

INDIAN HEALTH DIABETES BEST PRACTICE

Breastfeeding Support

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Instructions for Using This Best Practice

The Best Practices are organized into topics on how to plan for and successfully implement a Best Practice in your community.

- **Part 1** provides background information on planning your program and evaluation, Key Recommendations, and Key Measures.
- **Part 2** provides details on implementation of the Key Recommendations.
- **Part 3** includes appendices, tools, and resources.
- **Part 4** provides a list of references.

As you prepare to select, implement, and evaluate a Best Practice, consider these planning guidelines:

- Meet with your diabetes team to discuss which Best Practice(s) is best suited for your situation and resources.
- Use data from your Diabetes Outcomes and Audit and/or from a community needs assessment to guide your selection of the Best Practice(s).
- Determine your program goal(s) as a team. For example, your team may decide to conduct a community needs assessment of interest in diabetes education and/or providing community education to increase awareness of risks for diabetes.
- Print out at least Part 1 of the Best Practice(s) your team feels is most appropriate to implement.
- Work with your diabetes team to review and discuss the Best Practice(s). You may choose to read it together as a team.
- Choose at least one Best Practice after carefully considering your goals and resources (funding, staff, and time).
- **Review the entire Best Practice(s) you have selected with your diabetes team:**
 - Confirm that you have selected a Best Practice(s) appropriate for your community needs and resources, and that you are confident that your team can successfully implement, evaluate (measure), and document progress and outcomes.
 - Target the population your team wants to improve outcomes for with the Best Practice(s). Remember, you probably do not have resources to do everything for everyone.
 - Carefully consider the Key Recommendations. The recommendations are based on evidence and have been proven to be effective. You may already be doing some of the recommendations and can easily fit these into your plan or you may want to consider some new recommendations to enhance and strengthen your program. Identify those your team can implement.
 - Carefully review the Key Measures. Choose those that best fit with your goals and the Key Recommendations you have chosen to implement.
 - If one Best Practice does not fit, then review another Best Practice until you find one that fits.

Throughout the document you will find links that draw your attention to important items within the Best Practice pdf. Here is a list of the items:

- **Action!** Indicates a **link**. Please use the link to access more detailed descriptions.
- **Note!** Indicates an **important** item. Pay special attention to this **important** item.

Summary of Key Recommendations and Key Measures

These are evidence-based actions that will lead to improved outcomes in the community. **Action!** See [Part 2](#) for details on the implementation of each key recommendation.

1. Implement the Baby Friendly Ten Steps in hospitals and clinics.
2. Provide basic and advanced lactation education for staff.
3. Collaborate with agencies and community programs that share the common goals of supporting breastfeeding.
4. Develop coalitions.
5. Develop and implement policies that promote and protect breastfeeding as suggested by the Baby Friendly Ten Steps.
6. Implement accurate and consistent data collection and monitoring.

These are specific measures that can be used to document changes in outcomes related to implementing the Best Practice.

Note! All SDPI grant programs that choose this Best Practice are **required** to report **as required in the terms and conditions attached to the notice of award on the indicated Measures**. Programs may report on other measures as well.

* The following measures are of primary importance:

1. *The number of Baby Friendly Steps implemented in hospital/clinic in past twelve months.
2. *Percent of babies with documented feeding choice at birth, two months, four months, six months, and one year in the past twelve months.
3. Percent of babies ever breastfed in the early postpartum period, six months, and one year in the past twelve months.
4. *Percent of babies exclusively breastfed at birth, and mostly or exclusively breastfed at two months, six months, nine months, and one year in the past twelve months.

PART 1 Essential Elements of Implementing this Best Practice

Purpose and Target Population

This Best Practice describes clinical tools and technical resources to effectively support breastfeeding. The target population to be covered by the best practice is ultimately the breastfeeding dyad – mother and baby. The intent of the breastfeeding support Best Practice is also to assist:

- families in childbearing age who are at risk for type 1 and type 2 diabetes
- their families and peers, and
- the communities that they live and work in.

This document provides guidance for programs that seek to improve individuals' long-term health status and enhance delivery of effective breastfeeding support health care.

Note! Dyad means a group of two and in this best practice refers to mother and baby.

Action! See [Part 3](#) – Appendix A. for the Importance of Breastfeeding Support

Intended Users of this Best Practice

- providers and staff involved with the care of mothers and babies, and
- leaders of health care organizations.

Action! See [Part 3](#) – Appendix A. Supplemental Information for discussion of the benefits and risks of implementing this Best Practice.

Definition of Breastfeeding Support

Breastfeeding Support means:

- Making current, clinically-based information available so that families can make informed decisions about early feeding choice.
- Providing breastfeeding families with tools to initiate and continue breastfeeding.
- Providing access to clinically-based problem solving strategies and technical support for complex concerns.
- Facilitating partnerships that support breastfeeding at clinical, organizational, and community levels.

Action! See [Part 3](#) – Appendix D. for the Socio-ecological Model for Breastfeeding Support

Goals of This Best Practice

- To increase clinical tools and technical resources to effectively support breastfeeding.
- To increase collaborations with the community and other agencies to support breastfeeding as a valuable resource.

Key Recommendations

These are evidence-based actions that can lead to improved outcomes for mothers, babies, and families in childbearing age.

These are evidence-based actions that will lead to improved outcomes in the community.

1. Implement the Baby Friendly Ten Steps in hospitals and clinics.
2. Provide basic and advanced lactation education for staff.
3. Collaborate with agencies and community programs that share the common goals of supporting breastfeeding.
4. Develop coalitions.
5. Develop and implement policies that promote and protect breastfeeding as suggested by the Baby Friendly Ten Steps.
6. Implement accurate and consistent data collection and monitoring.

Action! See [Part 2](#) for details on the implementation of each key recommendation.

Planning For Your Program and Evaluation

Key Action Steps include:

1. **Identify your program's goal(s).** There are many program goals consistent with the Key Recommendations of this practice. Examples of Program Goals include:
 - To increase resources to effectively support breastfeeding.
 - To increase collaborations with the community to support breastfeeding.

Note! Consider using Healthy People 2020 Breastfeeding Objectives to establish local goals. Assess baseline information for your community and then work toward these goals. <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=26>

2. **Define program objectives** that will be met to reach the program goal(s) in the **SMART format** (specific, measurable, action-oriented, realistic, and time-bound).

Examples of SMART objectives for this Best Practice:

- Establish baseline percent of babies who exclusively breast feed at birth, and mostly or exclusively breastfeed at two, six, nine and twelve months, by the end of the fiscal year.
- Implement a monitoring program to track local feeding choice data by the end of the fiscal year.
- Increase the number of women who exclusively breast feed at birth, and mostly or exclusively breastfeed at two, six, nine and twelve months, by 10% over baseline in current year.

Note! Infant feeding choice can be documented and entered into RPMS using 'It's just a click' in EHR or PCC templates.

Action! See [Part 3](#) – Appendix E. Monitoring Progress and Outcomes

3. **Use Key Measures.** The following Key Measures can be used to monitor progress and the effectiveness of implementing this Best Practice. Results of measures will indicate the degree of success in implementing the **Key Recommendations** and meeting program goals.

