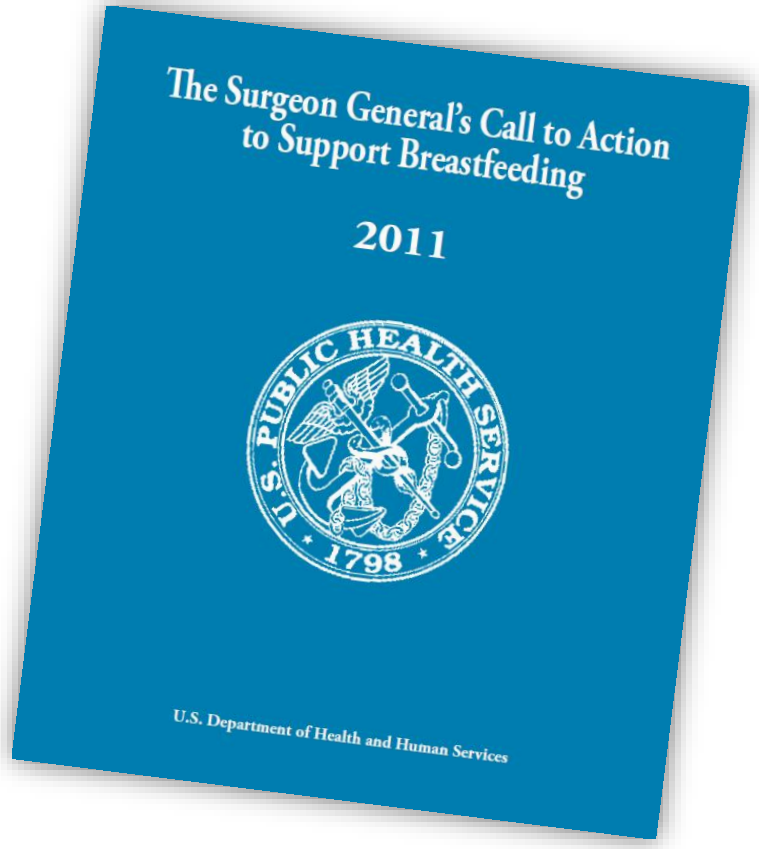
Mothers Do Not Breastfeed For As Long As They Intend

- 60% of U.S. mothers said they did not breastfeed as long as they intended

Odom E., et al. Pediatrics 2013

The Surgeon General's Call to Action to Support Breastfeeding

- Barriers:
  - Breastfeeding education
  - Maternity care practices that support breastfeeding
  - Peer and professional support
  - Adequate space, equipment, and time to breastfeed or express milk in workplaces and childcare settings
- Mothers need support to overcome barriers



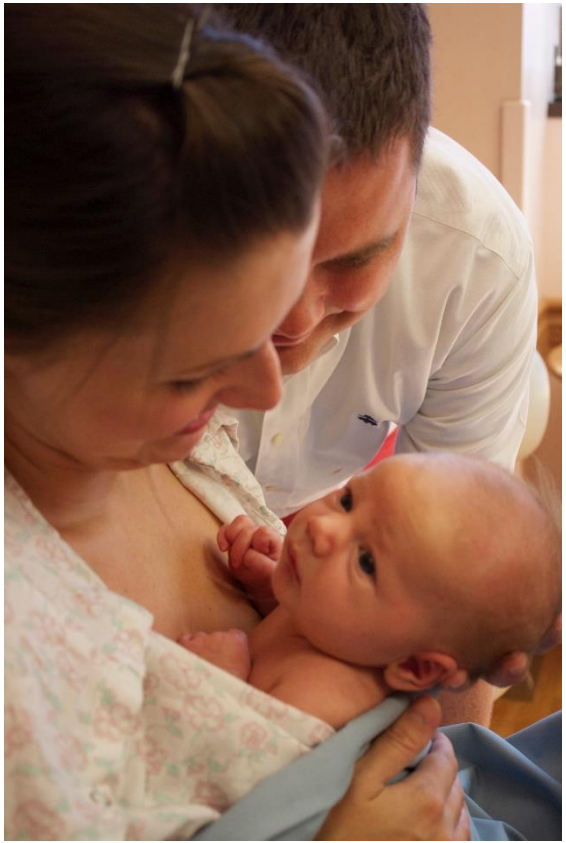
CDC's Strategies to Support Breastfeeding

- Hospital support for breastfeeding
- Support for employed women
- Community support for breastfeeding

Maternity Care Practices

Hospital Support of Breastfeeding

- Experiences during maternity stay influence infant feeding
- Barriers:
  - Low priority
  - Insufficient knowledge and clinical competence
  - Fragmented care
  - Inappropriate routines

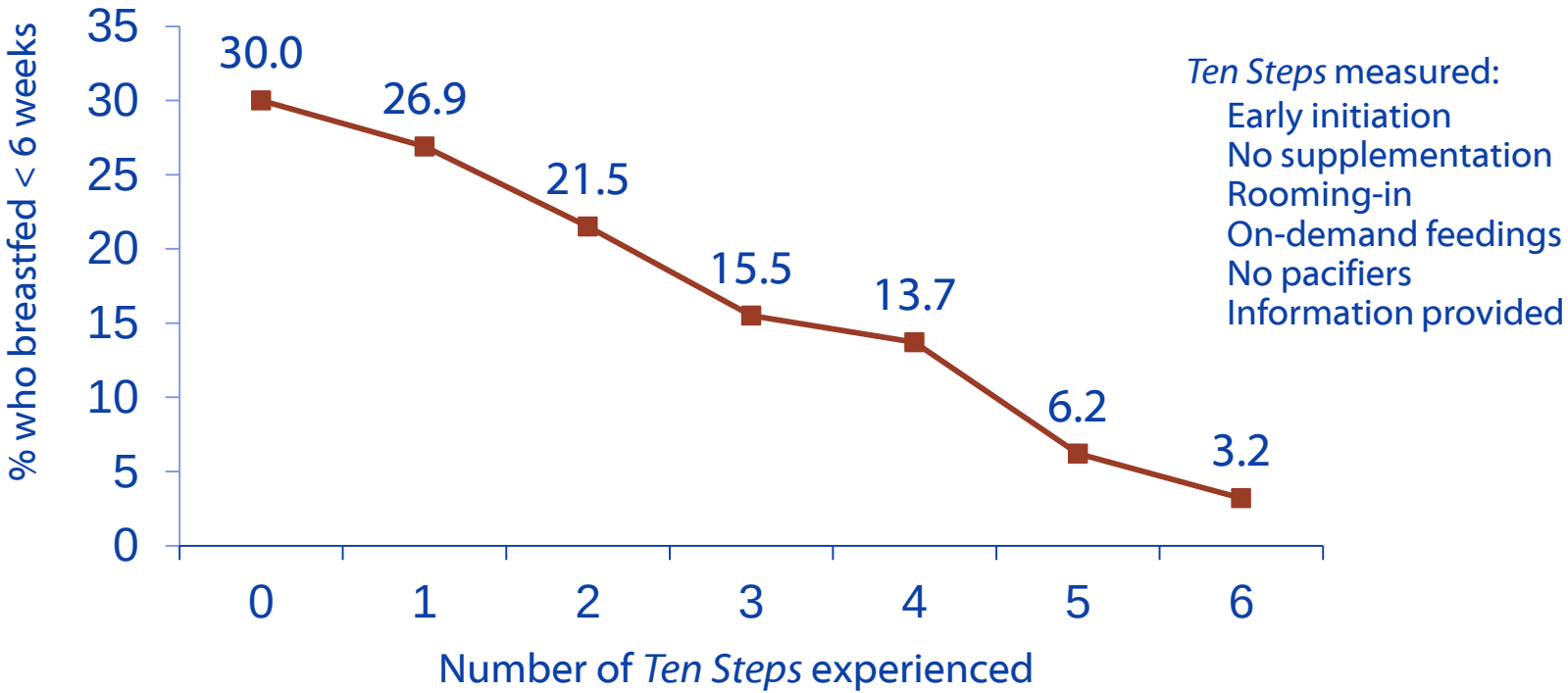


Baby
Friendly
Implementing the UNICEF/WHO
Baby Friendly Hospital Initiative
in the United States

