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Minds Advancing Medicine

**Primary Newborn Weight Loss in
Conjunction with Evidence - Based
'Baby Friendly' Practices**

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ANA Conference

Orlando, Florida

Baby Friendly Designated
Hospital

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Objectives

1. Gain new knowledge regarding newborn infant weight loss as it relates to *Baby Friendly* practices
2. Identify Newborn Care Hospital Practices that are Evidence Based.
3. Define the concept of Breastfeeding exclusivity and why it is important.

Baby Friendly= Evidence Friendly

- The WHO/UNICEF *Baby Friendly* Initiative was developed in 1991 as a response to egregious practices by pharmaceutical companies in developing countries.
- The United States has historically lagged behind in support of *Baby Friendly*.
- Recently there has been a resurgence of support largely due to the encouragement of using only evidenced-based practices.
- As of Dec. 2015, there are only 301 *Baby Friendly* Designation facilities / just 14% of all babies born in the U.S. are born in designated *Baby Friendly* hospitals.

The *Ten Steps to Successful Breastfeeding* were developed by a team of global experts and consist of evidence-based practices that have been shown to increase breastfeeding initiation and duration. Baby-Friendly hospitals and birthing facilities must adhere to the Ten Steps to receive, and retain, a Baby-Friendly designation

The *Ten Steps to Successful Breastfeeding* are (WHO/UNICEF 1991):

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

Source: Baby Friendly USA

- Infant weight loss is the one parameter most often used by providers as an indicator of optimal feeding.
- Term newborns carry additional fluid and brown fat stores in preparation for initial weight losses in the first few days of life.
- 7 to 10 % total weight loss is considered “normal” for newborns until a weight gain is measured. (usually on day 4)
 - **This long time accepted parameter is based on American Birthing and Postpartum Practices**

Infant Stresses

- Hypothermia
- Separation
- Pain
- Ingestion of foreign proteins
- Exposure to fomites

Lunze, K., Bloom, D. E., Jamison, D. T., & Hamer, D. H. (2013). The global burden of neonatal hypothermia: systematic review of a major challenge for newborn survival. *BMC medicine*, 11(1), 24.

Research Question:

If Baby Friendly practices
are the Biological Norm,
then what are “normal”
weight losses in a
Baby Friendly environment?

Research sample: Retrospective Study

Term newborns (≥ 38 weeks gestation)

Recorded directly from chart:

- Birth date (2010 or 2013)
- Ethnicity
- Gender
- Type of Birth
- Birth weight
- 24, 48 , 72 and 96 hr. weight
- Type of feeding

➤ Baby Friendly designation was awarded in March of 2012.

Data was collected for the full year prior to Baby Friendly Designation (2010)
And compared to the full year after designation (2013).

Exclusion Criteria:

- Neonates born < 38 weeks gestation
- Neonates born with the following:
 - Congenital anomalies
 - Neonates transferred to the NICU after delivery
 - Incomplete Data

The final sample includes:

685 infants in Group I met eligibility criteria

(2010, Pre Baby Friendly Designation-1000 random entries)

518 infants in Group II met eligibility criteria

(2013, Post Baby Friendly Designation 925 random entries).

Data Collection method:

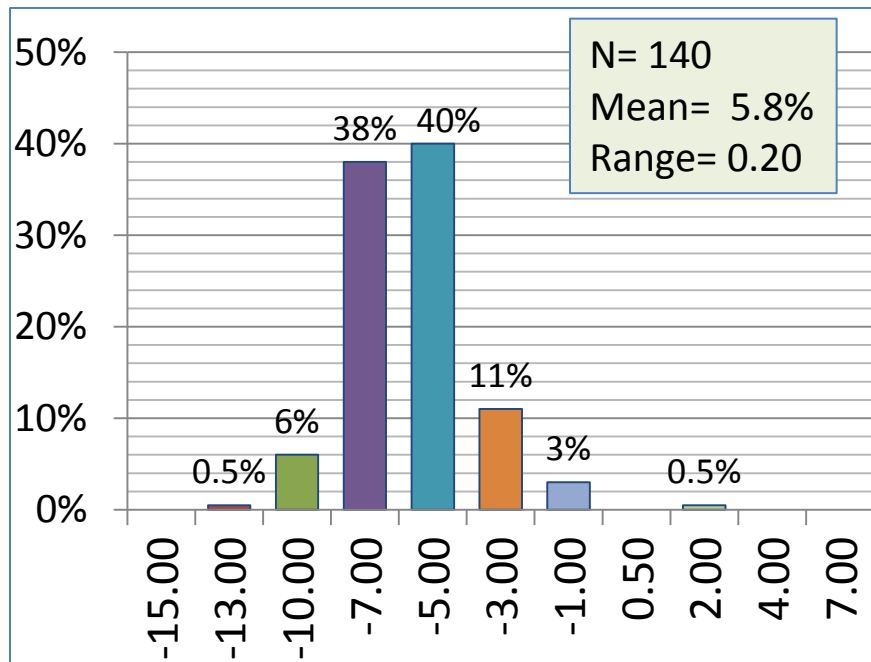
- The 2013 data was collected through chart review using the *OB Trace Vu* computer charting program.
- For data earlier than 2011, the Hospital *Image Works* Program was used.
- A number was assigned to each birth.
- All information was recorded on an *Excel* spreadsheet.
- The data was imported to SPSS statistical software for analysis.

