



TECHNICAL ASSISTANCE
GUIDE *for* HOSPITAL
PROVIDERS

A woman wearing a straw hat and a light-colored top is holding a baby in her arms. They are standing on a beach, looking out at the ocean under a warm, golden sunset sky. The scene is peaceful and intimate.

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In 2010, work began to support maternity hospitals as they pursued designation as Baby-Friendly®. Evaluation results from the first cohort suggested that collaboration among the hospitals allowed for sharing resources, experiences and lessons learned from adopting the WHO/UNICEF "Ten Steps" toward a breastfeeding-friendly hospital environment.

By applying the principles of quality improvement, hospitals began to realize successful change in their work. The hospitals worked toward institutionalizing an average of four of the "Ten Steps" and increased exclusive breastfeeding rates across the cohort by an average of 11 percent.

The early champions of change – The American Academy of Pediatrics - New Jersey, Pediatric Council on Research and Education – played an integral role in helping New Jersey's hospitals move forward in this work. Today more than 20 hospitals are now on the pathway to becoming designated as Baby-Friendly® with several already having that distinction.

This guide will help providers as they move along on their journey toward implementation of the WHO/UNICEF *Ten Steps to Successful Breastfeeding*. Special thanks are extended to Lori Feldman-Winter, MD, MPH, Division Head, Adolescent Medicine, Cooper University Hospital and Professor of Pediatrics at Cooper Medical School at Rowan University, along with the Central Jersey Family Health Consortium, who helped to facilitate this initiative.

The development of this guide would not have been possible without the many lessons learned from the National Institute for Children's Health Quality Best Fed Beginnings (BFB) Project. The BFB project was supported by the Centers for Disease Control and Prevention (CDC) and conducted in close partnership with Baby-Friendly USA and the United States Breastfeeding Committee (USBC).

See more at: <http://breastfeeding.nichq.org/solutions/best-fed-beginnings>



TEN STEPS TO SUCCESSFUL BREASTFEEDING

WORLD HEALTH
ORGANIZATION & UNICEF

Every facility providing maternity services & care for newborn infants should:

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 a half hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they are separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in: allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no rubber nipples or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups, and refer mothers to them on discharge from the hospital or clinic.

INTRODUCTION

Congratulations! If you are reading this, you are embarking on a journey that will change the lives of countless individuals and families for the better. It is a never-ending journey, one that will meet with resistance, and one that will require a tremendous amount of work, but in the end it will be well worth the effort. This guide will help support your efforts in implementing breastfeeding practices throughout your organization and the communities you serve.

The mechanisms for change discussed in this guide are not prescriptive but are offered as choices to assist your organization moving forward.

Following this guide will inform the process of changing your organization's culture to one of breastfeeding-friendly practices and help you to establish mechanisms for ongoing improvements in maternity care practices that align with the *Ten Steps to Successful Breastfeeding (Ten Steps)*. The mechanisms for change discussed in this guide are not prescriptive but are offered as choices to assist your organization moving forward. This guide sets forth a known and proven mechanism for change established by the Institute for Healthcare Improvement (IHI). The Model for Improvement, which builds on the principles of the IHI's Breakthrough Series™, is intended to accelerate the process over a one- to two-year period.

Many hospitals may choose to pursue designation as a Baby-Friendly® institution, which is just one step to assure a significant level of compliance with the *Ten Steps*. Designation, however, is not a destination. There will be continued expectations for quality improvement and monitoring after designation. Once these mechanisms are established, the practices defined by this guide will ensure a natural transition toward continuous quality improvement. More information about designation is available from Baby-Friendly® USA at their Web site <https://www.babyfriendlyusa.org/>.

There is overwhelming evidence to support the *Ten Steps*, and numerous U.S. organizations such as the American Academy of Pediatrics (AAP), the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), and the American Congress of Obstetricians and Gynecologists (ACOG), have officially endorsed this model of care. This guide will focus on *how* to implement the *Ten Steps* rather than *why*. Nevertheless, it is understood that in order to change certain practices, leadership, management, front-line staff, and the community must be engaged in the change process.

BUILDING THE HOSPITAL-BASED COLLABORATIVE TEAM

This section will assist teams in developing a collaborative learning environment that links together hospitals and communities to improve breastfeeding support, implement the *Ten Steps to Successful Breastfeeding*, comply with state regulations, and shepherd the process with accreditation requirements. The concepts discussed help organizations carry out a Breakthrough Series™ and the quality improvement (QI) components that will facilitate transformative changes.

The members of the team should be familiar with all aspects of this guide. Efforts will require pre-work in order for content experts to understand the concepts of QI. The symbiotic nature where staff skilled in QI and clinicians well-versed in patient care will lead the team to the outcomes identified as critical to the organization's success. The team – viewed as advisors to the process – include a project director, a collaborative chair, and one or a group of content experts who act as faculty and an improvement advisor. Before initiating the project, it will be important for the collaborative chair and project director to organize a launch meeting to enable the team to organize and solidify the work plan. The roles of each team member are described below.

Project Director

- Lead the development of the core documents (project charter, driver diagram, change package, measurement strategy) for the collaborative
- Engage with the project teams serving as a resource and guide
- Select and organize the collaborative director, chair, faculty, improvement advisor, and managers
- Maintain a high level of administrative oversight with sponsoring agency
- Participate in presentations at learning sessions and on action period calls
- Determine the allocation of resources
- Supervisors and managers to connect with teams and organize communications

Collaborative Director

- Lead the quality improvement processes to engage the collaborative
- Develop the strategy for change
- Determine the sequence of activities
- Participate in the development of the core documents (project charter, driver diagram, change package, measurement strategy) for the collaborative
- Engage with the project teams serving as a resource and guide
- Present at learning sessions and on action period calls
- Oversee planning calls and faculty calls



Collaborative Faculty Chair

- Assist in the development of the core documents (project charter, driver diagram, change package, measurement strategy) for the collaborative
- Engage with the project teams serving as a resource and guide
- Identify gaps and priorities in content areas aligned with team needs
- Identify and recruit faculty to address gaps
- Provide input to collaborative director on curriculum for learning sessions
- Present at all learning sessions and on action period calls and/or select other experts to present
- Together with improvement advisor and project director, review monthly team progress reports, continually assess the progress of teams, and recommend interventions to achieve clinical goals
- Reinforce the importance of consumer participation
- Play an active role in teaching and mentoring other faculty
- Assist with recruitment and selection of potential participants
- Connect the national stakeholders and others in the external community at-large to this initiative
- Assist project director and sponsoring agency with disseminating learning collaborative knowledge by various strategies
- Play an active role in connecting clinical experts with faculty and team members during and between learning sessions
- Assist in recruiting guest speakers



Improvement Advisor

- Determine key elements of the measurement strategy
- Develop process of collection and reporting of data
- Disseminate the aggregate results from ongoing data collections
- Inform team members about the interpretation of data
- Collect and report on the degree of participation of team members in reporting data and engagement in the collaborative
- Conduct analyses of data, compare participation, gaps analysis and likelihood to move to the next phase of implementation of the *Ten Steps*
- Construct and supervise the planning of teams' action
- Play an active role in teaching and mentoring other faculty

Managers

- Maintain communication with team leaders and senior administrative leaders from each team
- Organize times and calendar for learning sessions and on action period calls
- Determine need for special technical assistance
- Participate in and organize all face-to-face meetings such as expert panel, learning sessions and special meetings
- Employed by the sponsoring agency and report to the agency any issues or concerns
- Serve as the conduit for data reporting and assembling information for the improvement advisor to review
- Provide support to collaborative director and chair for communications and calendar
- Serve as the point persons for invoicing, budget and financial matters

There are certain broad notions that hospital leaders may consider when organizing their teams:

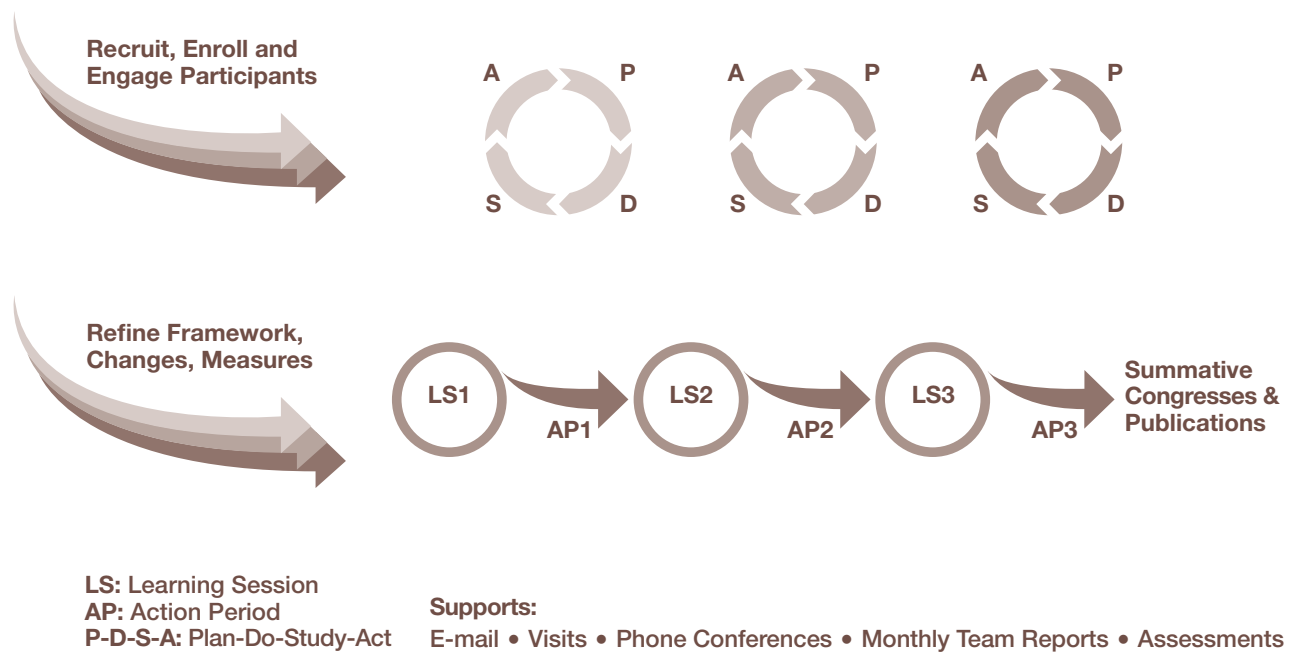
- Members of the team should be representative of the larger population of the hospital and include senior administrative leaders, collaborative faculty, advisors, consultants and staff.
- The faculty should either be experts in the field, an experienced member of a designated Baby-Friendly® hospital, or a trained expert with background and credentials in medicine or nursing.
- The faculty helps each hospital team achieve the *Ten Steps* and tie in this goal with the mission and vision of their organization's specific aims.
- The faculty will support the teams by sharing best practices on creating safe and reliable systems and by teaching and applying methods for organizational change in order to implement the *Ten Steps*.
- Expert faculty and project staff will develop a change package (the recommended system changes organizations will make and the measures used to track improvement) based on the key evidence and materials.

QUALITY IMPROVEMENT BASICS

To begin a QI project of this scope it is important to understand the key components of change, terminology used in QI, and how to operationalize a plan for change using a learning collaborative.

Over a typical project period (12–18 months), hospital teams will participate in three face-to-face learning sessions. During the periods between meetings (known as action periods) teams maintain continual contact with each other and faculty members through conference calls, listserv discussions, e-mail and monthly data progress reports.

The collaborative will use the fundamental design of IHI's Breakthrough Series™ at the core of our program.



(Adapted from IHI Breakthrough Series™ Resources)

Teams are encouraged to set forth a **Project Aim** that aligns with the *Ten Steps* and is:

Smart, Specific, Measurable, Achievable, Relevant, Time Sensitive

The overall project aim for this process is to implement the *Ten Steps*, comply with state regulations, and shepherd the process with accreditation requirements using a validated set of measurements and techniques for change. There are key drivers in maternity care practices that afford team members with opportunities for change. Each of these key drivers has a set of secondary drivers.

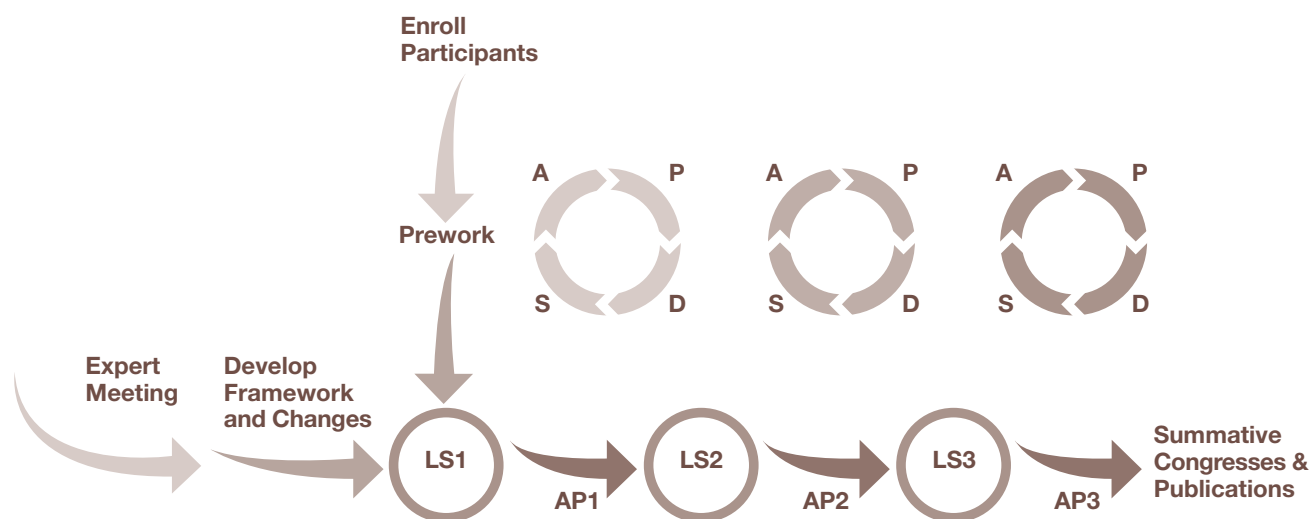
Principle drivers of improvement related to this work include both internal and external drivers:

- Internal hospital systems and resources that promote and sustain the *Ten Steps*.
- External systems such as payment, recognition and accreditation, that align with the *Ten Steps*.

A more refined illustration of the project period enables hospitals to establish a time frame for change. This model defines the period of time before the first meeting as an opportunity to prepare faculty and for the first learning session. The pre-work will permit teams to get the most out of their face-to-face time during the first learning session.

Pre-work is:

- An opportunity for teams to review their current system and determine the priority areas for change in preparation for the group's first learning session
- Activities to prepare teams to achieve the most from each of the face-to-face meetings
- Important because the most successful teams are those who commit their efforts to completing the pre-work activities.



LS: Learning Session

AP: Action Period

P-D-S-A: Plan-Do-Study-Act

Supports:

E-mail • Visits • Phone Conferences • Monthly Team Reports • Assessments

(Adapted from IHI Breakthrough Series™ Resources)

It will be beneficial for team leaders to become familiar with the basics of QI by reading materials shared on IHI's Web site, *Getting Started How to Improve*. The Model for Improvement is explained on this site and examples of other clinical improvements are provided.

Team leaders should also familiarize themselves with the Model for Improvement. After setting the overall project aim, and discussing key drivers for implementing the *Ten Steps*, more specific aims may be set.



These aims respond to the first question of the Model for Improvement:

What are we trying to accomplish?

The project aim may include each of the *Ten Steps*, or sub-steps as delineated in the National Institute for Children's Health Quality (NICHQ) Required Outcome and Process Measures. For each aim there should be a method to measure change. This responds to the second question in the Model for Improvement:

How will we know that a change is an improvement?

See the NICHQ Required Outcome and Process Measures for metrics that should be included in the measurement strategy. Be comprehensive and limit redundancies so that the work is not burdensome. The strategy provides a mechanism for documenting the care that is being changed (each element of the *Ten Steps* involving clinical care). Changing documentation is complex, especially since many hospitals have converted or are in the process of converting to electronic health records.

The most significant question posed in the Model for Improvement may be ...

What changes can we make that will result in an improvement?

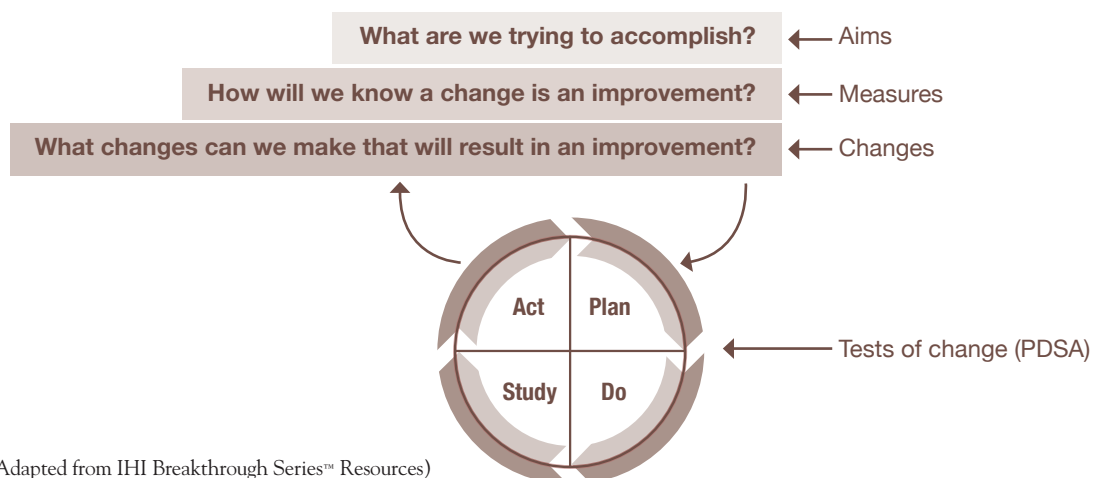
The answer is prescriptive since we know the *Ten Steps* are evidence-based and guide a hospital's achievement of compliance with regulatory and accreditation requirements, as well as what hospitals must achieve to become a Baby-Friendly®-designated institution. But the question is **how will the change be made?** The change process therefore requires creativity and knowledge of the hospital and members of the clinical team implementing the changes.

While there may be many tasks associated with designation, such as adhering to state requirements or implementing new policies within your organization, it is the clinical care that will be tested with small changes using the "PDSA" cycles.

For example ...

A test of change may be to conduct routine procedures at the bedside of the mother-baby room to support Step 7 and rooming in. The test of change will include the clinical staff involved in newborn screening, testing for critical congenital heart disease, hearing screening, and fostering willing mother-baby dyads. Tasks may include educating the ancillary staff about the importance of rooming in and purchasing equipment such as improved bedside lighting.

Model for Improvement



(Adapted from IHI Breakthrough Series™ Resources)

Testing changes using the PDSA cycle is something that is initiated with one or two processes. The test should be well planned, with a number of key considerations being made including:

- The day the test is performed
- The people who will be involved in the test
- The clinical questions you hope to answer with the test
- The tasks such as education and resources required to carry out the test

The testing involves a data recorder who will take notes on exactly what happened. For example, if the test was met with any unexpected or expected problems, positive or negative, that information should be specific and detailed. Similarly, if satisfaction changed, or clinical stability of the newborn was impacted, that data should be reviewed by the team to decide if the plan is adopted without change, adapted to include some modification, or discarded due to problems.