Ten Steps to Successful Breastfeeding (*Ten Steps*)

- Have a **written breastfeeding policy** that is routinely communicated to all health care staff
- **Train all health care staff** in the skills necessary to implement this policy
- Inform all pregnant women about the **benefits and management** of breastfeeding
- Help mothers initiate **breastfeeding within one hour** of birth
- Show mothers **how to breastfeed** and **how to maintain lactation**, even if they are separated from their infants
- Give infants **no food or drink other than breast-milk**, unless medically indicated
- Practice **rooming-in**, allowing mothers and infants to remain together 24 hours a day
- Encourage **breastfeeding on demand**
- Give **no pacifiers or artificial nipples** to breastfeeding infants
- Foster the establishment of breastfeeding **support groups and refer mothers** to them on discharge from the hospital or birth center

Cessation of breastfeeding before 6 weeks and evidence-based hospital practices



DiGirolamo et al. Pediatrics, 2008

International Code of Marketing of Breast Milk Substitutes (The Code)

Article 1. Aim of the Code

To contribute to the provision of safe and adequate nutrition for infants, by protection and promotion of breastfeeding, and ensuring **proper use of breast-milk substitutes**, when these are necessary, on the basis of **adequate information** and through **appropriate marketing and distribution**.

Article 2. Scope of the Code

Applies to the **marketing and practices** related to:

- Breast milk substitutes, including infant formula
- Other milk products, foods and beverages when marketed to be suitable for use as a partial or total replacement of breast milk
- Feeding bottles and nipples
- Use of marketing materials

Baby-Friendly Hospital Initiative (BFHI)

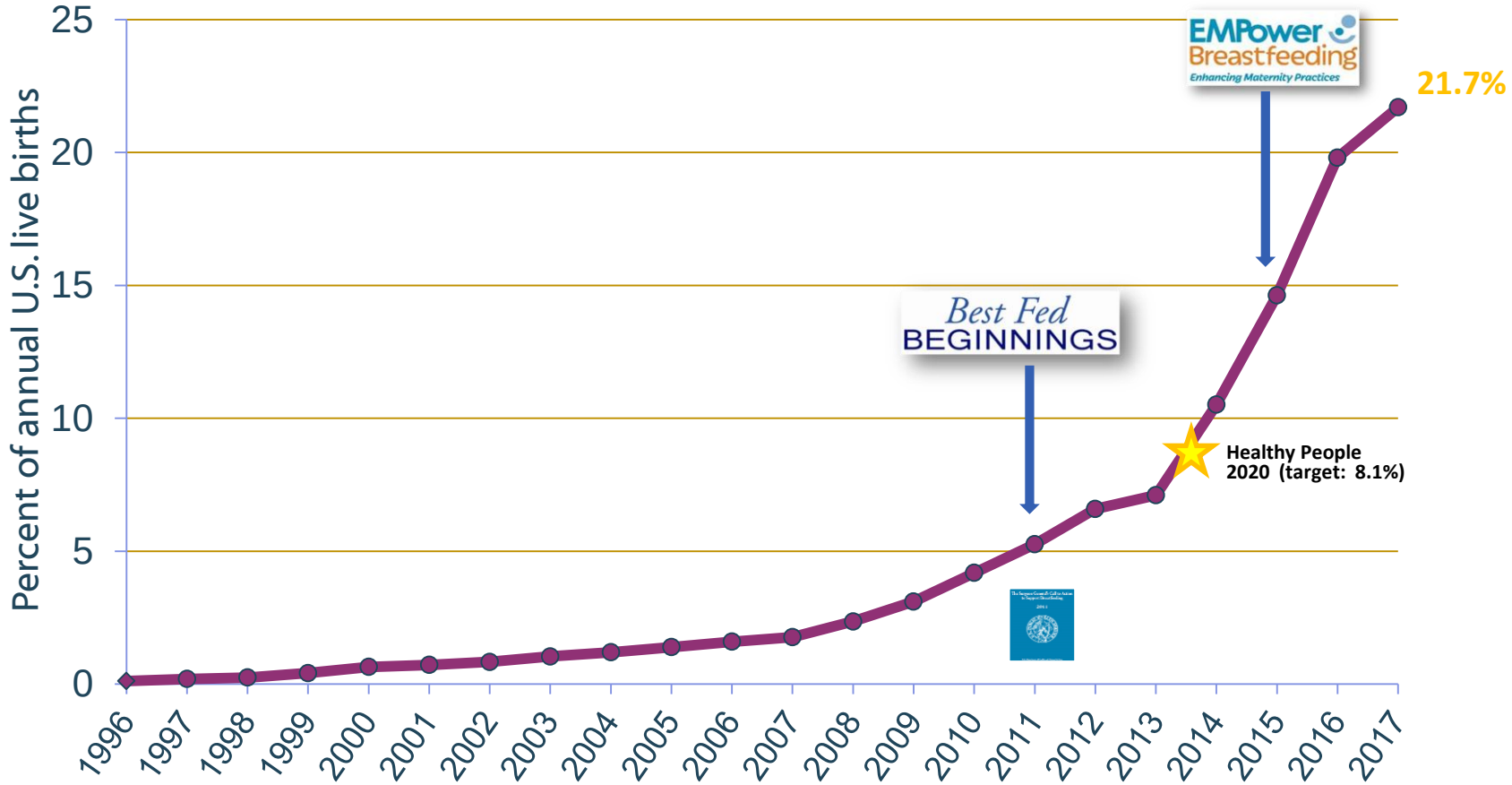
- *Ten Steps* endorsed and promoted by:
  - American Academy of Pediatrics
  - American College of Obstetricians and Gynecologists
  - American Academy of Family Physicians
  - American College of Nurse-Midwives
  - American Academy of Nurses
  - Association of Women's Health, Obstetrics, and Neonatal Nurses
  - Academy of Breastfeeding Medicine
  - Academy of Nutrition and Dietetics
  - National WIC Association
  - U.S. Breastfeeding Committee
  - U.S. Preventive Services Task Force
  - U.S. Surgeon General
  - Centers for Disease Control and Prevention
- California
  - Law that all hospitals must implement the *Ten Steps* by 2025
- Blue Cross & Blue Shield of Mississippi
  - Mississippi State Department of Health, Communities and Hospitals Advancing Maternity Practices (CHAMPS)
  - Will require all delivering network hospitals to gain Baby-Friendly designation

CDC-Funded Hospital Quality Improvement Initiatives

- 2011-2014
- Goals:
  - Increase number of designated hospitals
  - Improve maternity practices that support breastfeeding
- 76/89 (85%) designated
  - 230,000 births annually
- First hospitals in Georgia, Kansas, and Mississippi
- Exclusive breastfeeding: 39% → 61%

- 2015-2017
- Goals:
  - Increase number of designated hospitals
  - Identify best practices for achieving designation
- 11/93 designated; 64 in final phase (D4)
- First hospitals designated in Arkansas and West Virginia