Measures of progress need to occur before the intervention (baseline) and at designated times thereafter. Measurement needs to be frequent enough to provide meaningful information for planning and evaluation.

Breastfeeding Support Key Measures

Note! All SDPI grant programs that choose this Best Practice are **required** to report **as required in the terms and conditions attached to the notice of award on the indicated Measures. Programs may report on other measures as well.**

*The following measures are of primary importance:

1. *The number of Baby Friendly Steps implemented in hospital/clinic in the past twelve months.
2. *Percent of babies with documented feeding choice at birth, two months, four months, six months, and one year in the past twelve months.
3. The percent of babies ever breastfed in the early postpartum period, six months, and one year in the past twelve months.
4. *Percent of babies exclusively breastfed at birth, and mostly or exclusively breastfed at two months, six months, nine months, and one year in the past twelve months.

4. **Collect, record, and analyze data** on an ongoing basis; share with the team and the organization leadership.

5. **Use creative ways to display data and measure outcomes, such as graphs or charts.** This helps the team understand the data and know whether there are improvements.

6. Think about what the data are telling you. What changes are you seeing? Are they improvements? Use data for planning next steps.

Action! Link to the following resources to help your program improve.

See [Part 3](#) – **Appendix B Key Measures Example** to assist you with identifying ways to choose SMART Objectives and Key Measures that incorporate your community data.

See [Part 3](#) – **Appendix C Improving Your Breastfeeding Program Example** to assist you with applying Key Recommendations and Key Measures to a program plan.

Action! See [online training](#) and a [workbook](#) to get more ideas about setting goals and objectives and developing a program plan. Available from: (see pages 23-28.)
<http://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Training/WebBased/Basics/Creating/Workbook.pdf>

Team Notes:

PART 2 Key Recommendations

Note! Part 2 provides **important** detail on the ‘Why?’ and ‘How?’ of implementation of each Key Recommendation.

Key Recommendation 1. Implement the Baby Friendly Ten Steps in hospitals and clinics.

Why?

Research states the infants born in hospitals practicing the ***Baby Friendly Ten Steps*** are more likely to breastfeed longer and more exclusively than those who are not. (J Perinatal Educ., 2007)

Each Step by itself has been shown to increase breastfeeding rates. As more ***Steps*** are included, the overall breastfeeding increase is greater than the sum of the individual rates. (Rosenberg, 2008; Merewood, 2005)

How to Implement the Key Recommendation

A. The 10 Steps to Successful Breastfeeding in the Baby Friendly Hospital Initiative (BFHI, USA) for facilities providing maternity services and care for newborn infants are:

Note! This Initiative is based on a joint WHO/UNICEF statement published by the World Health Organization.

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within one half-hour of birth.
5. Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teat or pacifiers (also called 'dummies' or 'soothers') to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them upon discharge from hospitals or clinics.

B. In environments that offer clinic care alone, prenatal education can help to plan the delivery and postpartum baby care. Clinic follow-up can smooth the transition to successful at-home breastfeeding. Research indicates that prenatal education and post-discharge follow-up can be a particularly effective intervention combination. Peer (lay) support has been shown to further enhance the impact (Shealy KL, 2005; Chung M, 2008; Guise JM, 2003).

C. Another effective intervention is the Colorado Can Do 5 Program. The Colorado Can Do 5 Program provides training for hospital staff and administrations to implement five of the Ten Steps.

Prenatally, families receive a crib card that provides education about the five Steps. The family can take the crib card with them to the hospital to support their choice. Hospitals can provide the cards also.

Summary of the **Five Steps**:

1. Help mothers initiate breastfeeding within one half-hour of birth.
2. Give newborn infants no food or drink other than breast milk, unless medically indicated.
3. Allow mothers and infants to remain together 24 hours a day – encourage breastfeeding on demand.
4. Give no artificial teat or pacifiers (also called ‘dummies’ or ‘soothers’) to breastfeeding infants.
5. Foster the establishment of breastfeeding support groups and refer mothers to them upon discharge from hospitals or clinics.

Results of the Colorado Program. The Colorado program found that when families experienced all five steps:

- There was a significant increase in breastfeeding duration through the first four months.
- For mothers of healthy breastfed infants who reported experiencing all five practices, the breastfeeding duration rate at three months was 70% and 63% at four months.
- Compared to families who did not experience the five steps, the prevalence of breastfeeding was 10-15% greater at each month among those having experienced all five steps. The results were consistent regardless of the mothers’ socioeconomic status.

Action! See <http://www.cdphe.state.co.us/ps/mch/gettingitright.pdf>

The Colorado program is being implemented in multiple states. For information about your state, contact your county or state health department.

Action! See sample crib card template at the I.H.S. MCH Breastfeeding web page.
<http://www.ihs.gov/medicalprograms/mch/M/bf.cfm>

Team Notes:

Key Recommendation 2. Provide basic and advanced lactation education for staff.

Why?

Gaps in the breastfeeding support knowledge of staff and providers have been identified as a barrier to breastfeeding (Szucs, 2009). Breastfeeding concerns are common and often easily resolved. Failure to manage concerns/problems in a timely manner can result in early weaning and avoidance of nursing future children (Walker, 2008). Providers and staff members are in key positions to provide appropriate solutions and referrals about breastfeeding concerns. Research indicates that their response to concerns is very important in increasing the mother's confidence and likelihood to continue breastfeeding (Bueno, 2004).

How to Implement the Key Recommendation

- A. Explore training/certification programs through local colleges.
- B. Use breastfeeding support instructional resources available online from universities and hospitals.
Action! See [Part 3](#) – Tools and Resources.
- C. Explore availability of Women, Infants and Children (WIC) staff to provide in-services and support.
- D. Consider creating positions for peer counselors or partnering with local agencies to share positions.
 - Peer counselors have been shown to provide significant benefit in breastfeeding support interventions (Chung M, 2008).
- E. Encourage staff to seek additional training and breastfeeding support experience to meet requirements for IBCLC (International Board Certified Lactation Consultant).
- F. Invest in current textbooks that are written by author(s) having an IBCLC credential.
Action! See [Part 3](#) – Tools and Resources.
- G. Use government or university/college hot/warm breastfeeding support lines and online resources for assistance suggestions.
Action! See [Part 3](#) – Tools and Resources.

Team Notes:

Additional Recommendations

Working Together with your Community and Organization

In addition to implementing the **Key Recommendations**, programs need to work on broader community and organizational support of the goals they are trying to achieve.

Note! Key Recommendations #3 through #6 are included in this section.

Community Recommendations

Key Recommendation 3. Collaborate with agencies and community programs that share the common goals of supporting breastfeeding.

Why?

Many IHS families are involved in multiple community programs. Community programs like WIC, Head Start, and Early Head Start include breastfeeding support in their outreach and curriculums. Local education groups, churches, and organizations/agencies can be effective partners also. Coordinating services can avoid duplication, provide consistent information, and increase availability of support services for families.

How to Implement the Recommendation

- A. **Contact local agencies and coalitions** to explore potential collaborations.
- B. **Tap into a local WIC Peer Counselor or Head Start program** – support trainings.
 - a. Include moms who have successfully breastfed, their partners and families, Elders, and any interested community members.
- C. **Explore the National Native Council for Breastfeeding** associated with the United States Breastfeeding Committee (USBC) and Centers for Disease Control and Prevention (CDC).

