Using Data to Remove Breastfeeding Barriers

Carina Saraiva, MPH
Center for Family Health
Maternal, Child and Adolescent Health Division

California Breastfeeding Summit
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The MCAH Program compiles data from a variety of data sources to monitor progress towards achieving Healthy People 2020 objectives for breastfeeding initiation, duration and exclusivity, and hospital and worksite support for breastfeeding mothers and infants.

- Maternal and Infant Health Assessment (MIHA)
- Genetic Disease Screening Program (GDSP) - Newborn Screening Database
- Centers for Disease Control and Prevention (CDC) – Maternity Practices in Infant Nutrition and Care Survey (mPINC)
## California Breastfeeding Indicators and Data Sources

<table>
<thead>
<tr>
<th>PRENATAL</th>
<th>DELIVERY</th>
<th>POSTPARTUM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maternal and Infant Health Assessment (MIHA)</strong></td>
<td><strong>Birth Statistical Master File (BSMF)</strong></td>
<td><strong>Maternal and Infant Health Assessment (MIHA)</strong></td>
</tr>
<tr>
<td>• Infant feeding intentions prior to delivery</td>
<td>• Proportion of births occurring in Baby-Friendly hospitals</td>
<td>• Any and Exclusive Breastfeeding at 1 week postpartum</td>
</tr>
<tr>
<td><strong>Genetic Disease Screening Program, Newborn Screening Data</strong></td>
<td><strong>Genetic Disease Screening Program, Newborn Screening Data</strong></td>
<td>• Any and Exclusive Breastfeeding at 1 month postpartum</td>
</tr>
<tr>
<td>• In-hospital any/exclusive breastfeeding initiation</td>
<td>• Formula supplementation of breastfed infants within first 2 days of life (new HP2020)</td>
<td>• Any and Exclusive Breastfeeding at 2 months postpartum</td>
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<tr>
<td>• Hospitals with high number of Medi-Cal/WIC births and low exclusive breastfeeding rates</td>
<td>• Hospitals with high number of African American births and low exclusive breastfeeding rates</td>
<td>• Any and Exclusive Breastfeeding at 3 months postpartum</td>
</tr>
<tr>
<td>• Hospitals with high number of African American births and low exclusive breastfeeding rates</td>
<td><strong>Maternal and Infant Health Assessment (MIHA)</strong></td>
<td>• Mothers self-report of worksite accommodations (place and time to pump), 2011</td>
</tr>
<tr>
<td><strong>Maternity Practices in Infant Nutrition and Care Survey (mPINC)</strong></td>
<td><strong>Maternity Practices in Infant Nutrition and Care Survey (mPINC)</strong></td>
<td><strong>WIC Participant Database (WIC-MIS)</strong></td>
</tr>
<tr>
<td><strong>Dimensions of Care</strong></td>
<td>• Any and Exclusive Breastfeeding at 2 days postpartum</td>
<td>• Breastfed Infants (Full, Combo) at various time periods</td>
</tr>
<tr>
<td>• Labor and Delivery Care</td>
<td>• Mothers self-report of hospital experiences that support breastfeeding, (odd years since 2011)</td>
<td><strong>WIC Peer Counseling Database</strong></td>
</tr>
<tr>
<td>• Feeding of Breastfed Infants</td>
<td>• Maternity Practices in Infant Nutrition and Care Survey (mPINC)</td>
<td>• WIC participants receiving peer counseling services</td>
</tr>
<tr>
<td>• Breastfeeding Assistance</td>
<td>• Breastfeeding Assistance</td>
<td>• Breastfeeding outcomes</td>
</tr>
<tr>
<td>• Contact between Mother and Infant</td>
<td>• Facility Discharge Care</td>
<td></td>
</tr>
<tr>
<td>• Facility Discharge Care</td>
<td>• Staff Training</td>
<td></td>
</tr>
<tr>
<td>• Structural &amp; Organizational Aspects of Care Delivery</td>
<td></td>
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</tr>
</tbody>
</table>
Maternal and Infant Health Assessment (MIHA)

- Highlight Racial and Socio-economic Disparities in Breastfeeding Duration
- Identify Common Barriers to Breastfeeding during the Early Postpartum Period
- Assess Impact on Breastfeeding Outcomes
What is the MIHA survey?