- 48 hr. weight was the most consistently recorded data point for all samples and so was used for analysis.
- In addition, breastfeeding exclusivity and initiation were measured across Black non- Hispanic, White and Hispanic ethnicities in each group. Birth method, gender and feeding methods were also recorded.
- An independent T-test was run to examine the differences in mean weight loss in babies who were breast fed (BB), formula fed (FF) or both breast and formula fed (FB) before and after Baby Friendly practices.
 - Target p value= <0.05

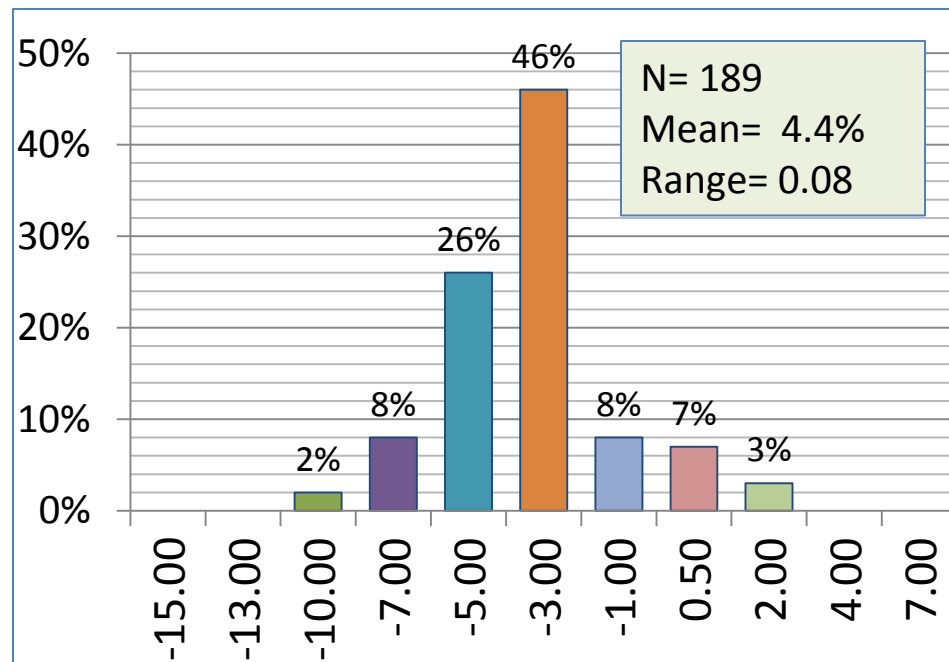
Demographics

	Group I (2010) <i>Before Baby Friendly</i>	Group II (2013) <i>After Baby Friendly</i>
Gender	N = 685 Female: 53% (n= 362) Male: 44% (n=323)	N = 518 Female: 40% (n= 252) Male: 51% (n=266)
Ethnicity <i>(changes in population distribution may be due to 3 mile relocation of facility)</i>	White: 34% (n= 233) Black: 33% (n=224) Hispanic: 29% (n= 196) Other/Unknown: 4% (n= 30)	White: 53% (n= 276) Black: 22% (n=114) Hispanic: 20% (n= 105) Other: 4% (n= 22)
Delivery Method	Vaginal: 65% (n= 442) C-section: 35% (n= 241)	Vaginal: 64% (n= 329) C-section: 36% (n= 189)
Gestational Age (Mean)	39 weeks	39 weeks

