



Indiana State Department of Health/NICHQ Partnership for Breastfeeding Improvement

*NICHQ's Final Report to Indiana*

January 2015

## Executive Summary

One of Indiana's top priorities is reducing infant mortality. As part of this effort, the Indiana State Department of Health (ISDH) plans to expand its work to increase breastfeeding rates across the state. While Indiana's breastfeeding rates have increased in recent years, they still lag behind national averages and a majority of mothers in Indiana do not breastfeed for the length of time recommended by the American Academy of Pediatrics and other leading medical bodies.

To address these challenges, ISDH partnered with NICHQ (the National Institute for Children's Health Quality) to conduct an assessment and develop a roadmap for statewide programming that links current initiatives, mobilizes key public health, hospital, and community stakeholders, identifies feasible high-leverage changes and provides recommendations on the implementation of these changes. This report highlights findings of that assessment and outlines the roadmap for improving breastfeeding rates throughout the state.

Based on the assessment conducted, NICHQ recommends that ISDH adopt an ambitious but feasible aim to increase rates of exclusive breastfeeding at three months, exclusive breastfeeding at six months, and any breastfeeding at 6 months among all mothers, as well as rates of exclusive breastfeeding at hospital discharge among underserved populations, by 2020. To achieve this aim, NICHQ recommends that ISDH focus its efforts on seven key opportunities for improvement:

1. Education of multidisciplinary healthcare providers
2. Public education and awareness
3. Post-discharge support
4. Workplace lactation support
5. Communication and coordination of breastfeeding improvement efforts
6. Improvement in hospital breastfeeding policies and maternity care practices
7. Call for action to reduce formula marketing in hospitals

By focusing on these opportunities and implementing the specific strategies detailed in this report, NICHQ believes that ISDH can achieve transformative improvement in breastfeeding within the next five years.

Throughout these efforts, NICHQ recommends that ISDH maintain a special focus on meeting the needs of underserved populations and providing culturally appropriate solutions; build on successful current and past initiatives; develop strategic short, medium and long-term plans to maximize impact; and take on a more visible leadership role in coordinating and driving breastfeeding improvement efforts throughout the state.

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## Introduction

In Indiana, as in the United States, infant mortality rates are unacceptably high. In 2011 the infant mortality rate in Indiana was 7.69 deaths per 1,000 live births, even higher than the U.S. average of 6.07, and there are substantial disparities in infant mortality rates among subpopulations.<sup>1</sup> To address this issue, the Indiana State Department of Health (ISDH) has made reducing infant mortality one of its top public health priorities.

Breastfeeding is associated with reduced infant mortality and is a key component of Indiana's effort to reduce infant mortality rates.<sup>2</sup> In Indiana, there have already been many efforts to increase breastfeeding, especially over the past decade. During this time ISDH has supported many initiatives aimed at, among other things, educating the public, training lactation specialists and health care providers, and building the capacity of community-based organizations. In addition, a growing number of individuals and organizations have been leading change in a variety of sectors, from hospitals to workplaces. Today Indiana has a passionate network of breastfeeding advocates who are working to support mothers' decisions to breastfeed at every point of the breastfeeding continuum, and to overcome the barriers that they currently face. Despite these initiatives and strengths, exclusive breastfeeding rates remain low in Indiana.<sup>3</sup>

Indiana is now poised to expand and deepen its work to improve rates of breastfeeding and exclusive breastfeeding. To begin this process, ISDH engaged NICHQ (the National Institute for Children's Health Quality) to conduct an assessment and develop a roadmap for statewide programming that links current initiatives, mobilizes key public health, hospital, and community stakeholders, identifies feasible high-leverage changes and provides recommendations on the implementation of these changes. This report highlights findings of that assessment and outlines the roadmap for improving breastfeeding rates throughout the state.

## Background

### The Benefits of Breastfeeding

Breastfeeding has been shown to provide many significant benefits to infants and their mothers. From a public health perspective, breastfeeding serves both as a risk reduction and a health promotion strategy for individuals and across generations. For infants, the benefits include a decreased chance of acquiring gastrointestinal infection, ear infections, acute myelogenous leukemia, childhood asthma, atopic dermatitis, and acute lymphocytic leukemia, as well as a decreased risk of hospitalization due to lower respiratory tract diseases.<sup>4-10</sup> Preterm infants who are breastfed have tested higher on developmental scores at 18 months and displayed significantly higher intelligence quotients at 7 ½ - 8 years of age.<sup>11</sup> Breastfed children continue to benefit from breast milk later in life with a reduced risk of being obese, developing type 2 diabetes and having high blood pressure.<sup>12-14</sup> For mothers, studies have shown an association between breastfeeding and a reduction in the risk of post-partum depression, breast and ovarian cancer, type 2 diabetes (among women without a history of gestational diabetes), cardiovascular disease, and rheumatoid arthritis.<sup>5,15-25</sup> Studies have also shown a protective effect of breastfeeding on postpartum weight gain.<sup>26</sup>

In addition to these health benefits, breastfeeding has many benefits for families, businesses and communities. Families of breastfed infants do not incur the cost of formula and avoid the medical costs

that would result from non-breastfed infants' increased susceptibility to illness. Businesses benefit because when infants have fewer and less severe illnesses, their parents miss work less frequently and incur fewer health care costs. Communities benefit from healthier populations and lower overall health care costs.<sup>27,28</sup>

### Breastfeeding and Infant Mortality

Breastfeeding has been shown to reduce the incidence of death within the first year of life. A growing body of research over the past 15 years has shown that breastfeeding is associated with a reduction in risk for neonatal and post-neonatal death, and that this association holds in both developing and developed countries.<sup>29,30</sup> Research has shown that it is protective against sudden infant death syndrome (SIDS), the leading causes of death for all infants 1-12 months of age, and that this effect is stronger when breastfeeding is exclusive.<sup>28,31-32</sup> Individual studies have reported up to a 50 percent reduced risk of SIDS throughout infancy.<sup>33</sup> A significant proportion (21 percent) of infant mortality in the US has been attributed, in part, to the increased rate of SIDS in infants who were never breastfed.<sup>2</sup> It has also been confirmed that the protective effect of breastfeeding on SIDS is independent of sleep position.<sup>34</sup>

### Global and National Progress

Over the past three decades, growing awareness of the tremendous benefits of breastfeeding has led to a global effort to increase rates of breastfeeding and exclusive breastfeeding. In 1989, recognizing that breastfeeding initiation and success depend heavily on the education and support offered to women during pregnancy and during their hospital stay, the World Health Organization (WHO) and UNICEF identified and codified a set of practices—the *Ten Steps to Successful Breastfeeding* (the WHO Ten Steps)—that characterize hospital environments that promote and support breastfeeding. Following the codification of these steps, the WHO and UNICEF launched the Baby-Friendly Hospital Initiative in 1991 to spread these practices on a global scale. The Baby Friendly Hospital Initiative has since seen remarkable reach and success: to date it has been implemented in 152 countries, and has led to more babies being exclusively breastfed worldwide.<sup>35</sup> In the United States, the WHO's emphasis on breastfeeding spurred a national effort to spread the Ten Steps to Successful Breastfeeding. Baby-Friendly USA was established in 1997 in order to manage and provide Baby-Friendly designation to hospitals and birthing centers that demonstrate that they have implemented the Ten Steps, and since that time the number of facilities designated as Baby-Friendly has grown to 203.

In 2010, the US adopted several breastfeeding goals as 10-year national objectives for improving the health of Americans: Healthy People 2020 goals include increasing the proportion of infants who are breastfed, increasing the proportion of employers that have worksite lactation support programs, reducing the proportion of breastfed infants who receive formula supplementation within the first two days of life and increasing the proportion of live births that occur in facilities providing the recommended care for breastfeeding mothers and their babies.<sup>36</sup> In 2011, the *Surgeon General's Call to Action to Support Breastfeeding* called on mothers, families, communities, health care professionals, employers, researchers and public health professionals to take specific steps toward supporting and promoting breastfeeding.<sup>37</sup> Also in 2011, the Institute of Medicine recommended comprehensive lactation support and counseling, including insurance coverage of the costs of renting breastfeeding equipment, to support mothers in initiating and continuing breastfeeding.<sup>38</sup> In 2012, The Joint Commission announced that its perinatal core measure set of five quality measures, one of which is exclusive breastfeeding, would become mandatory for all hospitals delivering more than 1,000 or more births per year on January 1, 2014.<sup>39</sup>

Federal agencies have helped to support breastfeeding in many other ways as well, such as the Health Resources and Services Administration’s *Business Case for Breastfeeding* initiative, the Centers for Disease Control (CDC) Division of Nutrition, Physical Activity and Obesity, and the United States Department of Agriculture’s substantial and ongoing funding of breastfeeding support through the Women, Infants and Children (WIC) Program. Over the past fifteen years the US government’s coordinated support for breastfeeding has grown to include many agencies and types of assistance.

NICHQ has become a national leader in facilitating improvement in breastfeeding rates and infant mortality. NICHQ led the CDC-supported Best Fed Beginnings project, which helped 89 hospitals in 29 states improve breastfeeding policies and maternity care practices, build connections with community based breastfeeding coalitions, and identify best practices that can be spread to accelerate improvement at other sites. NICHQ has also worked closely with state departments of health in New York and Texas to plan and execute collaborative learning opportunities that have resulted in increased rates of exclusive breastfeeding. In New York, NICHQ worked with 12 hospitals to make practice improvements to support a mother’s choice to breastfeed and has recently embarked on a second phase to add a goal of over 50 additional hospitals. In Texas, NICHQ is working with three cohorts of up to 81 teams to improve rates of exclusive breastfeeding across the state. NICHQ is currently working with national partners to lead a multiyear national movement, the Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality, employing quality improvement, innovation and collaborative learning to reduce infant mortality and improve birth outcomes. The CoIIN represents a massive, national effort to change the infant mortality rate in the United States.

### Breastfeeding in Indiana: A Brief Overview

Over the past two decades, Indiana has developed policies and programming that have resulted in significant improvement in breastfeeding rates. While Indiana still lags behind the national average in rates of breastfeeding (Table 1), it has made progress and is only slightly behind in rates of exclusive breastfeeding at 6 months. Indiana exceeds the national average in hospitals’ average Maternity Practices in Infant Nutrition and Care (mPINC) scores, percentage of live births occurring at Baby-Friendly facilities, and the number of International Board Certified Lactation Consultants (IBCLCs) per 1,000 live births (Table 2).

Table 1. Breastfeeding rates, all infants				
Measure	HP 2020 goals	National (all infants)	Indiana (all infants)	IN vs. Nat
Initiation of breastfeeding	81.9	79.2	74.1	Below
Breastfeeding (6 months)	60.6	49.4	38.6	Below
Breastfeeding (12 months)	34.1	26.7	21.5	Below
Exclusive breastfeeding (3 months)	46.2	40.7	35.7	Below
Exclusive breastfeeding (6 months)	25.5	18.8	18.1	Slightly below

Sources: CDC Breastfeeding Report Card 2014, Healthy People 2020 Breastfeeding Objectives.<sup>3,36</sup>

Table 2. Breastfeeding support	
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Measure	HP 2020 goals	National (all infants)	Indiana (all infants)	IN vs. Nat
Average mPINC score	NA	75	76	Slightly above
Percentage of live births occurring at Baby-Friendly facilities	8.1	7.79	12.01	Above
Percent of breastfed infants receiving supplementation before 2 days of age	14.2	19.4	17.2	Below
Number of Certified Lactation Consultants per 1,000 live births	NA	3.85	2.77	Below
Number of International Board Certified Lactation Consultants per 1,000 live births	NA	3.48	4.71	Above
Sources: CDC Breastfeeding Report Card 2014, Healthy People 2020 Breastfeeding Objectives. <sup>3,36</sup>				

A closer look at breastfeeding rates in Indiana and the US between 2008 and 2014, compiled by the CDC through the National Immunization Survey (which is sent to a sample of all parents whose infants receive vaccinations), reveals that Indiana made progress during this period, though that progress has been variable. Gains were strongest in exclusive breastfeeding at 6 months and weakest in (any) breastfeeding at 6 months. These data suggest that while many efforts are underway, challenges remain in supporting initiation and developing systems that allow mothers to sustain breastfeeding.

