



Labor of Love
Helping Indiana Reduce Infant Death

Indiana State Breastfeeding Plan
2016 - 2021

Indiana State Department of Health

A collaborative effort of the Indiana State Department of Health and the National
Institute for Children's Health Quality (NICHQ)

Executive Summary

As part of Indiana's effort to reduce infant mortality, 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 has developed the Indiana State Breastfeeding Plan, a roadmap for statewide programming that links current initiatives, mobilizes key public health, hospital, and community stakeholders and identifies feasible high-leverage changes to improve breastfeeding rates across the state of Indiana.

This is an ambitious but feasible plan to increase rates of exclusive breastfeeding at three months, exclusive breastfeeding at six months, and any breastfeeding at six months among all mothers, as well as rates of exclusive breastfeeding at hospital discharge among underserved populations, by 2020. To achieve this goal, ISDH will focus its efforts on seven key opportunities for improvement:

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

By focusing on these opportunities and implementing the Indiana-centric strategies detailed in this Plan, ISDH can achieve transformative improvement in breastfeeding within the next five years.

Throughout these efforts, ISDH will strive to 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 2013 the infant mortality rate in Indiana was 7.15 deaths per 1,000 live births, even higher than the U.S. average of 5.96, and there are substantial disparities in infant mortality rates among subpopulations.¹ In order to address this issue, the Indiana State Department of Health (ISDH) has made reducing infant mortality one of its top priorities.

Breastfeeding is associated with reduced infant mortality and is a key component of Indiana's effort to reduce infant mortality rates.² 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 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 the decisions of mothers and families 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.³

Indiana is now poised to expand and deepen its work to improve rates of breastfeeding and exclusive breastfeeding. To begin this process, ISDH engaged the National Institute for Children's Health Quality (NICHQ) 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. From this report, the ISDH has created the Indiana State Breastfeeding Plan which lays out a clear 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:

- gastro-intestinal infection;
- ear infections;
- acute myelogenous leukemia;
- childhood asthma;
- atopic dermatitis;
- acute lymphocytic leukemia; as well as
- a decreased risk of hospitalization due to lower respiratory tract diseases.⁴⁻¹⁰

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.¹²⁻¹⁴

For mothers, studies have shown an association between breastfeeding and a reduction in the risk of:

- post-partum depression;
- breast cancer;
- ovarian cancer;
- type 2 diabetes (among women without a history of gestational diabetes);
- cardiovascular disease; and
- rheumatoid arthritis.^{5,15-25}

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 can 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.^{27,28}

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.^{29,30} Research has shown that it is protective against sudden infant death syndrome (SIDS), the leading causes of death for all infants one to 12 months of age, and that this effect is stronger when breastfeeding is exclusive.^{28,31-32} Individual studies have reported up to a 50 percent reduced risk of Sudden Infant Death Syndrome (SIDS) throughout infancy.³³ 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.² It has also been confirmed that the protective effect of breastfeeding on SIDS is independent of sleep position.³⁴

The ISDH recognizes that breastfeeding is an important piece of the puzzle to reduce infant mortality in the state, along with safe sleep education, early prenatal care and education and access to risk-appropriate-level hospitals for prenatal and delivering mothers. With the implementation of the Indiana State Breastfeeding Plan, the ISDH strives to reduce the common barriers and challenges that can often face Hoosier mothers and newborns, and make breastfeeding the preferred option for infant feeding.

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.

- **1989** - The World Health Organization (WHO) and UNICEF identified and codified a set of practices—the *Ten Steps to Successful Breastfeeding* that characterize hospital environments that promote and support breastfeeding.
- **1991** - The WHO and UNICEF launched the Baby-Friendly Hospital Initiative 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.³⁵
- **1997** - Baby-Friendly USA was established in order to manage and provide Baby-Friendly designation to hospitals and birthing centers that demonstrate that they have implemented the Ten Steps.
- **2010** - 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.³⁶
- **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.³⁷
- **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, 2014.³⁹

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 six 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. National
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.^{3,36}

Table 2. Breastfeeding support				
Measure	HP 2020 goals	National (all infants)	Indiana (all infants)	IN vs. National
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.^{3,36}

A closer look at breastfeeding rates in Indiana and the United States 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 six months and weakest in (any) breastfeeding at six months. These data suggest that while many efforts are underway, challenges remain in supporting initiation and developing systems that allow mothers to sustain breastfeeding.