Action! See <http://www.nativebreastfeeding.org/>

Team Notes:

Key Recommendation 4. Develop coalitions.

Why?

The influences of feeding choice are multi-factorial (Thulier 2009). Sometimes the issues are beyond the scope of medical care, such as managing breastfeeding in public and continuing breastfeeding while working. Utilizing grassroots efforts to gain support for families' feeding choices has been shown to have powerful results. For example:

- The Navajo Nation Breastfeeding Coalition (NNBC) facilitated the passage of the Healthy Start Act in 2008. Now all employers on the Navajo Nation are required to accommodate breastfeeding employees. Additional local and regional training opportunities and national collaborations have resulted from this success.

How to Implement the Recommendation

- A. Seek opportunities that allow community members and interested staff members** to work together to manage local breastfeeding support issues.
- B. Use the coalition models** listed in websites to validate and strengthen plans.

Action! See [Part 3](#) – Tools and Resources.

Team Notes:

Organization Recommendations

Key Recommendation 5. Develop and implement policies that promote and protect breastfeeding as suggested by the Baby Friendly Ten Steps.

Why?

The implementation of consistent, supportive policies has been shown to effectively increase breastfeeding rates. (Rosenberg, 2008; Merewood, 2005)

How to Implement the Key Recommendation

A. **Establish policies** for patient care and referrals that support breastfeeding.

Action! See [Part 3](#) – Tools and Resources.

B. **Encourage training.**

- Lactation is an emerging science. Many outdated ideas and practices exist. Ongoing training for all staff will improve quality of care and access to care that works.
- Consider including lactation in continuing education for medical staff.
- Offer International Board Certified Lactation Consultants (IBCLC) clinical hours or partner with exciting lactation counselor programs.

Action! See [Part 3](#) – Tools and Resources.

- Explore training options for staff including online and WebEx modalities.
- Host a lactation education course offered by local colleges/universities.
- Include lactation as a staff competency.

Team Notes:

Key Recommendation 6. Implement accurate and consistent data collection and monitoring.

Why?

Indian health services and Tribal Agencies that use RPMS have the unique opportunity to learn from life-long data streams. Health data encompassing in utero/prenatal experience, infancy, childhood, and adult life will provide essential, valuable information to plan for healthier futures.

An important key to assessing effectiveness in local programs is consistency in collecting and tracking data:

- When local programs compare their progress/trends with other communities/service units, the data needs to reflect the same kinds of assessments, *or the comparison will not be valid.*
- The infant feeding tool uses terminology that is consistent with other programs.
- The feeding choice questions are designed to be answerable by caretakers and parents.

The infant feeding tool provides the data that CRS (Clinical Reporting System) uses for the Program Assessment Rating Tool (PART) measure:

- PART is reported to Congress. It is also the starting place for establishing Government Performance and Results Act (GPRA) measures about breastfeeding.
- To encourage the use of the tool, data completion can be tied to employee evaluations. If the infant feeding tool is available in E.H.R., consider including its use as a component for employee evaluations/PMAP.

Another key to monitoring breastfeeding support is to monitor the frequency of process measures and how they appear to impact rates. Process measures provide clues to culture changes and community acceptance.

How to Implement the Recommendation

- A. Use the infant feeding tool in EHR or PCC template (Patient Care Component) with data entry - "It's just a click." The infant feeding tool will assure that feeding choice information will be consistently recorded and monitored.

Action! See [Part 3](#) – Appendix E. Monitoring Progress and Outcomes

- B. If RPMS is not available, feeding choice can be tracked manually. The same feeding choice terms can be used. The local WIC program may be able to share data.
- C. Process measures can be tracked for frequency and attendance.

Action! See [Part 3](#) – Tools and Resources.

Team Notes:

PART 3 Appendices, Tools, and Resources

Appendix A. Supplemental Information

1. Importance of breastfeeding support.

Breastfeeding is a tool for reducing diabetes and obesity. Diabetes and its common risk factor, obesity, are epidemic in the United States. However, American Indian/Alaska Native(AI/AN) communities experience these health burdens at rates higher than most population groups:

- According to the CDC 2011 National Diabetes Fact Sheet, 16.1% of the total adult population served by IHS were diagnosed with type 2 diabetes The general population experiences a 7.8% prevalence.
<http://www.cdc.gov/diabetes/pubs/estimates11.htm#4>
- CDC reported that in 2009, the prevalence of childhood obesity was highest among AI/AN (21.2%) and lower among non-Hispanic white children (12.6%).
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5828a1.htm>
- While the prevalence of obesity among children six to eleven years of age has tripled since 1980, AI/AN children experience exceedingly high rates of extreme obesity (BMI > 30) (Caprio, 2008). Almost one in three AI/AN children are obese by age four, the highest prevalence of any US population group (Anderson, 2009).
- Pediatric obesity is consistently predictive of adult obesity, (Nader, 2006), dramatically increasing the risk of future diabetes.
- In addition to the well known diabetes complications, diabetes is expensive. American Diabetes Association (ADA) estimates that diabetes care in the general population is \$6,649 per person, per year, 2.3 times higher than the average medical care costs of those without diabetes (ADA, 2008). For each onset of diabetes that is prevented or postponed, almost \$7,000 per year (in 2007 dollars) can be used for other health care/community concerns (ADA, 2008).

Breastfeeding reduces the risk of diabetes in the lifetime of mothers and babies.

- For babies:
 1. National Institutes of Health (NIH) found that Gila River Indian Community members who had been breastfed for two months or longer experienced a 40% reduced diabetes prevalence when they were 35-39 years of age (Pettitt, 1997).
 2. A study of Native Canadians found that breastfeeding for the first year of life significantly reduced risk by age eighteen (Young, 2002).
- For mothers:
 1. A longitudinal study of 250,000 female nurses revealed that for every year of lactation, their risk of developing diabetes was reduced by 15% (Stuebe, 2005).

Supporting breastfeeding is an accepted component in clinical guidelines for the prevention of pediatric obesity. Breastfeeding's protective effect against obesity is described in the following studies:

- Large studies, reviews, and meta-analysis have concluded that breastfeeding has a protective effect against obesity for babies as they grow into childhood. (Ip, 2007; American Academy of Pediatrics, 2005; Arenz, 2004).
- Centers for Disease Control and Prevention (CDC) estimates that for every month a child is breastfed, his or her risk for childhood obesity decreases by 4%, reaching a plateau at eight months for a risk reduction of approximately one-third (Grummer-Strawn, 2004).
- For the mother, research suggests that breastfeeding increases the likelihood of return to pre-pregnancy weight. (Li, 2009; Baker, 2008; Dewey, 1993).

In the 2011 Surgeon General's Call to Action for Breastfeeding, <http://www.surgeongeneral.gov/topics/breastfeeding/index.html> and in Mrs. Obama's Let's Move 2011 Campaign <http://www.letsmove.gov/>, breastfeeding is included as a tool for reducing obesity in a generation.