## Assessment Methods and Activities

The NICHQ assessment team chose methods that provided a comprehensive understanding of the context in which work to increase breastfeeding is carried out in Indiana. Following this assessment, NICHQ organized and facilitated an expert meeting that brought together a variety of voices to discuss challenges and opportunities and to make recommendations to the state. Finally, NICHQ organized and facilitated a planning meeting with ISDH to review and discuss the outcomes of the assessment and expert meeting.

### Literature Review

NICHQ began the assessment phase by reviewing documents and websites provided by ISDH. These documents were dated between 2005 and 2014, with a greater emphasis on the past five years (2009-2014). The documents consisted primarily of reports, data and resources written or commissioned by various departments of ISDH; websites included national and local organizations and initiatives. See Appendix 1 for a complete list of the documents and websites that were reviewed.

### Key Stakeholder Interviews

Following the literature review, NICHQ reached out to individuals who offered a variety of perspectives on the challenges of supporting breastfeeding mothers and the opportunities for improvement that exist in Indiana. Confidential semi-structured interviews were conducted with 13 individuals in October, nine of whom were interviewed by phone and four of whom offered written responses to interview questions.

Phone interviews lasted between 30 and 60 minutes. Some of these individuals were identified by ISDH, and some were identified over the course of the literature review and interview process. The aim was to interview a diverse group of people with a variety of perspectives, including mothers, lactation specialists, healthcare providers, educators, advocates, and public health professionals. The aim was not to interview all individuals who play an important role in breastfeeding support and advocacy in Indiana; such comprehensiveness was beyond the scope of this project.

These interviews focused on participants' experiences of breastfeeding support in Indiana. The interviews were structured around a set of questions that NICHQ developed with ISDH (see Appendix 2 for a list of these questions), but adapted to the specific experiences and areas of expertise of each interviewee. Overall, the individuals interviewed were aware of the many challenges to increasing breastfeeding rates, but were excited and energized by the work currently being done in Indiana and hopeful for the future. They identified gaps in care – ways in which women who want to breastfeed are not well supported – but also offered many potential solutions to address these problems. Interviewees also discussed some of the specific ways in which the Indiana State Department of Health could be more effective in promoting breastfeeding. For a full list of themes to emerge from the interviews, please see Appendix 3.

### Expert Meeting

On November 5, 2014, NICHQ brought together local and national experts and stakeholders to review the findings of the assessment phase, discuss potential solutions to the challenges that Indiana faces in its breastfeeding work, recommend a statewide aim for ISDH's breastfeeding work, and develop a conceptual framework for how to link initiatives and resources in Indiana. Participants included experts from community-based organizations, clinical settings, statewide organizations, and other states, and the presence of multiple division heads from the Indiana State Department of Health brought a broad statewide policy perspective to the meeting. As with the key stakeholder interviews, the aim was not to bring together every individual and organization working to increase breastfeeding in Indiana. Because of the highly focused and participatory nature of the expert meeting, the number of participants was necessarily limited. NICHQ aimed to bring together a diverse and representative group of experts with a variety of backgrounds and perspectives (see Table 4 for a list of the experts who attended). In addition to these experts, nine staff members from ISDH attended, representing the Maternal and Child Health Division, WIC, the Office of Women's Health, the Office of Minority Health, the Division of Nutrition and Physical Activity, and the Office of Primary Care/Rural Health and Chronic Disease.

Name	Organization
Tina Babbitt	Indiana Perinatal Network, IU Health Methodist Hospital
Tina Cardarelli	Indiana Perinatal Network
Mandy Dornfeld	Sandcrest Family Medicine, Columbus Regional Hospital
Ali Kulenkamp	Indy Breastfeeding Moms, Breastfeeding USA
Lori Feldman-Winter	Cooper University Health
Aimbriel Lasley	Indiana Black Breastfeeding Coalition
Sarah Long	The Milk Bank

Ann Marie Neeley	Bloomington Area Birth Services
Janice O'Rourke	The Milk Bank
Jean Robbins	New Hope Services
Teresa Stackhouse	Community Howard Regional Health
Julie Stagg	Texas Department of State Health Services

The goals of the meeting were to:

- Come to agreement on the project aim and high-level goals to increase breastfeeding rates in Indiana;
- Obtain diverse perspectives on the challenges and opportunities for breastfeeding work in Indiana, based on evidence and experience;
- Identify and prioritize strategies for improving breastfeeding rates in Indiana that are aligned with the project aim;
- Identify appropriate measures to track progress and assess impact.

During the meeting, participants were asked to brainstorm current strengths, current initiatives, and gaps/opportunities in Indiana and to map them to four key time periods during which support for breastfeeding is critical (the “breastfeeding continuum”): prenatal, intrapartum, the first two weeks of life, and two weeks-six months. Participants were also asked to develop an aim statement for ISDH’s breastfeeding work, keeping elements of SMART aims in mind (specific, measurable, attainable, relevant, and time-bound); though some elements of this aim statement led to extensive discussion, near consensus was reached and participants felt comfortable recommending this aim statement to ISDH. Finally, participants discussed primary and secondary drivers for achieving that aim. See Appendix 4 for more detail on the outcomes of this meeting.

### Planning Meeting

Following the expert meeting, NICHQ synthesized the information gathered to that point into preliminary recommendations and shared these with ISDH. On December 17, 2014, a planning meeting was held with a small group of ISDH staff members to discuss these recommendations in detail and explore implementation issues and opportunities.

## Assessment Outcomes: A Roadmap for Change

### Statewide Breastfeeding Aim

Successful improvement efforts begin with a clear aim. When a specific, measurable aim is defined and stated, it provides guidance to those involved in the improvement effort and makes it possible to identify the changes that will lead to the desired improvement. During the expert meeting, NICHQ challenged participants to formulate an aim for the state’s efforts to improve breastfeeding rates over the next several years. Guided by NICHQ faculty, participants drafted aim statements in small groups and then came together to discuss them extensively, eventually reaching near consensus on a single aim statement. NICHQ refined this aim statement through subsequent conversations with ISDH, and recommends that the state adopt it. While ambitious, NICHQ believes that the targets in the proposed aim are attainable through the initiatives outlined in this roadmap. By starting with strategic first steps

and building on them progressively, ISDH can mobilize resources and partners and attract increasing support for its initiatives.

#### Proposed Aim

By September 30, 2020, Indiana will meet the Healthy People 2020 goals for exclusive breastfeeding at 3 months, exclusive breastfeeding at 6 months and (any) breastfeeding at 6 months and will improve rates of exclusive breastfeeding at discharge for underserved populations. Specifically:

- a. Increase the rate of exclusive breastfeeding at 3 months from baseline of 35.7% in 2011 to 46.2%;
- b. Increase the rate of exclusive breastfeeding at 6 months from baseline of 18.1% in 2011 to 25.5%;
- c. Increase the rate of (any) breastfeeding at 6 months from baseline of 38.6% in 2011 to 60.6%;
- d. Increase by 25% from baseline the percentage of infants breastfed exclusively at hospital discharge among underserved populations, including but not limited to:
  - Infants of African-American descent;
  - Infants of mothers under the age of 20;
  - Infants of low-income mothers;
  - Infants of mothers who get little or no prenatal care.

#### Measurement

The value of a clear aim depends on the ability to measure progress toward it. NICHQ recommends that ISDH ensure that it can track progress over time and measure outcomes for each aim that it adopts. Currently, measurement of breastfeeding rates in Indiana is a challenge: there are many gaps in the data available. For example, data on breastfeeding are not stratified by race, ethnicity, or underserved populations, and the National Immunization Survey – which, while helpful, has many limitations – is the only population-wide method of measuring breastfeeding rates after hospital discharge. Since, for example, improving the rates of exclusive breastfeeding at hospital discharge among underserved populations is part of the recommended statewide breastfeeding aim, NICHQ recommends that Indiana develop the ability to measure these rates.

There are many ways to improve statewide measurement of breastfeeding rates, and NICHQ recommends that ISDH carefully examine the feasibility of available options to determine which strategy or strategies is most appropriate for Indiana. In particular, NICHQ recommends that ISDH consider two changes that have met with success in other states:

- *Changes to birth certificate form:* Several states have changed their birth certificate form to include additional information about the parents' feeding choice and education regarding the benefits of breastfeeding, such as whether a mother received prenatal education about breastfeeding, what her intention during pregnancy was with regard to infant feeding, and whether her infant was exclusively breastfed during the hospital stay. This strategy can transform an existing database and data collection system to be a valuable source of information on breastfeeding, does not rely on the voluntary participation of organizations across the state, gathers data on all births, and is highly versatile (a wide array of questions can be added). This data set can also be the basis for future measurement (e.g., phone surveys at 6 months to specific subpopulations). Working with ISDH birth certificate statisticians to allow the release of

“preliminary data” could assist in assessing baseline and interim data in a timely way to inform ongoing improvement strategies.

- *Data collection from well-child visits:* Integrating questions about breastfeeding into well-child visits can provide detailed and reliable data on breastfeeding. A wide array of questions can be included, they are given in real time rather than based on recall many months afterwards (as with the National Immunization Survey), and they gather data on a large percentage of infants. In addition, questions about breastfeeding can be integrated into routine care (for example, mothers who confirm that they are still breastfeeding can be referred to resources for lactation assistance). This strategy requires partnership with pediatric groups and establishment of a new data collection system.

Other measurement strategies include written surveys during the hospital stay and questions during post partum visits.

### Opportunities for Improvement

Based on the assessment conducted, NICHQ recommends that ISDH focus its leadership efforts and resources on seven opportunities for improvement to achieve the proposed aim. These are listed in the logic model (Figure 1) and described in detail below. These opportunities for improvement were identified as high priorities through the key stakeholder interviews and the expert meeting, and are, in NICHQ’s view, areas in which the state can and should take a leadership role.

Given the racial/ethnic and other disparities in infant mortality and breastfeeding that exist in Indiana, NICHQ recommends that ISDH maintain a special focus on addressing the needs of underserved populations throughout these initiatives. NICHQ believes that addressing disparities is not a separate endeavor, but rather something that is done through careful and continuous attention to the needs and cultures of particular underserved populations.