- Annual population-based survey of women with a recent live birth
- Addresses maternal and infant social and economic conditions, health behaviors, health status and access to care before, during and after a recent pregnancy
- Provides information not available from other sources to develop, target and evaluate public health efforts
- Modeled after the Pregnancy Risk Assessment Monitoring System (PRAMS) conducted by the Centers for Disease Control and Prevention in 40 states
Expanded MIHA sample since 2010 allows CDPH to report key indicators for top 20 counties

Top 20 Birthing Counties
% of resident women with a live birth in 2012

- Los Angeles ....................... 26.2%
- San Diego ......................... 8.8%
- Orange ............................. 7.6%
- San Bernardino .................. 6.1%
- Riverside ......................... 6.0%
- Santa Clara ....................... 4.8%
- Sacramento ...................... 3.9%
- Alameda ............................. 3.9%
- Fresno .............................. 3.2%
- Kern ................................. 2.9%
- Contra Costa ...................... 2.4%
- Ventura .............................. 2.1%
- San Joaquin ....................... 2.0%
- San Mateo ........................... 1.8%
- San Francisco ................... 1.8%
- Tulare ................................. 1.6%
- Stanislaus ......................... 1.5%
- Monterey ............................. 1.3%
- Santa Barbara .................... 1.1%
- Sonoma ............................... 1.0%

Data Source: 2012 Birth Statistical Master File
Prepared by: Maternal, Child and Adolescent Health Program, Center for Family Health, California Department of Public Health
Infant Feeding Indicators, MIHA

- Infant feeding plans prior to giving birth
- Breastfeeding initiation, duration and exclusivity through 3 months
- Hospital experiences that influence breastfeeding
  - Rooming-in, Skin-to-skin contact, and early initiation of breastfeeding
  - Formula supplementation or pacifier use while in the hospital
  - Receipt of gift pack with formula
  - Contact information for post-discharge support
- Workplace breastfeeding support (time and space to pump)
Public reporting of the following breastfeeding indicators:

- Infant feeding plans prior to giving birth
- Breastfeeding at one and three months postpartum (any and exclusive)

• **Statewide Statistics**
  - By race, maternal age, income
  - By education, prenatal health insurance
  - Charts by race, maternal age, income, education, prenatal health insurance

• **MIHA County and Regional Statistics**
  - Snapshots
  - Comparison Maps
  - Charts
  - Sub-groups within counties or MIHA regions, pooled 2010-2012 data (NEW!)

❖ Note: Breastfeeding duration indicators not included in this data product due to changes to wording of infant feeding questions in 2011.
MIHA website: www.cdph.ca.gov/MIHA

Information about MIHA project

Click tabs to download MIHA products
Snapshots available for Top 20 Counties and MIHA Regions

### Geographic Areas:
- County or region with California comparison

### Statistical Information:
- Percent (%)
- Confidence Interval (95% CI)
- Population Estimate (N)

### MIHA Snapshot, Sacramento County, 2012

<table>
<thead>
<tr>
<th>Geographic Areas</th>
<th>County or region with California comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Poor Birth Outcomes</td>
<td></td>
</tr>
<tr>
<td>Prior low birth weight or preterm delivery</td>
<td>8.1</td>
</tr>
<tr>
<td>Prior delivery by c-section</td>
<td>14.9</td>
</tr>
</tbody>
</table>

### Health Status
- In good to excellent health before pregnancy: 95.3 (95.2 - 97.4) 18,400
- Chronic conditions before or during pregnancy: 17.0 (11.2 - 22.8) 2,500
- Diabetes or gestational diabetes: 3.8 (2.3 - 5.3) 100
- Hypertension, preclampsia or eclampsia: 13.2 (9.5 - 16.7) 4,000
- Asthma: 17.3 (15.1 - 19.5) 2,100

### Nutrition and Weight
- Daily folate use, month before pregnancy: 94.0 (93.5 - 94.5) 5,000
- Overweight before pregnancy: 34.6 (32.8 - 36.5) 4,900
- Obesity before pregnancy: 19.9 (18.5 - 21.3) 2,900
- Insufficient weight gain during pregnancy: 6.0 (4.1 - 8.0) 1,400
- Excessive weight gain during pregnancy: 35.3 (33.8 - 36.8) 6,400
- Food insecurity during pregnancy: 10.9 (9.5 - 12.3) 2,000

### Intimate Partner Violence (IPV) and Depressive Symptoms
- Physical or psychological IPV during pregnancy: 9.0 (6.5 - 11.5) 1,700
- Prenatal depressive symptoms: 16.5 (14.2 - 18.8) 3,200
- Postpartum depressive symptoms: 15.0 (13.0 - 17.1) 2,400

### Hardship and Support during Pregnancy
- Homeless or did not have a regular place to sleep: 3.5 (1.4 - 5.6) 700
- Moved due to problems paying rent or mortgage: 10.7 (8.6 - 12.8) 2,000
- Women or partner lost job: 18.7 (16.5 - 21.0) 9,800
- Woman or partner had pay or hours cut back: 14.5 (12.3 - 16.7) 2,700
- Became separated or divorced: 7.7 (5.8 - 9.6) 1,500
- Had no practical or emotional support: 7.0 (4.8 - 9.2) 1,300