Once several tests are done to establish the best method of implementation then the model of care should be shared with more practitioners, more shifts of the day and more days of the week. This is called “ramping up.” For internal consistency of Step implementation and integrity of the process, it is important that the ramp-up is planned carefully after adequate education and awareness. Now the care model will be ratified through new policy and practice guidelines. Testing multiple changes may be done simultaneously and ramped up in concert or in sequence.



WORK PLAN FOR PARTICIPATING HOSPITALS

It is important that the Work Plan for a learning collaborative team is organized in a way that helps drive change with metrics that are consistent with the goal of this initiative. To help each other along this journey, it is important to remember that the “all teach/all learn” environment requires commitment and collegiality, where participants benefit from the experiences of their peers.

BUILDING THE TEAM

As discussed earlier, a project team that meets regularly is an essential component of this work. Each hospital in NJ is expected to have a breastfeeding steering committee or task force as regulated by N.J.A.C. 8:43G-19.9. The project team and breastfeeding steering committee is one in the same.

When building the team remember:

- Include senior administrative leaders, such as directors or assistant directors of women's and children's services, the managers of Labor and Delivery, post-partum units, and the neo-natal intensive care unit. If neonatologists care for well newborns, they should serve on the steering committee.
- Physician champions are appointed who have been approved by the departmental chiefs from Obstetrics & Gynecology, Pediatrics, Family Medicine (if they are involved in either maternal or newborn care) and Nurse Midwifery (if applicable).
- Affiliated prenatal clinics or offices, including the patient educators from these sites, a person responsible for staff education, patient education and patient relations are also to be included.
- A leader from Lactation Services, Dietary, and the person responsible for skills training and assessment of staff are important additions to the team.
- The input of Human Resources personnel will assist in addressing the organization's support of employees who breastfeed.
- Involvement of community partners such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and other support groups
- Include at least one mother who has delivered a baby at the institution. This mother should not be on any other institutional groups or committees. This person could be the leader of a local breastfeeding support group that involves many mothers who delivered at the institution.
- There should be a representative of a large pediatric provider group that sees a large majority of the newborns being discharged from the institution.
- A dedicated resource from the quality or performance improvement committee should be assigned to this committee throughout the change process. This individual should integrate this work into the ongoing data collection plan for the institution and be able to report regularly using tools such as performance dashboards that include visuals such as run charts, tornado charts, histograms, and other visual performance reports.
- For institutions that need to revise or implement an electronic health record necessary for documentation, an individual who is able to represent the information technology function may be part of the team or report to the QI/PI person on the team.



- To ensure that procurement plans include purchasing of formula using Fair Market Value calculation, or other operations or capital needs, a representative from Purchasing will need to participate.
- The Marketing and Communications team will need to develop a budget to create institution-specific materials and innovative methods for relaying consistent messaging about the initiative. A point person for media relations who is well versed in the initiative is critical to the public opinion of the organization's work.

Organizing a team this large takes an effective and strong leader. The leader is responsible for ensuring that all data, meeting minutes, communications, and work product are prepared consistently and disseminated within agreed-upon timeframes.

The full team should meet monthly, but may consider a more aggressive schedule if deadlines are approaching. A well-structured agenda with responsibilities delineated and timeframes noted will keep the team on track. Subcommittees will form and gather between meetings to conduct the remainder of the work. Some teams divide themselves according to the *Ten Steps* and others organize themselves according to discipline.

There is no correct way to divide the work but will be the responsibility of the team. Each member of the steering committee will have a role on the agenda at least every other month, and be engaged in the change process. Members should be actively engaged in writing policies and protocols, developing PDSA plans and participating in the operationalization of planned activities. The team members will own the data, reporting and actively participating in dialogue on its meaning.

Over time, if situated deliberately, the team will build in strength, camaraderie and functionality.

The work of the project team is voluminous and depending on where along the continuum an organization lies, may span over many months. Its members' work will not end but instead will function after successful implementation of policies and procedures in a manner that continually seeks to learn and improve from experiences. Over time, if situated deliberately, the team will build in strength, camaraderie and functionality. Celebrations and retreats planned throughout this process will help to foster this.

Well-functioning teams...

- Partner with consultants to enhance team-building skills if necessary,
- Are not exclusionary and invite new members, observers, and others willing and able to offer assistance with the work,
- Invite challenges and are transparent about the evidence, the practices and plans for change, and
- Communicate in order to offset naysayers, raise awareness about the initiative and provide a positive and hopeful tone as the hospital transforms care.

This project team also will integrate other activities that will inform this process. These activities include but are not limited to reporting on The Joint Commission Perinatal Care Core Measures, completion of the CDC's mPINC survey, overseeing data reporting on the New Jersey Electronic Birth Certificate and upholding the state's regulatory requirements that apply to maternity care practices.

Finally, the team will work with the appropriate committees of the board to assure that data are assembled in a manner consistent with organizational dashboards and other reporting forums.

THE ROLE OF LEADERSHIP

Leadership is a requirement for the success of any large system change to take form and be embraced by an institution. From the CEO of the organization, to the front line staff, there is value in distributed leadership (see Mountford and Webb, *When Clinicians Lead*). There is virtue when an organization treats all staff as potential leaders in their own spheres. Personnel should be experts in their own realm and receive support to make changes necessary to implement the *Ten Steps*.

It will be important that the team has a readily accessible senior administrative leader for the project. This person is distinct from the team (Steering Committee or Task Force) leader.

Identifying the senior administrative leader (SAL)

Identify who will participate as the senior administrative leader. Below are four questions to help ensure that you have the right person:

- Does your senior administrative leader have the attention of your CEO?
- Can your senior administrative leader make or strongly influence resource allocations (personnel and budget) for the maternity and newborn areas and programs in your hospital?
- Does your senior administrative leader have credibility and positive relationships with MDs, nurses and administrators?
- Is your senior administrative leader willing and able to dedicate 4–8 hours per month to lead this initiative?



Leadership Pre-work

The SAL should be an active participant in the first learning session and have a distinct role in transformative change. SALs should engage in pre-work to understand their role in implementing the *Ten Steps*.

The collaborative team should be assigned pre-work at least two months before the first learning session. The pre-work includes readings, participation in baseline surveys, and an understanding of the hospital's performance in mPINC. The SAL also should work with the collaborative team to:

- Understand the scope of required collaborative team pre-work
- Provide timely, actionable feedback on the team's work product(s) and enabling the team to meet its pre-work deliverable dates
 - Provide your input (e.g., to Aim Statement, work plan, communication plan)
 - Give your approval (e.g., to Aim Statement, work plan, communication plan)
 - Provide or approve resources (e.g., for baseline data collection)
 - Gauge broader community impact of the Baby-Friendly® Hospital initiative

- Approve (re)allocation of resources to complete pre-work deliverables (e.g., baseline data collection)
- Carefully consider survey-demonstrated readiness status
 - Anticipate what may be needed to address critical or potentially resource-intensive readiness gaps

Each of the SALs should complete a composite SAL-Physician/Provider Champion Personal Leadership Action Plan (PLAP) that addresses the *leadership level goals and activities*. Leadership will determine the team's success in completing its work for Action Period One in preparation for the second learning session. As one of the SAL's leadership goals, this PLAP helps them think carefully about how they leverage the good work of others and provide the maximum liaison between the team and hospital management. Reading *Examining the "Dyad" as a Management Model in Integrated Health Systems; When Clinicians Lead; and For Your Team's Success, Remember the How* will be helpful to prepare the plan.



INVOLVING THE COMMUNITY

The continuum of care from prenatal to post-discharge requires available community resources and community partners. There should be representatives from WIC, mother-to-mother support groups and moms participating on the steering committee who have delivered at the hospital. Additional meetings with community partners can help to iron out referral patterns, develop a list of available resources and identify care gaps.

A community needs/health needs assessment will enhance the work of the team.

The assessment includes:

- Individual and family needs
- Organizational needs and assets
- Structural needs and assets

The goal is to eliminate disparities and provide equitable care for breastfeeding support, and develop a security network that mothers and families can rely on.

All community partners need to work together to eliminate redundancies, create seamless and consistent plans and coordinate care with each other. Communication strategies must coordinate services and develop a reliable safety net for breastfeeding support. This is enhanced through the use of face-to-face meetings to build collegiality among providers and stakeholders.

SEQUENCING THE WORK

A sequencing plan will help hospitals stay focused on their end goal. Not to be minimized, some steps may take more focus and may be difficult to implement.

The step reported as taking the longest, making many hospitals vulnerable for reaching an impasse to implementation, generally is Step 3. For hospitals with an affiliated prenatal clinic, it is important to develop a prenatal education plan early in the process. It is also important to empower specific staff members in the prenatal clinic to deliver the education and methods to assess moms' understanding of the education. Since moms will be 32 weeks pregnant at the time of interview, the education must begin with the first prenatal visit and each visit should have a set number of educational points to deliver or review. Using a “teach-reteach” methodology to demonstrate understanding will help moms to absorb the information and more completely understand the benefits of breastfeeding and the essential elements of the *Ten Steps*.

With a sequencing plan, certain steps are linked to others so it is logical to work on them simultaneously. For example, staff training is essential to ensure that optimal care is provided. Staff training also takes a long time, particularly when adopting new practices and developing staff competencies. Once an education and training plan is selected, ensure that it is consistent with the *Ten Steps* and other regulatory or accreditation requirements.

A sequencing plan will help hospitals stay focused on their end goal. Not to be minimized, some steps may take more focus and may be difficult to implement.

Once the staff roster is created, training is to be initiated and completed within three to six months. Following training, staff will adopt practice changes such as Step 4, 5 and 7. For staff already trained, or those with higher levels of competency, PDSA cycles demonstrate how the practices support breastfeeding and optimal care. Most hospitals use Step 4 as first PDSA measure. This is because moms typically provide excellent positive feedback after experiencing skin-to-skin and it is a step for all mothers that is unrelated to the feeding plan.

To recognize cues, it is important that babies remain with their mothers, and once moms recognize cues, staff (not only the lactation consultants) need to be available and skilled in assisting and supporting breastfeeding. Avoiding pacifiers and bottles also will be easier if moms are using skin-to-skin while rooming in to provide continuous comfort and feeding on cue.

Step 6 involves not only avoidance of formula feeding for unnecessary reasons, but also examines correlated policies such as hypoglycemia and hyperbilirubinemia. Compliance under this step tracks formula usage, any influencing of payment of fair market value for formula, and eliminating marketing of all infant formula and related products. Using a tracking system such as Pixis or Omnicell enables accurate tracking and often results in minimizing unnecessary formula use. Automated tracking also provides a level of granularity at the staff level to ensure accountability for teaching about the risks of formula use and avoidance of unnecessary formula feedings.

STAFFING

Senior administrative leaders need to create a staffing plan that supports the practice changes that align with the *Ten Steps*. This does not necessarily mean that there needs to be a staffing increase; in fact some hospitals have streamlined their staffing needs because of “closing” the nursery and converting to couplet care. Instead, practices should be evaluated and adequate staffing with appropriately skilled individuals to ensure effective, safe patient care.

There should be adequate staff in the Labor and Delivery areas to continuously monitor the newborn while skin-to-skin in the immediate post-delivery phase. Staff can be cross-trained to provide both newborn and maternal care so they can float from unit to unit to cover areas of increased demand.

Quality improvement techniques such as LEAN process mapping and Kaizen events may help to assess staffing needs, personnel assignments and eliminate waste while improving safety.

Keeping mom and baby together during transitions from one unit to another will eliminate waste and time, and improve patient and family satisfaction. It is important that leadership recognize the demands of their units and the strengths and weakness of their staff in order to develop assignments that maximize productivity and job satisfaction while benefitting the process.

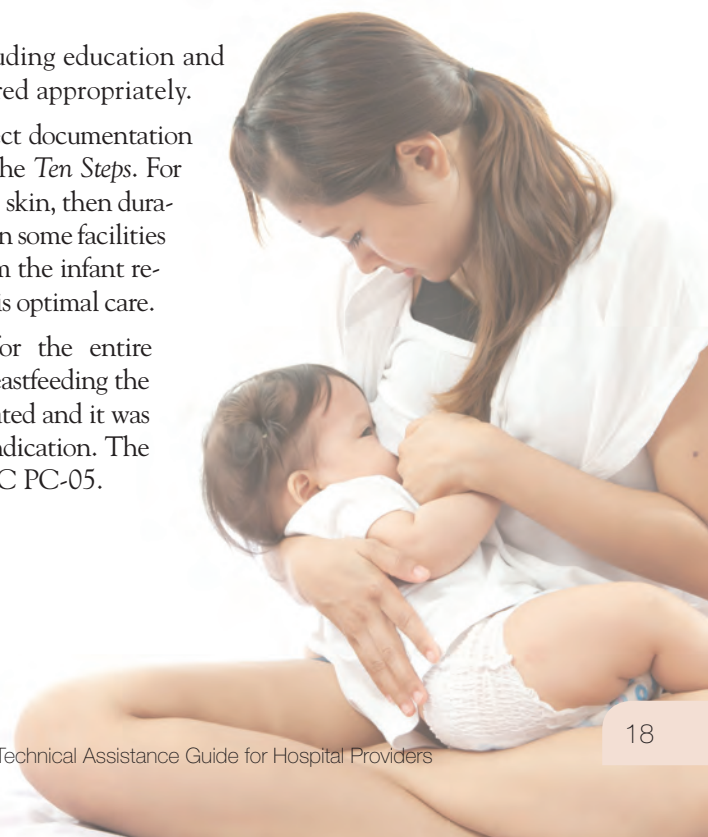
Transformational changes required to implement the *Ten Steps* sometimes involves major adjustments to the job descriptions of staff members. This may decrease job satisfaction initially and should be anticipated. Staff huddles, scripting and redefining job satisfaction will help with the transition of care.

CHARTING

Remember—if it isn’t charted, it wasn’t done. Charting care, including education and rationale for care, is essential to demonstrate that care was delivered appropriately.

If moms request formula, pacifiers or bottles, then the chart must reflect documentation that education was provided before providing care that goes against the *Ten Steps*. For Step 4, the chart must reflect time from birth to the initiation of skin to skin, then duration of skin to skin (or time when skin to skin was interrupted if at all). In some facilities there is no interruption and following skin to skin in the delivery room the infant remains skin to skin while both transition to the mother-baby unit. This is optimal care.

Breastfeeding rates also must be recorded, so that every feed for the entire delivery period is available to abstract from the chart. For exclusive breastfeeding the denominator may exclude mothers who chose formula and were educated and it was documented, as well as newborns who received formula for medical indication. The denominator also removes medical contraindications similar to TJC PC-05.



SAFETY CONSIDERATIONS FOR IMPLEMENTING THE TEN STEPS

The *Ten Steps* implemented in delivery hospitals and their affiliated clinics set the stage for the healthiest and safest method of caring for the mother-baby dyad. Numerous studies confirm that skin-to-skin care immediately following delivery provides the safest and healthiest transition during the neonatal period. Skin-to-skin care is also the safest method of transitioning the mother after delivery. Notwithstanding, there have been reports of sudden unexpected neonatal events, some of which result in death during skin-to-skin care. Therefore, the transition to Step 4 implementation must involve mechanisms that ensure safety. A stepwise protocol and simulation facilitates safe practices. The protocol should address drying, stimulation, position of initiating skin-to-skin, cord clamping, and other routine procedures such as assignment of APGAR scores and first examination. Methods to avoid nasal obstruction such as position of the infant's head and neck, and position of the mother, should be followed. Close observation by nursing staff is necessary to ensure safe transition during this period.

Additional safety concerns arise within the context of rooming-in and breastfeeding in the hospital bed. Hormones related to breastfeeding, fatigue, and sleeplessness all contribute to the possibility of mothers falling asleep while breastfeeding in the hospital bed.



It is important to advise mothers to ask for assistance, by using call buttons, support persons or staff assigned to their care if they want to sleep to aid in placing babies on a separate safe sleep surface. A risk-adjusted approach recognizing that certain mothers may be more likely to end up in hazardous situations and these mothers may require more supervision and monitoring.

At the time of discharge mothers and support persons should be guided to adopt safe sleep practices. These include recommendations for a shared sleep environment, back to sleep, separate sleep surface and pacifier use only after breastfeeding is established at around 4 weeks of life. The environment should also be smoke-free, and parents/caregivers should refrain from alcohol or other substances that would impact sleep safety.



Numerous studies confirm that skin-to-skin care immediately following delivery provides the safest and healthiest transition during the neonatal period. Skin-to-skin care is also the safest method of transitioning the mother after delivery.

While bed-sharing is not recommended it is well recognized that breastfeeding mothers often feed in bed and may fall asleep. To avoid suffocation during bed-sharing certain precautions may be taken such as avoidance of soft bedding, pillows, and edges where entrapment may occur.

Bed-sharing may be hazardous, but falling asleep on a couch or in a chair is even more hazardous, and night feedings on couches and in chairs are therefore not recommended. It is also important to note that bed-sharing may facilitate continued exclusive breastfeeding.

Continued research and guidelines developed by the Federal Work Group on Safe Sleep convened by the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) will help clarify best recommendations to guide safer sleep practices for breastfeeding mothers. This and other resources are available at <https://www.nichd.nih.gov/sts/Pages/default.aspx>.

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BEST FED BEGINNINGS MEASUREMENT STRATEGY

Overview

The table on the following page includes all measures that were collected during the BFB Collaborative, referred to as the Project “Family of Measures.” Some measures were modified based on learnings from the collaborative experience and it is noted below. For the baseline data collection, we required that 3 Outcome, 10 Process and 2 Structural measures be collected and reported. Sampling and reporting of process measure 3 and attestation measures were phased in later in the Collaborative. The operational definitions for each measure are below.

Each organization identified a data manager charged with monthly data collection and reporting to the Ilab. Where possible, the data manager was not the team leader.

Monthly Reporting

Each month, the team and designated data manager reviewed facility birth charts to determine appropriate data (as specified below) to enter into the NICHQ Improvement Lab (ILab). The graphs generated on ILab were intended to be shared with staff and used to track improvement patterns.

Each chart review was estimated to take approximately 6 minutes. Unless data was available electronically, it was highly recommended to incorporate the Chart Review Tool into their daily / weekly work to minimize the burden at the close of each month. A sampling method was used to reduce the burden of data collection and people were asked to base their sample on their knowledge of the process. For example, not to select 30 newborns from the same week /same shift since it would not be a representative sample.

Collect and report data on a **sample of 25% of the mother/baby dyads** who visited your facility in the **one month** prior to your data submission month.

- Monthly census is above 120 infants → submit **maximum of 30** charts
- Monthly census is below 40 infants → submit **minimum of 10** charts
- Monthly census is sufficiently small → use charts from the previous month to reach 10 infants

NOTE: When “Need for Medical Separation” is identified → collect and report data on **2 additional mother/baby dyads** where medical separation was necessary. These are **in addition to** the maximum 30 charts reviewed for process measures where those admitted to the neonatal Special Care Unit or Intensive Care Unit are excluded from denominator

Baby Friendly Project Aim/Outcome: By September 30, 2014, 100% of hospitals designated as Baby-Friendly or have a BFUSA site visit scheduled

Overview of Measures

Required Measures				Optional Measures
Structural Measures	Outcome Measures	Process Measures		Balancing Measures
		Initial Measures	Progression Measures in Closer to Designation Visit (after initial measures \geq 80%)	
Baby Friendly USA Self Assessment *	Exclusive Breastfeeding Rate	Prenatal Information on Benefits and Management of Breastfeeding	Mothers Attest to Receiving Prenatal Information on Benefits and Management of Breastfeeding	Patient and Family Satisfaction
CDC mPINC Survey *	Breastfeeding Babies Supplemented w/ Formula	Assistance and Support with Breastfeeding	Mothers Attest to Assistance and Support with Breastfeeding	
Baby Friendly Designation	Overall Breastfeeding Rate	Baby Skin to Skin (vaginal birth)	Mothers Attest to Baby Skin-to-Skin	
	Progress Towards Accomplishing <i>Ten Steps</i> *	Baby Skin to Skin (Cesarean birth)	Mothers Attest to Baby Skin-to-Skin	
		Rooming In	Mothers Attest to Rooming in with Infant	
		Feeding on Cue	Mothers Attest to Information on Feeding on Cue	
		Discharge Support	Mothers Attest to Receiving Discharge Support Information	

* These assessments or measures have associated tools.