Breastfeeding is an existing, beneficial practice that can reduce diabetes risk and obesity. Breastfeeding has been an essential part of survival since before recorded history. The biological capacity to successfully lactate is almost always a part of reproduction.

- Researchers estimate that 95% of all women can lactate adequately if they are provided support in the early critical stages of breastfeeding. (Neifert, 2001).
- Supporting breastfeeding is consistent with respected and traditional values in many AI/AN communities (Wright, 1997; Murphy, 2008).

2. Benefits and Risks of Implementing This Best Practice

Supporting the breastfeeding dyad (mother and baby) involves a brief time period. It is a small fraction of time compared to the lifespan segments needed to manage the course of diabetes and its complications. Diabetes and obesity complications (i.e., heart disease, renal disease/failure, vision loss, amputations, and neuropathies) diminish personal and community resources and lower quality of life.

Breastfeeding saves health care costs and bridges other medical disparities outside of diabetes, (Ip, 2007, Bartick 2010) including:

- Reduced risk of sudden infant death syndrome (SIDS)
- A 50% reduction in infant ear infections and diarrhea
- Reduction in pediatric visits and hospitalizations, and pharmacy costs
- Reduced incidence of maternal breast and ovarian cancers
- A recent analysis paper of over 60 research studies (Bartick, 2010) published by the American Academy of Pediatrics studies found that health care dollars and lives could be saved by more families breastfeeding:

Table 1. Impact of Breastfeeding

Exclusive breastfeeding for six months in US	Medical cost savings per year (2007 dollars)	Lives saved (mostly infants)
If 90% of population	\$13 Billion	911
If 80% of population	\$10.5 Billion	741
To gain perspective regarding the impact of potential lives saved by breastfeeding, consider the impact of car seats for infants. According to the US Department of Transportation, effectively used car seats could prevent approximately 210 infant (0-1 year) deaths and 253 toddler (1-4 years) deaths per year. http://www-nrd.nhtsa.dot.gov/Pubs/809778.pdf , page 3, table 3.(downloaded March 29, 2011)		

There are very few potential harms associated with breastfeeding. A reliable source for contraindications to breastfeeding that is summarized and regularly updated is at the Centers for Disease Control and Prevention (CDC) website: <http://www.cdc.gov>

The CDC web page states that breastfeeding is not advisable if one or more of the following conditions is true:

1. An infant diagnosed with galactosemia, a rare genetic metabolic disorder
2. The infant whose mother:
 - Has been infected with the human immunodeficiency virus (HIV)*
 - Is taking anti-retroviral medications
 - Has untreated, active tuberculosis
 - Is infected with human T-cell lymphotropic virus type I or type II
 - Is using or is dependent upon an illicit drug
 - Is taking prescribed cancer chemotherapy agents, such as antimetabolites that interfere with DNA replication and cell division, or
 - Is undergoing radiation therapies; however, such nuclear medicine therapies require only a temporary interruption in breastfeeding

*For additional information about HIV and breastfeeding in please see information at the UNICEF web page, <http://www.unicef.org/programme/breastfeeding/hiv.htm>

In rare situations, maternal medications can make breastfeeding unsafe. For current research and recommendations about maternal drug/medication use and breast milk see online resources in the Tools/Resources section of this document or consider:

- The American Academy of Pediatrics' [Breastfeeding and the Use of Human Milk](#) or read: American Academy of Pediatrics Committee on Drugs. (2001) The transfer of drugs and other chemicals into human milk. Pediatrics 108:776-789. Available online at <http://pediatrics.aappublications.org/cgi/content/full/108/3/776>

- The National Institutes of Health and National Library of Medicine website at <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT> or Google the word “Lactmed” and click on the link to get quick and current information.

3. Sustaining a Breastfeeding Support Program

- To begin capacity-building that includes financial self support; consider using the American Academy of Pediatrics (AAP) billing coding recommendations for insurance reimbursement of lactation support.

Action! See [Part 3](#) –Tools and Resources.

- Support accurate and consistent data collection.
- Explore ways to become partners with other community programs, state, and national diabetes programs, non-profit foundations, federal health agencies, and third-party organizations:
 - WIC programs are ever evolving with new and innovative ways to support the choice to breastfeed. Recent methods include trained staff, Peer Counselors, effective breast pumps, and food packages to help new families.

Action! See [Part 3](#) –Tools and Resources.

- Head Start and Early Head Start include breastfeeding support in their curriculums and staff training.
- Elder Sites can be rich sources of local traditional infant feeding practices. Involving Elders and their wisdom can provide stamina for breastfeeding support programs when rates dip or families/staff struggle.
- Local, regional, state, and national breastfeeding coalitions are usually eager to partner with local agencies/groups who are interested in supporting breastfeeding.
- Local businesses can quietly support breastfeeding. Some companies include lactation support as part of the employee benefits. Honoring employers who are foresighted and including them in coalition-building efforts can lead to positive partnerships.
- Support as many of the Baby Friendly Hospital Initiative Ten Steps as possible. The resulting infrastructure will support sustainability through normalization of breastfeeding, ongoing staff education, supportive policies, and monitoring of feeding trends through data collection.
- Consider using the Colorado Can Do 5 format (see <http://www.cdphe.state.co.us/ps/mch/gettingitright.pdf>). It moves hospital facilities towards Baby Friendly by the implementation of five of the 10 Baby Friendly Steps.

Action! See <http://www.ihs.gov/medicalprograms/mch/M/bf.cfm> for Crib Card ideas.

- Integration of breastfeeding into the multi-disciplinary team can be achieved in many ways. For example:
 - Develop a committee or work group, in person or on line, to talk about progress, hopes, goals, challenges, successes, and resources.
 - Use email/posters to provide monthly reports of breastfeeding rates. Share success stories and how-to information.
 - Report current breastfeeding news or local rates at staff, administrative, and professional meetings.
 - Add breastfeeding topics to class/presentation curriculums for local health and wellness events, and nutrition, childbirth, child development, diabetes, and father-to-be classes.
 - Explore suggesting breastfeeding topics to school curriculums for age appropriate levels. For example, talking about how mammal moms feed their babies is a well received discussion for young children. Education about healthy lifestyle choices (including breastfeeding) can give adolescents tools for making wise decisions. For teens, lactation fits well in early and later sex education.
 - In communities at risk for obesity and diabetes, health education for any age could include information about breastfeeding benefits and resources for help.
 - Implement the IHS Lactation Worksite policy. It is consistent with the 2010 law requiring worksite accommodation of breastfeeding employees.

Action! See [Part 3](#) –Tools and Resources.

Table 2. Common organizational challenges and management ideas.

Challenge	Possible Resolutions
Frustration arises from inconsistent and conflicting information/recommendations regarding breastfeeding.	Encourage ongoing education of current breastfeeding science and care skills, through use of: <ul style="list-style-type: none"> • College based certification • Clinically-based education opportunities and in-services • Online resources • Reliable hotlines and current professional texts Provide pathways for staff to achieve certification such as CLE, CBC, IBCLC.
Confusion about progress exists: “How do we know we are making a difference?”	Validate successes: <ul style="list-style-type: none"> • Celebrate use of and results from RPMS feeding choice data option (“It’s just a click”). • Announce, advertise, and/or list progress measures and outreach efforts.
Attitude or perception differences: Lack of enthusiasm vs. excess of enthusiasm regarding feeding choice.	<ul style="list-style-type: none"> • Strive to grow a worksite or organizational culture that respects a family’s informed feeding choice. • Consider breastfeeding as a tool to reduce health disparities.