### Substance Use
- Any smoking, 3 months before pregnancy: 14.1 (10.9 - 17.3) 2,700
- Any smoking, 1st or 3rd trimester: 8.2 (6.0 - 10.4) 2,000
- Any smoking, postpartum: 6.8 (4.7 - 9.1) 1,500
- Any binge drinking, 3 months before pregnancy: 16.6 (14.2 - 19.0) 2,900
- Any alcohol use, 1st or 3rd trimester: 20.7 (18.5 - 23.1) 4,000

### Pregnancy Intention and Family Planning
- Mintaed or unwanted pregnancy: 31.6 (29.0 - 34.3) 6,000
- Use of pregnancy intentions: 10.3 (8.5 - 12.1) 6,000
- Postpartum birth control use: 90.8 (86.3 - 95.2) 16,000

### Infant Sleep and Breastfeeding
- Placed infant on back to sleep: 76.2 (70.9 - 81.5) 14,800
- Breastfed, before birth: 85.7 (82.0 - 89.4) 17,000
- Exclusive breastfeeding, 1 month after delivery: 80.2 (75.2 - 85.2) 15,100
Exclusive breastfeeding at 3 months after delivery

<table>
<thead>
<tr>
<th>MIHA Region</th>
<th>Percent</th>
<th>95% CI</th>
<th>Population Estimate of Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>26.5</td>
<td>24.3 - 28.7</td>
<td>98,600</td>
</tr>
<tr>
<td>Central Coast Region</td>
<td>34.2</td>
<td>29.2 - 39.1</td>
<td>7,100</td>
</tr>
<tr>
<td>Greater Sacramento Region</td>
<td>31.1</td>
<td>25.4 - 36.8</td>
<td>6,900</td>
</tr>
<tr>
<td>Los Angeles County</td>
<td>21.4</td>
<td>15.3 - 27.4</td>
<td>22,000</td>
</tr>
<tr>
<td>North/Mountain Region</td>
<td>38.1</td>
<td>30.0 - 46.2</td>
<td>3,900</td>
</tr>
<tr>
<td>Orange County</td>
<td>31.5</td>
<td>22.7 - 40.2</td>
<td>8,300</td>
</tr>
<tr>
<td>San Diego County</td>
<td>30.0</td>
<td>21.9 - 38.0</td>
<td>9,200</td>
</tr>
<tr>
<td>San Francisco Bay Area</td>
<td>33.4</td>
<td>29.7 - 37.0</td>
<td>21,300</td>
</tr>
<tr>
<td>San Joaquin Valley</td>
<td>22.1</td>
<td>19.1 - 25.1</td>
<td>10,400</td>
</tr>
<tr>
<td>Southeastern California</td>
<td>19.7</td>
<td>15.6 - 23.7</td>
<td>9,400</td>
</tr>
</tbody>
</table>

- ✔: Statistically better than the rest of California (p<0.05, chi-square test)
- ✗: Statistically worse than the rest of California (p<0.05, chi-square test)
- ◼: No statistical difference between region and the rest of California

NOTES: MIHA is an annual population-based survey of California resident women with a live birth in 2012, with a sample size of 6,810. Percent (%), 95% confidence interval (95% CI), and estimated number of women in the population with the health indicator/characteristic (N), i.e., numerator of the percent rounded to the nearest hundred, are weighted to represent all women with a live birth in California and the region in 2012. See the Technical Document for information on weighting, comparability to prior years and technical definitions.

MIHA Regions
- Central Coast: Monterey, San Benito, San Louis Obispo, Santa Barbara, Santa Cruz, Ventura
- Greater Sacramento: El Dorado, Placer, Sacramento, Sutter, Yolo, Yuba
- North/Mountain: Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity, Tuolumne
- San Francisco Bay Area: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma
- San Joaquin Valley: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare
- Southeastern California: Imperial, Riverside, San Bernardino

MIHA is a collaborative effort of the Maternal, Child and Adolescent Health and WIC Programs of the Center for Family Health, California Department of Public Health and the Center on Social Disparities in Health at the University of California, San Francisco. Visit the MIHA website at [www.cdph.ca.gov/MIHA](http://www.cdph.ca.gov/MIHA).
Exclusive breastfeeding at 3 months after delivery, MIHA 2012