Percent of U.S. births occurring in Baby-Friendly facilities



Maternity Practices in Infant Nutrition and Care (mPINC) Survey

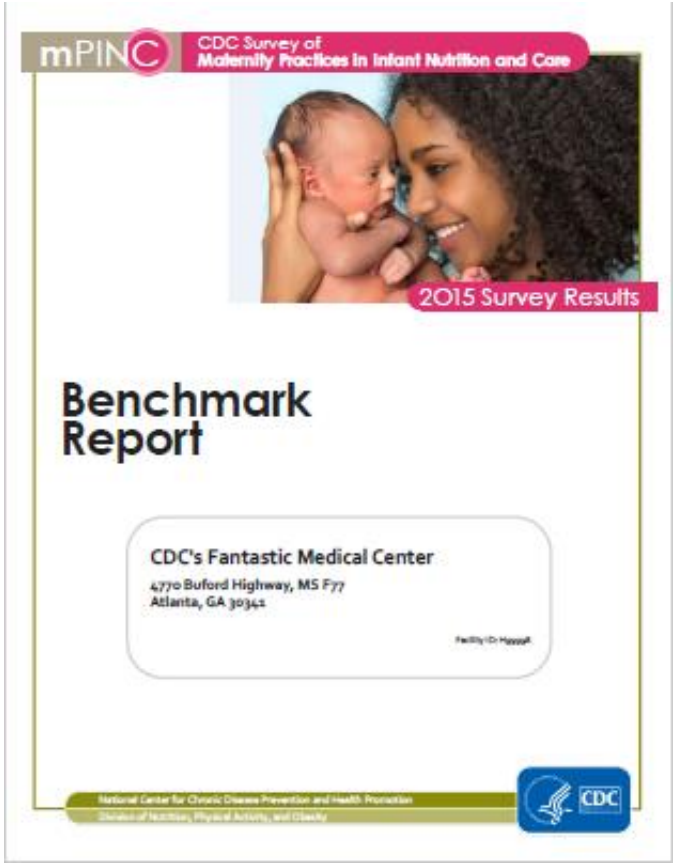
mPINC Survey

- Launched in 2007
  - Administered every 2 years
- Census of all hospitals and birth centers
- Breastfeeding-related maternity care practices and policies
- Key informant
- Response rate >80%

mPINC Survey

- Labor and Delivery Care
- Postpartum Care
  - Feeding of breastfed infants
  - Breastfeeding assistance
  - Contact between mother and infant
- Facility Discharge Care
- Staff Training and Education
- Structural and Organizational Aspects of Care

Individualized Benchmark Report


mPINC

CDC Survey of
Maternity Practices in Infant Nutrition and Care

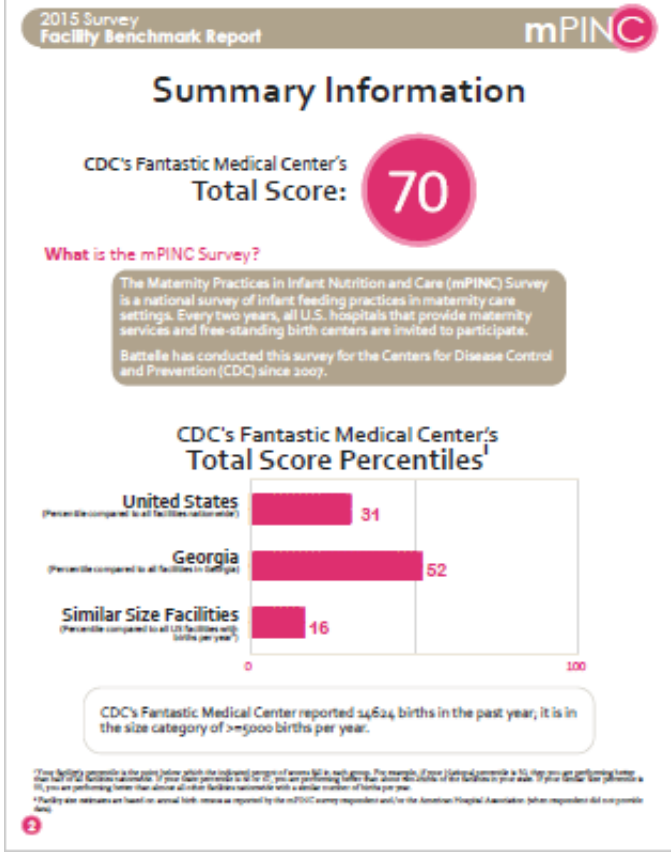
2015 Survey Results

Benchmark Report

CDC's Fantastic Medical Center
4770 Buford Highway, MS F77
Atlanta, GA 30341

National Center for Chronic Disease Prevention and Health Promotion
Division of Nutrition, Physical Activity, and Obesity

CDC


2015 Survey
Facility Benchmark Report

mPINC

Summary Information

CDC's Fantastic Medical Center's
Total Score: 70

What is the mPINC Survey?

The Maternity Practices in Infant Nutrition and Care (mPINC) Survey is a national survey of infant feeding practices in maternity care settings. Every two years, all U.S. hospitals that provide maternity services and free-standing birth centers are invited to participate.

Battelle has conducted this survey for the Centers for Disease Control and Prevention (CDC) since 2007.

CDC's Fantastic Medical Center's
Total Score Percentiles[1]

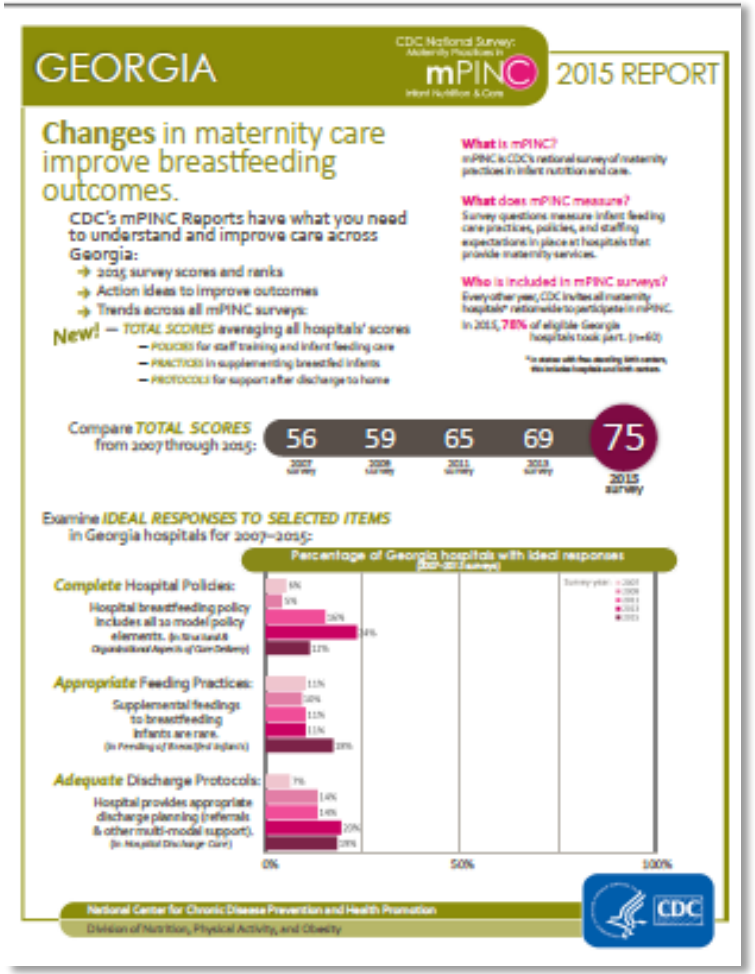
CDC's Fantastic Medical Center reported 14624 births in the past year, it is in the size category of >=5000 births per year.

[1] Your facility's percentile is the point below which the indicated percent of scores fall in each group. For example, if your national percentile is 51, then you are performing better than half of facilities nationwide. If your state percentile is 34 for GA, you are performing better than about 34% (one-third) of the facilities in your state. If your similar size percentile is 99, you are performing better than almost all other facilities nationwide with a similar number of births per year.

[2] Facility size estimates are based on annual birth revenue reported by the mPINC survey respondent and/or the American Hospital Association (when respondent did not provide data).

2

State Reports



GEORGIA

CDC National Survey: Maternity Practices in Infant Nutrition & Care mPINC 2015 REPORT

Changes in maternity care improve breastfeeding outcomes.