Figure 1. Indiana Breastfeeding Logic Model

Inputs	Activities		Outcomes & Impact		
	Activities	Outputs	Short-term outcomes (September 2017)	Medium-term outcomes (September 2020)	Long-term impact (2020 and beyond)
<p>Collaboration among multiple divisions at ISDH, including MCH, DNPA, WIC, Primary Care and Rural Health</p> <p>Statewide, regional and local breastfeeding experts</p> <p>Partnerships with many organizations including:</p> <ul style="list-style-type: none"> <li>• IPN</li> <li>• Indiana Hospital Association</li> <li>• IPQIC</li> <li>• The Milk Bank</li> <li>• Local community-based organizations</li> <li>• Local and regional breastfeeding coalitions</li> <li>• La Leche League</li> <li>• Indiana March of Dimes</li> </ul> <p>Funding:</p> <ul style="list-style-type: none"> <li>• Title V</li> <li>• WIC</li> <li>• ISDH DNPA</li> <li>• Various small grants and partners (Kellogg, March of Dimes, etc.)</li> </ul> <p>If NICHQ is involved:</p> <ul style="list-style-type: none"> <li>• National quality improvement, evaluation, and breastfeeding expertise</li> </ul>	<ul style="list-style-type: none"> <li>• Education of multi-disciplinary health providers                             <ul style="list-style-type: none"> <li>○ <i>Development of low-cost training programs</i></li> <li>○ <i>EPIC-BEST program</i></li> <li>○ <i>Recognition program</i></li> <li>○ <i>Coverage of breastfeeding in clinical education</i></li> </ul> </li> <li>• Public education and awareness                             <ul style="list-style-type: none"> <li>○ <i>Statewide media</i></li> <li>○ <i>Targeted, community-specific media</i></li> <li>○ <i>Involvement of businesses</i></li> <li>○ <i>Involvement of schools</i></li> </ul> </li> <li>• Post-discharge support                             <ul style="list-style-type: none"> <li>○ <i>Support for IBCLC training</i></li> <li>○ <i>Support for free drop-in centers</i></li> <li>○ <i>Support for home-visiting programs</i></li> </ul> </li> <li>• Workplace lactation support                             <ul style="list-style-type: none"> <li>○ <i>Targeted marketing efforts</i></li> <li>○ <i>Partnerships with large institutions</i></li> <li>○ <i>Recognition program</i></li> </ul> </li> <li>• Communication and coordination of breastfeeding improvement efforts                             <ul style="list-style-type: none"> <li>○ <i>Regular statewide breastfeeding meetings</i></li> <li>○ <i>Support for statewide coordination and communication</i></li> </ul> </li> <li>• Improvement in hospital breastfeeding policies and maternity care practices                             <ul style="list-style-type: none"> <li>○ <i>Learning collaborative</i></li> <li>○ <i>Recognition program</i></li> </ul> </li> <li>• Call for action to reduce formula marketing in hospitals</li> </ul>	<ul style="list-style-type: none"> <li>• Health care providers receive education about breastfeeding and are recognized for doing so</li> <li>• Individuals across Indiana receive high-quality, consistent messaging about breastfeeding</li> <li>• IBCLC candidates are supported, community-based organizations receive support for holding free drop-in clinics and home-visiting programs are expanded</li> <li>• Businesses receive targeted messaging about benefits of supporting breastfeeding and are recognized for support</li> <li>• Breastfeeding champions throughout state are engaged</li> <li>• Hospitals on the Baby-Friendly 4-D pathway are supported and connected</li> <li>• Fewer hospitals distribute free formula bags</li> </ul>	<ul style="list-style-type: none"> <li>• Women receive accurate and helpful information about breastfeeding from their health care providers</li> <li>• Increase in consumer awareness and education about breastfeeding</li> <li>• Increase in support available to women after hospital discharge</li> <li>• Increase in number of lactation-friendly workplaces</li> <li>• Increase in level of coordination and collaboration among breastfeeding champions and supporters</li> <li>• Increase in number of hospitals in the Baby-Friendly 4-D pathway</li> <li>• Increase the number of Baby-Friendly Designated hospitals</li> <li>• Fewer women receive formula marketing</li> </ul>	<p>Indiana will meet the Healthy People 2020 goals for exclusive breastfeeding at 3 months, exclusive breastfeeding at 6 months and (any) breastfeeding at 6 months and will improve rates of exclusive breastfeeding at discharge for underserved populations:</p> <ul style="list-style-type: none"> <li>• Increase rates of exclusive breastfeeding at 3 months from 35.7% in 2011 to 46.2%</li> <li>• Increase rates of exclusive breastfeeding at 6 months from 18.1% in 2011 to 25.5%</li> <li>• Increase rate of (any) breastfeeding at 6 months from 38.6% in 2011 to 60.6%</li> <li>• Improve 25% from baseline in the percentage of infants who are exclusively breastfed at hospital discharge among underserved populations including but not limited to:                             <ul style="list-style-type: none"> <li>• Infants of African American descent;</li> <li>• Infants of mothers under the age of 20;</li> <li>• Infants of low-income mothers;</li> <li>• Infants of mothers who get little or no prenatal care.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• More babies are breastfed and for longer periods</li> <li>• Fewer babies die within their first year of life</li> <li>• Infants and children are healthier</li> <li>• Families are increasingly valued and supported</li> <li>• Breastfeeding becomes the cultural norm</li> </ul>

## 1. Education of Multidisciplinary Healthcare Providers

### Context

Healthcare providers – including obstetricians, pediatricians, family physicians, nurses, midwives, and physicians’ assistants – play a critical role in educating women and families about breastfeeding and supporting the decision to breastfeed. Women look to these providers for guidance on breastfeeding from the first prenatal visits through an infant’s first year of life, and are influenced both by the explicit advice received from them and by the attitudes toward breastfeeding that they convey in more subtle ways. Because many women in the US today cannot turn to their mothers for first-hand experience of breastfeeding, they often rely on healthcare providers for knowledge of the basic facts about breastfeeding.

Unfortunately, healthcare providers are often ill-equipped to provide this guidance. Most physicians’ medical education included little training (or even no training) related to breastfeeding, and many other healthcare providers have received little or no training in it either. While the benefits of breastfeeding have been increasingly recognized over the past decade, many healthcare providers have not received instruction in the science of breastfeeding. As a result, many healthcare providers offer inaccurate information on breastfeeding to their patients. Several interviewees recalled receiving advice from physicians that was medically incorrect, even advice that, if followed, would have resulted in their discontinuation of breastfeeding (such as a recommendation to supplement with formula). Others recalled that their physicians simply avoided the topic, which made them feel as though breastfeeding was not a health issue.

Many healthcare providers are well-informed and supportive of breastfeeding. But given the significant variability in providers’ knowledge and support of breastfeeding, there is a tremendous need for increased educational opportunities to ensure that all health care providers who interact with new mothers have a basic understanding of breastfeeding and make it part of their standard of care.

### Past and present initiatives

Indiana WIC has offered a Certified Lactation Specialist course open to the public that is designed to improve knowledge base and skills in working with breastfeeding mothers and infants. This course could be the foundation for expanded training opportunities tailored to many types of healthcare providers. In addition, ISDH has supported the Indiana Perinatal Network (IPN) in several educational endeavors, including an annual one-day breastfeeding conference and a monthly breastfeeding webinar series.

### Recommendations

Three barriers to achieving widespread breastfeeding education of healthcare providers stood out from our assessment: (1) the cost, in time and money, of providing appropriate training, (2) the lack of incentives and guidelines that would encourage providers, organizations and healthcare systems to prioritize and invest in this training, and (3) the lack of standardized training materials and other resources for providers to use and distribute. NICHQ recommends that ISDH build off of current initiatives, develop new training opportunities, and play a more visible role in facilitating these programs.

Barrier	Solutions	Implementation Considerations
Cost of training	High-quality, inexpensive online training modules	<ul style="list-style-type: none"> <li>• Ensure content is up to date</li> <li>• Ensure quality and consistency of</li> </ul>

		<p>content</p> <ul style="list-style-type: none"> <li>• Tailor to specific types of healthcare providers</li> <li>• Include content geared toward all types of providers who potentially “touch” new mothers (e.g., emergency department staff)</li> <li>• Consider subsidizing training for healthcare providers from organizations with fewer resources</li> <li>• Involve providers of each discipline in the development of their respective training (e.g., pediatricians in the development of modules for pediatricians)</li> <li>• Potential partner: NICHQ</li> </ul>
	Easily accessible in-person trainings	<ul style="list-style-type: none"> <li>• Ensure content is up to date</li> <li>• Ensure quality and consistency of content</li> <li>• Tailor to specific types of healthcare providers</li> <li>• Consider practice-based education programs, such as the EPIC-BEST program<sup>40</sup></li> <li>• Consider subsidizing training for healthcare providers from organizations with fewer resources</li> <li>• Include providers of each discipline in the development and presentation of their respective trainings (e.g., involve pediatricians in the development and presentation of trainings for pediatricians)</li> <li>• Potential partner: NICHQ</li> </ul>
Lack of incentives	Statewide guidelines on recommended breastfeeding education	<ul style="list-style-type: none"> <li>• Develop non-binding guidelines that communicate importance of breastfeeding education and expectation that high-quality care includes breastfeeding knowledge and support</li> <li>• Disseminate and publicize guidelines</li> </ul>
	Recognition program(s) to reward completion of up-to-date breastfeeding education	<ul style="list-style-type: none"> <li>• Recognize various entities – individuals, practices, clinics, hospitals, departments within hospitals – for achieving a certain level of breastfeeding training</li> <li>• Designation for various entities should be distinct but related in terms of branding</li> <li>• Encourage women and families to seek out healthcare providers and</li> </ul>

		facilities that are designated
	Partner with medical boards and bodies to encourage breastfeeding education	<ul style="list-style-type: none"> <li>• Cultivate leaders – physician leaders, nurse leaders, etc. – to take on visible role in encouraging training</li> <li>• Potential partners include:             <ul style="list-style-type: none"> <li>• Indiana chapter of the American Congress of Obstetricians and Gynecologists</li> <li>• Indiana Chapter of the American Academy of Pediatrics</li> <li>• Indiana Academy of Family Physicians</li> <li>• Indiana Rural Health Association</li> <li>• Indiana State Medical Association</li> <li>• Indiana Section of the Association of Women’s Health, Obstetric and Neonatal Nurses</li> </ul> </li> </ul>
	Coordinate opportunity for Maintenance of Certification (MOC) credit	<ul style="list-style-type: none"> <li>• Design a user-friendly MOC project that will allow physicians to gain credit for improving quality of care specific to breastfeeding-supportive practices</li> <li>• Potential partner: NICHQ, as an MOC Portfolio Sponsor through the American Board of Pediatrics with experience designing and running many MOC projects</li> </ul>
Few standardized resources within Indiana	Provide easy-to-use training materials and needs assessment forms	<ul style="list-style-type: none"> <li>• Adapt existing breastfeeding resources for use in Indiana (e.g., Texas’ breastfeeding resources)</li> <li>• Develop additional resources if needed</li> <li>• Consult with physicians and organizations to ensure that resources are relevant and usable</li> <li>• Ensure quality and consistency of resources</li> </ul>

## 2. Public Education and Awareness

### Context

Cultural barriers and inaccurate beliefs about breastfeeding are mitigated through public awareness campaigns, both broad and targeted. There is a cross-generational need for more awareness of the benefits of breastfeeding and the science of breastfeeding, particularly around the nutritional needs of newborns. One of the most common reasons for breastfeeding failure is one that has been identified as a challenge by hospital staff: many mothers worry that their newborns are not receiving adequate nutrition and turn to supplementation with formula when it is not medically indicated. Many interviewees identified a lack of awareness and understanding of breastfeeding as one of the most important barriers to increasing breastfeeding rates.