A Roadmap for Change

Statewide Breastfeeding Goal

By December 31, 2020, Indiana will meet the Healthy People 2020 goals for exclusive breastfeeding at three months, exclusive breastfeeding at six months and (any) breastfeeding at six months and will improve rates of exclusive breastfeeding at discharge for underserved populations. Specifically:

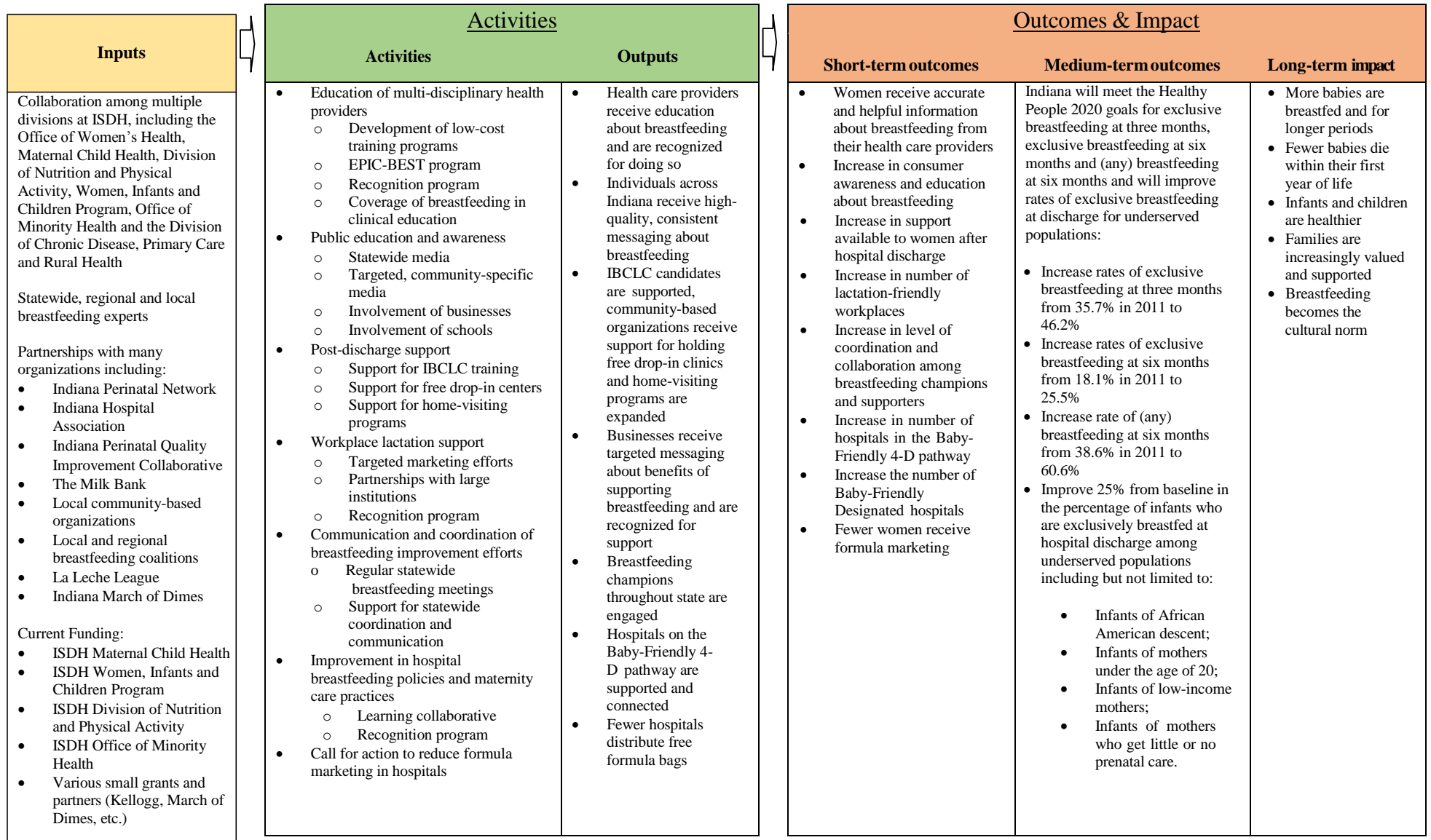
- Increase the rate of exclusive breastfeeding at three months from baseline of 35.7% in 2011 to 46.2%;
- Increase the rate of exclusive breastfeeding at six months from baseline of 18.1% in 2011 to 25.5%;
- Increase the rate of (any) breastfeeding at six months from baseline of 38.6% in 2011 to 60.6%;
- 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.