Appendix B. Key Measures Example

Remember—this is an example! Apply this process to your community using your data.

Overweight *and* diabetes are increasing among youth. Our health care center and community are concerned about the increasing number of youth with overweight and diabetes.

Diabetes team takes action. Our diabetes team talked about addressing this problem and how the diabetes team could be more involved. We read the Breastfeeding Support Best Practice and talked about the evidence that breastfeeding reduces diabetes risk and obesity and the Key Recommendations.

Identified sources of data. Local data included:

- Audit, RPMS Data and Medical Record Review:
 - 10% of expectant mothers using the clinic had received breastfeeding education at least once during their pregnancy.
 - 70% of babies were exclusively breastfed at birth.
 - We had no data on local feeding choice after one month of age.

Selected suitable Best Practice. After thinking carefully about our goals and resources, and reviewing data, we decided this Best Practice was a good fit for us. We chose to work on one of the Key Recommendations: Using the ***Baby Friendly Ten Steps*** in our clinic.

Identified Target Population. We decided to start implementing this Best Practice by applying the key recommendations to childbearing age families in the community.

Identified Program goals.

- To increase knowledge of breastfeeding and its benefits.
- To increase the number of mothers who choose exclusive breastfeeding.
- To increase the number of babies who are exclusively breastfed for at least one year.

Identified SMART objectives based on our resources and data.

- To implement five of the ten baby friendly steps in our clinic by the end of this year.
- Documentation of baby feeding choice at birth, two, six, nine, or twelve months will be completed during the next year.
- To increase the percent of babies exclusively breastfed at birth from baseline (0% documented) to 25% by the end of this year.
- To increase the percent babies exclusively or mostly breastfed at two months, four months, six months, and twelve months from baseline (0% documented) to 25% by the end of this year.
- At least 50% of expectant mothers using the clinic will receive documented education on breastfeeding in the next twelve months.

Selected Key Measures. We chose the corresponding Key Measures for these Objectives and these Key Recommendations. Data will be collected and reviewed at baseline and mid-year.

Table 3. Selected Key Measures.

	A. Measure	B. Baseline or beginning value and date (collected prior to starting activities)	D. Most recent value and date (if applicable)	E. Data source (where did these numbers come from)
1	* Number of <i>ten baby friendly steps</i> that have been implemented	0 as of 12/31/2010	3 as of 4/30/2011	Meeting notes
2	* The percentage of babies with documented feeding choice at birth	80% as of 12/31/2010	90% as of 4/30/2011	RPMS
3	* The percentage of babies with documented feeding choice at two months	0% as of 12/31/2010	50% as of 4/30/2011	RPMS
4	* The percentage of babies with documented feeding choice at four months	0% as of 12/31/2010	42% as of 4/30/2011	RPMS
5	* The percentage of babies with documented feeding choice at six months	0% as of 12/31/2010	35% as of 4/30/2011	RPMS
6	* The percentage of babies with documented feeding choice at twelve months	0% as of 12/31/2010	20% as of 4/30/2011	RPMS
7	* The percentage of babies exclusively breastfed at birth	70% as of 12/31/2010	82% as of 4/30/2011	RPMS
8	* The percentage of babies mostly or exclusively breastfed at two months	0 as of 12/31/2010	65% as of 4/30/2011	RPMS
9	* The percentage of babies mostly or exclusively breastfed at six months	0 as of 12/31/2010	20% as of 4/30/2011	RPMS
10	* The percentage of babies mostly or exclusively breastfed at nine months	0 as of 12/31/2010	3% as of 4/30/2011	RPMS
11	* The percentage of babies mostly or exclusively breastfed at twelve months	0 as of 12/31/2010	> 1% as of 4/30/2011	RPMS
12	Number of expectant mothers using the clinic who receive documented education on breastfeeding	10% as of 12/31/2010	40% as of 4/30/2011	RPMS

* Required Key measure

Appendix C. Improving Breastfeeding Support Programs Example

Remember—this is an example! Ask these questions in your community, thinking about your local needs, resources, and tracking systems.

There are four fundamental questions to ask as you plan and implement your best practice. These questions (and sample answers) are:

1. Who is the target population?

Families of childbearing age at risk for diabetes.

2. What goal will be met by implementing this Best Practice?

- Increase the awareness of breastfeeding as a way to reduce risk of diabetes.
- Strive to normalize breastfeeding.
- Increase incidence and duration of breastfeeding.
- Maximize the number of the Baby Friendly Ten Steps that are implemented in your environment.

3. How will you measure your progress?

Data will tell you the numbers:

- Use RPMS feeding choice numbers to tell you where you are now as the baseline. Consider making a small change, like telling every mom in a prenatal clinic how breastfeeding reduces diabetes risk. Then in six months, see how the numbers change.
- Consider using your CRS reporting capacity to monitor infant feeding choice – it is automatic.

If the “It’s just a click” infant feeding tool in EHR and RPMS is not feasible to use:

- Try reviewing birth logs – they may include feeding choice.
- Ask new families at baby’s first pediatric visit and during immunization visits what the baby is eating – it is ok to ask the same questions that the feeding tool asks:

Is the baby?

- exclusively breastfeeding
 - mostly breastfeeding
 - one-half breastfeeding and one-half formula feeding
 - mostly formula feeding
 - formula feeding only.
- Develop a relationship with WIC – if they can share data, their information will be helpful.

Process measures can help with monitoring progress. Track requests for information about breastfeeding and attendance at support events or programs. Examples are the number of:

- Presentations and in-services in the community or local clinics
- Participation at health fairs and powwows
- Requests/questions from businesses
- Patient requests for classes or help in other forms
- Accepted outreach offerings to teach classes, brainstorm, share materials, and
- Incoming and outgoing referrals.