Prepared by the Epidemiology, Assessment, and Program Development Branch, MCAH Division. The Maternal and Infant Health Assessment (MIHA) Survey is an annual population-based survey of women with a live birth, with a sample size of 6,810 in 2012. Percentages and 95% confidence intervals (95% CI) are weighted to represent all women with a live birth in 2012 in California and in the counties shown. Confidence intervals are shown as thin black lines extending above and below the top of the blue bars.
Low-income women are less likely to report intending to breastfeed their baby, MIHA 2012

Source: California Maternal and Infant Health Assessment Survey, 2012
Women were asked, “Before you delivered your baby, how did you plan to feed him or her when he or she was born?”
©California Department of Public Health, 2015; supported by WIC & Title V MCH Block Grant funds
Women of non-White race are less likely to report intending to breastfeed their baby, MIHA 2012

Source: California Maternal and Infant Health Assessment Survey, 2012
Women were asked, “Before you delivered your baby, how did you plan to feed him or her when he or she was born?”
©California Department of Public Health, 2015; supported by WIC & Title V MCH Block Grant funds
Many women are not able to fulfill their personal goals to exclusively breastfeed their infant, MIHA 2012

Most women plan to breastfeed prior to giving birth

- Breastfeed Only: 62%
- Breastfeed & Formula: 30%
- Other: 8%

Only 2 out of 3 women planning to exclusively breastfeed are still exclusively breastfeeding at 1 week postpartum

Source: California Maternal and Infant Health Assessment Survey, 2012
Women were asked, “Before you delivered your baby, how did you plan to feed him or her when he or she was born?”
©California Department of Public Health, 2015; supported by WIC & Title V MCH Block Grant funds
Breastfeeding rates quickly decline during the early postpartum period, MIHA 2012

Source: California Maternal and Infant Health Assessment Survey, 2012
Note: Three-month indicator limited to women whose infant was at least 3 months old at the time of survey completion.
©California Department of Public Health, 2015; supported by WIC & Title V MCH Block Grant funds
Using MIHA to Advocate for Evidence-based Maternity Care:

Mothers experiencing hospital practices that support breastfeeding were more likely to exclusively breastfeed their infant at three months postpartum.
Using MIHA to Advocate for Workplace Breastfeeding Support

Not all working moms have equal access to workplace breastfeeding support

Only half of moms have workplace breastfeeding support.

Moms with lower household income are less likely to have workplace breastfeeding support than moms with higher household income.

Moms with support are 2x more likely to exclusively breastfeed at 3 months.

Source: Maternal and Infant Health Assessment (MIHA), 2011

http://www.cdph.ca.gov/data/surveys/MIHA/MIHAPublications/WorkplaceBreastfeedingSupportinCalifornia.pdf
©California Department of Public Health, 2015; supported by WIC & Title V MCH Block Grant funds
In-hospital Breastfeeding Initiation
Newborn Screening Data
Genetic Disease Screening Program

- Track progress in in-hospital breastfeeding support
- Highlight racial and geographic disparities in breastfeeding initiation
- Target hospital breastfeeding quality improvement efforts
In-hospital breastfeeding initiation data
GDSP, Newborn Screening Program

- California in-hospital infant feeding practices are monitored using data collected by the [Newborn Screening (NBS) Program](#).

- All non-military hospitals providing maternity services are required to complete the Newborn Screening Test Form.

- In addition to tracking genetic diseases and metabolic disorders, the NBS program gathers data on all infant feedings from birth to time of specimen collection, usually 24 to 48 hours since birth.

- Annual rates are published for hospitals with 50 or more records, as well as the County and State rates by race/ethnicity of the population.
Collaboration to Increase Data Visibility and Highlight Breastfeeding as a Public Health Issue

- **Data Collection**
  Newborn Screening Program (GDSP, CDPH)

- **Analyses & Reporting**
  (MCAH, CDPH)

- **Dissemination to Hospitals**
  (MCAH & WIC, CDPH)

- **Production of Report**
  California WIC Association and UC Davis Human Lactation Center

- **Local Data Utilization & Media Campaign**
  State and Local Breastfeeding Coalitions
Public reporting allows for comparison across County hospitals and the State rate

The UC Davis Human Lactation Center used data reported by the California Department of Public Health Maternal, Child and Adolescent Health Program to create the following charts showing in-hospital breastfeeding rates.