Pre and Post Baby Friendly Weight Losses Compared: Vaginal Birth/Breastfeeding



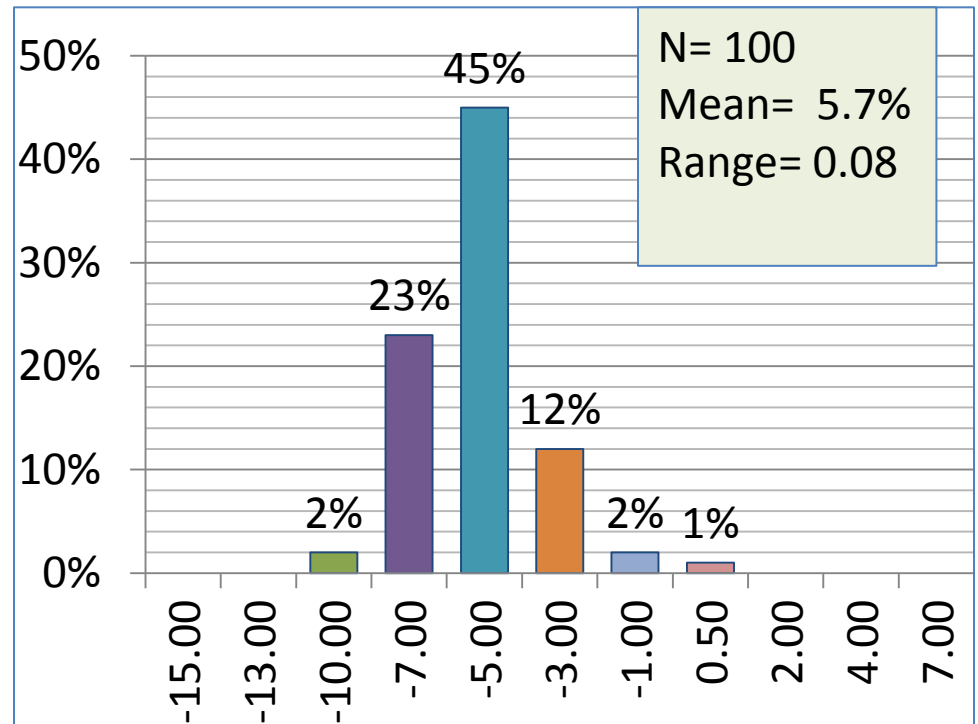
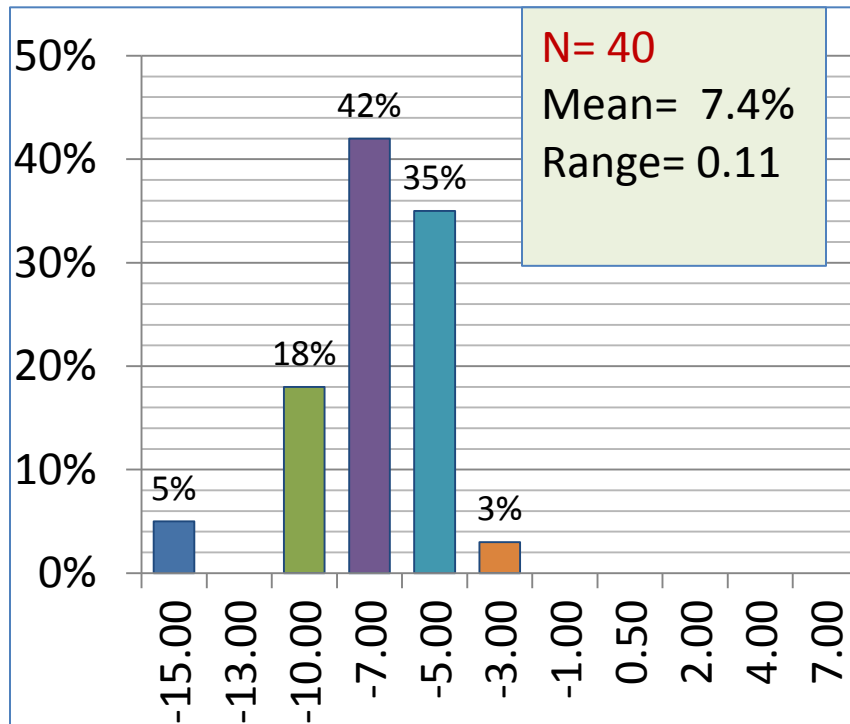
2010 (Pre)