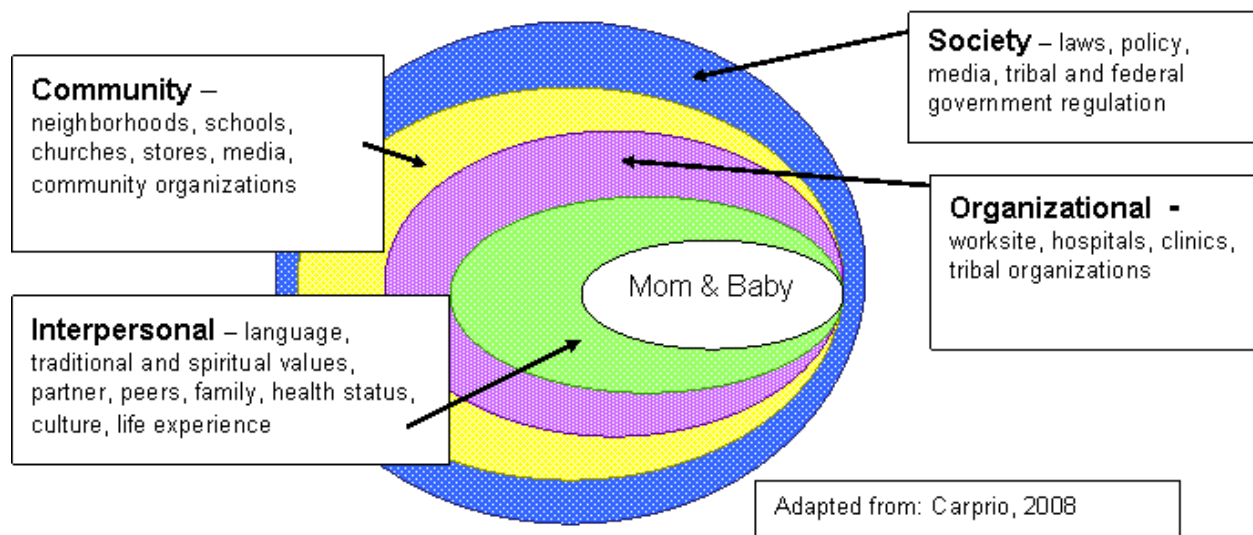
4. How will using this Best Practice help your community achieve its goals?

- Reliable information and technical support availability to patients and staff will increase breastfeeding and its benefits in the community.
- Implement policies that support breastfeeding, such as patient care practices, accommodating breastfeeding employees, and allowing public breastfeeding will increase breastfeeding and its benefits.
- By sharing your work load and resources with other programs that offer breastfeeding support, such as WIC, Head Start, and other community agencies/support groups, collaborations can be developed.

Appendix D. Socio-ecological Model for Breastfeeding Support

This Best Practice describes clinical tools and technical resources to effectively support breastfeeding. The target population to be covered by the best practice is ultimately the breastfeeding dyad – mother and baby. However, feeding choice is shaped by many factors including family beliefs, early childhood experiences, family/community attitudes, health care advice, and work/school environments. The issues surrounding breastfeeding are well described by the socio-ecological model:

Figure 1. Socio-ecological Model for Breastfeeding Support



The overall objectives of the breastfeeding support Best Practice are twofold:

1. Provide clinical tools and technical resources to effectively support breastfeeding.
2. Enhance the collaboration with the community and other agencies to support breastfeeding as a valuable resource.

The intent of the breastfeeding support Best Practice is to assist:

- families in childbearing age who are at risk for type 1 and type 2 diabetes
- their families and peers
- the communities that they live and work in, and
- providers and staff involved with the care of mothers and babies.

The breastfeeding dyad (mother and baby) is often in contact with multiple disciplines and layers of employment/administration/community. Access to information that keeps these contacts active and supportive is important.

Action! See [Part 3](#) –Tools and Resources.

Appendix E. Monitoring Progress and Outcomes

1. Documenting and monitoring feeding choice in EHR/RPMS (electronic health record/Resource and Patient Management System) is two-three key strokes (see “It’s just a click” in Resources). Feeding choice data option is available through age five.

Action! See [Part 3](#) –Tools and Resources.

2. If RPMS is not available, consider:
 - Process measures (See Appendix C.).
 - Manual tracking of feeding choice (See Tools for feeding terms and definitions).
 - Local WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) data.

3. Document and track patient education.

Action! See [Part 3](#) –Tools and Resources.

4. Consider using Healthy People 2020 objectives for breastfeeding to establish local goals.
<http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=26>

Indicators of impact

Data

- The first step is regular use of the E.H.R. infant feeding tool with each pediatric visit.
- Once the infant feeding tool is a routine “click” at visits, CRS or vgen/RPMS searches will provide reliable baseline data for feeding choice initiation, intensity, and duration.
- As programs, ideas, policies are implemented, CRS or vgen searches can be compared to baseline data for impact.

Staff interest

- Anticipate that more employees will seek to continue breastfeeding when returning to work postpartum, utilizing benefits from the IHS Worksite Lactation Support Policy.
- Expect more questions about managing/coordinating care of the breastfeeding dyad (mother and baby for patients and staff family members).
- Expect requests for in-services and formal training options.

Community interest

- Look forward to more interaction and opportunities to share data/tools/training with local programs such as WIC and Head Start.
- Prepare for more breastfeeding presentations for staff, local agencies, worksites, and community events.
- Anticipate that the community might need technical support to better support breastfeeding. Requests for ways to accommodate breastfeeding employees at the worksite, breastfeeding support trainings, and pump resources are examples of increased interest in the community.

What actions can be taken in order to design and implement ongoing evaluation?

If RPMS is available, a monitoring system is already in place.

- Infant feeding choice can be documented and entered into RPMS using “It’s just a click” in EHR or PCC templates.
- Vgen searches can determine local feeding trends and track individual choices.
- CRS automatically monitors exclusive and mostly breastfeeding rates at specific ages to report to Congress as Program Assessment Rating Tool (PART).

If RPMS is not available or is not feasible to use, consider these methods:

- Tracking feeding choice manually at specific intervals – such as birth and clinic visits for well baby/immunization visits.
 - The same feeding choice terms as the infant feeding tool can be used (exclusively breastfeeding, mostly breastfeeding, half and half, mostly formula, and formula feeding only.)
 - Compiling and posting the data (without names) each month can help reinforce the project and validate efforts. Charts or spreadsheets can help.
- The local WIC program may be able to share data trends.
- Process measures can be tracked for frequency and attendance.

Action! See [Part 3](#) – [Appendix A](#). and [Tools and Resources](#) for ideas.

Tools and Resources

Web-based Resources

IHS Breastfeeding web page

<http://www.ihs.gov/MedicalPrograms/MCH/M/bf.cfm>

Action! See patient education materials available at the IHS Breastfeeding web page – under Staff Resources. The documents are downloadable and can be edited for local needs. See guideline named *Lactation Support Policy in the Workplace, Tool Kit*.

For additional information, consider:

- United States Breastfeeding Committee
<http://www.usbreastfeeding.org/Portals/0/Workplace/HR3590-Sec4207-Nursing-Mothers.pdf>
- US Department of Labor
 - <http://www.dol.gov/whd/nursingmothers/>
- US Health Resources and Services Administration (HRSA) – *The Business Case for Breastfeeding* - free, easy to use tool kits and well designed materials
 - http://ask.hrsa.gov/detail_materials.cfm?ProdID=4135

I.H.S. MCH Breastfeeding Listserv – **Action! See** IHS Breastfeeding web page <http://www.ihs.gov/MedicalPrograms/MCH/M/bf.cfm>, for sign up information

I.H.S. Infant feeding tool – “It’s just a click,” **Action! See** IHS Breastfeeding Web page for more information about the E.H.R. and RPMS infant feeding choice data collection tool. <http://www.ihs.gov/MedicalPrograms/MCH/M/bf.cfm>,

Academy of Breastfeeding Medicine <http://www.bfmed.org/>

Physicians’ website about breastfeeding. Well-respected policies. The “go to” for physician-reviewed and approved protocols.

American Academy of Pediatrics Breastfeeding web page

<http://www.aap.org/healthtopics/breastfeeding.cfm>

Many resources, such as clinically-based information, coding for billing.