Sacramento County In-Hospital Breastfeeding Rates, 2014

Source: California WIC Association and the UC Davis Human Lactation Center. Meeting Challenges, Managing Change – California Leads the Nation. 2015 State and County Hospital Breastfeeding Rates Fact Sheets: 2014 Data. Available at: http://www.calwic.org/focus-areas/breastfeeding/317 with permission from the California WIC Association.
Trends in In-Hospital Breastfeeding Initiation
Newborn Screening Data, 2010-2014

Data Source: California Department of Public Health, Genetic Disease Screening Program, Newborn Screening Database, 2010-2014
Excludes data for infants that were in a Neonatal Intensive Care Unit (NICU) nursery, or receiving TPN, at the time of specimen collection.
Prepared by: Maternal, Child and Adolescent Health Program ©California Department of Public Health, 2015; supported by Title V MCH Block Grant funds
Highlight Racial/Ethnic Disparities in In-Hospital Exclusive Breastfeeding Initiation, 2014

Data Source: California Department of Public Health, Genetic Disease Screening Program, Newborn Screening Database, 2014
Excludes data for infants that were in a Neonatal Intensive Care Unit (NICU) nursery, or receiving TPN, at the time of specimen collection.
*Pacific Islander (PI) includes: Hawaiian, Guamanian, Samoan and Other PI
Prepared by: Maternal, Child and Adolescent Health Program ©California Department of Public Health, 2015; supported by Title V MCH Block Grant funds
Place Matters:
Not all women giving birth have equal access to quality maternity health care that supports breastfeeding

Source: CDPH, Genetic Disease Screening Program, Newborn Screening Data, 2013 ©California Department of Public Health, 2015; supported by Title V MCH Block Grant funds
Maternity Practices in Infant Nutrition and Care Survey (mPINC)
Centers for Disease Control and Prevention (CDC)

• Track progress in policies and practices related to Baby-Friendly Hospital Initiative specifically the Ten Steps to Successful Breastfeeding
Utilizing mPINC Survey Data in California

The Maternity Practices in Infant Nutrition and Care (mPINC) is a national survey of maternity care practices and policies that is conducted by the Centers for Disease Control and Prevention (CDC) every 2 years:

- Approximately 80% of all birthing facilities in California participate each year

- CDC provides state-level mPINC reports to state health departments to facilitate their work with hospitals in improving breastfeeding care

- MCAH obtains California mPINC data to provide regional and county-level mPINC data to local stakeholders
For more information on mPINC:
www.cdc.gov/mpinc
## mPINC Survey Dimensions of Care

<table>
<thead>
<tr>
<th>Dimension of Care (mPINC subscale)</th>
<th>Key informant reports on: (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor and Delivery Care</td>
<td>Early skin-to-skin contact</td>
</tr>
<tr>
<td></td>
<td>Breastfeeding initiation</td>
</tr>
<tr>
<td>Feeding of Breastfed infants</td>
<td>Supplementation</td>
</tr>
<tr>
<td>Breastfeeding Assistance</td>
<td>Whether staff assess breastfeeding</td>
</tr>
<tr>
<td></td>
<td>Whether staff advise on breastfeeding</td>
</tr>
<tr>
<td>Mother-Infant Contact</td>
<td>Mother-infant separation</td>
</tr>
<tr>
<td></td>
<td>Rooming-in</td>
</tr>
<tr>
<td>Facility Discharge Care</td>
<td>Post-discharge breastfeeding support</td>
</tr>
<tr>
<td></td>
<td>Distribution of “gift packs”</td>
</tr>
<tr>
<td>Staff Training</td>
<td>Staff education</td>
</tr>
<tr>
<td></td>
<td>Staff competency assessment</td>
</tr>
<tr>
<td>Structural and Organizational</td>
<td>Breastfeeding policies</td>
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</table>
Benchmarking: mPINC Scores
California compared to Nation, 2013

<table>
<thead>
<tr>
<th>Category</th>
<th>California</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total mPINC</td>
<td>83</td>
<td>75</td>
</tr>
<tr>
<td>Labor &amp; Delivery Care</td>
<td>86</td>
<td>80</td>
</tr>
<tr>
<td>Feeding of Breastfed Infants</td>
<td>86</td>
<td>84</td>
</tr>
<tr>
<td>Breastfeeding Assistance</td>
<td>92</td>
<td>86</td>
</tr>
<tr>
<td>Mother-Infant Contact</td>
<td>90</td>
<td>79</td>
</tr>
<tr>
<td>Discharge Care</td>
<td>71</td>
<td>62</td>
</tr>
<tr>
<td>Staff Training</td>
<td>72</td>
<td>62</td>
</tr>
<tr>
<td>Structural</td>
<td>84</td>
<td>74</td>
</tr>
</tbody>
</table>

Tracking Progress in Maternity Practices in Infant Nutrition and Care (mPINC) Scores from 2007 to 2013, California