2013 (Post)

Statistically Significant difference for Breastfeeding couplets
 $p < 0.05$

Pre and Post Baby Friendly Weight Losses Compared : Cesarean Birth- Breastfeeding

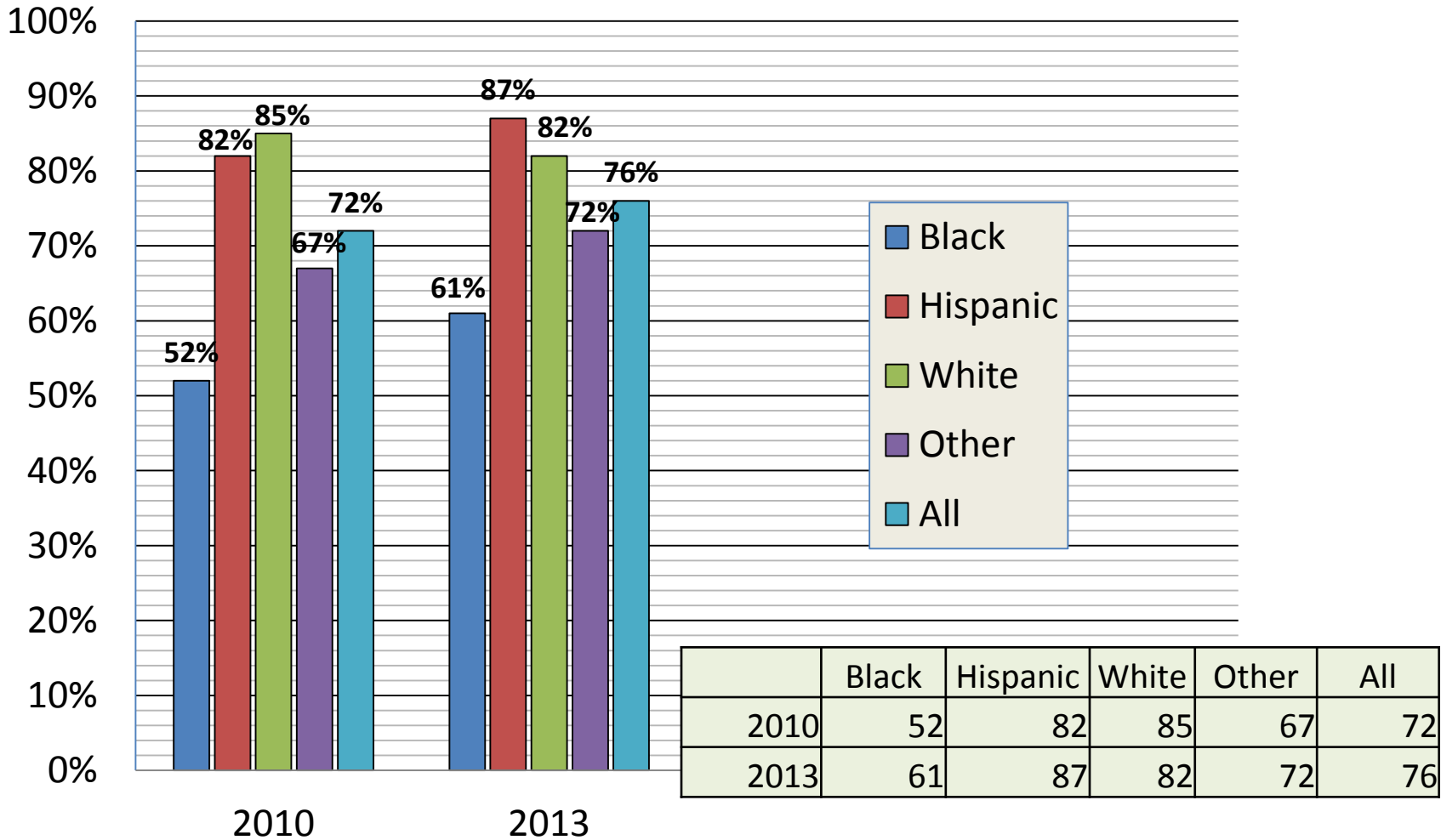


2010 (Pre)