AAP Policy Statement about Human Milk

<http://aappolicy.aappublications.org/cgi/content/abstract/pediatrics;100/6/1035>

American College of Nurse-Midwives: Got Mom <http://www.gotmom.org/>

Created by the American College of Nurse-Midwives to provide breastfeeding information/resources for mothers/families/employers and professionals.

The American College of Obstetricians and Gynecologists <http://www.acog.org/>

Type in “breastfeeding” as keyword to get a list a resources and information.

American Dietetic Association

Consider reviewing the American Dietetic Association position statement that was published in the *Journal of the American Dietetic Association* 2005;105:810–18. For a listing of resources

and information, go to their Eatright.org page (<http://www.eatright.org>) and type in “breastfeeding” as keyword.

Baby Friendly USA <http://www.babyfriendlyusa.org/>

The central resource for implementing the Baby Friendly Hospital Initiative (BFHI) Ten Steps in the U.S. Downloadable information, timelines, costs, expectations well described.

Baby Friendly Hospital Initiative (BFHI)/Ten Step implementation

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2409135>

Abstract for implementation of the WHO/UNICEF Baby Friendly Ten Steps.

Breastfeeding Task Force of Greater Los Angeles <http://www.breastfeedingtaskforla.org/>

Many helpful resources, focused toward patients, families, and consumers.

Centers for Disease Control – <http://www.cdc.gov/>

THE public health resource about breastfeeding. Type in “breastfeeding”/click on breastfeeding to get the latest on public health issues like disease, immunizations, treatments – and their relationship/interaction with breastfeeding.

Centers for Disease Control and Prevention: Guide to Breastfeeding Interventions

http://www.cdc.gov/breastfeeding/pdf/breastfeeding_interventions.pdf

A “must have” for breastfeeding support interventions. This is a large document – especially useful for program planning.

Can be ordered by email at bfguide@cdc.gov or write to them at the following address and request The CDC Guide to Breastfeeding Interventions:

Maternal and Child Nutrition Branch,
Division of Nutrition and Physical Activity
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention
4770 Buford Highway, NE Mailstop K-25
Atlanta, GA 30341-3717

Google/Bing/Internet search breastfeeding coalitions – it is an extensive list.

Look for groups that are working with communities or affiliated with large hospitals, universities, colleges, and/or governmental agencies.

Examples:

<http://www.breastfeeding.org/> San Diego County Breastfeeding Coalition

<http://www.californiabreastfeeding.org/> California Breastfeeding Coalition

<http://massbfc.org/> Massachusetts Breastfeeding Coalition

<http://www.breastfeedie.org/> Model Hospital Policy Recommendations Strategies

Healthy People 2020

<http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=26>

New objectives for exclusive and ever breastfed are included.

Maternal Medication/Drug and Breast Milk

- Online, free, National Institutes of Health(NIH) and National Library of Medicine(NLM) - **NIH/NLM LACTNET** resource web page at:
<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT>
Highly functional, regularly updated resource. Type in drug name to get current clinical information and recommendations regarding risk issues. Date of most recent update is noted at bottom of page.
- **Medications and Mothers' Milk**, Thomas W. Hale, PhD. 13th Ed 2008, at:
<http://www.ibreastfeeding.com/>
Well-respected author, convenient paperback, highly useable format. Approximately \$25, updated every one-two years.

PART Program Assessment Rating Tool (PART)

<http://www.whitehouse.gov/omb/expectmore/part.html>

PART was developed to assess and improve program performance so that the federal government can achieve better results.

Smith, Linda J – Coach's Notebook

<http://www.jbpub.com/catalog/9780763718190/>

A Teaching Idea, games and strategies for lactation education. Fun and helpful ideas for patient education. Ideas/strategies can be applied to other health topics as well – written from a PE coach's perspective. Approximately \$50.

Office of Women's Health (US DHHS) <http://www.womenshealth.gov/breastfeeding/>

This website was recommended as one of the top websites in a 2005 article in *Journal of Human Lactation*. Many, many resources are here for families, coalitions and planners.

United States Breastfeeding Committee

<http://www.usbreastfeeding.org/AboutUs/PublicationsPositionStatements/tabid/70/Default.aspx>

This is the website for strategic planning for breastfeeding in the U.S. and for local programs.

United State Department of Labor,

For information about the Breastfeeding Employee Accommodation Law, March 2010, see <http://www.dol.gov/whd/nursingmothers/> .

National Agricultural Library - WIC Works Learning Center

<http://www.nal.usda.gov/>

This program enhances the continuity and consistency of WIC's current breastfeeding promotion and support efforts. Many patient education resources. Go to the foregoing link and search for "WIC Works Learning Center" for most current publications.

Division of Diabetes Treatment and Prevention [Internet]. [Updated 2009 April 27; cited 2009 July] Creating Strong Diabetes Programs: Plan a Trip to Success [A workbook (with an online training course) on effective program planning and evaluation) 38 pages with one page sample in appendix] Available from:

<http://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Training/WebBased/Basics/CreatingWorkbook.pdf>

Division of Diabetes Treatment and Prevention An online training course on effective program planning and evaluation. [Internet]. [Updated 2009 July]; cited 2009 June] Creating Strong Diabetes Programs: Plan a Trip to Success. Available from:

<http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=trainingBasicsCreating>

Contacting other people involved in breastfeeding support is important because they can help you get started. Your peers at other health care organizations can share their expertise, materials, and ideas, and can also tell you what has worked for them and what has not. This can help you avoid reinventing the wheel. Here are some tips on how to connect with others:

Examples of Current Best Practice Programs

Navajo Nation Breastfeeding Coalition

Roberta Duncan, MPH, RD
Public Health Nutritionist
Ft. Defiance Indian Health Board, Inc.
P.O. Box 649
Ft. Defiance, Arizona 86504
928-729-8424
FAX 928-729-8360
email: roberta.duncan@fdihb.org

The Navajo Nation community of breastfeeding supporters has made great strides in supporting breastfeeding. Examples are their efforts to achieve Baby Friendly certification in hospitals on the Navajo reservation and the Healthy Start Act, a law enacted in 2008 by the Navajo Legislature that requires worksite accommodation for breastfeeding employees.

Phoenix Indian Medical Center Diabetes Center of Excellence Breastfeeding Support Program

Sue Murphy, RD, MPH, CDE, IBCLC suzan.murphy@ihs.gov
Melinda Aguirre, CLE melinda.aguirre@ihs.gov
(602) 263-1200, extension 1044/1737
877) 868-9473 (Toll-free breastfeeding hotline)
PIMC Breastfeeding Support Program
4212 North 16th Street
Phoenix, AZ 85016

Since the program's inception in October 1999, program staff have provided perinatal breastfeeding support including home visits, helpline support, and electric breast pump loans.

Southcentral Foundation

Warm Springs Health and Wellness Center

Janet Bissell, RN, IBCLC
(541) 553-1196
janet.bissell@ihs.gov

4209 Holliday Street
Warm Springs, OR 97761

This program provides perinatal support, including telephone contact, home visits postpartum, and community activities.