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2013</th>
<th>Improvement (2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total mPINC</td>
<td>83</td>
<td>84</td>
<td>1</td>
</tr>
<tr>
<td>Labor &amp; Delivery Care</td>
<td>69</td>
<td>63</td>
<td>6</td>
</tr>
<tr>
<td>Feeding of Breastfed Infants</td>
<td>86</td>
<td>86</td>
<td>0</td>
</tr>
<tr>
<td>Breastfeeding Assistance</td>
<td>77</td>
<td>82</td>
<td>5</td>
</tr>
<tr>
<td>Mother-Infant Contact</td>
<td>78</td>
<td>71</td>
<td>7</td>
</tr>
<tr>
<td>Discharge Care</td>
<td>78</td>
<td>72</td>
<td>4</td>
</tr>
<tr>
<td>Staff Training</td>
<td>61</td>
<td>61</td>
<td>0</td>
</tr>
<tr>
<td>Structural Improvement (2013)</td>
<td>70</td>
<td>70</td>
<td>0</td>
</tr>
</tbody>
</table>

Data Source: California Maternity Practices in Infant Nutrition and Care (mPINC) Survey Data, 2007 and 2013 [www.cdc.gov/mpinc](http://www.cdc.gov/mpinc)
Regional and County-level mPINC Benchmark Report as a Maternity Care Quality Improvement Tool

http://cdph.ca.gov/mpincdata

Designed to communicate directly with regional partners most able to influence hospitals’ policies and practices and encourage hospitals to:

- Raise awareness and participation in biennial mPINC Survey
- Initiate quality improvement projects within maternity care setting
- Collaborate to address barriers to evidence-based maternity care policies and practices

**Regional Perinatal Programs of California**

- Central San Joaquin Valley – Sierra Nevada
- Central-North Los Angeles and Coastal Valley
- Los Angeles/San Gabriel and Inland Orange
- Mid-Coastal
- North Coast and East Bay
- Northeastern
- San Diego and Imperial
- South Coastal Los Angeles – Orange
- Southern Inland
- Kaiser Permanente – Northern California
- Kaiser Permanente – Southern California

**Counties (with 5 or more hospitals participating)**

- Alameda
- Contra Costa
- Los Angeles
- Orange
- Riverside
- Sacramento
- San Bernardino
- San Diego
- San Joaquin
- Santa Clara
- Ventura
Regional and County-level mPINC Benchmark Reports
http://cdph.ca.gov/mpincdata

- County or RPPC Region
- Geographic Location & Area(s) Included
- Hospitals & mPINC Participation
- Breastfeeding Rates for Participating Hospitals

Regional and County-level mPINC Benchmark Reports
http://cdph.ca.gov/mpincdata

- Total mPINC Score
- County/Region Compared to California
- 7 mPINC Dimensions of Care Scores
- County/Region Compared to California

mPINC indicators within a given Dimension of Care & Percent of Hospitals with Ideal Response

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### mPINC Indicators within mPINC Dimensions of Care

<table>
<thead>
<tr>
<th>mPINC Dimension</th>
<th>Ideal Response to mPINC Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor and Delivery Care</td>
<td>Initial skin-to-skin contact is w/in 1 hr (vaginal births)</td>
</tr>
<tr>
<td></td>
<td>Initial skin-to-skin contact is w/in 2 hr (cesarean births)</td>
</tr>
<tr>
<td></td>
<td>Initial breastfeeding opportunity is w/in 1 hr (vaginal births)</td>
</tr>
<tr>
<td></td>
<td>Initial breastfeeding opportunity is w/in 2 hr (cesarean births)</td>
</tr>
<tr>
<td></td>
<td>Routine procedures are performed skin-to-skin</td>
</tr>
<tr>
<td>Feeding of Breastfed Infants</td>
<td>Initial feeding is breast milk (vaginal births)</td>
</tr>
<tr>
<td></td>
<td>Initial feeding is breast milk (cesarean births)</td>
</tr>
<tr>
<td></td>
<td>Supplemental feedings to breastfeeding infants are rare</td>
</tr>
<tr>
<td></td>
<td>Water and glucose water are not used</td>
</tr>
<tr>
<td>Breastfeeding Assistance</td>
<td>Infant feeding decision is documented</td>
</tr>
<tr>
<td></td>
<td>Staff provide breastfeeding advice &amp; instructions</td>
</tr>
<tr>
<td></td>
<td>Patients are taught breastfeeding cues</td>
</tr>
<tr>
<td></td>
<td>Patients are taught not to limit suckling time</td>
</tr>
<tr>
<td></td>
<td>Staff directly observe &amp; assess breastfeeding</td>
</tr>
<tr>
<td></td>
<td>Standard feeding assessment tool is used</td>
</tr>
<tr>
<td></td>
<td>Pacifiers are rarely provided to breastfeeding infants</td>
</tr>
<tr>
<td>Contact Between Mother and Infant</td>
<td>Mother-infant pairs are not separated for postpartum transition</td>
</tr>
<tr>
<td></td>
<td>Most mother-infant pairs room-in at night</td>
</tr>
<tr>
<td></td>
<td>Most mother-infant pairs are not separated during the hospital stay</td>
</tr>
<tr>
<td></td>
<td>Infant procedures, assessment and care are in the patient room</td>
</tr>
<tr>
<td></td>
<td>Non-rooming-in infants are brought to mothers at night for feeding</td>
</tr>
</tbody>
</table>