**Past and present initiatives**

To date, ISDH has not engaged in any public education campaigns specific to breastfeeding. Organizations within the state, such as The Milk Bank, regularly engage in targeted outreach and education, but there has been no large, statewide campaign. Currently, a large-scale public education campaign on infant mortality is underway in Indiana; this campaign does not, however, address breastfeeding. Due to this lack of precedent, NICHQ recommends that ISDH look to other states that have completed statewide breastfeeding education campaigns for materials and strategies.

Recently, IPN was awarded a small grant from the W. K. Kellogg Foundation (2013-2015) to create lactation areas in schools in seven communities, providing breastfeeding education and support for teenage mothers. This initiative may yield important lessons learned and lay the groundwork for expanded educational opportunities in schools.

**Recommendations**

The keys to a successful education campaign are reaching the intended recipients and crafting a message that they will be receptive to. Interviewees and expert meeting participants offered many ideas on how best to achieve both of these goals.

Barrier	Solutions	Implementation Considerations
Not reaching desired audience	Large-scale public education campaign	<ul style="list-style-type: none"> <li>Adapt existing materials where possible (e.g., Texas’ materials)</li> <li>Build on public education efforts around infant mortality and other topics where possible</li> </ul>
	Community-specific education campaigns	<ul style="list-style-type: none"> <li>Work with members of the relevant communities to ensure content is appropriate, respectful and appealing</li> <li>Partner with faith-based organizations</li> <li>Potential partner: Indiana Minority Health Coalition</li> </ul>
	Partnerships with private sector and institutions	<ul style="list-style-type: none"> <li>Work with businesses and public institutions (e.g., universities, state agencies) to increase reach of campaigns</li> <li>Learn from other states that have forged such partnerships (e.g., Michigan, North Carolina)</li> </ul>
	Integration into school curriculum	<ul style="list-style-type: none"> <li>Support coverage of breastfeeding in school curriculum (e.g., high school health classes)</li> <li>Learn from other states that have achieved this (e.g., New York)</li> </ul>
Sub-optimal messaging	Appropriate target audience	<ul style="list-style-type: none"> <li>Include fathers, families, teens, employers, etc. in target audience, not just mothers</li> </ul>
	Appropriate clinical content	<ul style="list-style-type: none"> <li>Stress importance of all breastfeeding (“everything counts”) to counter perception that only exclusive breastfeeding is beneficial (“all or</li> </ul>

		nothing")
	Respectful tone	<ul style="list-style-type: none"> <li>• Ensure messaging is consistent across all channels</li> <li>• Promote breastfeeding without blaming women</li> <li>• Stress the need for system change, not merely the responsibility of mothers and families (this will also help women and families become more informed consumers)</li> <li>• Ensure materials are diverse and appropriate for Indiana</li> </ul>

### 3. Post-Discharge Support

#### Context

It is very common for breastfeeding women to require lactation assistance once they leave the hospital; even those receiving prenatal education, evidence-based maternity care practices and active hospital supports can be unprepared for the realities and challenges of breastfeeding. However, community based support and assistance is often hard to access. In some communities, there is no lactation assistance available. In communities where lactation assistance is available, mothers may be unaware of it or unable to take advantage of it. In rural communities with poverty, the costs of transportation may be a significant barrier.

Lactation assistance is most effectively offered directly within communities at easily accessible locations and times. The lack of resources and funding for the community-based organizations that provide the bulk of such support is often cited as a barrier to initiations and maintenance of breastfeeding. In an effort to meet this need, it is recommended that more funding be provided to community-based organizations focused on breastfeeding and family support and to create robust local and/or regional breastfeeding coalitions.

#### Past and present initiatives

Indiana has the benefit of many strong community-based organizations that are providing critical breastfeeding support to new mothers. Their leadership should be leveraged to expand the number of such organizations within the state. The recent Community Breastfeeding Support Initiative (2012-2014), supported by the CDC, helped 13 small organizations expand breastfeeding services and build capacity. The program identified lessons learned – such as the importance of making contact with mothers within seven days of delivery, and the importance of educating family members such as fathers and grandmothers in addition to mothers – that should be used to expand this type of program to more organizations.

Many other organizations are actively involved with supporting new breastfeeding mothers, including chapters of Breastfeeding USA (such as Indy Breastfeeding Moms), local breastfeeding coalitions (there are currently over 40 in Indiana), Well Babies at Walgreens (a program involving weekly drop-in groups at two Walgreens locations in Indianapolis), and La Leche League of Indiana. These should be supported and expanded so to reach as many communities as possible.

**Recommendations**

NICHQ’s recommendations for improving post-discharge support center on providing assistance to the community-based organizations that are offering, or could offer, high-quality, easily accessible support groups during which women can receive assistance from lactation experts and learn from peers. These programs have the potential to reach a large number of breastfeeding mothers at relatively little cost. In addition, expanding home visiting programs such as the Nurse-Family Partnership could have a dramatic effect on smaller but more vulnerable populations.

Ideally, mothers should have access to a variety of levels of lactation assistance: encouragement, support, and basic guidance from peers, lactation assistance from Certified Lactation Consultants (CLCS), and, if needed, access to expert lactation assistance from IBCLCs. NICHQ recommends that ISDH aim to increase the availability of all levels of lactation assistance.

Barrier	Solutions	Implementation Considerations
Limited availability of lactation assistance	Free drop in groups	<ul style="list-style-type: none"> <li>• Include a CLC or IBCLC and a WIC peer counselor</li> <li>• Offer free weight checks</li> <li>• Hold directly in the community (e.g., churches, libraries)</li> <li>• Explore partnerships with public and private organizations to hold these groups (e.g., building on the small program at Walgreens)</li> </ul>
	Lactation consultants	<ul style="list-style-type: none"> <li>• Provide funding to support IBCLC candidates, especially ones with ties to underserved communities including minority communities and rural communities                             <ul style="list-style-type: none"> <li>- Provide opportunities for IBCLC candidates not from medical backgrounds to gain clinical experience in birthing facilities</li> <li>- Learn from model in Detroit used by Black Mothers’ Breastfeeding Association</li> </ul> </li> <li>• Expand and publicize WIC-supported CLC training opportunities, available to WIC peer counselors and others</li> </ul>
	Virtual lactation consultations (“tele-lactation”)	<ul style="list-style-type: none"> <li>• Build on successful pilot programs (e.g., at Indiana University Health Methodist Hospital)</li> <li>• Use to offer lactation assistance in rural communities</li> </ul>
	Peer mentor programs	<ul style="list-style-type: none"> <li>• Support the expansion of peer mentoring programs, building on successful models (e.g., Breastfeeding USA’s local chapters)</li> <li>• Encourage use of social media by peer mentoring programs (e.g., private Facebook groups)</li> </ul>

Limited availability of home visits	Home visiting programs	<ul style="list-style-type: none"> <li>Expand home visiting programs with successful track record of supporting breastfeeding, especially Nurse-Family Partnership and Healthy Families Indiana</li> <li>Use materials, resources and best practices from the Home Visiting Collaborative Improvement and Innovation Network to improve breastfeeding support within home visiting programs</li> </ul>
Lack of awareness of existing assistance	Resource lists	<ul style="list-style-type: none"> <li>Ensure that up-to-date lists of community breastfeeding resources are distributed regularly to physician practices, community health centers, WIC offices, and other places new mothers visit</li> </ul>

#### 4. Workplace Lactation Support

##### Context

Inadequate lactation support in the workplace is a significant barrier to breastfeeding. In 2008, Indiana’s Lactation Support in the Workplace Law took effect, requiring state and government offices and employers with more than 25 employees to provide a private space and cold storage for employees who pump their breast milk. Nonetheless, many women still do not find support for pumping breast milk at work. Some employers are lactation-friendly in policy, but employees may still not feel that it is accepted. In addition, many businesses are still not lactation-friendly in policy, despite the legal requirement.

##### Past and present initiatives

ISDH and IPN, along with many other organizations and individuals, helped to pass the 2008 law. Since 2008, IPN has created informational resources for families and employers, detailing what the law requires and tips for breastfeeding while returning to work. However, no large-scale initiative has been conducted to encourage employers to support breastfeeding or recognize those that do.

##### Recommendations

NICHQ recommends two primary strategies for improving lactation support in the workplace: a targeted outreach and education initiative aimed at employers, and a recognition program to reward those that are supportive of their employees’ breastfeeding.

Barrier	Solutions	Implementation Considerations
Lack of awareness and education among employers	Targeted outreach to employers	<ul style="list-style-type: none"> <li>Conduct specific outreach to educate business community, including chambers of commerce, business bureaus and professional associations</li> <li>Partner with large institutional employers (e.g., universities)</li> </ul>
	Educational materials for	<ul style="list-style-type: none"> <li>Develop or adapt materials explaining</li> </ul>

	employers	<p>how to comply with the 2008 law and highlighting the business case for breastfeeding</p> <ul style="list-style-type: none"> <li>• Include case studies of successful workplace lactation support</li> </ul>
	Materials for mothers	<ul style="list-style-type: none"> <li>• Develop or adapt materials that women can take to their employers to advocate for their right to pump</li> </ul>
Lack of incentives to change	Statewide recognition program	<ul style="list-style-type: none"> <li>• Build on successful examples from other states (e.g., Texas)</li> <li>• Publicize and celebrate businesses that earn designation</li> </ul>

## 5. Communication and Coordination of Breastfeeding Improvement Efforts

### Context

Interviewees stressed the importance of building strong relationships between hospitals, physician practices, WIC offices, and community-based organizations, as well as ensuring that breastfeeding leaders from various disciplines remain informed and connected to others throughout the state. This was often cited as a reason for successful programs; for example, one community-based organization that provides lactation assistance to a large number of women said that referrals from partnering pediatricians and obstetricians was an important way in which new mothers learned of their services. The successful examples of partnerships that currently exist in some communities should be used as a model to improve partnerships in other communities.

### Past and present initiatives

ISDH has contracted with IPN to engage in substantial networking and partnership building over many years. Through on-the-ground efforts, IPN has forged connections with and between hospitals, health centers, community-based organizations, physicians, WIC offices, and other entities.

IPN, supported by ISDH, has also successfully increased communication within the breastfeeding community. In particular, the monthly online breastfeeding newsletter published by IPN was cited as a helpful tool to keep advocates and providers informed and inspired; readership has grown rapidly and there are now over 1,200 subscribers.

### Recommendations

NICHQ recommends that ISDH continue efforts to forge cross-organizational partnerships within communities and to ensure that breastfeeding supporters and advocates throughout the state are connected and informed.

Barrier	Solutions	Implementation Considerations
Difficulty in establishing partnerships within communities	Issue recommendations on partnership-building	<ul style="list-style-type: none"> <li>• Guidelines detailing best practices could be a blueprint for communities to forge partnerships (e.g., each pediatric practice should have at least one affiliated lactation consultant; every hospital should ensure that there is a free drop-in group available)</li> </ul>

		<p>to discharged new mothers)</p> <ul style="list-style-type: none"> <li>• Could be a complement to the model hospital breastfeeding policy previously developed (steps 2 and 10)</li> <li>• Establish annual opportunities for collaboration, planning and reviewing progress and challenges</li> </ul>
	Community organizing	<ul style="list-style-type: none"> <li>• Ensure that one or more individuals have capacity to work with communities throughout the state, supporting partnerships and coalitions</li> </ul>
Coordination of breastfeeding supporters throughout state	Communication vehicles	<ul style="list-style-type: none"> <li>• Support the continuation of a monthly breastfeeding newsletter</li> </ul>
	Convene regular meetings	<ul style="list-style-type: none"> <li>• Convene meetings that address breastfeeding support and advocacy broadly and to which a wide range of people are invited (including mothers, community-based organizations, coalitions, physician practices, etc.)</li> <li>• Potential partner: NICHQ</li> </ul>

## 6. Improvement in Hospital Breastfeeding Policies and Maternity Care Practices

### Context

Many initiatives on the national and state level focus on improving breastfeeding policies and maternity care practices in hospitals. Such improvements are complex and can be difficult to achieve, but result in improved breastfeeding rates and increased family satisfaction.