Required Structured Assessment Measures

BFB Required Measurement Strategy				
Category	Label & Description	Assessment Methodology	Goal	Due
Structure Assessment	Baby Friendly USA Self Assessment	Baby Friendly's Self-Appraisal Tool is used by hospitals and birth centers entering the pathway to designation to appraise its practices in relation to the <i>Ten Steps to Successful Breastfeeding</i> . Its format supports facilities giving maternity care in completing an initial review of its policies and practices and evaluating progress toward optimal infant feeding processes and systems.	Identify areas for focus and progress towards achieving Baby Friendly Designation.	Annual/ Baseline
	CDC mPINC Survey	The Maternity Practices in Infant Nutrition and Care (mPINC) is a national survey of maternity care practices and policies that is conducted by the CDC every 2 years. The survey is mailed to all facilities with registered maternity beds in the United States and Territories. It is intended to help monitor and examine changes in breastfeeding practice over time and will help inform intrapartum care facilities, state public health departments and CDC programs as well as inform improvement work in hospitals.	Identify areas for focus.	Annual/ Baseline
	Baby Friendly Designation	Baby Friendly USA will make a scheduled site visit assessment to each participating hospital over the course of the collaborative and award Baby Friendly Designation to those meeting all of the requirements.	Achieve Baby Friendly designation	By September 30, 2014

Required Outcome and Process Measures

Category	Label & Description	Numerator (N) Denominator (D)	Collection & Reporting Methodology Note: Where appropriate, may want to stratify the data in variety of ways to inform improvement (e.g., race/ethnicity)	Goal	Due
Outcome Measures	BFB.01 Percentage of Newborns Fed Only Breast milk During the Newborn's Entire Hospitalization (TJC PC-05)	N = Total number of newborns fed breast milk only throughout hospital stay D = Total number of newborns eligible to exclusively breast milk feed according to The Joint Commission Perinatal Core Measure 05 (PC-05) <i>Note: This measure was modified based on learnings from the BFB collaborative. The revised measure is aligned with TJC measure PC-05.</i>	Each month, review hospital records for documentation of this information. Insert numerator and denominator (as specified in column to left) into the NICHQ ILab which will then be converted to a rate.	90%	Monthly (by 15 th of each month, data for the previous month should be posted)
	BFB.02 Percentage of Ever-Breastfed Newborns Supplemented with Formula at Any Time During the Hospital Stay	N = Total number of newborns fed both breast milk, formula and any other fluid (e.g., water, glucose water) throughout hospital stay D = Total number non-NICU, single term newborns discharged alive from the hospital during the measurement period doing any breastfeeding at any time during the hospital stay (babies fed only breast milk + total number babies fed breast milk and formula and other fluids (no contraindications and never admitted to the NICU) <i>Note: This measure was modified based on learnings from the BFB collaborative.</i>	Example: If 2 babies fed both breast milk and formula and 3 babies fed only breast milk then $100\% \times \frac{2}{3+2} = 40\%$ supplemented w/ formula.	10%	

Category	Label & Description	Numerator (N) Denominator (D)	Collection & Reporting Methodology Note: Where appropriate, may want to stratify the data in variety of ways to inform improvement (e.g., race/ethnicity)	Goal	Due
	BFB.03 Percentage of Newborns with Any Breastfeeding During the Hospital Stay	N = Total number of newborns who breastfed 1 or more times at any time during the hospital stay D= D = Total number of newborns eligible to exclusively breast milk feed according to The Joint Commission Perinatal Core Measure 05 (PC-05) <i>Note: This measure was modified based on learnings from the BFB collaborative. The revised measure is aligned with TJC measure PC-05</i>	Each month, review hospital records for documentation of this information. Insert numerator and denominator (as specified in column to left) into the NICHQ ILab which will then be converted to a rate.	90%	
Outcome Measures	BFB.04 Progress Towards Accomplishing Ten Steps	N/A	Hospitals complete and submit NICHQ's self assessment (based on the Ten Steps to Successful Breastfeeding) of progress towards achieving each of the Ten Steps.	50 Points	Quarterly
Process Measures-Quantitative	BFB P.1 Prenatal Breastfeeding Instruction Completed and Documented	N= Total number of mothers with documentation of prenatal receipt of instruction about the benefits and management of breastfeeding D= Total number of mothers delivering in the measurement period	Each month, review hospital records for documentation of this information. Insert numerator and denominator (as specified in column to left) into the NICHQ ILab which will then be converted to a rate.	90%	Monthly (by 15 th of each month, data for the previous month should be posted) Monthly (by 15 th of each month, data for the previous month should be posted)
	BFB P.2 Assistance and Support with Breastfeeding—No medical need for separation	N= Total number of breastfeeding mothers with documentation of breastfeeding assistance by trained care givers (taught positioning, latch, milk transfer and hand expression) D= Total number of breastfeeding mothers who delivered in the measurement period where separation was not medically indicated		90%	

Category	Label & Description	Numerator (N) Denominator (D)	Collection & Reporting Methodology Note: Where appropriate, may want to stratify the data in variety of ways to inform improvement (e.g., race/ethnicity)	Goal	Due
	BFB P.3 Assistance and Support with Breastfeeding-Medical need for separation (*Not part of baseline data—phased in after LS1)	N= Total number of mothers separated from their baby, who are breastfeeding or intending to do so, instructed in expressing and collecting milk begun within 3 hours and no later than 6 hours of birth D= Total number of breastfeeding mothers who delivered in the measurement period month who are required to be separated from their infants. Excluding mothers with medical contraindications to education or milk expression		90%	
Monthly Process Measures--Quantitative	BFB P.4 Baby Skin to Skin (vaginal birth)	N= Total number of mothers delivering vaginally during the measurement period month w/ documented skin-to-skin contact w/in 5 minutes of birth for at least one hour and through first feeding (if breastfeeding) or for at least one hour (if not breastfeeding) D= Total number of mothers who delivered vaginally in the measurement period month where there were no medically justifiable reasons for delayed contact	Each month, review hospital records for documentation of this information. Insert numerator and denominator (as specified in column to left) into the NICHQ ILab which will then be converted to a rate.	90%	Monthly (by 15 th of each month, data for the previous month should be posted)
	BFB P.5 Baby Skin to Skin (Cesarean birth)	N= Total number of mothers delivering cesarean during measurement period month w/ documented skin-to-skin contact following the birth as soon as medical conditions stable (mother awake & alert, baby without medical contraindications) through first feeding and for at least one hour (if breastfeeding) or for at least one hour (if not breastfeeding) D= total number of mothers delivered by cesarean in the measurement period month where there were no medically justifiable		90%	

Category	Label & Description	Numerator (N) Denominator (D)	Collection & Reporting Methodology Note: Where appropriate, may want to stratify the data in variety of ways to inform improvement (e.g., race/ethnicity)	Goal	Due
		reasons for delayed contact			
	BFB P.6 Rooming In	N= Total number of infants during measurement period month documented as rooming in with mothers at least 23 of every 24 hours as soon as mother was responsive and alert D=Total number of infants in measurement period month where separation was not medically indicated		90%	
Monthly Process Measures--Quantitative	BFB P.7 Feeding on Cue	N= Total number of mothers delivering w/in measurement period month documented as having received education about feeding on cue (encouraged to feed as often and as long as the babies wanted) D= Total number of mothers who delivered in the measurement period month where separation was not medically indicated	Each month, review hospital records for documentation of this information. Insert numerator and denominator (as specified in column to left) into the NICHQ ILab which will then be converted to a rate.	90%	Monthly (by 15 th of each month, data for the previous month should be posted)
	BFB P.8 Discharge Support	N= Total number of breast feeding mothers d/c w/in the measurement period with documentation of receiving a referral to community support (e.g., WIC, Lactation Consultant, Support Group, Peer Group) with which the hospital has a relationship D=Total number of breastfeeding mothers discharged w/in the measurement period month		90%	

Category	Label & Description	Numerator (N) Denominator (D)	Collection & Reporting Methodology Note: Where appropriate, may want to stratify the data in variety of ways to inform improvement (e.g., race/ethnicity)	Goal	Due
Process Measures--Qualitative	BFB P.1a Prenatal Breastfeeding Instruction Completed	N=Number of pregnant mothers who report having received prenatal instruction about the benefits and management of breastfeeding and can recall at least two topics covered D= Total number of pregnant mothers surveyed during measurement period	Post Learning Session 2 (where qualitative data introduced), randomly survey 10 breastfeeding mothers using appropriate Baby Friendly USA Audit Tool ¹ . Report, qualitatively in the Team Assessment Space on the ILab Team Page, the % of mothers who responded favorably by Step. <i>Notes: These measures apply to hospitals with and without a prenatal affiliated clinic or services as the hospital is still responsible for fostering in-house and/or community based programs to cover the benefits and management of breastfeeding. Original measurement plan was for hospitals to start audits once process measures were at $\geq 80\%$ but learned that audits should start earlier and be used in conjunction with quantitative data to inform improvements. Original plan was to have hospitals report numerators and denominators but opted for qualitative because of reported burden to hospitals to report but would recommend revisiting for future collaboratives.</i>	90%	Monthly (by 15 th of each month, data for the previous month should be posted)
	BFB P.2a Assistance and Support with Breastfeeding—No Medical Need for Separation	N= Number of breastfeeding mothers (including those who have had cesarean births) who report receiving breastfeeding assistance by trained care givers (taught positioning, latch, and milk transfer) D= Total number of breastfeeding mothers surveyed who delivered in the measurement period month where separation was not medically indicated		90%	
	BFB P.3a Assistance and Support with Breastfeeding-Medical need for separation	N= Number of breastfeeding mothers separated from their baby, who are breastfeeding or intending to do so, surveyed who report being instructed in expressing and collecting milk begun within 3 hours and no later than 6 hours of birth D= Total number of breastfeeding mothers surveyed who delivered in the measurement period month who were required to be separated from their infants		90%	

¹ Baby Friendly USA has companion audit tools for each of the *Ten Steps*. Use of the Baby Friendly audit tools does not guarantee that facilities receive the Baby-Friendly designation. However, they are helpful tools when measuring progress toward implementing all of the change and quality improvement activities necessary to achieve the designation.

Category	Label & Description	Numerator (N) Denominator (D)	Collection & Reporting Methodology Note: Where appropriate, may want to stratify the data in variety of ways to inform improvement (e.g., race/ethnicity)	Goal	Due
Process Measures-Qualitative	BFB P.4a Baby Skin to Skin (vaginal birth)	N= Number of mothers surveyed delivering vaginally during the measurement period month, who report skin-to-skin contact immediately following delivery (at least w/in 5 minutes of birth for at least one hour and through first feeding if breastfeeding or for at least one hour if not breastfeeding) D= Total number of mothers surveyed who delivered vaginally in the measurement period month where there were no medically justifiable reasons for delayed contact	Post Learning Session 2 (where qualitative data introduced), randomly survey 10 breastfeeding mothers using appropriate Baby Friendly USA Audit Tool ² . Report, qualitatively in the Team Assessment Space on the ILab Team Page, the % of mothers who responded favorably by Step. <i>Notes: These measures apply to hospitals with and without a prenatal affiliated clinic or services as the hospital is still responsible for fostering in-house and/or community based programs to cover the benefits and management of breastfeeding. Original measurement plan was for hospitals to start audits once process measures were at $\geq 80\%$ but learned that audits should start earlier and be used in conjunction with quantitative data to inform improvements. Original plan was to have hospitals report numerators and denominators but opted for qualitative because of reported burden to hospitals to report but would recommend revisiting for future collaboratives.</i>	90%	Monthly (by 15 th of each month, data for the previous month should be posted)
	BFB P.5a Baby Skin to Skin (Cesarean birth)	N= Number of mothers surveyed delivering cesarean during measurement period month who report skin-to-skin contact following the birth as soon as medical conditions stable (mother awake & alert, baby without medical contraindications) through first feeding and for at least one hour (if breastfeeding) or for at least one hour (if not breastfeeding) D= Total number of mothers surveyed who delivered by cesarean in the measurement period month where there were no medically justifiable reasons for delayed contact		90%	

² Baby Friendly USA has companion audit tools for each of the *Ten Steps*. Use of the Baby Friendly audit tools does not guarantee that facilities receive the Baby-Friendly designation. However, they are helpful tools when measuring progress toward implementing all of the change and quality improvement activities necessary to achieve the designation.

Category	Label & Description	Numerator (N) Denominator (D)	Collection & Reporting Methodology Note: Where appropriate, may want to stratify the data in variety of ways to inform improvement (e.g., race/ethnicity)	Goal	Due
Process Measures--Qualitative	BFB P.6a Rooming In	N= Total number of mothers surveyed who report their infants stayed with them in the same room during their stay (at least 23 out of 24 hours each day unless there are justifiable reasons for longer separation) as soon as soon as mother responsive and alert D= Number mothers surveyed who delivered in the measurement period month	Post Learning Session 2 (where qualitative data introduced), randomly survey 10 breastfeeding mothers using appropriate Baby Friendly USA Audit Tool ³ . Report, qualitatively in the Team Assessment Space on the ILab Team Page, the % of mothers who responded favorably by Step.	90%	Monthly (by 15 th of each month, data for the previous month should be posted)
	BFB P.7a Feeding on Cue	N= Number of mothers surveyed delivering w/in measurement period month reporting having received education about feeding on cue (encouraged to feed as often and as long as the babies wanted) D= Total number of mothers surveyed who delivered in the measurement period month where separation not medically indicated	<i>Notes: These measures apply to hospitals with and without a prenatal affiliated clinic or services as the hospital is still responsible for fostering in-house and/or community based programs to cover the benefits and management of breastfeeding. Original measurement plan was for hospitals to start audits once process measures were at ≥ 80% but learned that audits should start earlier and be used in conjunction with quantitative data to inform improvements. Original plan was to have hospitals report numerators and denominators but opted for qualitative because of reported burden to hospitals to report but would recommend revisiting for future collaboratives.</i>	90%	
	BFB P.8a Discharge Support	N= Number of breastfeeding mothers surveyed that report receiving a referral to community support (e.g., WIC, Lactation Consultant, Support Group, Peer Group) with which the hospital has a relationship D=Total number of breastfeeding mothers surveyed who were discharged w/in the measurement period month		90%	

³ Baby Friendly USA has companion audit tools for each of the *Ten Steps*. Use of the Baby Friendly audit tools does not guarantee that facilities receive the Baby-Friendly designation. However, they are helpful tools when measuring progress toward implementing all of the change and quality improvement activities necessary to achieve the designation.

Optional Measures

Category	Label & Description	Assessment Methodology	Goal	Due
Balancing measures	Patient Experience (HCAHPS composite score)	For Labor and Delivery Unit, percent of respondents that respond 9 or 10 to the following question, "Using any number from 0 to 10 where 0 is the worst hospital possible, what number would you use to rate this hospital during your stay?"	Identify areas for focus.	Ongoing
	Patient Satisfaction-- Customized Measures	Provide a place for an operational definition and numerator/denominator for a custom measure--a place for hospitals to report on a measure of their choice. e.g., Of a random number of mothers surveyed, number that indicated they "strongly agree" that they got the assistance and supported with breastfeeding that they needed to prepare them for breastfeeding at home.	Identify areas for focus.	Ongoing



BECOMING BABY FRIENDLY HOSPITAL: INSTITUTIONAL CHANGE AND BUY IN



Becoming a Baby Friendly Hospital: Institutional Change and Buy-in

Lori Feldman-Winter, MD, MPH
Professor of Pediatrics
Children's Regional Hospital at Cooper
UMDNJ-RWJMS

Disclosure

- I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.
- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

Objectives

- Understand institutional policies/practices that encourage or discourage breastfeeding
- Describe how industry has influenced hospital practices related to infant feeding
- List the WHO/UNICEF 10 Steps
- Be familiar with PDSA cycle for improvement and Process of Change

Why Change?

"Once you bring life into this world, you must protect it. We must protect it by changing the world."

Elie Weisel



Why Change?

- Researchers at Boston Medical Center, the nation's 22nd Baby-Friendly hospital, have reported that during the implementation of the BFHI, breastfeeding rates rose from 58 percent to 87 percent, including an increase among US-born African-American mothers from 34 percent to 74 percent in 1999.

Philipp BL et al. 2001. Baby-Friendly Hospital Initiative Improves Breastfeeding Initiation Rates in a US Hospital Setting. Pediatrics 108(3):677-681.

Why Change?

- CDC surveyed 1000 women about Ten Steps.
- Only 7 % of mothers surveyed experienced all five steps surveyed.
- Mothers who experienced none of the steps were nearly 8 X more likely to discontinue breastfeeding before 6 weeks postpartum.
- The more steps that mothers experienced, the greater the likelihood of continuation of breastfeeding at and beyond 6 weeks postpartum.
- The strongest risk factors for early breastfeeding termination were late breastfeeding initiation and supplementation of the baby.

DiGirolamo AM, LM Grummer-Strawn, S Fein. 2001. Maternity care practices: implications for breastfeeding. Birth 28:94-100.

Film

“Bottles to Breasts”

Boston Medical Center
Adopting the BFHI

The Ten Steps (Condensed)

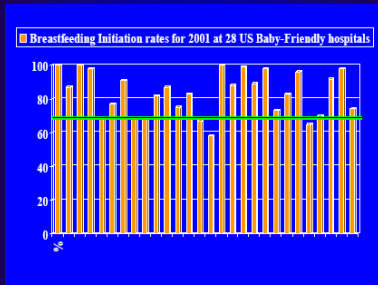
1. Written breastfeeding policy
2. Train people to implement
3. Inform pregnant women about choices
4. Initiate breastfeeding within 1 hour
5. If separated, maintain lactation

The Ten Steps (Condensed)

6. If mother chooses to breastfeed, then breastfeed *
7. Rooming-in
8. Breastfeeding on-demand
9. No pacifiers
10. Support groups

* Pay for formula

Baby Friendly Increases Rates



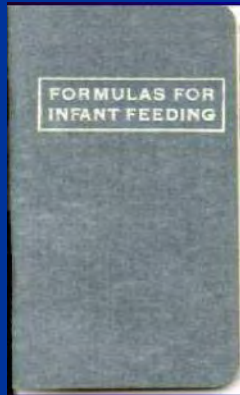
• Breastfeeding rates in US Baby-Friendly hospitals: results of a national survey Merewood et al Pediatrics 2006 116(3)

Why we do what we do?
Best for moms? Best for babies?
Or....

- Tradition/Ingrained routines (Nursery)
- Fear of Change, that something will go wrong (Litigation)
- Practical barriers (Secretary)
- Money/gifts from formula companies
- Formula company reps are nice guys

Barriers to Baby Friendly

1. "Paying for the formula"
2. "Staff education"
3. "Rooming-in"
4. Yours?...Formula, Formula, Formula



Early 1900s USA

- Doctors customized artificial milk using a formula
- Thus the name

$$M = \frac{Qb - bC}{b} \quad C = \frac{L(b^1 F - a^1 P)}{ab^1 - a^1 b} \quad C = (2F + S + P) \times 1\frac{1}{4}Q$$

15 Highly-complicated formula used in infant feeding (Cited in Jelliffe, *Human Milk in the Modern World*)

But Big Problems...