*Note: The table above outlines specific indicators and ideal responses within the mPINC Dimensions of Care framework.*
## mPINC Indicators within mPINC Dimensions of Care

### Facility Discharge Care
- Staff provide appropriate discharge planning (referrals & other multi-modal support)
- Discharge packs containing product marketing infant formula samples are not given to breastfeeding patients

### Staff Training
- New staff receive appropriate breastfeeding education
- Current staff receive appropriate breastfeeding education
- Most staff received breastfeeding education in the past year
- Annual assessment of staff competency in breastfeeding management & support

### Structural & Organizational Aspects of Care Delivery
- Breastfeeding policy includes all 10 model policy elements
  - In-service training
  - Prenatal breastfeeding classes
  - Asking about mothers’ feeding plans
  - Initiating breastfeeding within 60 minutes (vaginal) or after recovery (cesarean)
  - Showing mothers how to express milk and maintain lactation
  - Giving only breast milk to breastfeeding infants
  - Rooming-in 24 hours/day
  - Breastfeeding on-demand and duration/frequency of feedings
  - Pacifier use by breastfed infants
  - Referral of mothers to appropriate breastfeeding resources
- Breastfeeding policy is communicated effectively
- Facility documents infant feeding in patient population
- Facility provides breastfeeding support to employees
- Facility does not receive infant formula free of charge
- Breastfeeding is included in prenatal patient education
- Facility has a designated staff member responsible for coordination of lactation care
A model breastfeeding policy includes all of the following elements:

- in-service training,
- prenatal breastfeeding classes,
- asking about mothers’ feeding plans,
- initiating breastfeeding within 1 hour of vaginal birth,
- initiating breastfeeding after uncomplicated c-section and/or showing mothers how to express milk and maintain lactation,
- giving only breast milk to breastfed infants,
- rooming-in 24 hours/day,
- breastfeeding on demand,
- no pacifier use by breastfed infants, and
- referral for breastfeeding support in hospital or at discharge.

# Elements of a Model Breastfeeding Policy

**mPINC, California 2007 vs. 2013**

<table>
<thead>
<tr>
<th>Element</th>
<th>2007</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early BF Initiation</td>
<td>86%</td>
<td>96%</td>
</tr>
<tr>
<td>Breastfeeding on-demand</td>
<td>79%</td>
<td>97%</td>
</tr>
<tr>
<td>Mother's Feeding Plans</td>
<td>79%</td>
<td>95%</td>
</tr>
<tr>
<td>Rooming-in</td>
<td>81%</td>
<td>94%</td>
</tr>
<tr>
<td>Maintenance of Lactation</td>
<td>74%</td>
<td>89%</td>
</tr>
<tr>
<td>Referral to appropriate BF resources</td>
<td>79%</td>
<td>88%</td>
</tr>
<tr>
<td>No Supplementation of BF Infants</td>
<td>58%</td>
<td>84%</td>
</tr>
<tr>
<td>Pacifier Use</td>
<td>48%</td>
<td>76%</td>
</tr>
<tr>
<td>In-Service Training</td>
<td>52%</td>
<td>73%</td>
</tr>
<tr>
<td>Prenatal Breastfeeding Classes</td>
<td>53%</td>
<td>72%</td>
</tr>
</tbody>
</table>

Data Source: California Maternity Practices in Infant Nutrition and Care (mPINC) Survey Data, 2007 and 2013 [www.cdc.gov/mpinc](http://www.cdc.gov/mpinc)
Between 2007 and 2013, California’s mPINC Composite Score increased from 69 (rank 11th) to 83 (rank 7th in US).

Improvements occurred within all dimensions, with marked improvements in labor and delivery care, discharge care, and structural and organizational aspects of care delivery (i.e. policies).