CDC's mPINC Reports have what you need to understand and improve care across Georgia:

- 2015 survey scores and ranks
- Action ideas to improve outcomes
- Trends across all mPINC surveys:

New! — *TOTAL SCORES* averaging all hospitals' scores
- POLICIES for staff training and infant feeding care
- PRACTICES in supplementing breastfed infants
- PROTOCOLS for support after discharge to home

What is mPINC?
mPINC is CDC's national survey of maternity practices in infant nutrition and care.

What does mPINC measure?
Survey questions measure infant feeding care practices, policies, and staffing expectations in place at hospitals that provide maternity services.

Who is included in mPINC surveys?
Every other year, CDC invites all maternity hospitals* nationwide to participate in mPINC.
In 2015, **78%** of eligible Georgia hospitals took part. (n=60)

*In states with few standing birth centers, this includes hospitals and birth centers.

Compare *TOTAL SCORES* from 2007 through 2015:

2007 survey	2008 survey	2011 survey	2013 survey	2015 survey
56	59	65	69	75

Examine *IDEAL RESPONSES TO SELECTED ITEMS* in Georgia hospitals for 2007–2015:

Percentage of Georgia hospitals with ideal responses (2007–2015 surveys)

Complete Hospital Policies:
Hospital breastfeeding policy includes all 10 model policy elements. (In Structural & Organizational Aspects of Care Delivery)

Appropriate Feeding Practices:
Supplemental feedings to breastfeeding infants are rare. (In Feeding of Breastfed Infants)

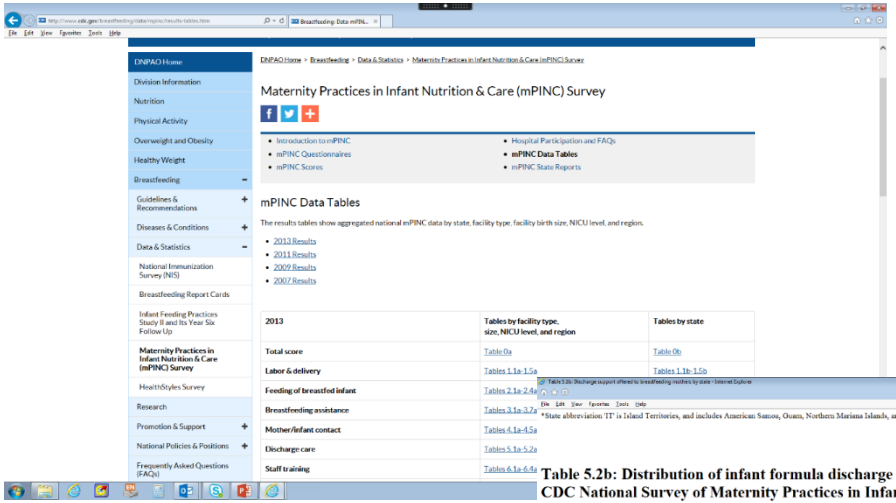
Adequate Discharge Protocols:
Hospital provides appropriate discharge planning (referrals & other multi-modal support). (In Hospital Discharge Care)

0% 50% 100%

National Center for Chronic Disease Prevention and Health Promotion
Division of Nutrition, Physical Activity, and Obesity

CDC

mPINC Web Data Tables



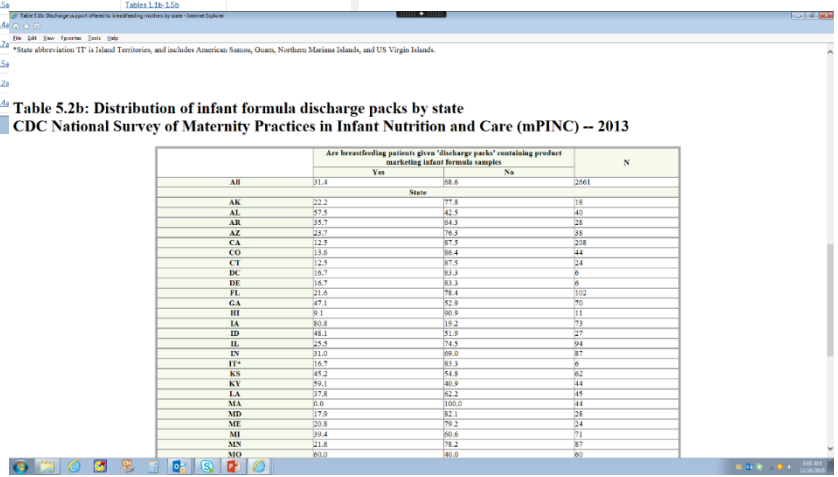

*State abbreviation 'IT' is Island Territories, and includes American Samoa, Guam, Northern Mariana Islands, and US Virgin Islands.

Table 5.2b: Distribution of infant formula discharge packs by state
CDC National Survey of Maternity Practices in Infant Nutrition and Care (mPINC) -- 2013

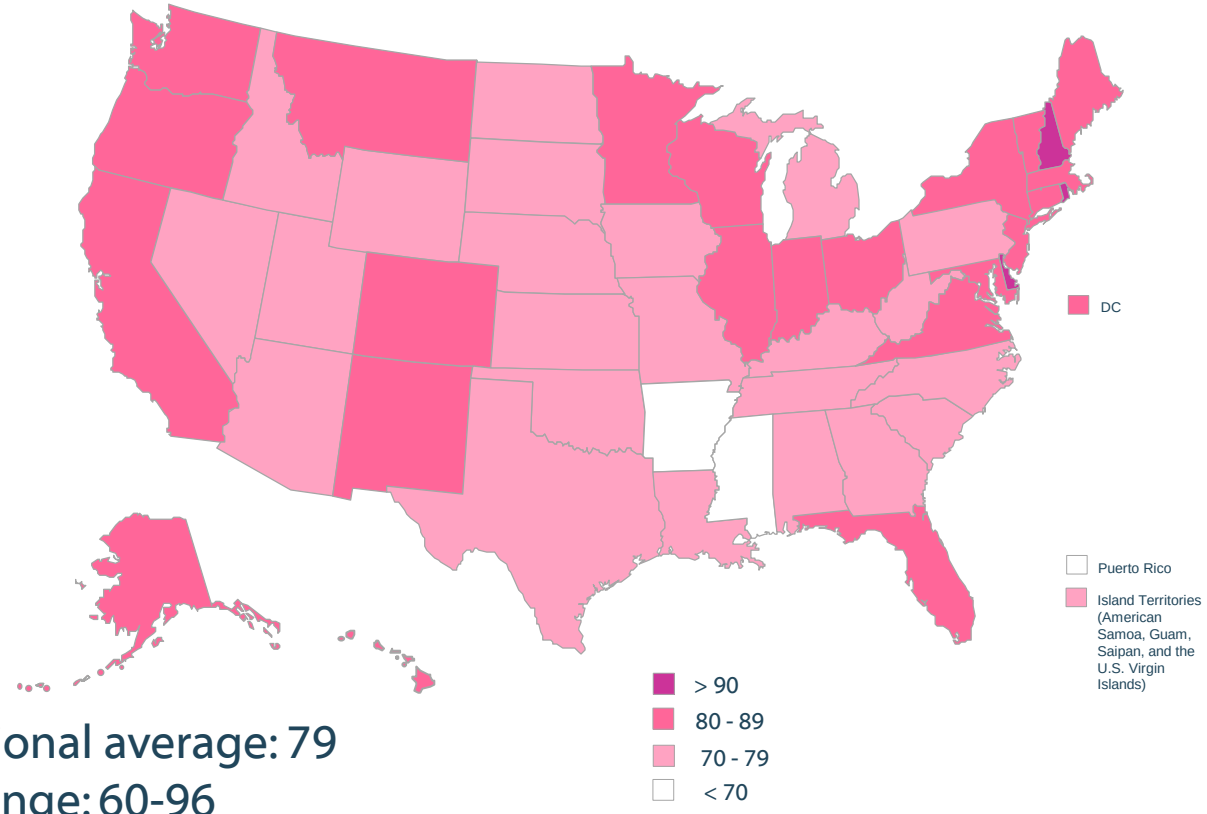
	Are breastfeeding patients given 'discharge packs' containing product marketing infant formula samples		N
	Yes	No	
All	31.4	68.6	2661
State			
AK	22.2	77.8	18
AL	57.5	42.5	40
AR	35.7	64.3	28
AZ	23.7	76.3	38
CA	12.5	87.5	208
CO	13.6	86.4	44
CT	12.5	87.5	24
DC	16.7	83.3	6
DE	16.7	83.3	6
FL	21.6	78.4	102
GA	47.1	52.9	70
HI	9.1	90.9	11
IA	80.8	19.2	73
ID	48.1	51.9	27
IL	25.5	74.5	94
IN	31.0	69.0	87
IT*	16.7	83.3	6
KS	45.2	54.8	62
KY	59.1	40.9	44
LA	37.8	62.2	45
MA	0.0	100.0	44
MD	17.9	82.1	28
ME	20.8	79.2	24
MI	39.4	60.6	71
MN	21.8	78.2	87
MO	60.0	40.0	60