- 74% of infant deaths 2 wk – 1 year bottle fed
- Breastfeeding all infants would have reduced IM from 127/1000 to 71/1000
- Deaths among bottle fed infants "jumps up tremendously" -July-Sept
- Bottle fed infant >2 weeks 6 X more likely to die than breastfed infant

William Davis, MD, Boston Medical and Surgical Journal. Feb. 15, 1912

Once the Product Improved the Market Increased

- \$6-8 billion sales around the world per year
- \$2.5 billion in the US
- "Vigorous growth" in the market 1999-2004

The Business of Pharmaceutical Marketing

- \$11 billion per year for marketing and promotion of products
- \$5 billion for sales force
- \$8,000-\$13,000 per year per doctor!

Wazana A. Physicians and the Pharmaceutical Industry:
Is a Gift ever just a Gift? *JAMA* 2000;282(3):373-380

1955 Ad





Ross Employee Manual

"Never underestimate the role of nurses. If they are sold and serviced properly they can be strong allies. A nurse who supports Ross is like another salesman."

Enfamil Lipil "Even Closer to Breast Milk"



Paying for the formula

- How much does it really cost?
- What are you actually paying for?
- NICU is the most expensive area.
- Count the bottle caps

Paying for the Formula

- "Market value"
- 1c per bottle?
- Around 15c per bottle
- Do you need water? Glucose water?
- Only worry about maternity areas....

Paying for the formula

- Is it ethical to take free products?
- Is it ethical to give women a nutritionally inferior product and imply hospital or "medical expert" endorsement?

ROSS		JEN		CASE	
		SUMMER		PRICE	
February 26, 1995		94071	Simula 22 - 400 RB	No Change	
Charles Mott		94080	Simula 22 - 400 RB	No Change	
Director of Medical Management		94084	Simula 24 - 400 RB	No Change	
Mottman Health Care, Inc.		94077	Simula 27 - 400 RB	No Change	
Boston Medical Center		94072	Simula 27 - 400 RB	No Change	
85 East Newton Street		94070	Simula 27 - 400 RB	No Change	
Boston, MA 02118		94071	Simula 27 - 400 RB	No Change	
From Mr. Mott:		94071	Simula 27 - 400 RB	No Change	
Enclosed you will find a listing of product is the Ross Hospital Formula		94071	Simula 27 - 400 RB	No Change	
System. Effective immediately, the following products will be no charge. All		94071	Simula 27 - 400 RB	No Change	
pricing agreements are subject to pricing agreements between Ross		94071	Simula 27 - 400 RB	No Change	
Products/Division about Laboratory, and the General Surgery Group. The Formula		94071	Simula 27 - 400 RB	No Change	
system pertaining to Formula Systemically will take products that are within		94071	Simula 27 - 400 RB	No Change	
agreements between Ross Products and the Boston Medical Center. The pricing		94071	Simula 27 - 400 RB	No Change	
agreements will be effective as of 11:59 a.m. on February 1, 1995 to January		94071	Simula 27 - 400 RB	No Change	
31, 1995.		94071	Simula 27 - 400 RB	No Change	
For more than 20 years, Ross Products Division, Abbott Laboratories, has been		94071	Simula 27 - 400 RB	No Change	
supplying hospital materials and related formulae to the staff, physicians and administrators		94071	Simula 27 - 400 RB	No Change	
of hospitals. We have developed a reputation for quality, reliability and service.		94071	Simula 27 - 400 RB	No Change	
Today, we are providing better products to meet special hospital needs, while		94071	Simula 27 - 400 RB	No Change	
providing personal and responsive service to assist the hospital-based health care		94071	Simula 27 - 400 RB	No Change	
professionals.		94071	Simula 27 - 400 RB	No Change	
Since their introduction in 1971, Simula (Ross Formula) have continued to		94071	Simula 27 - 400 RB	No Change	
evolve through constant research and development. Our commitment to providing		94071	Simula 27 - 400 RB	No Change	
superior materials, products that deliver the quality of care in patient in clinical		94071	Simula 27 - 400 RB	No Change	
product improvements. Adjustments (add or delete) products, formulas, when		94071	Simula 27 - 400 RB	No Change	
formulas, products, formulas and other products systems have enabled us to		94071	Simula 27 - 400 RB	No Change	
provide our customers health care for a variety of reasons.		94071	Simula 27 - 400 RB	No Change	
The Ross Hospital Formula System provides an opportunity to		94071	Simula 27 - 400 RB	No Change	
provide health care professionals in the area of patient and medicine. We provide an		94071	Simula 27 - 400 RB	No Change	
opportunity to meet the needs of your profession's changing needs with products supported		94071	Simula 27 - 400 RB	No Change	
by scientific research.		94071	Simula 27 - 400 RB	No Change	
We at Ross would like to take this opportunity to bring you up to date with the		94071	Simula 27 - 400 RB	No Change	
latest products and formulas that Ross Products has available to your Organization.		94071	Simula 27 - 400 RB	No Change	
Enclosed, in Ross Hospital Formula, and Product Comparison.		94071	Simula 27 - 400 RB	No Change	

The real cost per year??

\$72,000

Or

\$16,000

Decision to pay for formula
"because it is the right thing to
do."



Rooming-In...Empty Nursery



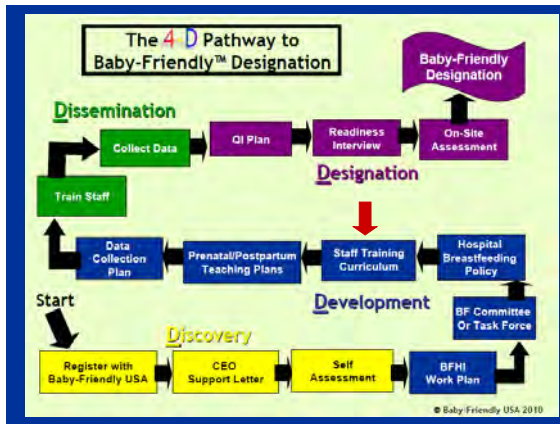
Rooming in versus "Sleep"

	Nursery N=10	Room In N=11	Significance
Ave hrs sleep	5.35	5.55	NS
Mean quality of sleep	4.78	5.23	NS
Sleep Rx	7/10	0/11	P<0.05

Keefe. JOGN Nursing. Mar/Apr 1988:122-128

- Most un-Baby-Friendly practices are not evidence based
- Change is Scary
- Not all change = short term \$\$ gain

- Baby-Friendly practices are evidence based
- Can save long term \$\$
- BEST for BABIES and MOMS!



Getting Started



Policy Vs Law

Policy

- Wise management
- A principle, plan, etc

Law

- All the rules of conduct established by the authority or custom of a nation


Institutional policies

- Prenatal care and education
- Post delivery policies
- Rooming-in policies
- Feeding times
- Supplementation with infant formula or glucose water
- Pacifiers
- Discharge gift packs

Institutional Policies

- Follow-up care
- Maternal infant separation
- Leave from employment
- Accommodation for BF in the workplace
- Insurance coverage for BF services

A Place to Find Policies

- Academy of Breastfeeding Medicine: 
www.bfmed.org
 - List of 21 protocols in multiple languages
 - Examples: model hospital policy, hypoglycemia, supplementation, going home, mastitis, NICU follow up, peri-partum support.
- AAP Section on Breastfeeding has a general hospital policy for breastfeeding
 - http://www.aap.org/breastfeeding/curriculum/documents/pdf/Hospital%20Breastfeeding%20Policy_FINAL.pdf



- ACOG Bulletin

Leading Change

FOCUS
ON THE
THE TARGET



- Ten Steps

BFHI USA
Implementing the UNICEF/WHO
Baby Friendly Hospital Initiative in the U.S.

- Identify Barriers



Zubialde JP. Leading change versus managing care: The role of the change agent in family medicine, Fam. Med 2001; 33(2): 133-6

Concepts for Change



- **Eliminate Unnecessary Supplementation**

- **Train Staff**

- **In -hospital supports**
 - Policies: The Ten Steps
 - Charting
 - Culture and Environment

- **Track results**

Leading Change

SPECULATIONS



- Costs
 - Formula
 - Training
 - Kick backs
 - Staffing

Zubialde JP. Leading change versus managing care: The role of the change agent in family medicine, Fam. Med 2001; 33(2): 133-6

Leading Change (cont.)

SPECULATIONS



- Time
 - Training
 - Data Collection
 - Surveillance

Zubialde JP. Leading change versus managing care: The role of the change agent in family medicine, Fam. Med 2001; 33(2): 133-6

Leading Change Role of the Manager Vs Change Agent

MANAGER

- focus on problems
- problems may be solved by throwing resources at them

CHANGE AGENT

- focus on issues
- issue stems from the dynamic concept of flow and interconnectedness
- Need relational leadership understand change process

Zubialde JP. Leading change versus managing care: The role of the change agent in family medicine, Fam. Med 2001; 33(2): 133-6

Tools for Change Agents

- Move to Goal-directed Rather than Problem-directed Models of Care
- Build interdisciplinary team approach to care that fosters collaboration, communication, and networking



Zubialde JP. Leading change versus managing care: The role of the change agent in family medicine, Fam. Med 2001; 33(2): 133-6

Improvement and Change: a systems view

- **Not all change is improvement, but all improvement is change**
- **Central law of improvement** (every system is perfectly designed to achieve the results it achieves)
- Performance is a matter of design not of effort
- Change of a system not change in a system

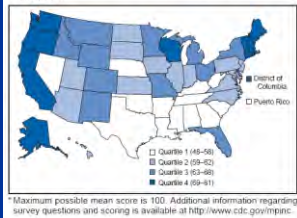
Berwick DM. A primer on leading the improvement of systems. BMJ 1996; 312:619-22

2007 CDC National Survey of Maternity Practices in Infant Nutrition and Care (mPINC)

- National survey of U.S. hospitals (n=3,143) and birth centers (n=138); 82% response rate
- 52 questions regarding maternity practices, training, personnel, policy, and facility characteristics; **Mean score=63**
- 24% of birth facilities reported supplementing more than half of healthy, full-term, breastfed newborns
- 70% of facilities reported providing discharge packs containing infant formula samples to breastfeeding mothers

Regional Variation of mPINC Scores

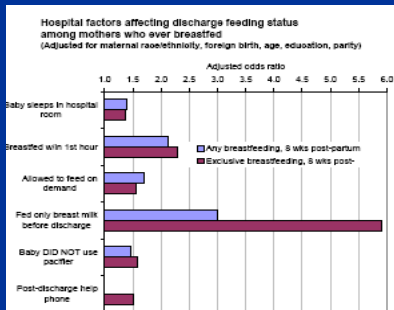
FIGURE. Mean total maternity practice scores,* by quartile — Maternity Practices in Infant Nutrition and Care Survey, United States, 2007



NJ:
46 (77%) hospitals
responded
mean score=60
Lowest scores for
Discharge and L&D

CDC. Maternity Practices in Infant Nutrition and Care.
MMWR Morb Mortal Wkly Rep. 2008 Jun 13;57(23):621-5

NJ PRAMS Tracks Hospital Practices and The Effect on BF at 8 Weeks



Provide an Environment that Portrays Breastfeeding as the Norm

Structured Education	Level I	Good evidence: A	Antenatal education increases rates
Discharge packs	Level I	Good evidence against: D	Eliminate discharge packs
Peer support in labor (doula)	Level I	Fair evidence for use: B	Doula may enhance initiation

Guise JM Annals of Family Medicine. 2003;1:70-78

Breastfeeding in the DR

- Uninterrupted skin to skin for at least the first hour after life.
- AHRQ: Level IIa evidence; good
- AAP Policy: Initiate in the first hour; keep newborn and mother together in recovery and after; avoid unnecessary oral suctioning; avoid traumatic procedures.



Righard A; Lancet 1990

Stages of change

- To cope with change effectively, organizations must consciously and constructively deal with human emotions associated with it
- Change as a kind of death
- 10 stages of change

Perleman D, Takacs GJ. The 10 Stages of Change. Nursing Management 1990; 21:33-38

Stage 1 - Equilibrium

Characteristics/Symptom Interventions

- | | |
|---|---|
| <ul style="list-style-type: none"> • High energy level • Emotional and intellectual balance • Sense of inner peace with personal and professional goals in sync. | <ul style="list-style-type: none"> • Make employees aware of changes that will impact the status quo |
|---|---|

Stage 2 - Denial

Characteristics/Symptoms Interventions

- | | |
|---|--|
| <ul style="list-style-type: none"> • Energy is drained • Employees experience negative changes in health, emotional balance, logical thinking, and normal behavior patterns | <ul style="list-style-type: none"> • employ active listening skills be empathetic, avoid isolation • stress management |
|---|--|

Stage 3 - Anger

Characteristics/Symptom Interventions

- Energy is used to actively resist change by blaming others
- Frustration, anger, rage, and envy become visible
- Recognize the symptoms and legitimize employees' feelings
- Active listening, assertiveness, and problem solving skills needed by management

Stage 4 - Bargaining

Characteristics/Symptoms Interventions

- Energy is used to attempt to eliminate change
- "Bargains" are unrealistic and designed to compromise the change out of existence.
- Search for real needs/problems and bring them into the open.
- Explore ways of achieving desired changes through conflict management skills

Stage 5 - Chaos

Characteristics/Symptoms Interventions

- Diffused energy, feelings of powerlessness, insecurity, sense of disorientation.
- Loss of identity and direction. Value system and beliefs breakdown
- Quiet time for reflection
- Approval of being in a state of flux

Stage 6 - Depression

Characteristics/Symptoms

- No energy left to produce results.
- Former defense mechanisms no longer operable
- Self-pity, remembering past, expressions of sorrow, feeling nothingness.

Interventions

- Provide necessary information in a timely fashion
- Long-term patience, take one step at a time as employees learn to let go.

Stage 7 - Resignation

Characteristics/Symptom Interventions

- Energy expended in passively accepting change
- lack of enthusiasm
- Allow employees to move at their own pace

Stage 8 - Openness

Characteristics/Symptom

- Availability to renewed energy
- Willingness to expend energy on what has been assigned to individual

Interventions

- Patiently explain again, in detail, the desired outcome

Stage 9 - Readiness

Characteristics/Symptoms

- Willingness to expend energy in exploring new events
- Reunification of intellect and emotions begins

Interventions

- Assume a directive management style: assign tasks, monitor tasks and results so as to provide direction and guidelines

Stage 10 - Re-emergence

Characteristics/Symptoms

- Rechanneled energy produces feelings of empowerment and employees become more proactive.
- Rebirth of growth and commitment

Interventions

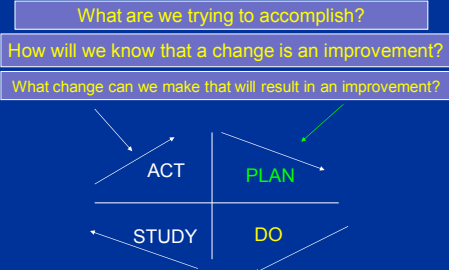
- Mutual answering of questions.
- Redefinition of career, mission and culture.
- Mutual understanding of role and identity.

Road to Improvement



Berwick DM. A primer on leading the improvement of systems. BMJ 1996; 312:619-22

A model for improvement



Langley GJ, Nolan KM, Nolan TW: The foundation of improvement. Silver Spring, MD: API Publishing, 1992

The Plan-Do-Study-Act (PDSA) cycle

- Describes inductive learning- the growth of knowledge through making changes and then reflecting on the consequences of those changes
- Cycle may be part of daily normal activities in the workplace
- AIMS are "SMART"

Berwick DM. A primer on leading the improvement of systems. BMJ 1996; 312:619-22

Lessons about Setting Aims

- Be specific
- Leaders bear the obligation to clarify aims
- Make aims interdisciplinary
- Repeat clarification of aims
- Make aims ambitious
- Make aims matter to society

Berwick DM. A primer on leading the improvement of systems. BMJ 1996; 312:619-22

Lessons About Measurement

- Measurement is important to learning
- Avoid the search for the perfect measurement

How do we measure this?



Berwick DM. A primer on leading the improvement of systems. BMJ 1996; 312:619-22

Identify Acceptable Medical Reasons for Use of Breast-milk Substitutes



Hospitals seeking Baby-Friendly designation are required to document medical reasons for supplementation, as well as the route and type of supplementation.

Supplements: INFANT CONDITIONS

Infants who should not receive breast milk or any other milk except specialized formula

- ☐ Infants with classic galactosemia: a special galactose-free formula is needed.
- ☐ Infants with maple syrup urine disease: a special formula free of leucine, isoleucine and valine is needed.
- ☐ Infants with phenylketonuria: a special phenylalanine-free formula is needed (some breastfeeding is possible, under careful monitoring).

Infants for whom breast milk remains the best feeding option but who may need other food in addition to breast milk for a limited period

- ☐ Infants born weighing less than 1500 g (very low birth weight).
- ☐ Infants born at less than 32 weeks of gestation (very preterm).
- ☐ Newborn infants who are at risk of hypoglycemia by virtue of impaired metabolic adaptation or increased glucose demand (such as those who are preterm, small for gestational age or who have experienced significant intrapartum hypoxic/ischaemic stress, those who are ill and those whose mothers are diabetic if their blood sugar fails to respond to optimal breastfeeding or breast-milk feeding).

Supplements: MATERNAL CONDITIONS

Maternal conditions that may justify permanent avoidance of breastfeeding

- HIV infection: if replacement feeding is acceptable, feasible, affordable, sustainable and safe (AFASS). Otherwise, exclusive breastfeeding for the first six months is recommended.

Maternal conditions that may justify temporary avoidance of breastfeeding

- Severe illness that prevents a mother from caring for her infant, for example sepsis.
- Herpes simplex virus type 1 (HSV-1): direct contact between lesions on the mother's breasts and the infant's mouth should be avoided until all active lesions have resolved.
- Maternal medication:
 - sedating psychotherapeutic drugs, anti-epileptic drugs and opioids and their combinations may cause side effects such as drowsiness and respiratory depression and are better avoided if a safer alternative is available;
 - radioactive iodine-131 is better avoided given that safer alternatives are available - a mother can resume breastfeeding about two months after receiving this substance;
 - excessive use of topical iodine or iodophors (e.g., povidone-iodine), especially on open wounds or mucous membranes, can result in thyroid suppression or electrolyte abnormalities in the breastfed infant and should be avoided;
 - cytotoxic chemotherapy requires that a mother stops breastfeeding during therapy.