However, the following areas still need improvement:
- Inclusion of model breastfeeding policy elements
- Adequate staff training and assessment
- Appropriate use of breastfeeding supplements
- Provision of hospital discharge planning support beyond referrals
Case Study:
Use of data to promote collaboration at the local-level
RPPCs Have a Unique Opportunity to Improve the Quality of Maternity Care in CA

RPPC Staff are uniquely qualified to assist hospitals with maternity care quality improvement:

- Routinely provide resources, consultation, and technical assistance to hospitals to assist with quality improvement activities
- Conduct yearly on-site visits
- Built relationship/rapport with local hospitals
- Develop communication networks among agencies, providers, and individuals to exchange information.
WIC Regional Breastfeeding Liaisons (RBL)

- WIC professional staff from a wide variety of public health, medical, and marketing backgrounds

- Foster vital relationships between local hospitals, health care providers, breastfeeding coalitions, employers, community stakeholders and WIC

- Ensure seamless breastfeeding support is available to WIC participants in their community
Locations and Contacts | Regional Breastfeeding Liaisons: Partners for Healthy Children

Contra Costa County
Contra Costa County WIC
Mary Jane Kiefer
mary.kiefer@hsd.co.cccounty.us

Alameda County
Alameda Steering Committee
Jeanne Ketles
jeanne.ketles@acgov.org

Kern County
Community Action Partnership of Kern
Sara Steelman
ssteelman@capk.org

Sacramento County
Community Resource Project WIC
Jennifer Reitz
jennifer.reitz@resource.org
Samantha Slaughter
samantha@resource.org

Tulare County

San Francisco City & County
San Mateo County
Santa Clara County
Peninsula Regional Breastfeeding Collaborative
Laura Kinsella
lkinsella@smc.org
Angelica Rojas
arojas@smc.org

Fresno County
United Health Centers of San Joaquin Valley Inc.
Lisa Martinez
martinez@unitedhealthcenters.org

Santa Cruz County
Community Bridges WIC
Robbie Gonzalez-Dow
robbie@scwic.org

Los Angeles County
Northeast Valley Health Corp.
Rebeca Pastrana Sheng
rebecap-wic@nevhc.org

San Diego County
North County Health Services WIC
Laurelle Hiroshige
laurelle.hiroshige@nchs-health.org

Imperial County
La Clinica del Salud del Pueblo WIC
Kayla Lacuesta
kayla@cdsdp.org

Antelope Valley WIC
Adela Gomez
adela.gomez@awhospital.org

Riverside County
Riverside County WIC
Alyson Foote
afoote@rivcocha.org
Susana Berumen
susana.berumen@rivcocha.org
Regional Breastfeeding Quality Improvement
Taskforce – Alameda and Contra Costa Counties

Bring together maternity hospitals in Alameda and Contra Costa to:

• Encourage full participation in mPINC = benchmark reports for Alameda & Contra Costa
• Review most recent hospital data on maternity care practices (mPINC) and breastfeeding outcomes

• Celebrate successes!

• Identify areas in need of improvement

Maternity Practices in Infant Nutrition and Care (mPINC) Survey, 2013
Alameda County Overview

<table>
<thead>
<tr>
<th>Facility Discharge Care</th>
<th>74</th>
<th>71</th>
</tr>
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<tbody>
<tr>
<td>Staff provide appropriate discharge planning (nursing &amp; other multifunctional support)</td>
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<td>Discharge packs containing product marketing infant formula samples are not given to breastfeeding patients</td>
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<td></td>
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<td>57</td>
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</tr>
<tr>
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Alameda Composite Quality Practice (Total mPINC Score*): 83

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<td>Breastfeeding is included in prenatal education</td>
<td>86</td>
<td></td>
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</tbody>
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*The Centers for Disease Control and Prevention (CDC) conducted the mPINC Survey of U.S. maternity care facilities in 2013. Scores were calculated for each survey item. Then, item scores were averaged to create a score for each of the 7 domains of care. “Facility Score” is the average of all domain scores. Facilities were grouped based on scores high (20 or above), medium (10-19), and low (0-9).
Regional Breastfeeding QI Taskforce

Main Activities

- **Education** – on model breastfeeding policy development, and QI methods for organizational change

- **Action Planning** – assessment of mPINC and other data, identify priority needs, and develop QI plan

- **Resource Sharing** – discuss barriers to evidence-based maternity care practices and share best practices to overcome barriers

- **Collaboration** – establish opportunities to work with local medical providers, WIC and other MCAH programs to improve discharge care planning and postpartum support for breastfeeding mothers
Expand and Strengthen Partnerships to Explore Additional Source of local MCAH Program Data

- Local WIC Agencies
- Black Infant Health (BIH) Program
- California Home Visiting Program (CHVP)
- Local First 5 Initiatives
- Community Clinics
- Other partner organizations?
Thank You!

Carina Saraiva, MPH

carina.saraiva@cdph.ca.gov