http://www.cdc.gov/breastfeeding/data/mpinc/results-tables.htm

Average Total mPINC Scores, 2007-2015

Year	Total Score
2007	63
2009	65
2011	70
2013	75
2015	79

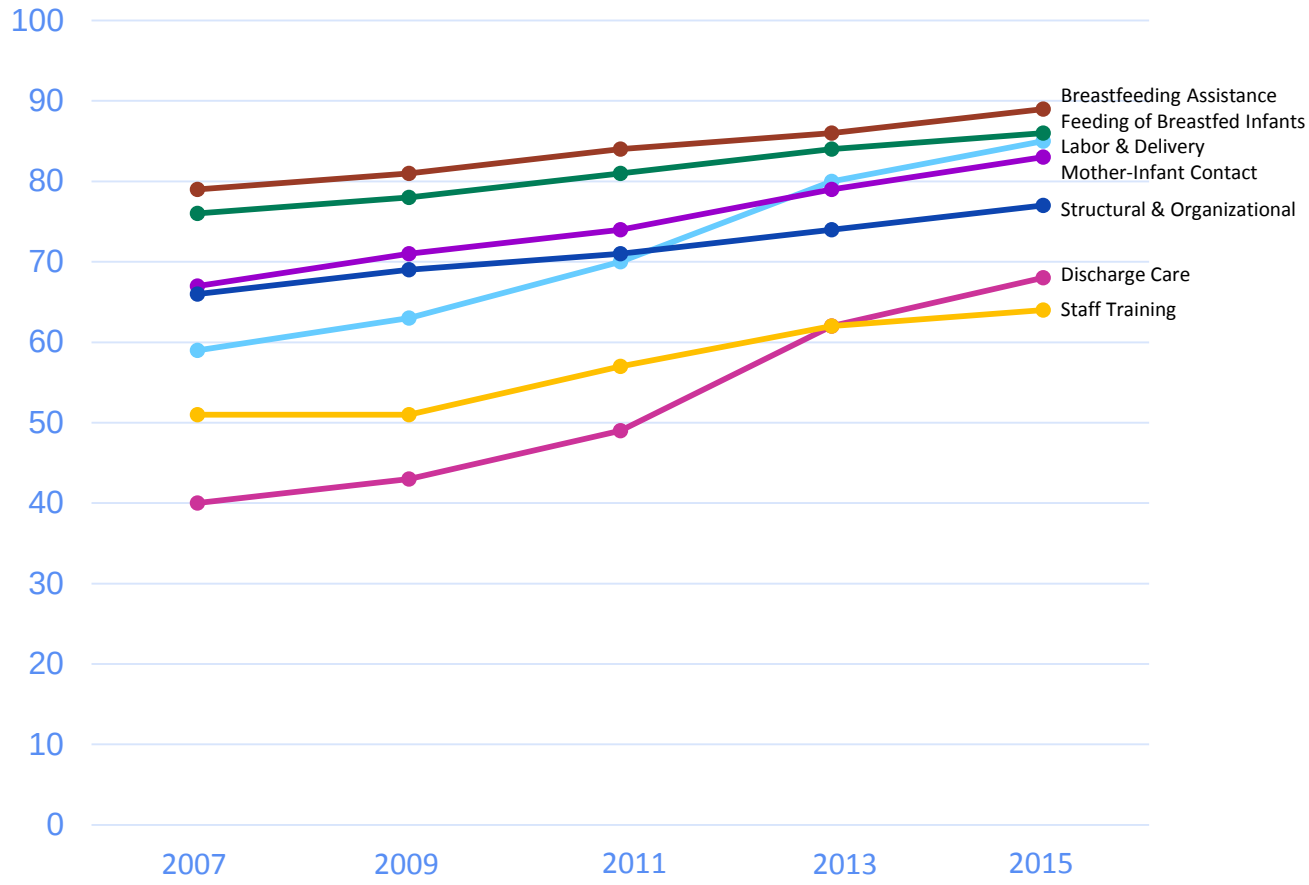
Total mPINC Score, by state, 2015



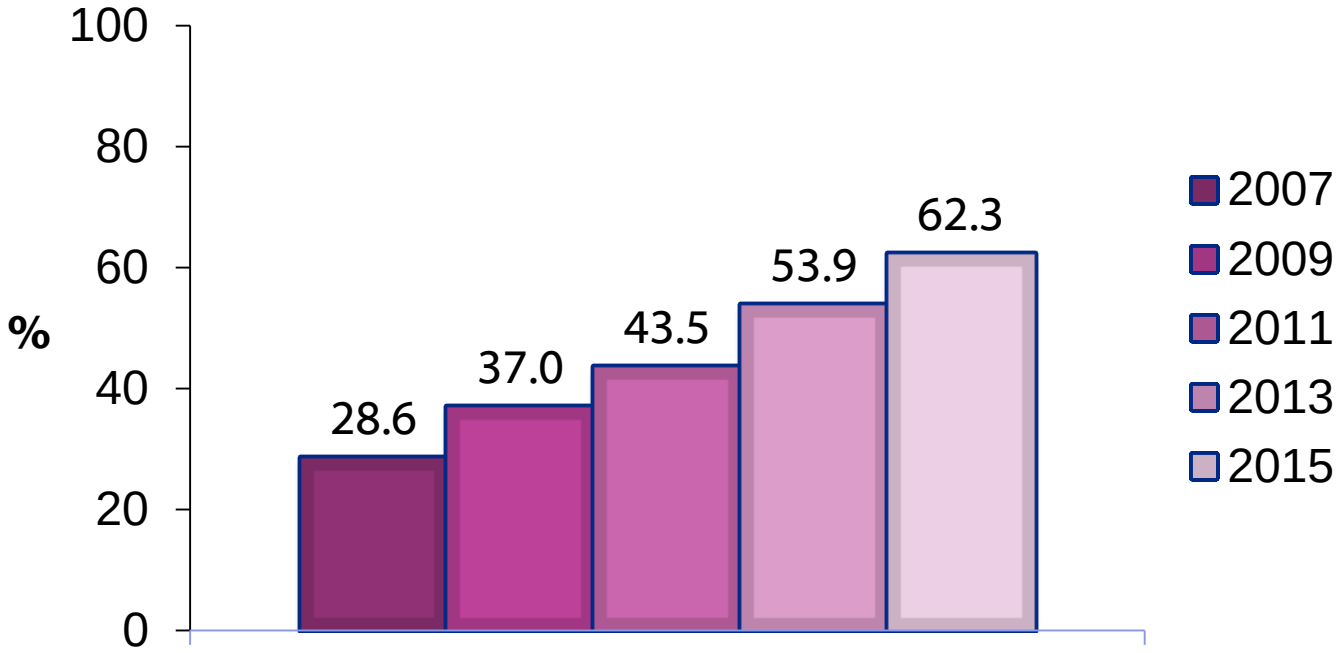
National average: 79

Range: 60-96

Average mPINC Sub-Scores, 2007-2015



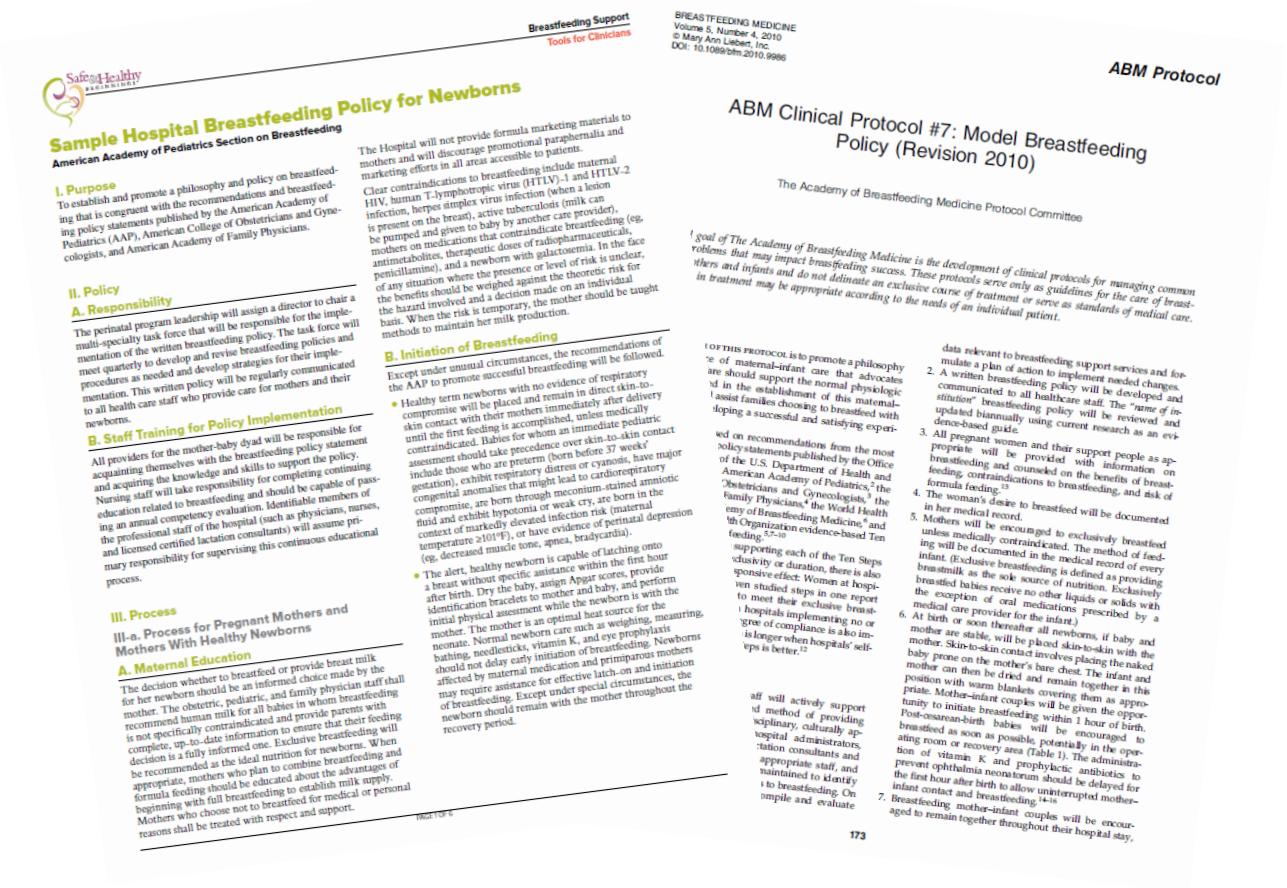
Percent of facilities implementing more than half of the *Ten Steps*, mPINC survey, 2007-2015



Vital Signs 2015; 2015 data added

Step 1: Model Hospital Policy

21% point increase from 2007



Breastfeeding Support
Tools for Clinicians

BREASTFEEDING MEDICINE
Volume 5, Number 4, 2010
© Mary Ann Liebert, Inc.
DOI: 10.1089/bfm.2010.9986

Sample Hospital Breastfeeding Policy for Newborns

American Academy of Pediatrics Section on Breastfeeding

I. Purpose

To establish and promote a philosophy and policy on breastfeeding that is congruent with the recommendations and breastfeeding policy statements published by the American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists, and American Academy of Family Physicians.

II. Policy

A. Responsibility

The perinatal program leadership will assign a director to chair a multi-specialty task force that will be responsible for the implementation of the written breastfeeding policy. The task force will meet quarterly to develop and revise breastfeeding policies and procedures as needed and develop strategies for their implementation. This written policy will be regularly communicated to all health care staff who provide care for mothers and their newborns.

B. Staff Training for Policy Implementation

All providers for the mother-baby dyad will be responsible for acquainting themselves with the breastfeeding policy statement and acquiring the knowledge and skills to support the policy. Nursing staff will take responsibility for completing continuing education related to breastfeeding and should be capable of passing an annual competency evaluation. Identifiable members of the professional staff of the hospital (such as physicians, nurses, and licensed certified lactation consultants) will assume primary responsibility for supervising this continuous educational process.

III. Process

III-a. Process for Pregnant Mothers and Mothers With Healthy Newborns

A. Maternal Education

The decision whether to breastfeed or provide breast milk for her newborn should be an informed choice made by the mother. The obstetric, pediatric, and family physician staff shall recommend human milk for all babies in whom breastfeeding is not specifically contraindicated and provide parents with complete, up-to-date information to ensure that their feeding decision is a fully informed one. Exclusive breastfeeding will be recommended as the ideal nutrition for newborns. When appropriate, mothers who plan to combine breastfeeding and formula feeding should be educated about the advantages of beginning with full breastfeeding to establish milk supply. Mothers who choose not to breastfeed for medical or personal reasons shall be treated with respect and support.