One aim of such initiatives is achieving Baby-Friendly designation. In Indiana there are currently six designated hospitals, and the percentage of babies who are born in Baby-Friendly facilities is higher in Indiana (12 percent) than nationally (7.8 percent). In addition to these six designated facilities, there are an additional 21 facilities currently on the Baby-Friendly designation pathway. However, the majority of birthing facilities in Indiana are not Baby-Friendly or on the designation pathway.

A survey of hospital lactation practices at 91 of 92 birthing hospitals in Indiana, conducted by IPN in 2013, found that while some hospitals were interested in pursuing Baby-Friendly designation, many others preferred to use mPINC data as a means to improve their practices and policies concerning breastfeeding.<sup>41</sup> When asked whether they would be interested in participating in a small learning collaborative, 70 percent of hospitals indicated that they would possibly be interested in participating.<sup>41</sup> NICHQ believes this presents an excellent opportunity for ISDH to facilitate a structured, collaborative learning opportunity to assist a large number of birthing hospitals in improving breastfeeding policies and maternity care practices.

### Past and present initiatives

The process of improving breastfeeding-related policies and practices in birthing facilities is difficult and complex, and hospitals benefit from collaborating with one another whether they

are seeking Baby-Friendly designation or not. Indiana has led a small pilot collaborative, the LINC project (Indiana Baby Friendly Learning Collaborative), through which IPN provided assistance to four hospitals with monthly calls, technical assistance, and site visits for six months in early 2014. However, Indiana has not led a large statewide collaborative to bring maternity care facilities, community partners and stakeholders together to facilitate collaborative learning and sharing to improve breastfeeding culture, practice and outcomes. Such an initiative could take different forms, including a quality improvement learning collaborative (such as those conducted by NICHQ in New York and Texas) or a less formal monthly meeting hosted and facilitated by the state department of health (as in Rhode Island).

One recent achievement is the development in 2013, by ISDH and IPN, of the Indiana Hospital Model Breastfeeding Policy, which outlines recommended policies that can guide hospitals toward providing excellent breastfeeding support over time. The model policy is closely aligned with the World Health Organization’s Ten Steps to Successful Breastfeeding as implemented by Baby-Friendly USA, and is based in part on New York’s model breastfeeding policy. Recognizing that a majority of hospitals are not currently able to meet the standards of Baby-Friendly designation, the model policy breaks each of the ten steps down into three levels: policies that can be adopted relatively easily and are a good place for hospitals with limited resources to start, policies that are more rigorous, effective, and time-intensive than the first set, and finally, policies that are rigorous enough to be consistent with Baby-Friendly designation requirements. The development of this model policy document is an important step for the state and can help hospitals that may not be ready to start the Baby-Friendly designation pathway with specific guidance on becoming more supportive of breastfeeding. It would be of value to determine how often and to what extent it has been used since its creation.

**Recommendations**

Some of Indiana’s hospitals have already made tremendous progress in supporting breastfeeding, and there is widespread interest in spreading and accelerating this progress. NICHQ recommends that ISDH lead a statewide program to assist hospitals in increasing their breastfeeding rates through improved breastfeeding policies and maternity care practices that align with the World Health Organization’s Ten Steps to Successful Breastfeeding. For hospitals that also aim to achieve Baby-Friendly designation, NICHQ recommends making specific support available to them as well.

Barrier	Solutions	Implementation Considerations
Lack of collaboration among hospitals	Structured, collaborative learning opportunity	<ul style="list-style-type: none"> <li>• Consider methods that are data-driven, incorporate multi-stakeholder collaboration, and focus on systems</li> <li>• Consider a phased cohort model in which two or more programs are conducted in sequenced, overlapping time periods</li> <li>• Consider leveraging the expertise of hospitals that have already achieved Baby-Friendly designation by inviting them to serve as mentors to other hospitals</li> <li>• Potential partner: NICHQ</li> </ul>

	Annual meetings	<ul style="list-style-type: none"> <li>Support annual gatherings that bring together key stakeholders, including leadership of birthing hospitals (e.g., MotherBaby Summits)</li> </ul>
Lack of incentive	Recognition program	<ul style="list-style-type: none"> <li>Recognize hospitals for making substantial improvements to breastfeeding policies and practices</li> <li>Learn from other states' models (e.g., Texas's Ten Step Star Achiever program)</li> </ul>
	Celebration and dissemination of achievement	<ul style="list-style-type: none"> <li>Publicize and celebrate hospitals' Baby-Friendly designation</li> <li>Publicize and celebrate hospitals' progress in improving breastfeeding policies and practices</li> </ul>

## 7. Call for Action to Reduce Formula Marketing in Hospitals

### Context

Marketing by formula companies significantly contributes to formula supplementation, which greatly increases the likelihood that a mother will discontinue breastfeeding. Infant formula is sometimes needed, but the majority of women do not have a medical need to supplement with formula. Inappropriate supplementation is responsible for lower breastfeeding rates and associated increases in illness and infant mortality. Formula marketing takes various forms, including advertisements and direct mail (including free formula samples and coupons). The most pernicious form, however, is through hospitals. Formula companies have long provided free bags to new mothers that are filled with formula samples and free gifts. Research has shown that when hospitals distribute these free bags, women see the formula as being endorsed by their healthcare providers. Ceasing to distribute these bags, while often difficult, improves hospitals' support of exclusive breastfeeding and is one of the World Health Organization's 10 Steps.

### Past and present initiatives

Indiana does not have a statewide policy on formula marketing by hospitals, nor has IDSH issued a recommendation or statement on the practice.

### Recommendations

During the key stakeholder interviews and the expert meeting, multiple participants suggested a legislative ban on free formula bags as a helpful step to improve breastfeeding practices and policies in hospitals. However, the legislative work required to implement such a ban is considerable, and there are disadvantages to pursuing such a top-down policy (such as resistance and resentment). Consequently, NICHQ recommends that ISDH focus on a softer approach rather than working toward a legislative ban. Specifically, NICHQ recommends that ISDH issue a public recommendation and request for birthing hospitals to cease distributing formula bags.

Barrier	Solutions	Implementation Considerations
Free formula bags distributed by hospitals	Issue public recommendation and request to all birthing hospitals in the state to cease distributing formula bags	<ul style="list-style-type: none"> <li>Publicize recommendation with a "Ban the Bag" campaign</li> <li>Include research and data making the</li> </ul>

		case for why it is ultimately beneficial for hospitals to cease this practice, with a focus on corporate compliance
	Recognize compliant hospitals	<ul style="list-style-type: none"> <li>Recognize and reward hospitals that have already ceased this practice, possibly through a designation or reward (such as an annual dinner with a distinguished guest)</li> <li>Publicize hospitals’ decisions to cease distribution of bags (e.g., through press releases)</li> </ul>

### Sequencing: A Strategic, Staggered Approach

The proposed aim focuses on a five-year period, from 2015 to 2020. This length of time allows for establishing strong systems and networks and will enable the state to see results in areas that require multiple-year initiatives in order to make significant progress. It is important to lay the groundwork for these initiatives early. However, there are also many advantages to pursuing early and “easy wins” at the beginning. Early success can build visibility and public support in the near term and attract more resources and partnerships over the long term. This staggered approach is outlined below and in Figure 2. Note that Figure 2 represents the initiation and not the duration of efforts; some tasks will take many years to complete.

#### Immediate Next Steps: Initiate in Year 1

NICHQ recommends that ISDH consider the following steps within the first year of the initiative.

- a. *Measurement strategy*  
Building measurement capacity takes time and careful planning. NICHQ recommends that ISDH assemble stakeholders early on and refine a robust data collection plan to track progress and measure success on all adopted aims.
- b. *EPIC-BEST program*  
This program, already implemented in New Jersey and Louisiana, brings breastfeeding education to physician practices and trains all staff members of the practice team. It is convenient and low-cost to the practices, and because the curriculum has already been developed and tested, it could be launched quickly and easily. NICHQ recommends that ISDH partner with an organization that has experience administering similar programs to ensure a smooth rollout and expansion of the program, and work closely with the Office of Rural Health to ensure this training reaches all corners of the state.
- c. *Beginning development of branded educational materials*  
The full process of developing, producing and distributing branded educational materials will likely take time. Because of the importance of this step, however, NICHQ recommends that ISDH begin this process early on by identifying useful models and building a team within the first year.
- d. *Virtual lactation consultation*  
NICHQ learned that pilot “tele-lactation” programs have already shown success in Indiana. ISDH can build on this success by providing funding to expand these programs to

additional pilot sites, refine methods, and continue to test their effectiveness as the scale increases.

- e. *Expansion of free drop-in centers*  
Providing small grants to community-based organizations to expand free drop-in centers would be an easy and cost-effective way to expand lactation assistance to mothers in communities throughout the state.
- f. *Expansion of Nurse-Family Partnership*  
This program has already shown success in improving breastfeeding rates, and there is broad interest in expanding it to more communities within Indiana. ISDH should build on this momentum.
- g. *Call for action to ban distribution of free formula bags (“Ban the Bag” campaign), together with a publicity campaign*  
A call to action requires few resources and would quickly position ISDH in a more visible leadership role. NICHQ could connect them to other states and regions that have successfully implemented such campaigns and assist ISDH in the strategy and planning.
- h. *Planning for statewide collaborative opportunity to engage hospitals in improving breastfeeding rates*  
An effective program to improve hospitals’ breastfeeding practices and policies is a large undertaking, and requires careful planning and outreach to lay the groundwork for success. NICHQ recommends that ISDH begin this planning process right away so as to allow maximum time for such a program to achieve success, which typically requires at least two to three years of active improvement work. NICHQ could be a partner in this process as it has extensive experience facilitating these programs.
- i. *Increase public celebration of successes*  
There is already a great deal of improvement in breastfeeding support happening in Indiana, but these achievements are not well publicized. ISDH can immediately gain visibility by increasing awareness of these achievements. Short-term steps might include organizing and publicizing events to celebrate hospitals that have achieved Baby-Friendly designation, changed their policies to better match the Model Breastfeeding Policy, or substantially increased their exclusive breastfeeding rates; issuing press releases to tout changes in all spheres; and outreach to media to spread awareness of these achievements.

### Medium-Term Strategies: Initiate in Years 2-3

NICHQ recommends that ISDH consider the following steps during years 2-3 of the initiative.

- a. *Launch comprehensive data collection measurement program*  
Begin data collection of comprehensive breastfeeding measures, addressing challenges as they arise and refining methods.
- b. *Offer enhanced virtual learning opportunities for multidisciplinary healthcare providers*  
Develop tailored educational modules that are easy to access and affordable. NICHQ has experience with such offerings and could assist ISDH in this initiative.
- c. *Create incentives for breastfeeding education*

NICHQ recommends developing several incentives to healthcare providers. An MOC program could be designed to encourage quality improvement in breastfeeding practices; ISDH could issue public guidelines on providers' receiving basic breastfeeding education; and partnerships with professional societies should be pursued. Physician leaders will be especially valuable in promoting breastfeeding education to their peers. NICHQ has experience with MOC and could assist ISDH.