Additional Contacts. Persons or programs that sites might contact for further ideas and assistance: Area Diabetes Consultants. Contact information for Area Diabetes Consultants can be viewed at:

<http://www.ihs.gov/MedicalPrograms/diabetes/index.cfm?module=peopleADCDirectory>

PART 4 References

References

- American Academy of Pediatrics. American Academy of Pediatrics (AAP) policy statement: Breastfeeding and the use of human milk. *Pediatrics*. 2005;115(2):496–506.
- American Academy of Pediatrics. Breastfeeding Promotion in Physicians' Office Practices Program. Elk Grove Village, IL: American Academy of Pediatrics, 2004.
- American Diabetes Association. Economic costs of diabetes in the U.S. in 2007. *Diabetes Care*. 2008 Mar;31(3):596-615.
- Anderson S, Whitaker R. Prevalence of obesity among US preschool children in different racial and ethnic groups. *Arch Pediatr Adolesc Med*. 2009 Apr;163(4):344-348.
- Arenz S, Ruckerl R, Koletzko B, and von Kries R. Breast-feeding and childhood obesity—a systematic review. *International Journal of Obesity and Related Metabolic Disorders*. 2004;28(10):1247–56.
- August GP, Caprio S, Fennoy I, Freemark M, Kaufman FR, Lustig RH, Silverstein JH, Speiser PW, Styne DM, Montori VM; Endocrine Society. Prevention and treatment of pediatric obesity : an endocrine society clinical practice guideline based on expert opinion. *J Clin Endocrinol Metab*. 2008 Dec;93(12):4576-99. Epub 2008 Sep 9.
- Baker JL, Gamborg M, Heitmann BL, Lissner L, Sorensen TI, Rasmussen KM. Breastfeeding reduces postpartum weight retention. *Am J Clin Nutr*. 2008 Dec;88(6):1543-51.
- Bartick M, Reinhold A, The Burden of Suboptimal Breastfeeding in the United States: A Pediatric Cost Analysis. *Pediatrics* 2010;125:e1048-e1056; originally published online Apr 5, 2010.
- Bueno LG, Teruya KM. [The practice of breastfeeding counseling] [Article in Portuguese] *J Pediatr (Rio J)*. 2004 Nov;80(5 Suppl):S126-30.
- Caprio S, Daniels S, Drewnowski A, Kaufan F, Palinkas L, Rosenbloom A, Schwimmer J. Influence of Race, Ethnicity, and Culture on Childhood Obesity: Implications for Prevention and Treatment. *Diabetes Care*. 2008 Nov;31(11): 2211-2221.
- Centers for Disease Control National Diabetes Fact Sheet, 2007. <http://www.cdc.gov/DIABETES/pubs/factsheet07.htm>, accessed July 2009.
- Chung M, Raman G, Trikalinos T, Lau J, Ip s. Interventions in primary care to promote breastfeeding: an evidence review for the US Preventative Services Task Force. *Ann Intern Med*. 2008 Oct 21;149(8):565-82.
- Dewey KG, Heinig MG, and Nommsen-Rivers LA. Maternal weight-loss patterns during prolonged lactation. *American Journal of Clinical Nutrition*. 1993;58:162–66.
- Grummer-Strawn LM and Mei Z. Does breastfeeding protect against pediatric overweight? Analysis of longitudinal data from the Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System. *Pediatrics*. 2004;113(2):e81–86.

Guise JM, Palda V, Westhoff C, Chan BK, Helfand M, and Lieu TA; U.S. Preventive Services Task Force. The effectiveness of primary care-based interventions to promote breastfeeding: Systematic evidence review and meta-analysis for the U.S. Preventive Services Task Force. *Annals of Family Medicine*. 2003;1(2):70–78.

Ip S, Chung M, Raman G, Chew P, Magula N, DeVine D, Trikalinos T, Lau K. Breastfeeding and maternal and infant health outcomes in developed countries. *Evid Rep Technol Assess*. 2007 Apr;(153):1-186.

Li N Shou LZ, Dai LN, Tian Z, Lai JQ, Zhao XF, Yin SA. Effects of different feeding patterns on body weight of perinatal women in rural area. *Shonghua Yu Fang Yi Xue Za Zhi*. 2009 Feb; 43(2):113-6 (translated from Chinese)

Merewood A, Mehta DS, Chamberlain LB, Phillip BL, Bauchner H. Breastfeeding rates in US Baby-Friendly hospitals: results of a national survey. *Pediatrics*. 2005 Sep;116(3):628-34.

Murphy S, Wilson C. Breastfeeding promotion: a rational and achievable target for type 2 diabetes prevention intervention in Native American communities. *J Hum Lact*. 2008 May;24(2):193-8.

Nader PR, O'Brien M, Houts R, Bradely R, Belski J, Crosnoe R, Friedman S, Mei Z, Susman EJ, National Institute of Child Health and Human Development Early Child Care Research Network. Identifying risk for obesity in early childhood. *Pediatrics*, 2006 Sep;118(3):2270.

Neifert MR. Prevention of breastfeeding tragedies. *Pediatric Clinics of North America*. 2001;48(2):273-97.

Pettitt D, Forman M, Hanson R, Knowler W, and Bennett P. Breastfeeding and incidence of non-insulin-dependent diabetes mellitus in Pima Indians. *Lancet*. 1997;350:166–68.

Rosenberg KD, Stull JD, Adler MR, KAsenhagen LJ, Crivelli-Kovach A. Impact of hospital policies on breastfeeding outcomes. *Breastfed Med*. 2008 Jun;3(2):110-6

Shealy KR, Li R, Benton-Davis S, and Grummer-Strawn LM. The CDC Guide to Breastfeeding Interventions. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005. (Available online at: http://www.cdc.gov/breastfeeding/pdf/breastfeeding_interventions.pdf. Accessed June 2009.)

Stuebe A, Rich-Edwards J, Willett W, Manson J, and Michels K. Duration of lactation and incidence of type 2 diabetes. *Journal of the American Medical Association*. 2005;294(20):2601–10.

Szucs KA, Miracle DJ, Rosenman M. Breastfeeding knowledge, attitudes, and practices among providers in a medical home. *Breastfeed Med*. 2009 Mar;4(1):31-42.

Thulier D. Breastfeeding in America: a history of influencing factors. *J Hum Lact*. 2009 Feb;25(1):85-94.

United States Department of Transportation, Traffic Fact Research Notes, Lives Saved Calculation for Infants and Toddlers, March 2005, <http://www-nrd.nhtsa.dot.gov/Pubs/809778.pdf>, page 3, table 3.(downloaded March 29, 2011)

Young TK, Martens PJ, Taback SP, Sellers EA, Dean HJ, Cheang M, and Flett B. Type 2 diabetes mellitus in children: Prenatal and early infancy risk factors among Native Canadians. *Archives of Pediatric and Adolescent Medicine*. 2002;156(7):651–55.

Walker MJ. Conquering common breast-feeding problems. *Perinat Neonatal Nurs*. 2008 Oct-Dec;22(4):267-74.

Wright A, Naylor A, Wester R, Bauer M, and Sutcliffe E. Using cultural knowledge in health promotion: Breastfeeding among the Navajo. *Health Education and Behavior*. 1997;24(5):625–39.