Joint Commissions Defined EBMF

Perinatal Care Core Measure Set
Last Updated 1/2010

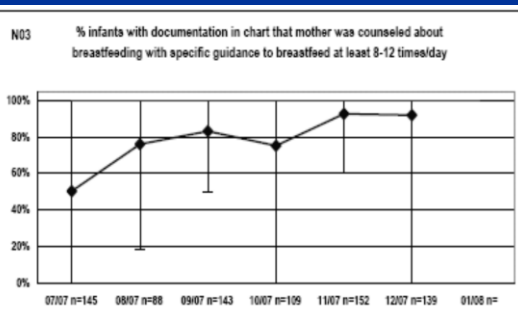
- Elective delivery
- Cesarean section
- Antenatal steroids
- Health care-associated bloodstream infections in newborns
- **Exclusive breast milk feeding**



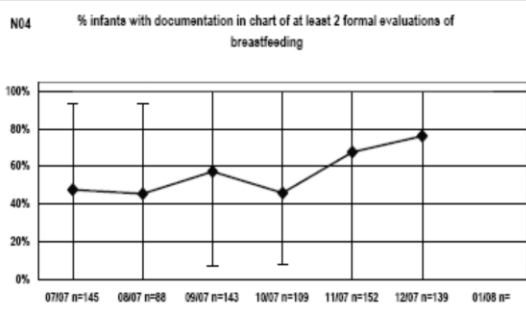
Defined Potential Methods to Collect Data

- 1) Discharge summary
- 2) Feeding flow sheets
- 3) Individual treatment plans
- 4) Intake and output sheets
- 5) Nursing notes
- 6) Physician progress notes

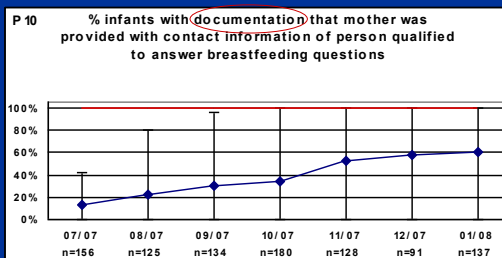
Example of Aim Adopting Step 5: Show Moms How



Document That You Did It



Step 10: Increase number of mothers given contact info at D/C



Learn



Faculty Development Train the Trainer

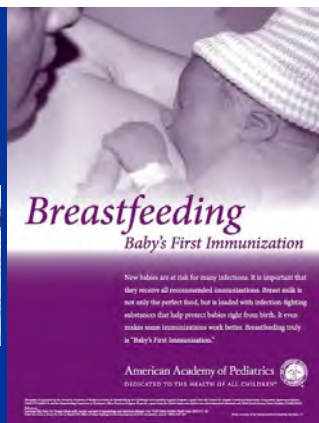


Photo courtesy of Jane Morton, MD

Eliminate



Decorate



Comparison of Old and New Formula Packages for Infants

Maximum Similac or Isomil Powdered Formula Allowed (12.9 oz. Cans)



Age of Infant	OLD Pkg Fully Formula Fed	NEW Pkg Fully Formula Fed	OLD Pkg Partially Breastfed	NEW Pkg Partially Breastfed
0-30 days	9 cans	9 cans	Up to 9 cans	Up to 1 can
1-3 mos.	9 cans	9 cans	Up to 9 cans	Up to 4 cans
4-5 mos.	9 cans	10 cans	Up to 9 cans	Up to 5 cans
6-11 mos.	9 cans	7 cans	Up to 9 cans	Up to 4 cans

Revised Food Packages for Infants



- Complementary foods delayed to 6 months
- Juice eliminated
- 24 ounces of infant cereal provided
- Baby food fruits and vegetables added for all infants after 6 months of age
 - fully formula fed and partially breastfed infants receive 32 - 4 oz jars per month
 - fully breastfed infants receive 64 - 4 oz jars per month
- 31 - 2.5 oz jars of baby food meat added for fully breastfeeding babies after 6 months of age

HHS Blueprint for Action on Breastfeeding DHHS, OWH, 2000

Physical Contact

Strongly encouraging	Encouraging	Discouraging	Strongly Discouraging
Put baby to breast immediately Baby not taken from mother after delivery Women helped by staff to suckle baby in recovery room, not only in nursery	Staff sensitive to cultural norms and expectations of a women	Scheduled feedings regardless of mother's wishes	Mother infant separation Mother-infant housed on separate floors Mother separated from baby due to bilirubin problem No rooming in policy

US DHHS. HHS Blueprint for Action on Breastfeeding. Washington DC: USDHHS, Office of Women's health, 2000.

HHS Blueprint for Action on Breastfeeding DHHS, OWH, 2000

Non-verbal Communication

Strongly encouraging	Encouraging	Discouraging	Strongly Discouraging
Staff (doctors and nurses) give reinforcement for breastfeeding (respect, smiles, affirmation) Nurses (or any attendant) making mother comfortable and helping to arrange baby at breast Woman sees others breastfeeding in hospital	Pictures of women breastfeeding Literature on breastfeeding in understandable terms Closed circuit TV in hospital on breastfeeding	Pictures of women bottle feeding Staff interrupts breastfeeding for labs, tests, etc. Woman doesn't see others breastfeeding	Woman given infant formula literature, formula sample pack, and infant food literature Woman sees official-looking nurses authoritatively caring for infants by bottle feeding formula (leads to woman's insecurities regarding own capability of care)

HHS Blueprint for Action on Breastfeeding DHHS, OWH, 2000

Verbal Communication

Strongly encouraging	Encouraging	Discouraging	Strongly Discouraging
Staff initiates discussion about woman's intention to breastfeed (pre and post-partum) Staff encourages and reinforces breastfeeding immediately in L&D Staff discusses use of breast pump and realities of separation from baby	Appropriate language skills of staff teaching how to handle breast engorgement and nipple problems Staff has skills and time to teach woman on one-to-one basis	Staff instructs moms to "get a good night's rest and miss a feed." Strict times allotted for breastfeeding regardless of mother/baby's feeding cycle	Woman told to "take it easy and get your rest" impression that breastfeeding is too much effort and tiring Woman told she doesn't "do it right" Staff interrupts her efforts and corrects and repositions infant.

The Ten Steps To Successful Breastfeeding

- 1 - Maintain 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 hour of birth.
- 5 - Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
- 6 - Give infants no food or drink other than breastmilk, unless medically indicated.
- 7 - Practice "rooming in" - allow mothers and infants to remain together 24 hours a day.
- 8 - Encourage unrestricted breastfeeding.
- 9 - Give no pacifiers or artificial nipples to breastfeeding infants.
- 10 - Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

BREASTFEEDING BASICS: HOSPITAL SUPPORT



Breastfeeding Basics: Hospital Support

Lori Feldman-Winter, MD, MPH
Professor of Pediatrics
Children's Regional Hospital at Cooper
UMDNJ-RWJMS

Objectives

- Describe the anatomy and physiology of breastfeeding
- Describe normal patterns of breastfeeding initiation and newborns feeding behaviors
- Describe the process of lactogenesis and use case illustrations to manage common problems

Case 1

- 34 year old G1P1L1 British flight attendant presents with difficulty latching infant onto breast
- Baby Sylvia, now 2 days old, eager to attach but becomes fretful and detaches after seconds. She displays aversion and crying at the breast
- Mom was provided an electric rental grade pump but reports that she is only able to express $\frac{1}{4}$ ounce from each side
- Nurses recommend feeding formula until Sylvia can breastfeed, and just gave her three ounces of formula from a bottle.

Case 1

Questions:

1. Did she attempt to breastfeed in the DR?
2. What are possible reasons for trouble in latch-on?
3. What would be expected output from milk expression in first few days?
4. What is the problem with giving formula via a bottle at this point?

Breastfeeding in the DR

- Uninterrupted skin to skin for at least the first hour after life.
- AHRQ: Level IIa evidence; good
- AAP: Initiate in the first hour; keep newborn and mother together in recovery and after; avoid unnecessary oral suctioning; avoid traumatic procedures.
- Breast crawl (video-BMC)

Righard A; Lancet 1990



Breastfeeding in the DR

- After the first feed infants may sleep for up to 8 hours before next feed
- Mother-infant care facilitates recognition of infant feeding cues
- Crying is a late sign of hunger
- Low milk volume
- Weight loss normal and expected

Lactogenesis

Lactogenesis: the transition in the mammary gland from pregnancy to lactation

Lactogenesis I & II

Neville, Morton, & Umemura (2001)

Lactogenesis I: the mammary gland becomes sufficiently differentiated to secrete small quantities of milk components. Secretion is held in check by high plasma levels of progesterone and estrogen.

Lactogenesis II: the onset of copious milk secretion associated with parturition

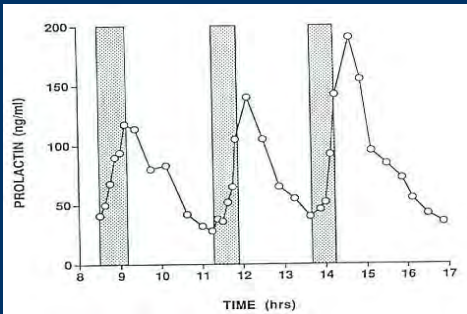
Early Milk Production and Intake Measured in Multiparous Dyads

Neville, Keller, & Seacat 1988

Days postpartum	Milk yield in mL/d	Infant intake in g/d
1	56 ± 65 (-11-155)	44 ± 71 (-31-149)
2	185 ± 103 (12-379)	182 ± 86 (44-355)
3	393 ± 158 (226-745)	371 ± 153 (209-688)
4	580 ± 250 (306-1010)	451 ± 176 (164-694)
5	563 ± 145 (354-929)	498 ± 129 (323-736)
6	558 ± 156 (360-888)	508 ± 167 (315-861)
7	610 ± 187 (421-1008)	573 ± 167 (406-842)

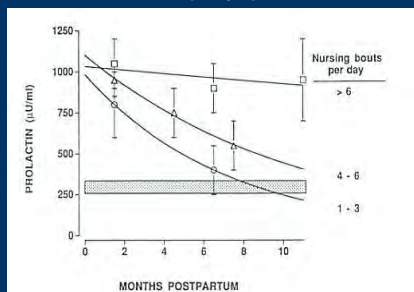
Prolactin Surge with Every Nursing

[Ellison p 312]

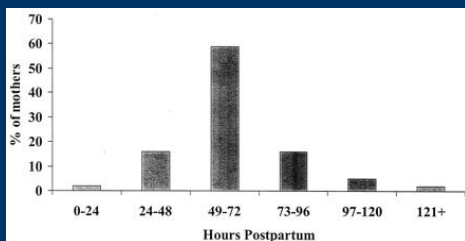


Hormonal effects: baseline prolactin gradually declines

[Ellison p 313]



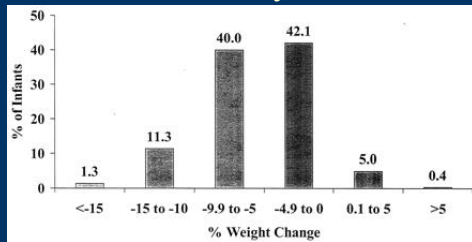
Onset of Breast Fullness



22% had delay in L II: primiparity, C/S, long stage II labor, maternal BMI >27 kg/m² flat or inverted nipples, infant BW>3600

Dewey KG, et al. Pediatrics. 2003;112(3):607-619

Percentage Weight Change birth to day 3



Excess wt loss associated with: primiparity, long duration of labor, use of labor medications (multips), **SIBB at birth**
Dewey KG, et al. Pediatrics. 2003;112(3):607-619

- Average infant weight loss: 4.9%
–(range 0.00%-9.9%)

- Weight loss >7%
–20% (23/118)

- Weight loss >8%
–7% (8/118)

- Weight loss >10%



Bivariate Analysis

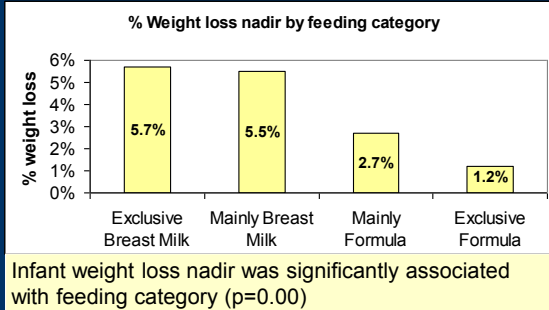
Infants lost more weight when:

- Exclusively or mainly breastfed ($p=.000$)
- Mother born outside the US ($p=0.01$)
- Mother given LESS fluid in labor ($p=.003$)
- ~Infant had younger gestational age ($p=0.06$)

Factors NOT associated with weight loss

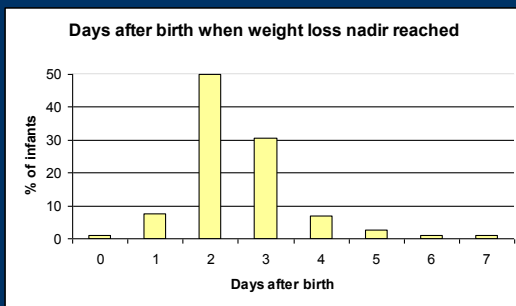
- Parity, race, WIC benefits, infant gender
- Type of delivery (NSVD: 4.9% C-sec: 4.8%)

Results by Feeding



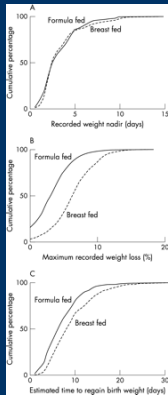
Linear Regression

- Controlled for confounding variables
- Exclusively and mainly formula fed babies compared to:
 - Exclusively breastfed infants lost 3.3% more weight ($p=.000$)
 - Mainly breastfed infants lost 3.4% more weight ($p=.000$)
- Also significant: Gestational age and type of insurance



58.5% reached weight loss nadir by 2 days after birth

Over-Feeding



(A) Weight nadir timing

(B) Maximum weight loss %
Median 6.6% [bf] vs. 3.5% [ff]
9% [bf] vs. 0 [ff] lost >10%

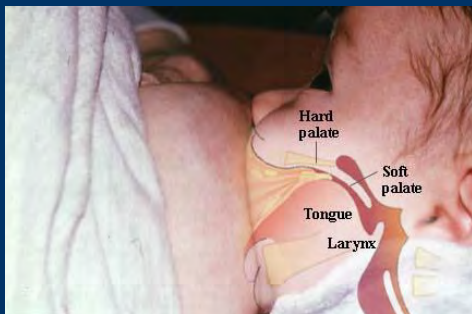
(C) Time to regain birth weight

Arch Dis Child Fetal and Neo Ed. 2003

Possible reasons for trouble latching-on?

- Position problems
- Late preterm
- Post-dates
- Nipple-mouth disproportion
- Ankyloglossia

Anatomy of Breast, Baby's Mouth, Latch and Suckling

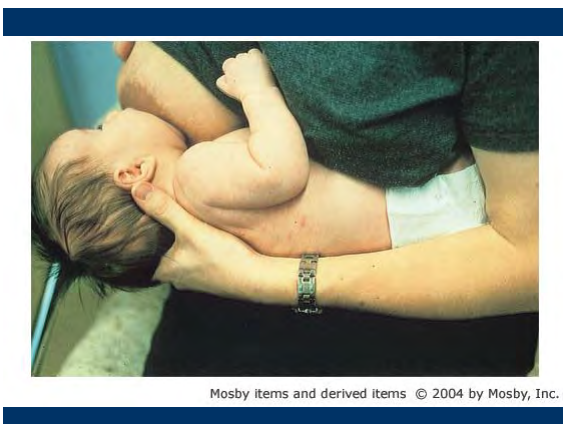




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Copyright © 2003, Rev 2005 American Academy of Pediatrics

Latch: The problem

How mothers are currently taught to help their babies learn to latch-

“Ready, Aim, RAM”

(mother-led latching)

Latch: The problem

“Ready, Aim, RAM”

Consequences of mother-led (or nurse-led) methods

Baby

- No latch, shutdown, breast aversion
- Tight painful latch
- “Suck dysfunction”

Mom

- Sense of incompetence
- Feelings of distress for infant
- Premature weaning

The dance: Maternal infant interaction

Breastfeeding and lactation=Single biological system

- Two people, interacting
- Communication, feedback between them
- Physical proximity, contact
- Right-brained “affective synchrony”

First, a *calm* baby



- Patience!
- Baby leads
- We're on baby time

Baby begins to “search”



Baby leads

As baby begins to move towards one breast, mother follows baby's lead:

- Rump toward opposite breast
- Support to baby's neck and shoulders
- Nose to nipple, head tilted slightly back
- Cheek touching breast, chin touching breast
- Encouraging voice

Mother follows baby's lead:



- Rump toward opposite breast
- Support neck and shoulders
- Face touching mom's chest
- Nose to nipple

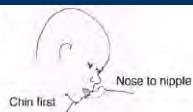


Baby, not mother, initiates latch



After your baby has moved

- down toward one breast:
- Follow baby's lead
 - Enjoy!
 - Mother and baby calm



Baby opens wide. When your baby feels chin, tongue, lips on breast, she'll open mouth wide and reach up and over nipple.



Off-center latch. More areola will be visible at upper lip, less at lower lip. (Areola size varies a lot. You may draw yours in.)



Infant feedback helps maternal competence

No "C-hold" or "cradle hold."
No left-brained instructions.
Note the physiologic position they relax into.



1590 gm 32 week twin, 48 hrs old.
First latch was at 24 hrs, latched easily on her own and nursed for 30 minutes..
At 48 hours, this was second opportunity to latch

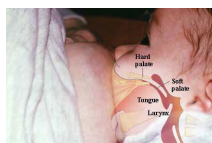
See how mother and baby calm each other

Our role in facilitating latch

- Encourage mom to the enjoy process of learning, recognize that it will take time
- Interpret baby's behavior, show her how competent her baby is
- Facilitate that right-brained "affective synchrony"
- Model patience and calm
 - Help mom feel calm, relaxed, competent
 - Help baby feel calm, relaxed, competent
 - Encourage mom to talk to infant
 - Avoid left-brained instructions, unless mother needs this

Baby-led Latching





LATCH Scoring Table

Adapted from J Hum Lact. 2001
Feb;17(1):20-3.

	2	1	0
Latch	Grasps Areola	Grasps nipple needs staff	No Latch
Audible swallow	Spontaneous	Infrequent Only when stimulated	No
Type of breast/nipple	Everted Symmetrical-no surgery	Flat Asymmetrical-surgery	Inverted
Comfort*	Mother Comfortable	Breasts tender Nipple red	Engorged Nipples cracked
Hold/positioning	Independent of staff	Partially dependent	Totally dependent

Infant Breastfeeding Assessment Tool (IBFAT)

MK Matthews 1988

1. Infant's state at beginning of feeding
2. Readiness to feed: Did the baby need to be awakened or encouraged?
3. Rooting: Did the baby root at once or need coaxing?
4. Fixing: How long until baby latched on? 0-3 min, 3-10, >10, never
5. Sucking pattern: No sucking/poor/fairly good/sucked well
6. Was mother pleased with the feed?

Items 2-5 are scored from 0-3 points each, for a total of 0-12.

<10 considered Suboptimal Infant Breastfeeding Behavior
(SIBB)

Ankyloglossia (short lingual frenulum)

» Assessment: (LATCH; IBFAT)

- shallow latch, poor milk transfer
- nipple pain, creases or lacerations

» Etiology:

- short or tight lingual frenulum
- "normal variant"

» Management/Evidence:

- Frenuloplasty or frenotomy

Ballard JL, Auer CE, Khoury JC. Ankyloglossia: Assessment, Incidence and Effect of Frenuloplasty on the Breastfeeding Dyad Pediatrics, Nov 2002; 110: e63.

Newborn with variations of ankyloglossia



A, The lingual frenulum is seen attaching the mid-tongue to the alveolar ridge, allowing only the side edges to lift to the mid-mouth when crying.

B, The lingual frenulum connects the tip of the tongue to the alveolar ridge, preventing lift and protrusion of the tongue.

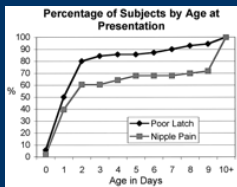
C, The lingual frenulum extends from the mid-tongue to just below the alveolar ridge, causing an indentation of the anterior edge, often referred to as a heart-shaped tongue.

(Courtesy of Kay Hoover, MEd, IBCLC.)