- d. *Launch first and second cohort of hospital collaborative program*  
In NICHQ's experience, a cohort model is effective at leveraging the expertise of hospitals that have already made progress. If planning for such a program begins in year 1, the first cohort could be launched in year 2.
- e. *Launch statewide education campaign*  
By allowing adequate time to plan this initiative, ISDH can build partnerships that will ensure wide reach. Launching it in year 2 or year 3 will still allow time to see its effects.
- f. *Launch recognition programs*  
Recognition programs for hospitals, workplaces and physician practices would provide incentives for improvement and wider publicity for ISDH's efforts and breastfeeding in general. NICHQ recommends basing such programs on models that have shown success in other states.
- g. *Build the capacity of community-based organizations*  
NICHQ recommends building on past initiatives to continue building the capacity of Indiana's community-based organizations that provide direct breastfeeding assistance.
- h. *Convene meetings*  
By organizing opportunities for the "movers and shakers" of the breastfeeding and medical communities to come together, collaborate, celebrate, and strategize, ISDH will accelerate improvement efforts across sectors and increase its leadership in this arena. Possible models include MotherBaby Summits. NICHQ could help ISDH to build its capacity to establish and maintain these meetings.

### Long-Term Strategies: Initiate in Years 4-5

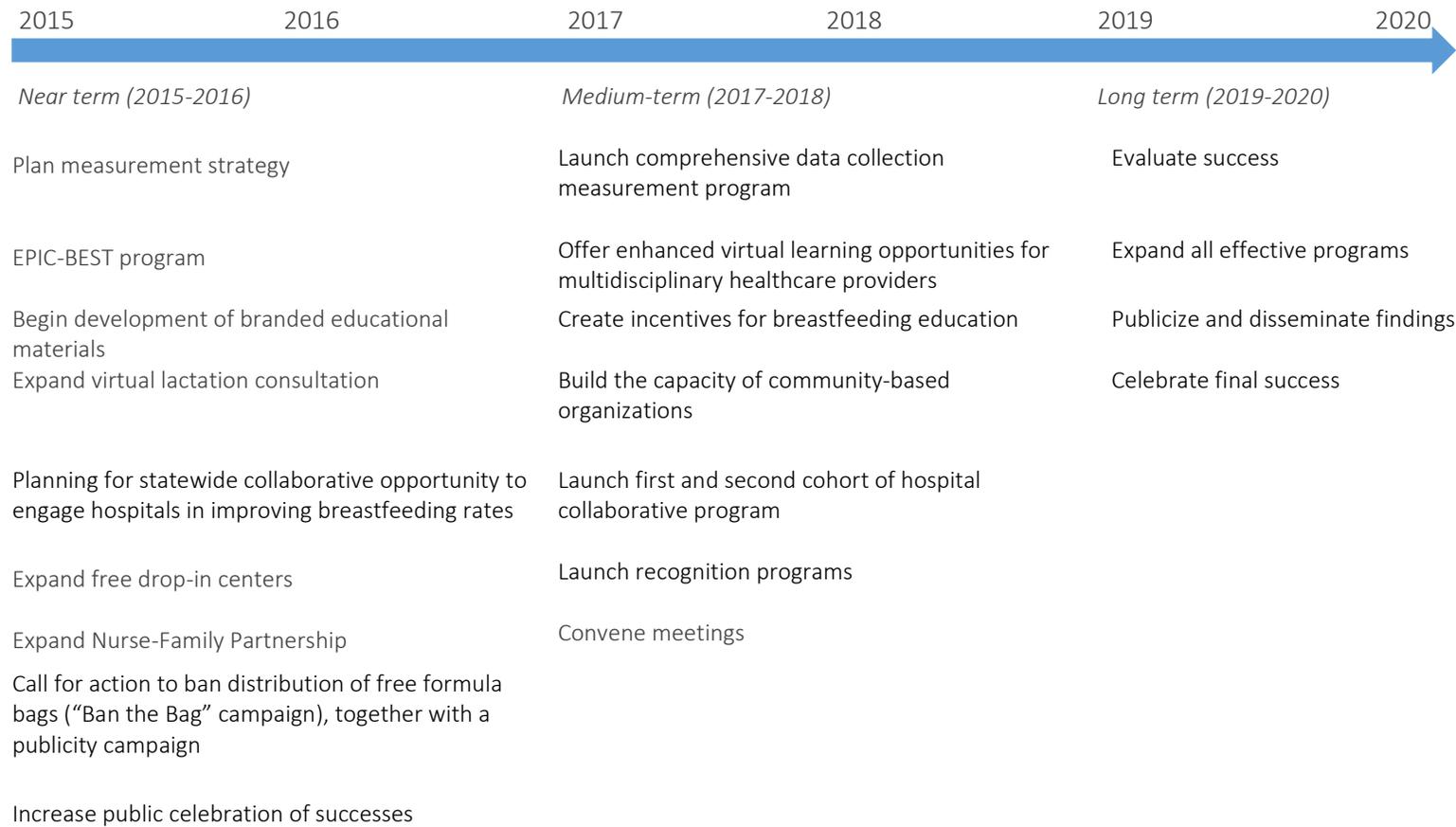
NICHQ recommends that ISDH consider the following steps during years 4-5 of the initiative.

- a. *Expand effective programs*  
Over the course of launching and administering many programs and initiatives, ISDH will learn a great deal. During years 4 and 5 ISDH should expand those programs that have shown the greatest promise and scale their success. ISDH should also note which programs did not result in desired outcomes and focus its resources elsewhere.
- b. *Evaluate success*  
ISDH should take care to evaluate its efforts throughout. However, summative evaluation efforts will be particularly helpful in years 4 and 5. NICHQ recommends robust evaluation activities to learn as much as possible from ISDH's experience.
- c. *Publicize and disseminate findings*  
Active dissemination of findings will spread knowledge throughout the national breastfeeding community, position ISDH as a national leader, and assist other states in replicating and building on Indiana's successes.

*d. Celebrate success*

Throughout these initiatives, ISDH will work with a large number of partners of every kind. It is important to celebrate hard work and successful outcomes. NICHQ recommends a variety of celebratory approaches, from events to communications.

Figure 2. Sequencing of breastfeeding improvement efforts



## Additional Recommendations

Throughout the assessment process, certain cross-cutting themes emerged that should be integrated into ISDH's efforts to improving breastfeeding rates.

### A Visible Role for ISDH

One notable theme from NICHQ's assessment was ISDH's lack of visibility within the breastfeeding improvement community. During the key stakeholder interviews, NICHQ asked about ISDH's past and current efforts to increase breastfeeding rates, and many participants responded by saying that they could not comment on it because they were not aware of what ISDH has done to support breastfeeding. Because ISDH has not played a prominent public role in the efforts that it has organized, directed and funded, it is not generally seen as being a leader in this area. ISDH is seen mainly as a source of funding and policy making. However, many interviewees and expert meeting participants voiced a desire for ISDH to assume a more visible leadership role in breastfeeding improvement efforts.

NICHQ believes that the time is right for ISDH to take a more direct approach to coordinating statewide efforts to improving breastfeeding. By doing so, ISDH can become a national leader in breastfeeding in much the same way as health departments in states such as New York, California, Colorado and Texas have done through hospital-based statewide collaborative projects, statewide summits, coalition building, and presentations at national conferences. NICHQ has substantial experience supporting state health departments in these efforts and positioning them as national leaders, and could assist ISDH through this process.

Increased visibility and leadership will come from ISDH's taking on the initiatives that are outlined in this roadmap. Throughout this process, NICHQ recommends that ISDH publicize its activities and achievements, present and past, and ensure that its involvement is built into all major products and events that stem from these initiatives (e.g., including name and logo on printed materials, presenting at summits). ISDH could also consider piloting and modeling lactation-friendly programs within ISDH (e.g., "bring baby to work" programs) to set an example for the state.

### Building on Current Initiatives

It is important for ISDH to leverage the current work being done in Indiana. In the previous section, relevant current and past programs are highlighted; more broadly, breastfeeding improvement efforts should be aligned with large ongoing initiatives, such as infant mortality work and national CoINNs (collaborative improvement and innovation networks). For example, there is interest within the state in expanding home-visiting programs, such as the Nurse-Family Partnership and Healthy Families Indiana, for many reasons including those programs' success in reducing infant mortality. Since these programs have remarkable success in supporting breastfeeding, the opportunity to expand such programs should be maximized.

## Conclusion

Indiana has a remarkable opportunity ahead. The state's prioritization of reducing infant mortality rates and decision to make breastfeeding a Title V performance measure, coupled with increasing interest in breastfeeding among many sectors and communities, mean that ISDH will be able to build powerful partnerships and leverage resources and talent to improve breastfeeding rates throughout the state. To achieve success, ISDH will need to be strategic and ambitious in leveraging the support of varied

stakeholders and partnerships, and in taking on and leading initiatives. ISDH will also need to learn and adapt continuously and ensure that its efforts and the outcomes achieved are recognized widely. NICHQ appreciates the opportunity to work with ISDH on this important endeavor and would be eager to partner with ISDH again to plan and execute programming that aligns with NICHQ's expertise and experience. Ensuring the optimum health of mothers and infants is central to NICHQ's and ISDH's mission.

## APPENDIX 1: Literature Reviewed

Document Title	Organization	Year
Breastfeeding in Indiana: An Investment in Our Future	IPN, ISDH MCH	2013
Born to be Breastfed: A Call to Action To Promote Breastfeeding in Indiana	ISDH MCH, ISDH WIC, IPN	2005
Community Breastfeeding Support Initiative: Final Report	ISDH DNPA	2014
Breastfeeding Data 2013	ISDH WIC	2013
Breastfeeding Initiation at Baby-Friendly and Other Hospitals	ISDH MCH	2010
Baby-Friendly and mPINC: Hospital Lactation Services Survey	IPN	2013
Indiana's Maternity Practices in Infant Nutrition and Care (mPINC) Scores 2007 – 2013	ISDH MCH	2013
Indiana County Level Percentages of Breastfeeding Exclusively at Hospital Discharge	ISDH MCH	2011
List of drop-in centers (in process) and other community resources	ISDH MCH	
Indiana's Comprehensive Nutrition & Physical Activity Plan 2010-2020	ISDH DNPA	2010
Addressing Indiana's Health Disparities: The Framework, Foundation, and Integral Role of the Indiana Minority Health Coalition – Executive Summary	Indiana Minority Health Coalition	2011
Health Disparities and Inequalities Report, United States	CDC	2011
The Interagency State Council on Black and Minority Health – Annual Report	The Interagency State Council on Black and Minority Health	2013
Focus Group Results	ISDH MCH	
Breastfeeding rates in the US and Indiana, 2008-2011	ISDH MCH	2011
Indiana Baby-Friendly Designation in Process	ISDH MCH	2013
Breastfeeding Resource List	ISDH WIC Breastfeeding Committee	2012
CDC Breastfeeding Report Card	CDC	2014
CDC breastfeeding cards on CBSI participants (3)	CDC	2014
Indiana Hospital Model Breastfeeding Policy	ISDH MCH, IPN	2013
Indiana Infant Mortality Fact Sheet	ISDH MCH	2012