Indiana State Breastfeeding Plan Logic Model

The Centers for Disease Control and Prevention indicates that logic models are an ideal means by which to link program and activities to program goals while communicating the theory behind the program and its rationale for existing. The ISDH has chosen to include a logic model in its Indiana State Breastfeeding Plan to help:

- Identify the short-term, intermediate and long-term outcomes for the Plan;
- Illustrate the cause and effect of program activities and outcomes;
- Incorporate findings from the NICHQ assessment;
- Illustrate why the Plan is important as well as its fundamental purpose;
- Depict what intermediate outcomes must occur before long-term outcomes will be evident; and
- Provide a common reference point for staff, stakeholders and constituents.

Indiana State Breastfeeding Plan Logic Model



Indiana State Breastfeeding Plan Areas of Focus and Strategies

<p><i>Area of focus: Education of multi-disciplinary healthcare providers</i></p>
<p>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 Hoosier women 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.</p> <p>Unfortunately, healthcare providers are often challenged to provide this guidance. Most physicians’ medical education included little or 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, some healthcare providers offer inaccurate information on breastfeeding to their patients. 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.</p>
<p><i>Strategies to address</i></p>
<ul style="list-style-type: none">• Development of low-cost training programs;• EPIC-BEST program;• Recognition program; and• Coverage of breastfeeding in clinical education

<p><i>Area of focus: Public education and awareness</i></p>
<p>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 that many mothers worry that their newborns are not receiving adequate nutrition and turn to supplementation with formula when it is not medically indicated. A lack of awareness and understanding of breastfeeding is one of the most prominent barriers to increasing breastfeeding rates.</p>
<p><i>Strategies to address</i></p>
<ul style="list-style-type: none">• Statewide media;• Targeted, community-specific media;• Involvement of businesses; and• Involvement of schools

<p><i>Area of focus: Post-discharge support</i></p>
<p>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</p>

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.

Strategies to address

- Support for IBCLC training;
- Support for free drop-in centers; and
- Support for home visiting programs

Area of focus: Workplace lactation support

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.

Strategies to address

- Targeted marketing efforts;
- Partnerships with large institutions; and
- Recognition program

Area of focus: Communication and coordination of breastfeeding improvement efforts

It is critically important to build 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.

Strategies to address

- Regular, statewide breastfeeding meetings; and
- Support for statewide coordination and communication

Area of focus: Improvement in hospital breastfeeding policies and maternity care practices

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.

Strategies to address

- Learning collaborative; and
- Recognition program

Area of focus: Call for action to reduce formula marketing in hospitals

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). 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, improves hospitals' support of exclusive breastfeeding and is one of the World Health Organization's 10 Steps.

Strategies to address

- Formal call to action

Conclusion

Indiana has a remarkable opportunity ahead. The state's prioritization of reducing infant mortality rates and decision to make breastfeeding a programmatic focus, coupled with increasing interest in breastfeeding among many sectors and communities, mean that ISDH can build powerful partnerships and leverage resources and talent to improve breastfeeding rates throughout the state. To achieve success, ISDH plans to be strategic and ambitious in leveraging the support of varied stakeholders and partnerships, and in taking on and leading initiatives. ISDH will adapt continuously to the changing needs of women, babies and families in the state of Indiana and ensure that its efforts and the outcomes achieved are recognized widely.

(References available upon request)

Local and National Breastfeeding Resources

- Local
 - [Indiana Black Breastfeeding Coalition](#)
 - [Indiana Breastfeeding Coalition](#)
 - [Indiana Perinatal Network](#)
 - [Indiana State Department of Health \(ISDH\) Maternal and Child Health](#)
 - [Indy Breastfeeding Moms](#)
 - [La Leche League of Indiana](#)
 - [Women, Infants and Children Program \(WIC\)](#)
- National
 - [American Academy of Family Physicians](#)
 - [Breastfeeding USA](#)
 - [Centers for Disease Control and Prevention \(CDC\) - Breastfeeding](#)
 - [International Board of Lactation Consultant Examiners \(IBLCE\)](#)
 - [International Lactation Consultant Association](#)
 - [La Leche League International](#)
 - [National Healthy Mothers, Healthy Babies Coalition](#)
 - [United States Breastfeeding Committee](#)
 - [Health and Human Services Office on Women's Health - Breastfeeding](#)
 - [World Alliance for Breastfeeding Action](#)