The Hospital will not provide formula marketing materials to mothers and will discourage promotional paraphernalia and marketing efforts in all areas accessible to patients.

Clear contraindications to breastfeeding include maternal HIV, human T-lymphotropic virus (HTLV)–1 and HTLV–2 infection, herpes simplex virus infection (when a lesion is present on the breast), active tuberculosis (milk can be pumped and given to baby by another care provider), mothers on medications that contraindicate breastfeeding (eg, antimetabolites, therapeutic doses of radiopharmaceuticals, penicillamine), and a newborn with galactosemia. In the face of any situation where the presence or level of risk is unclear, the benefits should be weighed against the theoretic risk for the hazard involved and a decision made on an individual basis. When the risk is temporary, the mother should be taught methods to maintain her milk production.

B. Initiation of Breastfeeding

Except under unusual circumstances, the recommendations of the AAP to promote successful breastfeeding will be followed.

- Healthy term newborns with no evidence of respiratory compromise will be placed and remain in direct skin-to-skin contact with their mothers immediately after delivery until the first feeding is accomplished, unless medically contraindicated. Babies for whom an immediate pediatric assessment should take precedence over skin-to-skin contact include those who are preterm (born before 37 weeks' gestation), exhibit respiratory distress or cyanosis, have major congenital anomalies that might lead to cardiorespiratory compromise, are born through meconium-stained amniotic fluid and exhibit hypotonia or weak cry, are born in the context of markedly elevated infection risk (maternal temperature ≥101°F), or have evidence of perinatal depression (eg, decreased muscle tone, apnea, bradycardia).
- The alert, healthy newborn is capable of latching onto a breast without specific assistance within the first hour after birth. Dry the baby, assign Apgar scores, provide identification bracelets to mother and baby, and perform initial physical assessment while the newborn is with the mother. The mother is an optimal heat source for the neonate. Normal newborn care such as weighing, measuring, bathing, needlesticks, vitamin K, and eye prophylaxis should not delay early initiation of breastfeeding. Newborns affected by maternal medication and primiparous mothers may require assistance for effective latch-on and initiation of breastfeeding. Except under special circumstances, the newborn should remain with the mother throughout the recovery period.