5 <sup>th</sup> perinatal hospital summit agenda	IPN, ISDH MCH	2014
Indiana Cancer Control Plan 2010-2014		2010
State BF coordinator newsletters (20)	IPN	2012-2014
Website		
Indiana State Department of Health Department of Maternal and Child Health: <a href="http://www.in.gov/isdh/19571.htm">http://www.in.gov/isdh/19571.htm</a>		
Indiana State Department of Health Department of Nutrition and Physical Activity: <a href="http://www.inhealthyweight.org/">http://www.inhealthyweight.org/</a>		
Indiana Perinatal Network: <a href="http://www.indianaperinatal.org/">http://www.indianaperinatal.org/</a>		
Indiana Breastfeeding Coalition: <a href="http://www.indianabreastfeeding.org/">http://www.indianabreastfeeding.org/</a>		
Indiana Healthy Weight Initiative: <a href="http://www.inhealthyweight.org/">http://www.inhealthyweight.org/</a>		
Indiana March of Dimes: <a href="http://www.marchofdimes.org/indiana/">http://www.marchofdimes.org/indiana/</a>		
Indiana Perinatal Quality Improvement Collaborative: <a href="http://www.in.gov/isdh/26291.htm">http://www.in.gov/isdh/26291.htm</a>		
The Milk Bank of Indiana: <a href="http://www.themilkbank.org/">http://www.themilkbank.org/</a>		
Indiana Cancer Consortium Breast Cancer Toolkit: <a href="http://indianacancer.org/breast-cancer-toolkit/">http://indianacancer.org/breast-cancer-toolkit/</a>		
Indiana Black Breastfeeding Coalition: <a href="http://indianablackbreastfeedingcoalition.com/">http://indianablackbreastfeedingcoalition.com/</a>		
Bloomington Area Birth Services: <a href="http://bloomingtonbirth.org/">http://bloomingtonbirth.org/</a>		
Nurse-Family Partnership: <a href="http://www.nursefamilypartnership.org/locations/Indiana">http://www.nursefamilypartnership.org/locations/Indiana</a>		
Healthy Families America: <a href="http://www.healthyfamiliesamerica.org/home/index.shtml">http://www.healthyfamiliesamerica.org/home/index.shtml</a>		

## Appendix 2: Key Stakeholder Interview Guide

NICHQ (the National Institute for Children’s Health Quality) is conducting interviews with members of organizations in Indiana that are key players in the state’s efforts to increase support for breastfeeding mothers, as part of its partnership with the Indiana State Department of Health, Maternal and Child Health Division. Our goal is to understand your perspective and experience working to support breastfeeding in the state of Indiana. We will be asking you what you think has worked well in recent years, where you think there are areas for improvement, and whether you have any ideas or recommendations that might improve breastfeeding rates in Indiana.

The information you share with us is confidential, and no identifying information will be released to anyone. We will be compiling the information we gather to inform our environmental scan of breastfeeding support in Indiana, which will in turn help us to develop a roadmap that the Indiana State Department of Health will use to improve breastfeeding support in the future.

The first few questions pertain to your organization and your work.
1. To begin with, how does your organization support breastfeeding in Indiana?
2. How long have you worked for your organization? What is your current role?
3. What are your organization’s most significant accomplishments in the past 5 years to support breastfeeding? What factors made those accomplishments possible?
4. What are the biggest challenges that you or your organization face in supporting breastfeeding?
5. What do you think causes those challenges? What might be done about them?
6. What single change would make your work more effective?
The next few questions are about your direct experience – feel free to let us know if you’d rather not answer any of them. Are you now or were you recently a new mom in Indiana?  (IF NO, SKIP SECTION)
Great! We’d like to ask you briefly about your breastfeeding experience. Is that all right?  (IF NO, SKIP SECTION)
7. Do you feel you were adequately prepared before birth? Were you able to make an informed decision about breastfeeding?
8. How did you find your hospital’s support for your decision?
9. What happened after you went home? Were there any gaps in support that made breastfeeding difficult?
10. Is there anything else you’d like to share about your experience breastfeeding?
Now we’d like to shift away from your specific organization and think a little more broadly.
11. What do you think are the strongest elements of breastfeeding support in your community, region, or across Indiana?
12. Successful breastfeeding requires support across the continuum of care, from prenatal

education to support in the hospital, at home, and at work. Where do you think are the biggest gaps in support for moms in your community, region, or across Indiana?
13. Who are the key partners who need to be engaged more in this work? These could even be partners who are currently on the periphery of breastfeeding work.
14. Do you think there are any specific challenges for breastfeeding work in your local community or in Indiana, such as political or historical challenges?
15. In your experience, what specific strategies have been the most effective at increasing the rate and duration of breastfeeding?
16. How well do you think the Indiana State Department of Health supports breastfeeding in the state?
17. Do you have any specific recommendations for how the Indiana State Department of Health could be more effective in supporting breastfeeding?
18. If cost, time, and other normal barriers were not impediments, what would you recommend be done in Indiana to increase breastfeeding?
19. Given all the realities and opportunities, what is the best place to start? Where would you start?
20. Do you have any other observations to share? Or questions you wish I had asked you?

## Appendix 3: Key Stakeholder Interview Themes

Results from the interviews are presented below, organized into three categories: strengths and successes of Indiana’s breastfeeding work (Table 1), the gaps in care that women experience and suggestions for improving them (Table 2), and perceptions of ISDH’s role in increasing breastfeeding support (Table 3).

**Table 1: Strengths and Successes**

Topic
Increase in number of Baby-Friendly hospitals
WIC a great resource
Establishment of The Milk Bank
Nurse-Family Partnership
Annual hospital summits organized by IPN
Large number of breastfeeding coalitions across the state (now over 40)
Improved communication through IPN’s newsletter (now with over 1,250 subscribers)
Trainings conducted by IPN
Increase in the number of IBCLCs
State policy changes, such as 2003 law (right to breastfeed in public) and 2008 law (right to pump at work)
Committed and successful community-based organizations

**Table 2. Gaps in Care and Possible Solutions**

Topic	Frequency	The problem	Suggested solutions
Education of healthcare providers	Most Common (10)	Many healthcare providers don’t know much about breastfeeding, and aren’t aware of how much they influence decisions to breastfeed. This is true for all providers who come into contact with new moms, but especially obstetricians, pediatricians and family physicians. Several interviewees recounted receiving incorrect or unhelpful information from pediatricians, including advice to supplement with formula. One	<ul style="list-style-type: none"> <li>Educate pediatricians, family physicians, and obstetricians about breastfeeding so that they can deliver consistent, accurate and helpful information</li> <li>Educate all staff members who “touch” new moms on the basics of lactation: nurses, physician assistants, emergency department staff, etc.</li> </ul>

		<p>interviewee pointed out that low-level staff members, such as physician assistants, can also be influential because they are often young moms themselves and women easily identify with them. Overall, there is a tremendous need for health care providers who interact with new moms to have a basic understanding of breastfeeding and to make breastfeeding part of their care culture. When breastfeeding is not discussed by physicians, women are made to feel that it is not a health issue.</p>	<ul style="list-style-type: none"> <li>• Provide inexpensive, easily accessible training, such as online courses</li> <li>• Use IBCLCs (to ensure quality and consistency of content) and physician leaders (because physicians like to learn from other physicians)</li> <li>• Ensure that primary care physicians and community health centers have up to date lists of community resources such as support groups and drop-in centers</li> </ul>
Public education and awareness	Most Common (9)	<p>Many interviewees stressed the need for public education and awareness campaigns, aimed not just at mothers but at other family members as well. The messaging should be consistent, and should promote breastfeeding without pressuring or chastising women. The messaging should stress the importance of all breastfeeding, not merely exclusive breastfeeding. The messaging should also include the need for system change, and not all responsibility on mothers.</p>	<ul style="list-style-type: none"> <li>• Conduct education campaigns, both large-scale (commercials, billboards) and targeted to specific communities</li> <li>• Include fathers and families in target audience, not just mothers</li> <li>• Stress the importance of all breastfeeding (“everything counts”) to counter the perception that only exclusive breastfeeding is beneficial (“all or nothing”)</li> <li>• Ensure that messaging is consistent across all channels</li> <li>• Integrate breastfeeding into school curriculum, such as high school health classes (see New York’s K-12 breastfeeding curriculum)</li> <li>• Opening milk donation sites can spread awareness because they garner media attention</li> <li>• Work with big businesses to spread awareness message (see Michigan, North Carolina)</li> </ul>
Post-discharge support	Most Common (7)	<p>It is very common for women to require lactation assistance once they leave the hospital; even those receiving good prenatal education and hospital support can be unprepared for the realities and challenges of breastfeeding. But this assistance is often hard to get, in part because many new mothers are relatively house-bound and insurance may not pay for home visits by</p>	<ul style="list-style-type: none"> <li>• Free drop in groups, especially with an IBCLC and a WIC peer counselor. Free weight checks can draw people in. These can be held at hospitals, but are especially effective when located directly in the community. Churches are an untapped resource.</li> <li>• Tele-lactation consults can increase the</li> </ul>

		<p>lactation consultants. In some communities, there is no lactation assistance available. Mothers may also be unaware of the services available. In rural communities with poverty, the costs of transportation may be another barrier. There is a need for more funding of community-based organizations and local coalition activities.</p>	<p>availability of lactation assistance.</p> <ul style="list-style-type: none"> <li>• Support community-based organizations that offer breastfeeding support. Build on the Baby-Friendly requirement to refer women to community-based support.</li> <li>• Social media can be a great way for mothers to get peer support (e.g., private Facebook group)</li> <li>• Support home-visiting programs</li> <li>• Provide funding to support education of more IBCLCs, especially those from diverse populations</li> </ul>
Prenatal education	Most Common (7)	<p>Many women do not receive adequate prenatal education about breastfeeding. Often women receive little or no education at all. For those who do receive it, there remain gaps, such as the risks of supplementation, addressing cultural norms and beliefs that may be barriers to breastfeeding, and giving a realistic idea of what the initial weeks of breastfeeding will be like, particularly around common challenges that can arise and how to judge whether milk supply is adequate. The latter is important, because many women supplement or cease breastfeeding because they believe that their milk supply is inadequate or that their infants are not getting adequate nutrition.</p>	<ul style="list-style-type: none"> <li>• Give packet of information on breastfeeding to pregnant women when they first visit their obstetrician</li> <li>• During the 1 hour glucose test mid-pregnancy, initiate a real conversation about breastfeeding, ideally with a trained lactation consultant, and provide more information; this should be free.</li> <li>• Ensure that prenatal education includes a realistic idea of what the first few weeks of breastfeeding will be like, including reliable ways to judge that milk supply is sufficient and infants are receiving adequate nutrition.</li> <li>• Include cultural norms and beliefs in conversations about breastfeeding, not merely individual ones.</li> <li>• Tele-lactation consults can increase availability of high-quality prenatal education</li> </ul>
Workplace lactation support	Common (5)	<p>Inadequate lactation support in the workplace is a significant barrier to breastfeeding. Some employers are lactation-friendly in policy, but people may still not feel that it's accepted; often whether someone feels able to pump at work depends on her manager. In addition, many businesses are still not lactation-friendly in policy,</p>	<ul style="list-style-type: none"> <li>• Conduct specific outreach efforts to educate the business community about why it should support and not just tolerate breastfeeding.</li> <li>• Partner with large institutional employers and get them to make policy changes; changing the culture and expectations at large companies</li> </ul>