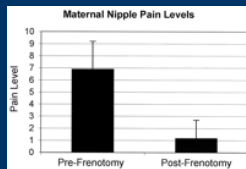


Results of Frenotomy

Ballard JL, Auer CE, Khoury JC. Ankyloglossia: Assessment, Incidence, and Effect of Frenuloplasty on the Breastfeeding Dyad



Poor latch presents before nipple pain

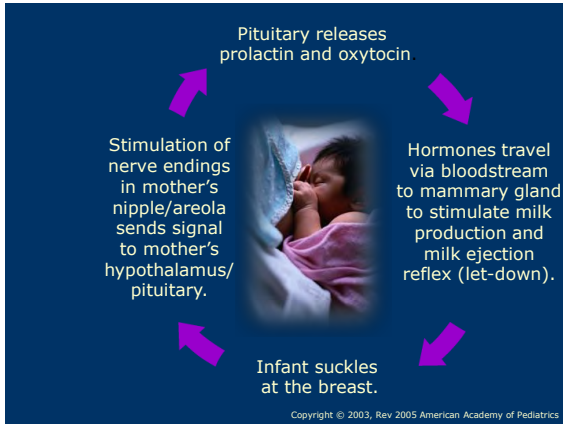


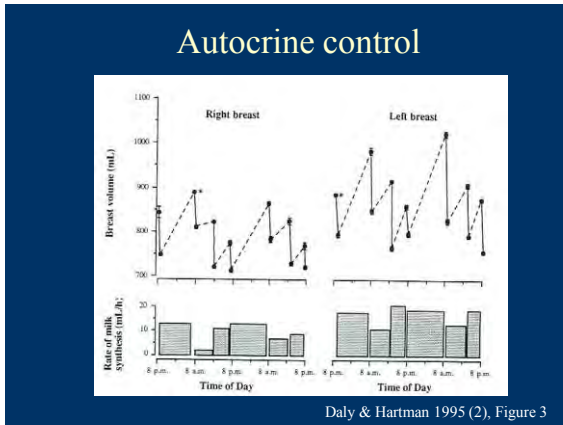
Nipple pain decreases after frenotomy

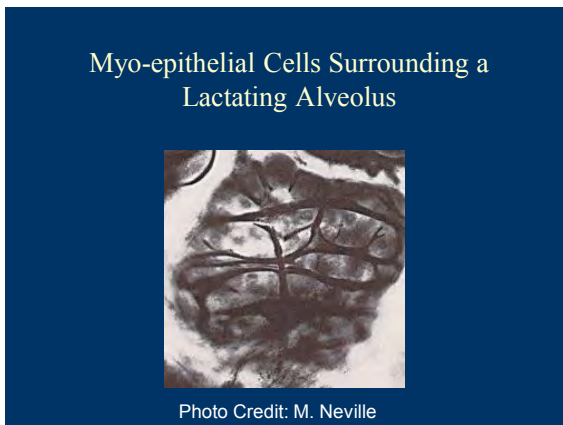
Pediatrics, Nov 2002; 110: e63.

What would be expected output from milk expression in first few days?

- Neville, Keller and Seacat: only 1 to 1 ½ ounce per day of colostrum
- Breasts are soft
- Hand expression facilitates output (Morton J. 2009)
- Infant is a better “pump” than mechanical device; problems with test weights







Milk Expression

- Wash hands before manual or hand expression
- Use a good-quality electric pump for regular expression
- Milk storage
 - Chill as soon as possible.
 - Refrigerate milk for up to 2 days.
 - Freeze for longer storage.

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Milk Expression



Photo © Jane Morton, MD, FAAP

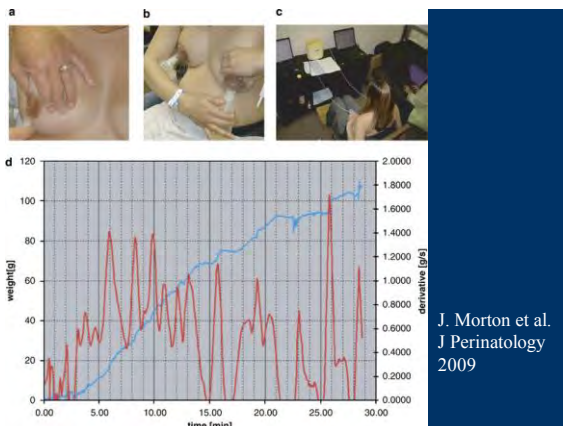


Photo © Kay Hoover, MEd, IBCLC

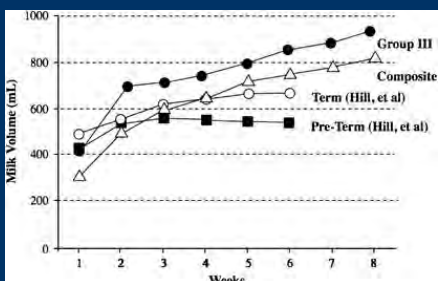
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Increased Milk Volume with HE followed by HOM



J. Morton et al. J Perinatology 2009

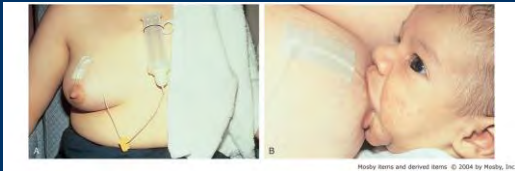
What is the problem with giving formula via a bottle?

- Blunting of infant appetite and suckling responses
- Weight gain instead of loss
- Nipple confusion
- What about cup feeding? (C. Howard)

Does Nipple Confusion Exist?

- There was no significant effect of cup vs. bottle feeding on:
 - the frequency of breastfeeding in the hospital
 - the occurrence of early breastfeeding problems, including maternal nipple trauma, infant weight loss from birth, latch problems,
 - peripartum breastfeeding cessation,
 - type of supplement given,
 - number of times the infant was breastfed
 - received a supplement while in the hospital,
 - peak bilirubin level,
 - need for early follow-up as a result of breastfeeding concerns.

Howard CR. Pediatrics. 2003.





Mosby items and derived items © 2004 by Mosby, Inc.



Solutions for Baby Sylvia

- Encouraged suckling at the breast
- Initiated infant led attachment
- Demonstrated hand expression during feed
- Counseled to recognize MER
- Minimize frustration, “double feeds”

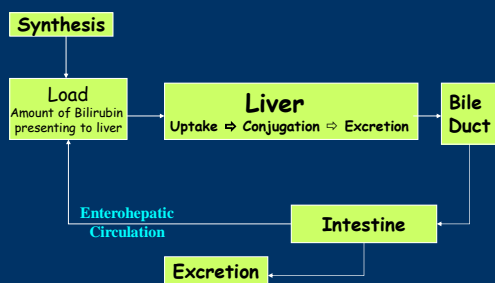
Case 2: Full term breastfeeding infant with jaundice

- 48 hour old infant with jaundice, bilirubin is 13 mg/dl
- <http://www.bilitool.org>
- Term delivery
- Breastfeeding exclusively
- What else do you want to know?

How does breastfeeding relate to jaundice?

- Breastfed infants have prolonged period of physiologic jaundice
- Difficulties establishing breastfeeding will increase the likelihood of significant jaundice, no longer physiologic
- “starvation jaundice”

Bilirubin Metabolism & Transport



Dixit and Gartner, Contemporary Pediatrics, April 1999.

TABLE 3
Factors Associated With Readmission for Jaundice*

Variable Gestation (wk)	Study Group (%)	Control Group (%)	Odds Ratio ^a	95% Confidence Limits	P Value
<36	9.5	1.6	13.2	2.70, 64.6	.000
36 ^{17,37}	16.5	4.7	7.7	2.69, 22.0	.000
37 ^{17,38}	28.4	8.7	7.2	3.05, 16.97	.000
38 ^{17,39}	20.5	24.4	1.94	0.86, 4.40	.104
39 ^{17,40}	9.5	26.0	0.84	0.33, 2.14	.605
≥40 ^c	15.8	34.7	0.38	0.21, 0.70	.001
Breastfeeding	89.0	63.8	4.21	1.80-9.87	.000

MJ Maisels, et al. *Pediatrics* 1998

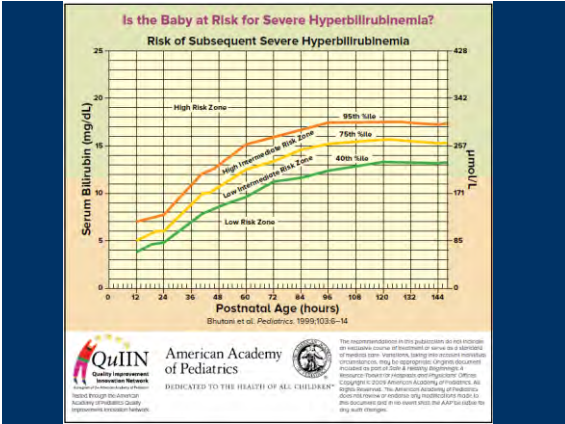
- Hour-specific Nomogram for Risk Stratification
- Infants age 48 hours
- Total bilirubin 13 mg/dl
- Risk zone: **High Intermediate Risk**
- A follow-up visit and/or a recheck bilirubin value is recommended within 48 hours (*high-intermediate risk*)
- Risk zone is one of several risk factors for developing severe hyperbilirubinemia.

-
-
-
-
-
-

You need to ask two questions:

Is this infant *at risk* for
severe hyperbilirubinemia ... and if yes,
When do I
get the next bilirubin check?

Does this infant require phototherapy?
...apply *risk factors*.



Breastfeeding Assessments

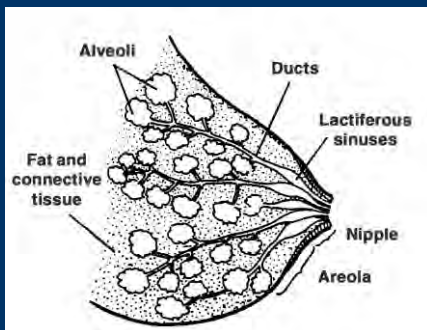
	Mother	Infant	Dyad
Milk production	Breasts Diet FIL		Prolactin stimulation
Milk transfer	MER Stress	Oral anatomy Suckling	Latch on
Metabolism		utilization	
Loss		Emesis GER	

Maternal Factors That Support Optimal Lactation

- Normal breast anatomy
- Intact neuroendocrine reflex
- Good general health and nutritional status
- Effective support system

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Evaluate Breast Architecture



Glandular Insufficiency



Nutrition During Lactation

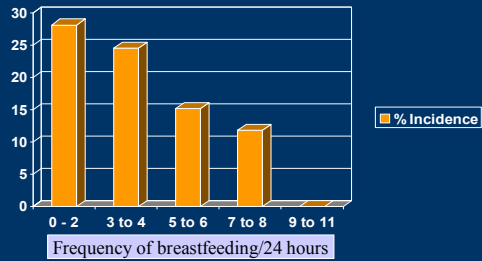
- Generally healthy diet
- Drink fluids to thirst
- Adequate protein and calories
- Calcium
- Multivitamin supplement

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Management of Jaundice in the Breastfeeding Baby

- Increase frequency of feedings, number and duration
- Utilize a supplementation system with iron fortified formula
 - (Nutramigen; Gourley Neoreviews Feb 2000;1(2):e25-30)
- Interrupt breastfeeding for no more than 24 hours, usually no interruption necessary
- Phototherapy for bilirubin of 20mg/dL or 5mg/dL below the exchange level for infants ≥ 72 hours old

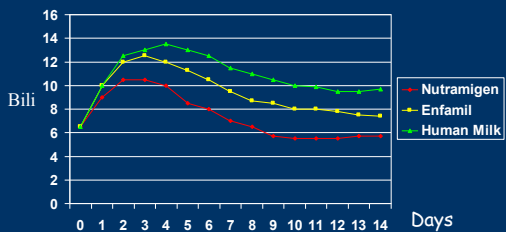
Hyperbilirubinemia and Breastfeeding Frequency



Yamauchi & Yamannouchi; *Pediatr* 1990;86(2):174



Diet and Bilirubin Pattern



Gourley GR. *NeoReviews* Feb 2000; 1(2):e25-30

5 day old male infant evaluated at first ambulatory visit

History

- 36.7 weeks gestation
- NSVD without complications
- Breastfed in DR but now with difficulty in latch on
- Birth weight: 3100 grams (50%)
- Discharge weight (at 72 hours of life): 2860 grams(7.5% loss)

Any concerns?

- What about the gestational age?
 - Anatomy: baby
 - Physiology: mother, baby, and dyad

Assessment of milk intake

- What about the percent weight loss?
 - What's normal
 - What are the risks?

Examine Dyad Breastfeeding

- Eager to feed
- Self-attachment
- Shallow latch, narrow angle
- 4:1 suckle per swallow
- Feeds last 7 minutes

Weak Suckle; Late Preterm

» Management/Evidence:

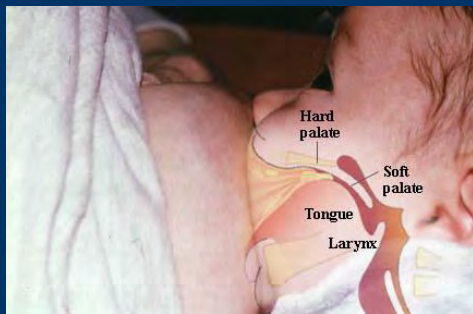
- **Use of silicone nipple shields** to enable baby to draw milk from tissue beneath areola. Fixes problem of shallow latch.

[Meier, PP, et al JHL2000;16(2):106-114]

- **Increase frequency of breastfeeding** episodes (at least 10 per 24 hours).

[Yamauchi & Yamannouchi; Pediatr 1990;86(2):174]

Anatomy of Breast, Baby's Mouth, Latch and Suckling



Milk transfer using a shield

N=34, 25-37 week gestation, test weights

- Milk transfer without shield: • $3.9 \pm 7.0\text{ml}$
- Milk transfer with shield: • $18.4 \pm 13.2\text{ml}$
- Increase in transfer (ml): $P < .001$ • $14.4 \pm 9.1\text{ml}$

Mean duration of bf same at 169 days
mean use of shield 33 days

Meier, PP, et al JHL 16(2)
2000:106-114



Engorgement

- This happens when the baby doesn't empty the breast
- Painful
- Leads to feedback inhibition
- Makes latch-on difficult
- Need to soften the areola for latch




Transition to Home: Issues to Consider

- Most mothers will NOT have achieved lactogenesis II by the time of discharge
- Identify risk factors for delayed L-II
- Assess infant at the breast: latch, position, suckling effort, jaw thrust, suck:swallow ratio, mother's evaluation of feed
- Tally feeds (8-12/day), don't time intervals
- Increasing the frequency of poor feeding will NOT prevent hyperbilirubinemia or dehydration

Early postpartum assessments

- Weight gain (up to 7% loss in the first 3-4 days then weight gain)
- Use of “test weights”
- Hydration (poor measure for DOL 1-2)
- About 3 voids by DOL 2-3
- At least 6 voids per day (by 5-7 dol)
- At least 3-4 stools per day (by 5-7 dol)
- Jaundice (apply nomograms)



Breastfeeding Assessment Checklist for Mothers in Primary Care Practice

Name: _____

1. If able in your first visit since being discharged from the hospital, have you noticed an increase in your milk supply? ☐ Yes ☐ No

2. Do your breasts feel full before feeding and softer after feeding? ☐ Yes ☐ No

3. Are you leaking milk from your breasts? ☐ Yes ☐ No

4. Does your baby latch onto the breast easily? ☐ Yes ☐ No

5. Do you hear the baby swallow your milk during feedings? ☐ Yes ☐ No

6. Have you experienced any of the following?

- Tingling in your breasts ☐ Yes ☐ No
- Cramping of lower abdomen during the first week ☐ Yes ☐ No
- Dry mouth ☐ Yes ☐ No
- Sleepiness during feeding ☐ Yes ☐ No

7. Do you have any nipple pain or pinching during feedings? ☐ Yes ☐ No

8. Does your baby feed at least 8 to 12 times in a 24-hour period? ☐ Yes ☐ No

Are you keeping a written record or is this an estimate? ☐ Written Record ☐ Estimate

9. Does your baby seem full and satisfied after feeding? ☐ Yes ☐ No

- Does your baby complete most feedings within 15 to 45 minutes? ☐ Yes ☐ No
- Does your baby self-detach from the breast after most feedings? ☐ Yes ☐ No
- Does your baby sleep at least 1 hour between most feedings? ☐ Yes ☐ No

10. How many wet diapers does your baby have in a 24-hour period? _____

11. How many dirty diapers does your baby have in a 24-hour period? _____

12. How long would you like to exclusively breastfeed? _____

13. How long would you like to continue to do any breastfeeding? _____



Culturally Effective Care

- Identify language and cultural issues
- Document breastfeeding assessments and plan in both mother and infant record
 - **Maternal:** edema, nipples, evidence of prior surgery, ambivalence vs. self-efficacy, lactogenesis
 - **Infant:** ankyloglossia, suckling, suck:swallow coordination & pattern, latch, position, gestational age, eagerness to feed.
- Monitor infant weight...reassess if greater than 7-10%, or continued loss beyond day 4

The End



Comparison of Old and New Formula Packages for Infants

Maximum Similac or Isomil Powdered Formula Allowed
(12.9 oz. Cans = 96 fl. Oz.)



Age of Infant	OLD Pkg Fully Formula Fed	NEW Pkg Fully Formula Fed	OLD Pkg Partially Breastfed	NEW Pkg Partially Breastfed
0-30 days	9 cans	9 cans	Up to 9 cans	Up to 1 can
1-3 mos.	9 cans	9 cans	Up to 9 cans	Up to 4 cans
4-5 mos.	9 cans	10 cans	Up to 9 cans	Up to 5 cans
6-11 mos.	9 cans	7 cans	Up to 9 cans	Up to 4 cans

Revised Food Package for Infants



Formula amounts tied to feeding practice and age of infant.



Compared to previous food packages, partially breastfed infants receive less infant formula and allow mothers to feed more milk to their infants.

Revised Food Package for Infants



- Complementary foods delayed to 6 months
- Juice eliminated
- 24 ounces of infant cereal provided
- Baby food fruits and vegetables added for all infants after 6 months of age
 - fully formula fed and partially breastfed infants receive 32 - 4 oz jars per month
 - fully breastfed infants receive 64 - 4 oz jars per month
- 31 - 2.5 oz jars of baby food meat added for fully breastfeeding babies after 6 months of age



ALBANY - Just days after new research from the Women's Health Initiative, a long-term study of 140,000 women, indicated clear health benefits relating to breastfeeding for the mother and newborn, the New York State Senate has passed the **Breastfeeding Mothers' Bill of Rights**.

Sponsored by Senator Liz Krueger (D-Manhattan), this legislation is based on the recognition that many women forego the option of breastfeeding their child, despite the health and economic implications of using formula. Oftentimes, women who forego breastfeeding are those who can least afford it—low-income women, whose child was often placed on formula shortly after birth, without their knowing. Once a newborn has adapted to formula it is nearly impossible to switch to breastfeeding.