ABM Protocol

ABM Clinical Protocol #7: Model Breastfeeding Policy (Revision 2010)

The Academy of Breastfeeding Medicine Protocol Committee

goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common roblems that may impact breastfeeding sucass. These protocols serve only as guidelines for the care of breastthers and infants and do not delineate an exclusive course of treatment or serve as standards of mdiual care. in treatment may be appropriate according to the needs of an individual patient.

OF THIS PROTOCOL is to promote a philosophy e of maternal–infant care that advocates are should support the normal physiologic d in the establishment of this maternal– assist families choosing to breastfeed with loping a successful and satisfying experi-

ed on recommendations from the most olicy statements published by the Office of the U.S. Department of Health and American Academy of Pediatrics,[2] the bstetricians and Gynecologists,[3] the Family Physicians,[4] the World Health emy of Breastfeeding Medicine,[5] and lth Organization evidence-based Ten feeding.[5,7–10]

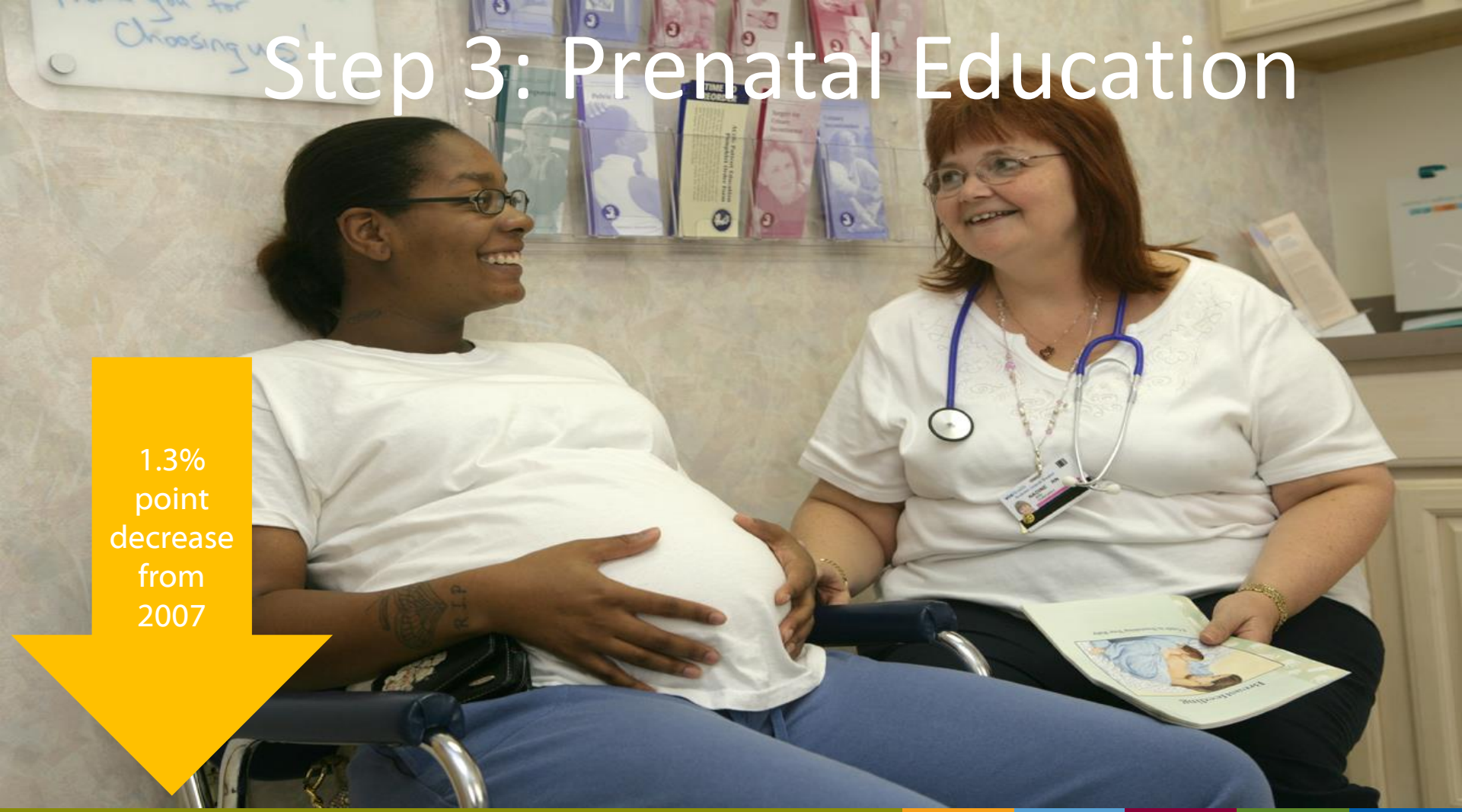
supporting each of the Ten Steps clusivity or duration, there is also sponsive effect: Women at hospiven studied steps in one report to meet their exclusive breastt hospitals implementing no or gree of compliance is also imis longer when hospitals' self-eps is better.[12]

aff will actively support d method of providing sciplinary, culturally ap- hospital administrators, tation consultants and appropriate staff, and maintained to identify s to breastfeeding. On mpile and evaluate

data relevant to breastfeeding support services and formulate a plan of action to implement needed changes.
2. A written breastfeeding policy will be developed and communicated to all healthcare staff. The "*name of institution*" breastfeeding policy will be reviewed and updated biannually using current research as an evidence-based guide.
3. All pregnant women and their support people as appropriate will be provided with information on breastfeeding and counseled on the benefits of breastfeeding, contraindications to breastfeeding, and risk of formula feeding.[13]
4. The woman's desire to breastfeed will be documented in her medical record.
5. Mothers will be encouraged to exclusively breastfeed unless medically contraindicated. The method of feeding will be documented in the medical record of every infant. (Exclusive breastfeeding is defined as providing breastmilk as the sole source of nutrition. Exclusively breastfed babies receive no other liquids or solids with the exception of oral medications prescribed by a medical care provider for the infant.)
6. At birth or soon thereafter all newborns, if baby and mother are stable, will be placed skin-to-skin with the mother. Skin-to-skin contact involves placing the naked baby prone on the mother's bare chest. The infant and mother can then be dried and remain together in this position with warm blankets covering them as appropriate. Mother–infant couples will be given the opportunity to initiate breastfeeding within 1 hour of birth. Post-cesarean-birth babies will be encouraged to breastfeed as soon as possible, potentially in the operating room or recovery area (Table 1). The administration of vitamin K and prophylactic antibiotics to prevent ophthalmia neonatorum should be delayed for the first hour after birth to allow uninterrupted mother–infant contact and breastfeeding.[14–16]
7. Breastfeeding mother–infant couples will be encouraged to remain together throughout their hospital stay,