		despite the legal requirement.	<p>will create ripple effects at smaller ones.</p> <ul style="list-style-type: none"> <li>• Use models from Michigan and Texas to engage large businesses.</li> </ul>
Maternity leave	Common (5)	A large proportion of working mothers need to return to work while their infant is still very young, which can make it difficult to breastfeed. Many mothers need to return to work after only a short time, and may wonder why they should bother to start breastfeeding.	<ul style="list-style-type: none"> <li>• Legislative action to extend maternity leave or require compensation during maternity leave.</li> </ul>
Reimbursement for lactation support	Common (5)	There is a broad need to educate insurers about the benefits of breastfeeding. Insurers are not consistent in their reimbursement policies or billing codes.	<ul style="list-style-type: none"> <li>• Encourage insurers to reimburse for independent lactation consultants</li> <li>• Encourage insurers to standardize billing codes related to lactation support</li> <li>• Encourage insurers to reimburse for good breast pumps</li> <li>• Encourage insurers to reimburse for home visits during early postpartum period</li> </ul>
Relationship building, partnering across organizations	Common (3)	Interviewees stressed the importance of building strong relationships between hospitals, physician practices, WIC offices, and community-based organizations. This was often cited as a reason for success. Interviewees said that some areas have done this well and that success could be expanded to areas in which these partnerships do not exist.	<ul style="list-style-type: none"> <li>• Have a lactation consultant affiliated with each pediatric practice, so that a standard question at well child visits can be “Are you breastfeeding?” and if the answer is yes, the mother can be asked if she would like to talk to a lactation consultant.</li> </ul>
Hospital practices	Common (3)	More Baby-Friendly hospitals would help to improve breastfeeding rates. Competition among hospital systems can impede collaboration and sharing. Many hospitals still have practices that are not supportive of breastfeeding.	<ul style="list-style-type: none"> <li>•</li> </ul>

Special support for low-income women	Present (2)	Low-income women may be facing food insecurity, and may think they can't breastfeed because they're not eating well. They may not be able to pay for transportation to appointments. Also, they may have unrelated crises that make it difficult to breastfeed.	<ul style="list-style-type: none"> <li>• Provide extra support to breastfeeding mothers through Medicaid, as an incentive</li> <li>• Employ case managers at community-based organizations and clinics to help families through tough times</li> </ul>
Child care centers	Present (1)	Often, child care providers are not well informed about breastfeeding and infant nutrition. In particular, some child care providers overfeed infants.	<ul style="list-style-type: none"> <li>• Provide inexpensive, easily accessible training to child care providers</li> </ul>
Formula marketing	Present (1)	Formula companies send samples to expectant mothers' homes. Formula marketing still occurs at some hospitals.	

**Table 3: Perception of ISDH**

Topic	Issue	Suggested solutions
Unaware of ISDH’s role	Many interviewees were at a loss to describe how ISDH supports breastfeeding, and pointed out that ISDH has not been a visible presence in the breastfeeding arena. Interviewees primarily think of ISDH as a source of funding and policy making.	<ul style="list-style-type: none"> <li>• Make more grant money available</li> <li>• Make its activities and efforts more visible</li> <li>• Conduct a large-scale advertising and education campaign</li> <li>• Endorse Baby-Friendly or ask hospitals to ban the bags (make a stronger statement)</li> <li>• Require nutrition and lactation credentialing for all primary care physicians</li> <li>• Develop messaging linking breastfeeding and infant mortality</li> <li>• Address gestational weight gain</li> <li>• Convene an annual breastfeeding summit for community partners, public health professionals, WIC, providers, and coalition members</li> <li>• Pilot flex time and bring baby to work programs</li> <li>• Incorporate breastfeeding into IPQIC work</li> <li>• Need better linkage between community-level activity to state initiatives and overall plan</li> <li>• Fund the statewide community-organizing breastfeeding coordinator position</li> </ul>
Lack of coordination at state level	Breastfeeding support is split between MCH and DNPA, which doesn’t help with collaboration. Breastfeeding Task Force doesn’t include external partners.	<ul style="list-style-type: none"> <li>• Include other disciplines (Task Force is currently only ISDH) and work across departments</li> <li>• Better collaboration with WIC</li> </ul>

## Appendix 4: Expert Meeting Outcomes

### *Mapping Strengths, Initiatives and Opportunities to the Breastfeeding Continuum*

Participants were asked to brainstorm current strengths, current initiatives, and gaps/opportunities in Indiana and to map them to four key time periods during which support for breastfeeding is critical (the “breastfeeding continuum”): prenatal, intrapartum, the first two weeks of life, and two weeks-six months. The results of this exercise are included in the table below.

	Prenatal	Intrapartum	First 2 weeks	2 weeks-6 months
<b>Current strengths</b>	<ul style="list-style-type: none"> <li>• WIC (classes, meetings)</li> <li>• ISDH cross-divisional work</li> <li>• Prenatal classes</li> </ul>	<ul style="list-style-type: none"> <li>• Baby-Friendly hospitals</li> <li>• ISDH cross-divisional work</li> <li>• Initiation rates</li> <li>• Donor milk for supplementation</li> <li>• WIC in hospitals</li> <li>• mPINC regional training/technical assistance and hospital visits</li> <li>• IBCLC staffing requirement</li> <li>• Hospital staff training discounts</li> </ul>	<ul style="list-style-type: none"> <li>• Walgreens partnership</li> <li>• Indiana Breastfeeding Coalition</li> <li>• Post-discharge well child visit</li> <li>• WIC peer counselors</li> </ul>	<ul style="list-style-type: none"> <li>• Strong grassroots network</li> <li>• ISDH cross-divisional work</li> <li>• Drop-in clinic in Indy</li> <li>• WIC supports</li> <li>• Home visiting programs</li> <li>• La Leche League</li> </ul>
<b>Current initiatives</b>	<ul style="list-style-type: none"> <li>• Statewide public health campaign</li> <li>• Breastfeeding resources identification</li> <li>• Kellogg Foundation grant - pumping station in high schools</li> <li>• Centering Pregnancy</li> <li>• WIC partnership with hospitals on prenatal education</li> <li>• Pre-conception/social determinants (CollN)</li> <li>• Grant opportunities for hospitals to obtain</li> </ul>	<ul style="list-style-type: none"> <li>• Baby-Friendly hospitals</li> <li>• Milk Bank bottling in 2 oz. portions</li> <li>• IPQIC</li> <li>• Clinical and community calls</li> <li>• Work with Indiana Hospital Association on standardizing policies and procedures</li> <li>• Staff education</li> <li>• Community and family support (e.g., Healthy Start)</li> </ul>	<ul style="list-style-type: none"> <li>• Home visits covered by insurance (Healthy Families Indiana)</li> <li>• Walgreens drop-in centers</li> <li>• Breastfeeding USA</li> </ul>	<ul style="list-style-type: none"> <li>• Acceptance of donor milk older than 2 years for use for outpatients</li> <li>• Development of community home-visiting follow up</li> <li>• Safe sleep and breastfeeding education</li> <li>• Lactation appointment at doctor appointment</li> </ul>

	<ul style="list-style-type: none"> <li>• IBCLCs</li> <li>• Discharge bag communication</li> </ul>			
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>• Timely statewide data</li> <li>• Professional education (collaborate with professional associations)</li> <li>• Expand maternity care in counties</li> <li>• Educate youth about breastfeeding</li> <li>• Physician buy in</li> <li>• More funding for IBCLC training</li> <li>• Public health campaigns</li> <li>• Lactation clinics/centers</li> <li>• WIC enrollment</li> <li>• Community support groups</li> <li>• Mom-to-mom support</li> <li>• Raise Milk Bank awareness</li> <li>• Prenatal education for moms and families</li> <li>• Communication and engagement of community breastfeeding educators</li> </ul>	<ul style="list-style-type: none"> <li>• Collect data consistent with TJC measure</li> <li>• Donor milk accessible in more hospitals</li> <li>• Allow WIC/IBCLC hospital visits</li> <li>• Employ more IBCLCs</li> <li>• Breastfeeding education for moms and families</li> <li>• Increased number of minority IBCLCs</li> <li>• Communication between sectors</li> <li>• Staff education</li> <li>• Statewide recognition program for Baby-Friendly</li> </ul>	<ul style="list-style-type: none"> <li>• Expand tele-lactation support</li> <li>• Statewide policy to ban the bags</li> <li>• Improve reimbursement for lactation services</li> <li>• WIC staff available to new moms</li> <li>• Lactation clinics/centers</li> <li>• Mom and family breastfeeding education</li> <li>• Focus on under-represented populations</li> <li>• Educate pediatric providers</li> <li>• Well-coordinated discharge plans with WIC referral and follow up</li> <li>• Well-publicized state breastfeeding plan and policy</li> </ul>	<ul style="list-style-type: none"> <li>• Develop tracking system for breastfeeding infants</li> <li>• Mom and family breastfeeding education</li> <li>• Internal scan</li> <li>• Well-publicized state policy and plan</li> <li>• Improve workplace lactation law</li> <li>• More support groups and drop in clinics</li> <li>• Peer-to-peer groups</li> <li>• WIC support and pay for donor milk</li> <li>• Increase online support through chat/forums</li> <li>• Formalize physician education and build into residency program</li> <li>• Better workplace support</li> <li>• Flex-time, bring baby to work pilots</li> <li>• Pharmacist education</li> <li>• Work with Indiana AAP chapter to train pediatricians</li> </ul>

**Prioritizing High-Leverage Ideas for Change**

Participants again broke into three groups, as described above, and discussed approaches that would enable ISDH to achieve the statewide aim. Groups then reported on their discussion so that everyone could hear the results. All change ideas mentioned by participants are included below.

<b>Primary ideas</b>
Community engagement and mobilization
Media campaign

Increase number of Baby-Friendly hospitals/implementation of 10 steps
Increase consumer awareness/public awareness of breastfeeding
Normalize breastfeeding in workplace and childcare settings
Forge and foster traditional and non-traditional partnerships
Integrate breastfeeding into well-woman and primary care discussions
Ensure moms and families live in health communities
Strengthen programs for mother-to-mother support
Develop systems for continuity of skilled support, if needed
Equal access to IBCLCs
Increase proportion of worksites with workplace lactation policies
<b>Secondary ideas</b>
Community education
Unified messaging and data
Forming local networks/multidisciplinary collaborations
Engagement and reward of businesses for being champions
Social norms change
Map of resources, up-to-date by county (local responsibility)
Create required certification (not licensure) for all medical practitioners funded by state (available to all other practitioners as well)
Implement “step” program for Indiana hospitals (like Texas 10 Step program)
Add breastfeeding to medical school curricula (plus nurses, RD, clinician, DOs)
Father/partner and family engagement to support breastfeeding moms
Statewide recognition for hospitals that achieve and maintain Baby-Friendly status
State policy on banning the bags
Reimbursement tied to breastfeeding credentials (through insurance, third party payers, hospitals)
Increase opportunity for data collection
Improve access to breastfeeding support in rural communities by facilitating creative initiatives (such as tele-lactation support)
Implement CA Baby Behavior campaign
Increase number of mother-to-mother support groups and facilitators/peer counselors
Convene summit of physicians to make a plan to support breastfeeding families
Incentivize staff training at hospitals
Sponsor minority candidates to become CLCs
Emphasize value of human milk, not merely breastfeeding

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