The Breastfeeding Mothers' Bill of Rights requires that new mothers be informed of breastfeeding options before they deliver, in the healthcare facility, as well as after leaving that facility. **In addition, it bans commercial interests (formula providers) from pressuring new mothers while in maternal facilities.**



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EPIC BEST FED BEGINNINGS

Educating Practices In Their Communities (EPIC)

BEST FED BEGINNINGS

adapted from **BEST** for New Jersey:
Breastfeeding Education Support, & Training



THANK YOU

Organizations who provided support
for the initial NJ EPIC content development



and for BFB Funding and Partners

Insert CDC logo



OBJECTIVES



At the end of this training, you will be able to:

- Describe how physicians play critical roles supporting the decision to breastfeed
- Teach evidence-based standards (AAP Recommendations on Human Milk) on how to protect, promote and support breastfeeding
- Define the maternal and neonatal benefits of breastfeeding
- Practice care coordination to support exclusive breastfeeding
- Create an office-based breastfeeding team
- Increase referral and access to lactation support services in the community



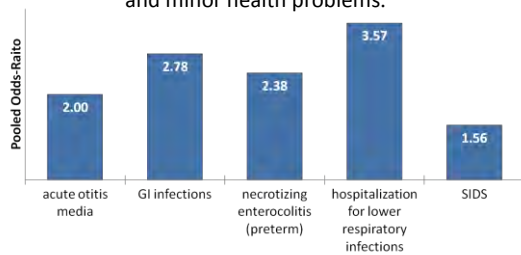
Breastfeeding across USA today

Advantages and Challenges



Breastfeeding: Important for babies

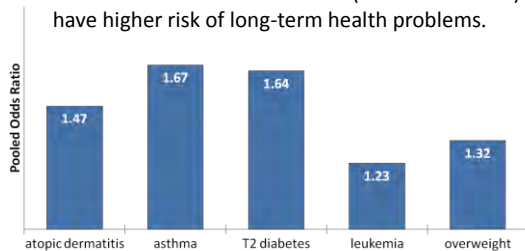
Babies who are not breastfed have higher risk of major and minor health problems.



Source: AHRQ, 2007

Breastfeeding: Important for children

Children who were never breastfed (or breastfed less) have higher risk of long-term health problems.



Source: AHRQ, 2007



Formula-fed babies have a greater risk for:

- Infectious morbidity
- Obesity
- Type 1 & type 2 diabetes
- SIDS
- Ear infections
- Respiratory infections
- Allergies
- Necrotizing enterocolitis



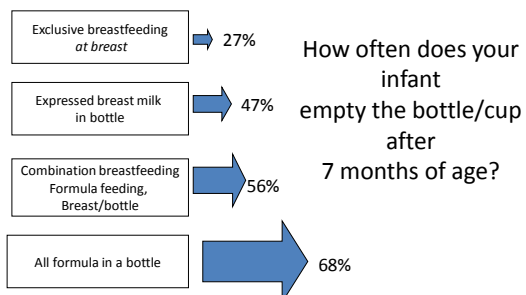
Slide from GA EPIC *Supporting Breastfeeding in the Hospital*

When Does Obesity Begin?



Obesity begins in infancy!

Breastfeeding Leads to Self-Regulation



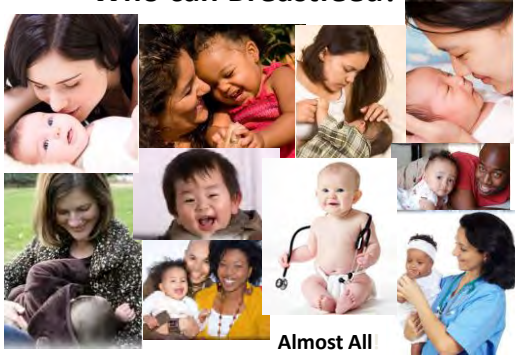
Source: Pediatrics. 2010 Jun;125(6):e1386-93. 2010.

Breastfeeding: Important for Mothers

1. Type 2 Diabetes Mellitus ↓ for **each year** of breastfeeding for women **12%**
2. Pre-menopausal Breast Cancer ↓ for **each year** of breastfeeding **28%**
3. Ovarian Cancer ↓ for any vs. no breastfeeding and dose response **21%**
4. Post-partum Depression ↓ for short breastfeeding vs. no breastfeeding

Source: S. Ip, et al. AHRQ 2007

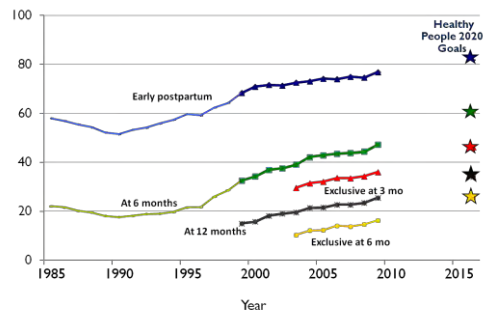
Who can Breastfeed?



Breastfeeding is a National Priority

- Healthy People 2020
- National Prevention Strategy
- White House Task Force on Childhood Obesity
- IOM Early Childhood Obesity Prevention Policies
- IOM Accelerating Progress in Obesity Prevention
- Bipartisan Policy Center: Lots to Lose: How America's Health and Obesity Crisis Threatens our Economic Future
- The Surgeon General's Call to Action to Support Breastfeeding
- AAP Breastfeeding and the Use of Human Milk

US breastfeeding rates, 1985-2009



13

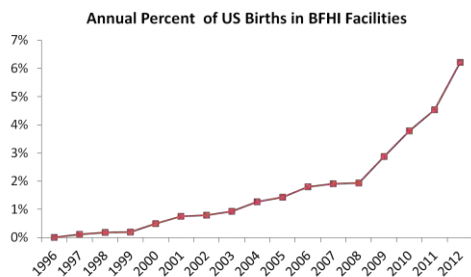
Mothers do not breastfeed as long as they intend

- 80% of women intend to breastfeed.
- 77% start breastfeeding. 16% exclusive breastfeeding at 6 mos.
- 60% of mothers do not breastfeed as long as they intend
 - problems with latch
 - problems with milk flow
 - poor weight gain
 - pain

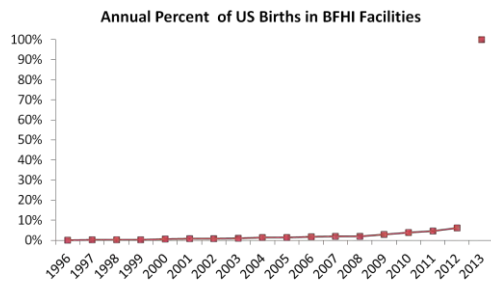
Source: Infant Feeding Practices Study II and National Immunization Survey, 2012

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Current State: Number of US Births in BFHI Facilities



Current State:
Number of US Births in BFHI Facilities



The Ten Steps
(Condensed)

1. Written breastfeeding policy *
2. Train people to implement
3. Inform pregnant women about choices
4. Skin-to-skin for 1 hour
5. If separated, maintain lactation

* Include the Code of Marketing

The Ten Steps
(Condensed)

6. If mother chooses to breastfeed, then breastfeed*
7. Rooming-in
8. Breastfeeding on-demand
9. No pacifiers
10. Support groups

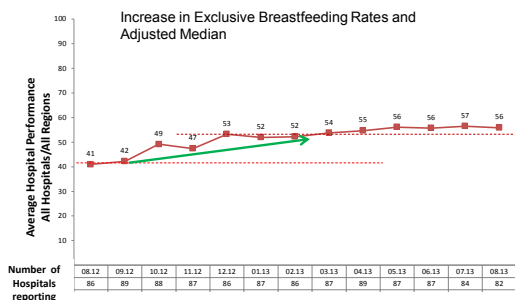
* Pay for formula

Best Fed Beginnings Project Background

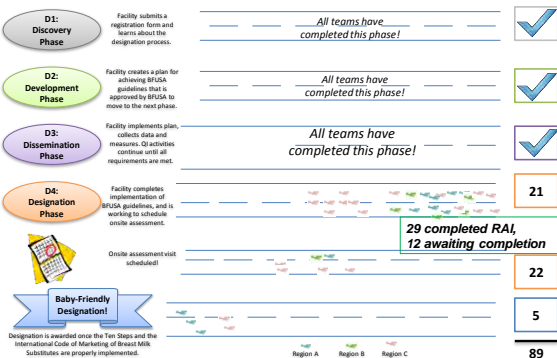
- Promote exclusive breastfeeding nationwide by creating environments in which a mother's choices concerning breastfeeding can best be supported by:
 - Enabling hospitals to earn Baby-Friendly designation by improving breastfeeding practices
 - Raising awareness and interest in breastfeeding maternity practices and Baby-Friendly designation

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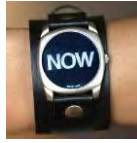
Progress to date



Where are the Best Fed Beginnings teams on the 4D Pathway to Baby-Friendly Designation?



NOW we need YOU!



- Educate physicians and staff on breastfeeding
- Discuss why physicians play critical roles in a woman's decision to breastfeed
- Teach evidence-based standards on how to encourage, promote and support breastfeeding
- Review access to lactation support services in the community
- Provide resources for patient education

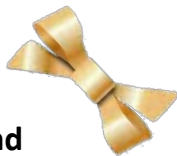
AAP Breastfeeding Policy Recommendations:

Clinicians and staff should:

- Support exclusive breastfeeding for 6 months
- Recommend human milk for ALL infants, unless medically contraindicated
- Provide continued support for 1 year and beyond
- Provide parents with complete and current information on the benefits and techniques of breastfeeding

AAP Policy Statement: Breastfeeding and the Use of Human Milk 2010

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Encourage and Support Breastfeeding!

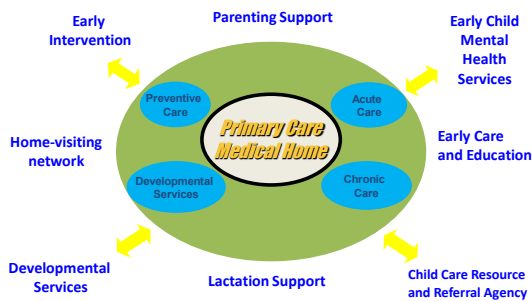
24

Influences on Breastfeeding Choice



25

The Medical Home Community Resource Model



Caring for the Dyad

How does the Medical Home care for the mother-infant dyad?



Office Environment/Support

- Pictures of breastfeeding
- "Breastfeeding Welcome Here" decals
- Knowledgeable and supportive reception and office staff
- Acceptance of public breastfeeding
- Private space for breastfeeding



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Who do you work for?

From the XXX formula company employee manual...

"Never underestimate the role of nurses. If they are sold and serviced properly they can be strong allies. A nurse who supports XXX is like another salesman."



29

Breastfeeding in the Community Know the Laws!

- Forty-four states have laws that specifically allow women to breastfeed in any public or private location.
- States without breastfeeding legislation have lower breastfeeding rates.



National Conference of State Legislatures- January 2011, Picture courtesy of USBC

30

Breastfeeding and Health Care Reform



- 2010 Patient Protection and Affordable Care Act
- Section 7(r) of the Fair Labor Standards Act – Break Time for Nursing Mothers Provision
 - reasonable break time to express breast milk after the birth of her child.
 - The amendment also requires that employers provide a place for an employee to express breast milk.

Alternative Workplace



Everyone Has A Role In Supporting Breastfeeding

- Front Desk
- Office Staff
- Nursing Staff
- PCP
 - Clinical Management
 - Identify appropriate referrals



What is your role?



Providing Anticipatory Guidance

34

Family Centered Care



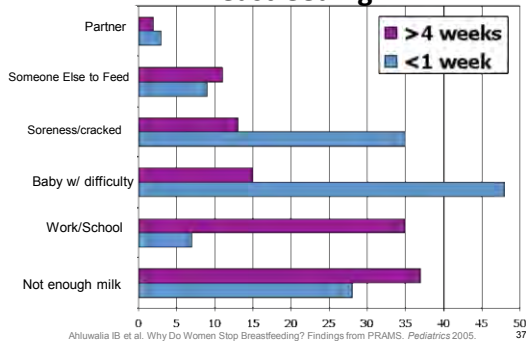
Start the Conversation ... the Sooner, the Better!



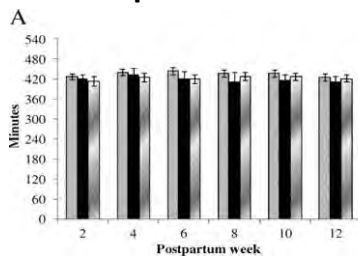
- What are your plans for feeding your baby?
- What have you heard about breastfeeding?
- How can I help you breastfeed?
- How does your family/partner feel about your breastfeeding?

- What are your concerns about breastfeeding?
- What are your expectations for breastfeeding including work, social and family?

Reasons for Discontinuing Breastfeeding



Maternal Sleep and Breastfeeding



Women who breastfeed sleep just as well if not better than formula feeding mothers

Montgomery-Downs, H. E. et al. Pediatrics 2010;126:e1562-e1568

Signs of Breastfeeding Success

Frequent:

- Feed on cue - 10-12 times in 24 hrs

Effective:

- Visual or audible swallowing during most of active feeding
- Adequate wet and dirty diapers
- Breastfeeding does not hurt!

Exclusive:

- Baby regulates milk supply and learns to suckle effectively



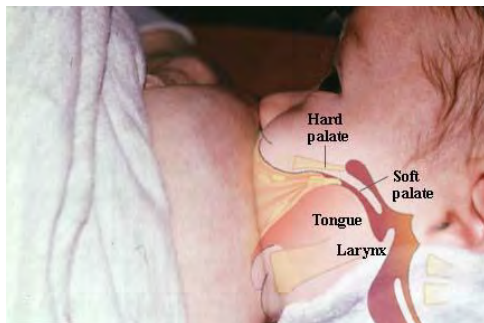
Visual or Audible Swallowing



<http://newborns.stanford.edu/Breastfeeding/FifteenMinuteHelper.html>

40

Anatomy of Breast, Baby's Mouth, Latch and Suckling



Milk Expression

- Manual milk expression: stimulate latch, relieve engorgement, and softens the areola when breastfeeding is getting started



- Electric breast pumps for separation between the baby and mother and after return to workplace without onsite childcare options

First Pediatric Visit

- Ask open-ended questions
 - How is breastfeeding going?
 - Tell me about your baby's latch.
 - What are your expectations?
 - Who is your support system?
- Reinforce that frequent feeding is not an indicator of insufficient milk supply.
- Remember Vitamin D!



Give Encouragement, Support and Praise!

43

2-Week Pediatric Visit

1. Assess current feeding regimen and plans
2. Explain normal "cluster feedings" which occur in early evening
3. Reassess weight and concerns for low milk supply
4. Inquire about mother's medications, birth control plans, and plans to return to work
5. Ask about other caregivers and whether they help to feed the baby
6. Discuss bottle use and expressing breast milk
7. Reinforce use of Vitamin D.

Give Encouragement, Support and Praise!

44

Common Concerns

- Sore Nipples
- Jaundice
- Fussy Baby
- Milk Supply/
Weight Gain
- Medications



Late Preterm Infant

Late Preterm Infant during a feeding:

- Disorganized suck-swallow –breathe
- Tires easily
- Weak suck, low tone, inability to sustain sucking
- At risk for apnea; inadequate lung volume
- Tolerates cross cradle, clutch of prone positioning

Mother during a feeding:

- Potential delay in lactogenesis due to preterm birth and some maternal diseases

Jaundice

- In most cases, exclusive breastfeeding can be preserved
- Assess etiology and manage per AAP Clinical Practice Guideline
- Utilize resources available in Safe & Healthy Beginnings toolkit
- Coordinate with delivery hospital to receive discharge parameters
- Identify if bilirubin levels need to be obtained



47

Fussy/ Colicky Baby

- Common reason for formula introduction and premature weaning
- Interpreted by parents as “mother does not have enough milk,” which in most cases is **not** reason for baby’s fussiness



48

Concerns for Low Milk Supply / Weight Gain

- Many times it is a perception and not a reality
- Prevention through self-confidence and relaxation
- Increases risk of formula introduction and premature weaning



- Assessment is required- best assessment is weight trajectory
- Consider referral to lactation consultant if low milk supply or slow weight gain is established

49

Check It Out Before Saying No! Medications and Breastfeeding

- Most medications compatible with breastfeeding
- Evidence-based resources
 - Lact MED
 - AAP Policy Statements
 - Medications and Mother's Milk, by Thomas Hale, PhD
 - Check your Resource Toolkit!



50

Tongue Tie



Photo Courtesy of Jane Morton, MD

Photo Courtesy of Kay Hoover, MEd, IBCLC

One Month Pediatric Visit

- Continue to ask open-ended questions
 - Review safe breastfeeding/sleeping environment
 - Assess back-to-work or school issues
- Assess current feeding regimen and plans
- Discuss change in stooling pattern
- Provide positive messages!!

Give Encouragement, Support and Praise!

52

Returning to Work or School

Influencing factors



- Type of work
- Worksite accommodations: Support, Time, Education, Private space
- Baby's age upon return
- Family, health provider and/or community support
- Child care arrangements that support continued breastfeeding

53

6 Week Maternal Care Visit

- Assess the breast
- Contraceptive Visit
- Look out for
 - Mastitis
 - Nipple infections
 - Milk production



Continue to Give Encouragement, Support and Praise!

2-4 Month Pediatric Visit

- Delay introduction of complementary foods until 6 months
- Assess iron needs, consider adding iron drops
- Continue to support exclusive breastfeeding!

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Older Child

Discuss and review:

- Return to work or school
- Nursing strikes
- Biting
- Return of ovulation and menstrual cycle for mother
- Continued breastfeeding benefits for one year and older



56

Don't Miss Opportunity to Support Breastfeeding at Sick Visits

Continue breastfeeding through:

- Gastroenteritis
- Viral infections – mother's milk helps decrease severity and duration
- Ear infection - less frequent
- Urinary Tract Infection (UTI)
- Vaginitis



"Use every patient encounter to promote and support continued breastfeeding."

57

Working Together Within the Medical Home



- Coordinate care with all healthcare practioners who are supporting the breastfeeding mother
- All office staff should be familiar with community resources

American Academy of Pediatrics • Academy of Breastfeeding Medicine

58

What is an International Board Certified Lactation Consultant (IBCLC)?

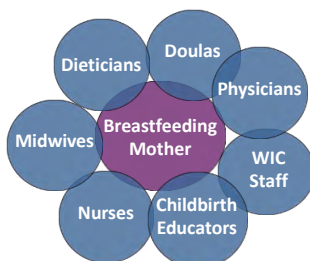


- Provides specialized lactation care
- Evaluates and helps resolve breastfeeding challenges
- Collaborates with health care providers



59

Breastfeeding Support Providers



60

Community and Peer Support

- La Leche League Leaders
 - Provide basic information and encouragement through:
 - Support groups
 - Telephone warm lines
- WIC peer counselors
- Local hospital support groups




61

Breastfeeding is Good Business!

- Breastfeeding support is a billable visit
- If LC in practice, physician can share visit with LC (similar to CRNP or PA)
- If history and physical on mother and baby, consider billing insurance for both visits
- Contact insurance plan to learn what is covered and appropriate diagnostic and billing codes



62



Ten Steps to Support Parents' Choice to Breastfeed Their Baby

American Academy of Pediatrics, 1999, Rev. 2003

10. Expand the network of support for breastfeeding.
9. Communicate support for breastfeeding in the office environment.
8. Support breastfeeding by providing accurate information about maternal issues.
7. Use appropriate anticipatory guidance that supports exclusive breastfeeding until infants are about 6 months old.
6. Show mothers how to breastfeed and how to maintain lactation when they will be away from their babies.
5. Encourage mothers to breastfeed on demand.
4. Assess infants during early follow-up visits.
3. Inform women and families about the benefits and management of breastfeeding.
2. Train all staff in skills necessary to support breastfeeding.
1. Make a commitment to the importance of breastfeeding.