2013 (Post)

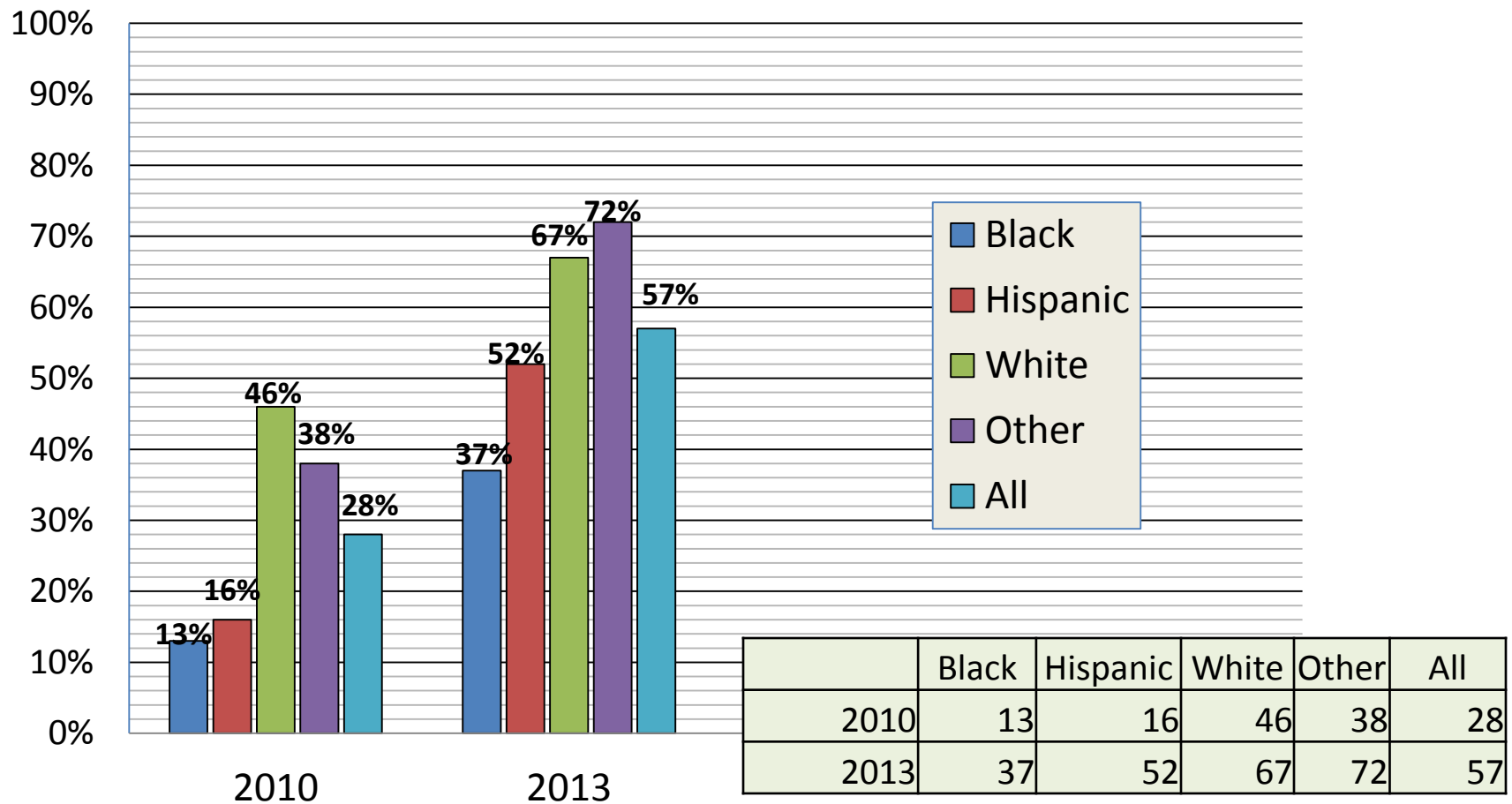
Statistically Significant difference for Breastfeeding couples
 $p < 0.05$

Percent Initiation by Ethnicity



Black non-Hispanic mothers demonstrate greatest increase of 9 percentage pts. in 2013

Percent Exclusivity by Ethnicity



Significant Increases for Exclusive Breastfeeding in all groups after Baby Friendly
This also represents decreases in mixed (FB)feeding

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