Step 2: Staff Training

Step 3: Prenatal Education



1.3% point decrease from 2007

Step 4: Early Initiation

Step 5: Teach Breastfeeding Techniques

Step 6: Limit Supplementation

7% point increase from 2007

Step 7: Rooming-In

24% point increase from 2007

Step 8: Teaching Feeding Cues

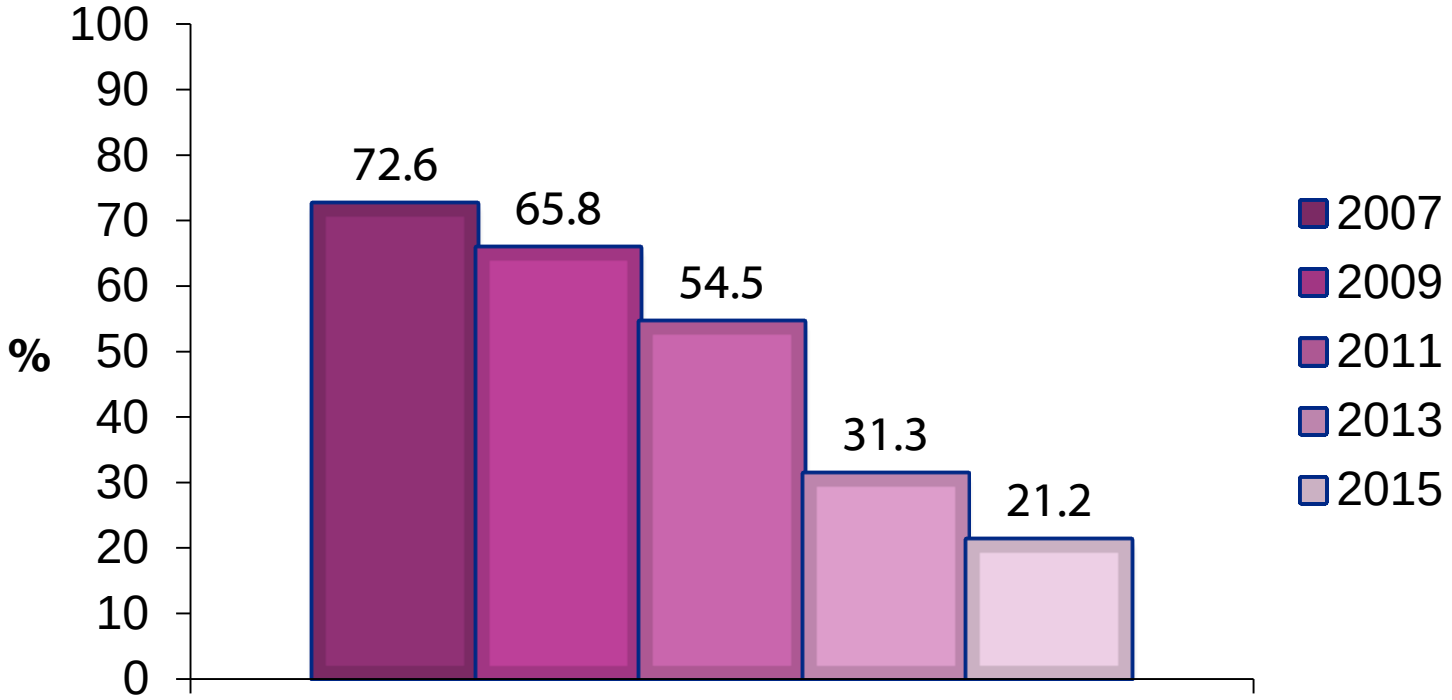
12% point increase from 2007

Step 9: Limit pacifiers and artificial nipples

27% point increase from 2007

Step 10: Discharge Support

Percent of facilities giving discharge packs with formula to breastfeeding mothers, mPINC, 2007-2015



Nelson et al. Pediatrics 2015; 2015 data added

Next Steps

mPINC 2.0

2007 - 2015

2018+

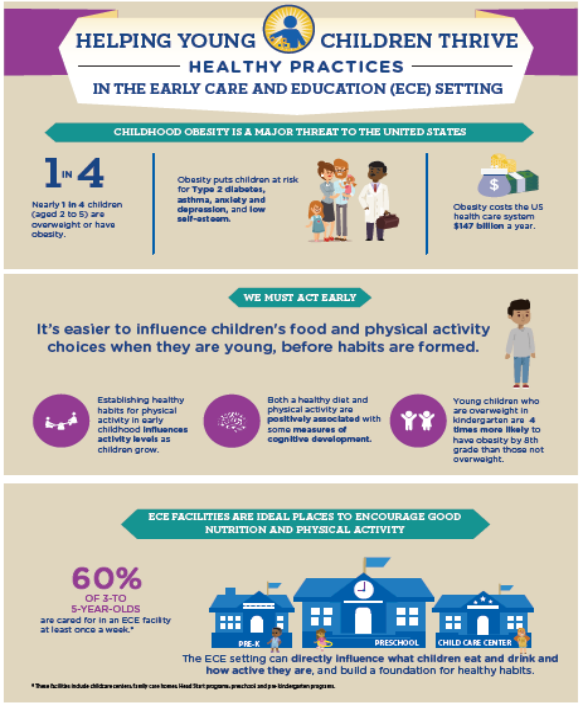
- Hospitals only
- Exclusively electronic data collection
- Completely revised questionnaire
- New scoring → no continuation of trends

Physician Education & Training

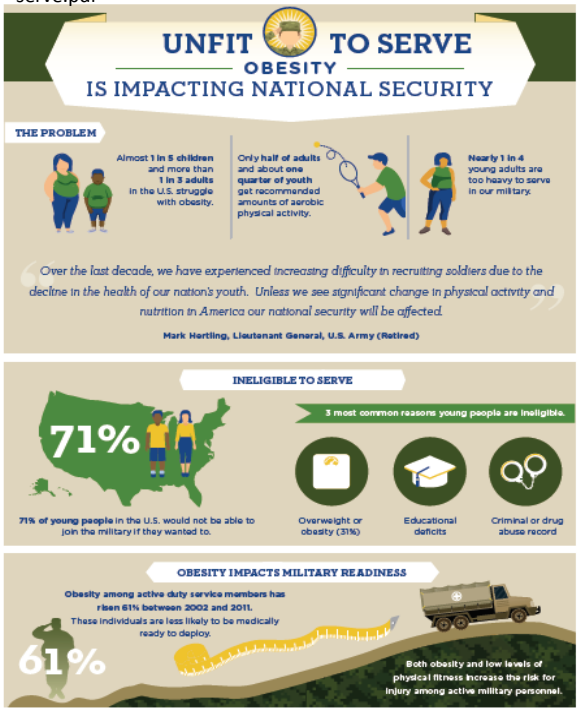
- American Academy of Pediatrics
  - 8 professional organizations
  - U.S. Breastfeeding Committee
  - Altarum
- Landscape Analysis
  - Literature review
  - Key informant interviews
  - Member survey
- Action Plan

CDC's Division of Nutrition, Physical Activity, and Obesity

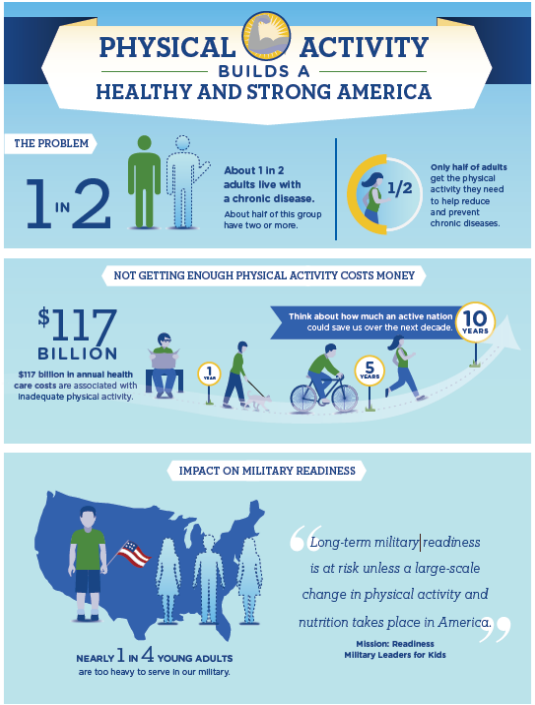
https://www.cdc.gov/obesity/downloads/ECE-infographic.pdf



https://www.cdc.gov/physicalactivity/downloads/unfit-to-serve.pdf



https://www.cdc.gov/physicalactivity/downloads/healthy-strong-america.pdf



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

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