63

"I urge all Americans to be supportive of breastfeeding mothers and families in their communities and to extend their support so that these mothers get the health care, the help, and the encouragement they deserve."



- Kathleen Sebelius, Secretary
U.S. Department of Health and Human Services
Surgeon General Call to Action 2011

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Alicia Dermer, MD, FABM, IBCLC, Cassandra P. Leahy BA, RN, MSN, LCCE, IBCLC, Ellen Shuzman, PhD, RN, NEA-BC, CLC, Florence Rotondo, IBCLC, RLC, Jeanine Hearne-Barsamian, BSN, MA, IBCLC, RLC, Joan Santa Croce, RN, MSN, Joyce McKeever, RN, MS, IBCLC, LCCE, Kay O'Keefe, RN, MA, Mary Ditri, MA, Maryellen Dykeman, Michelle Brill, MPH, Pamela Rosser, Rickie Kashdan, MPH, Rose St. Fleur, MD, Rosemarie Dimarie CD (DONA), IBCLC

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Lori Feldman-Winter, MD, FAAP
Medical Director, BFHI
Fran Gallagher, MEd
Executive Director
Harriet Lazarus, MBA
Program Director
Shreya Durvasula
Program Manager

AAP NJ/ NJ PCORE
3836 Quakerbridge Road,
Hamilton, NJ 08619
(609) 588-9988

Next Steps

Please complete the survey that will be sent to you tomorrow by Wednesday, 2/19.



WHY NOT JUST ONE BOTTLE?



Why Not Just One Bottle??

The art and science behind
exclusive breastfeeding

Lori Feldman-Winter, MD, MPH
Professor of Pediatrics
Cooper University Hospital-UMDNJ-RWJMS

Disclosure

- I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.
- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

Learning Objectives

1. Appreciate that *just one bottle* of formula supplement makes a difference in breastfeeding outcomes
2. Understand why supplementing interferes with breastfeeding
3. Describe how human milk affects the cellular and molecular development of the infant's immune system





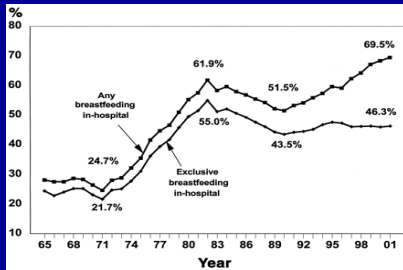
"Breastfeed every 2 hours...
But if he doesn't wake for a feed
then you must give him formula..."

AAP Policy Statement 2005

- *Exclusive* breastfeeding for approximately 6 months
- Continued breastfeeding for at least one year and beyond for as long as mutually desired



Where We Are Today and Where We Were 10, 20 Years Ago

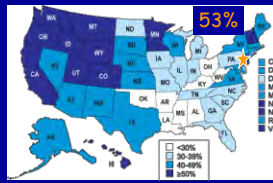
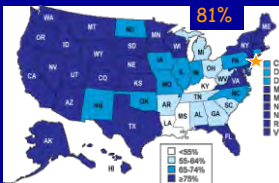


Graph data from the Mother's Survey, Ross Products Division of Abbott

HP 2010 Objectives for Overall Breastfeeding

75% initiation

50% at 6 months



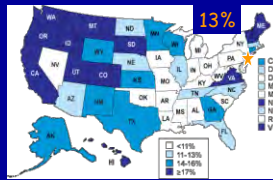
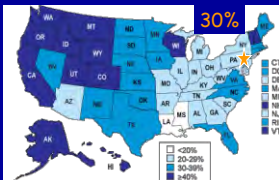
http://www.cdc.gov/breastfeeding/data/NIS_data/data_2006.htm

Exclusive Breastfeeding in the US

...to increase the proportion of mothers who exclusively breastfeed their infants

through age 3 months to 40%
(old target 60%)

through age 6 months to 17%
(old target 25%)



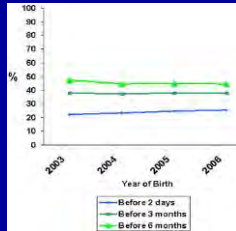
By the year 2010

http://www.cdc.gov/breastfeeding/data/NIS_data/data_2006.htm

Objectives New to Healthy People 2020

Decrease the percentage of breast-fed newborns who receive formula supplementation within the first 2 days of life.

- Currently 25% and rising
- 36% in NJ
- 18.2% in PA
- Goal $\leq 10\%$



Data Source: National Immunization Survey (NIS), CDC.
Status: New to Healthy People 2020.

Who Shouldn't Breastfeed?

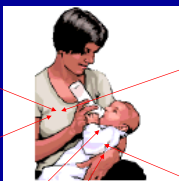
- HIV infection
- Human t-lymphotrophic virus type I or II
- Substance abuse and/or alcohol abuse
- Active, untreated tuberculosis
- Taking certain medications
 - prescribed cancer chemotherapy, radioactive isotopes, antimetabolites, antiretroviral medications and other medications where the risk of morbidity outweighs the benefits of breast milk feeding
[<http://toxnet.nlm.nih.gov/search/LactMed>]
- Undergoing radiation therapy
- Active, untreated varicella
- Active herpes simplex virus with breast lesions
- Infant with classic form of Galactosemia

Risks of Supplementing

Increased FIL, decreased prolactin

Results in early weaning

Interferes with emerging ability to suckle, over-hydrated, appetite suppressed



Allergy or intolerance

Maternal problems such as engorgement, mastitis, low self-efficacy

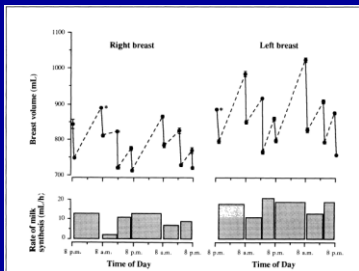
Interferes with immune system priming and gut colonization

Supplements Linked to Early Cessation of Breastfeeding

- More than two bottles/day **OR 1.7-4.8**, $p=0.001$
- Any supplement in the maternity ward led to **3.9 times** higher chance of early cessation

Hall RT, J Pediatr. 2002

Increases FIL, Decreases Prolactin and Milk Production

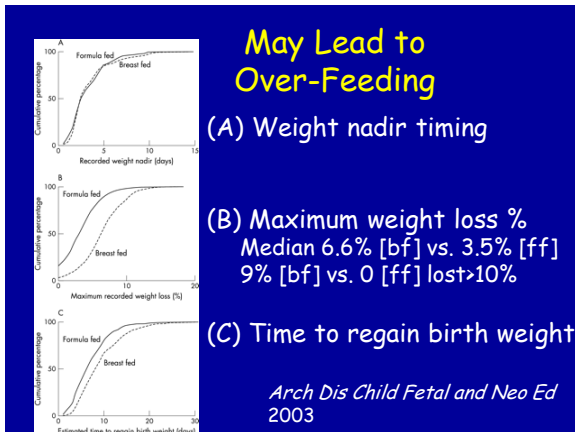


SE Daly, RA Owens, PE Hartmann Exp Physiol. 1993

Does It Matter *How* the Supplement is Given?

- There was no significant effect of cup vs. bottle feeding on:
 - the frequency of breastfeeding in the hospital
 - the occurrence of early breastfeeding problems, including maternal nipple trauma, infant weight loss from birth, latch problems,
 - peripartum breastfeeding cessation,
 - type of supplement given,
 - number of times the infant was breastfed
 - received a supplement while in the hospital,
 - peak bilirubin level,
 - need for early follow-up as a result of breastfeeding concerns.

Howard CR. Pediatrics. 2003.



Over-feeding in early life

- Exclusive breastfeeding:
- 15-30cc day 1
- 30-150cc day 2

- Exclusive formula feeding:
- 60-90 cc every 2 to 3 hours each day; approx 24 ounces


≠


Weight Velocity in Exclusively Breastfed Infants

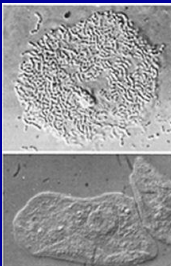
- Grams gained per day
- Based on WHO Multicentre Growth Reference Study
- Day 0-7 study site affect weight velocity
 - 50% ranges -113 g (CA) to +150g (WHO)
 - 25% ranges -123 g (CA) to 0 g (WHO)
- Day 7-14 median weight gain/day
 - 29 g/day for girls
 - 36 g/day for boys

Nommsen-Rivers L, Dewey K. Breastfeeding Med. Supple. 2009



What About Giving ONE Bottle?

- Protection at Cellular & Molecular level
- Early intestinal priming
- Delicate balance of immune modulation



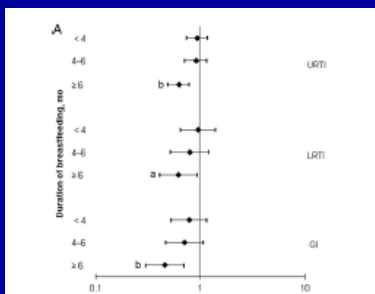
Benefits of Breastfeeding

"Dose Dependent"

1. AOM 50% less **EBF**>3-6 months
2. Atopic dermatitis less 42% **EBF**>3 months
3. Gastro less 64% with any BF vs. None
4. LRTI and hospitalization less 72% with **EBF**>4 months
5. Asthma less 40% for **EBF**>3 months
6. Obesity less 4-24%
7. T1DM less 19-27% **EBF**>3 months
8. T2DM less 39% with any BF vs. None
9. Cancer:
 1. ALL less 19% with BF>6 months
 2. AML less 15% with BF>6 months
10. SIDS less 36% with any BF vs. None

S. Ip, et al.
AHRQ Review

Exclusive 4 vs. 6 Months



Prolonged and Exclusive Breastfeeding Reduces the Risk of Infectious Diseases in Infancy
Liesbeth Dujo, Vincent W. V. Jaddoe, Albert Hofman and Henriëtte A. Moll
Pediatrics published online Jan 31, 2010.

Evidence of Immune Modulation

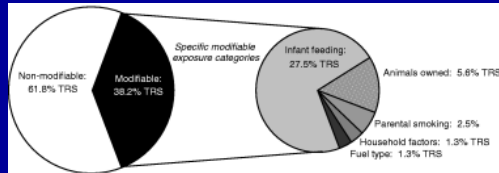
- Non-EBF results in risk of autoimmune diseases
 - Atopy
 - Crohn's and UC
 - Leukemia

Modifiable Exposures Among Slovak Children by AE Status

Infant feeding	AE+	AE-	p-value
Any formula in the first year of life	178 (86.8)	892 (79.9)	0.02*
Exclusive breastfeeding for ≥4 months	5 (2.4)	86 (7.7)	0.006*
Introduction of solid food <4 months	103 (49.8)	632 (56.5)	0.07
Cow's milk in the first year of life	184 (90.2)	941 (84.6)	0.04*

Dunlop, Anne L. et al. 2006. *Pediatric Allergy and Immunology*.

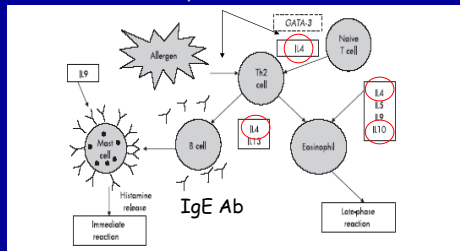
% Regression Score Accounted for by Modifiable Exposures



Dunlop, Anne L. et al. 2006. *Pediatric Allergy and Immunology*.

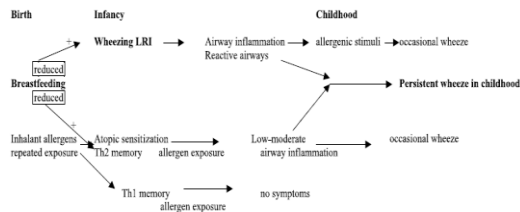
HM Alters Allergic Response

- Maternal sIgA diverts antigenic response.
- Cytokines in milk enhance/divert allergic response.
- Newborn responses skewed toward Th2>Th1
- Colonization helps drive Th1 and induce tolerance



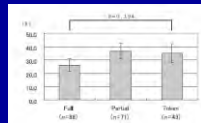
Chung EK et al. *Arch Dis Child Fetal Neo Ed* 2007

Human Milk Modulates Immune Responses

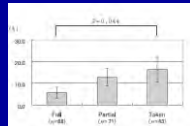


Oddy W. *Journal of Asthma*. 2004;41(6): 205-621

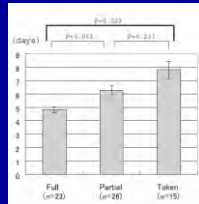
Exclusive vs. Partial BF Decreases RSV Severity infants ≤ 60 DOL



Hospitalization



Oxygen

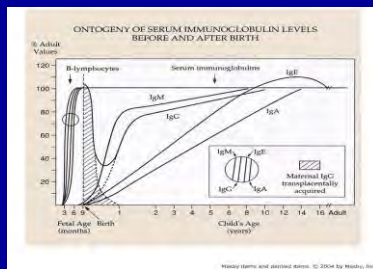


Hospital length of stay

Nishimura T. et al. Pediatrics Int. 2009
51:812-816

Ontogeny of Immune System

- Timing of immune development is tightly regulated
- Tolerance, immunity, host defense require specific sequence and balance of events

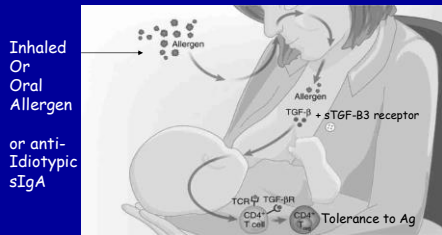


Development of Mucosal Tolerance

- Delay in antigenic response due to overall delay in neonatal immune system with simultaneous protection by HM
- Colostrum has increased TGF β
 - Regulates atopic responses
 - Accelerates newborn B cell isotype switch to sIgA that reduces effector response to food allergens

Xu et al. 1999

Development of Mucosal Tolerance



Rautava S, Walker A. Breastfeeding Medicine. 2009;4(1):3

Gut Colonization Essential to Prevent Allergy

- Newborn gut needs to be colonized shortly after birth
- Immune response to flora leads to:
 - Colonization with commensal bacteria
 - Development of immunologic tolerance
- Hygiene hypothesis
 - If not exposed and/or unable to properly handle flora (via HM) then allergy develops

Fanaro S. Acta Paediatr Suppl. 2003

Determinants of Gut Microbes

	Bifidobac	E Coli	C Dif	B Frag	Lactobac
C/Sect	--		+	--	
Hospital d			+		
Prematurity			+		
EFF vs. EBF		+	++	+	+
Abx use	-			--	
Miconazole	-				
Siblings	+				

KOALA study. Penders J. Pediatrics 2006

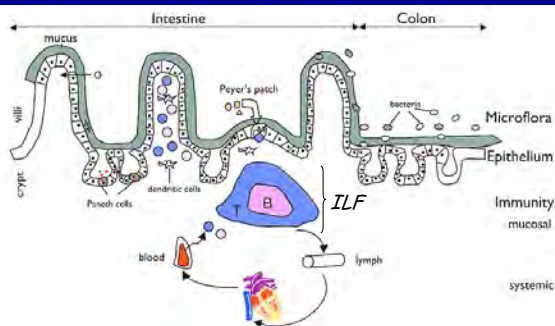
Intestinal Colonization

- Colonization with "Good" bacteria is critical to the development of normal structure and function of the mucosal immune system (GALT)
- Bacterial-epithelial "cross-talk"
- Begins at birth
- Stool flora changes if fed *any* formula

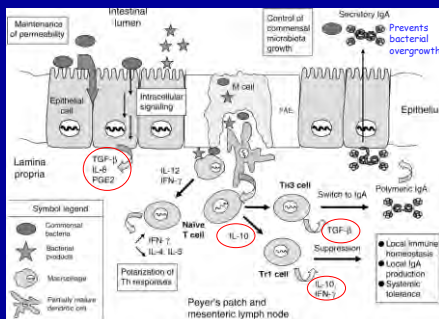
Anaerobic gram positive bifidobacteria
In EBF infants



Newborn Intestinal Immune System

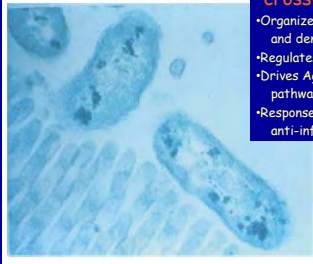


Fecal Flora, & Immunity



Corthesy B, et al. J Nutr. 2007 Mar;137(3 Suppl 2):781S-90S.

Enteric Bacterium Interacting with Intestinal Microvillus of the Small intestine

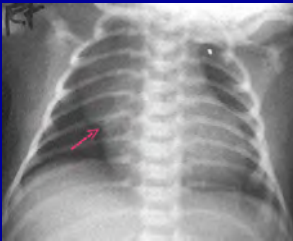


Bacterial-epithelial "cross-talk"

- Organizes B, T, Macrophages and dendritic cells
- Regulates Ag transport
- Drives Ag specific and non-specific pathways for recognition
- Responses are both pro and anti-inflammatory

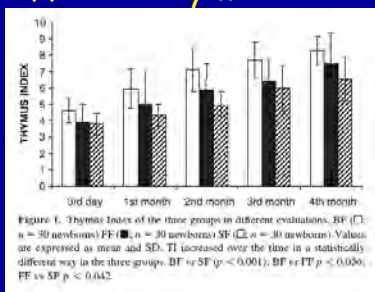
Forchielli ML and Walker A.
Br J Nutr. 2005 Apr;93
Suppl 1:S41-8.

Ontogeny of T Cell Function



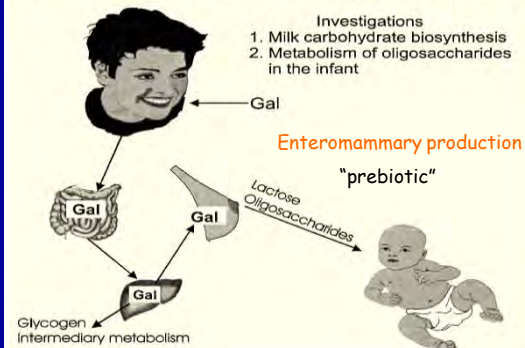
- T cells develop in GALT sent to thymus.
- Breastfed infants have a thymus twice the size of formula fed infants.
- Immune properties of HM are priming (signaling) the resting thymus cells.

Bacterial Colonization Affects Thymus Index

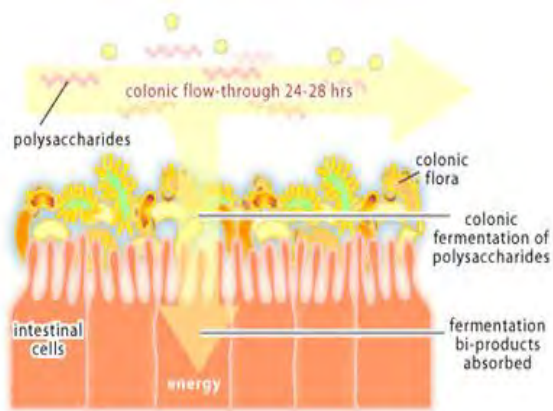


Indrio F. et al, Pediatric Research 2007

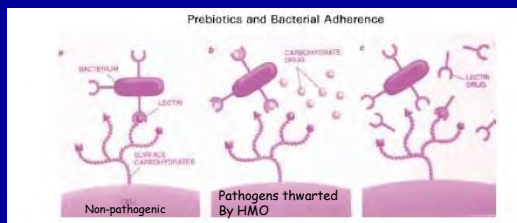
Studies with ^{13}C -labeled Monosaccharides



C. Kunz, et al. Ann Rev Nutrition 2000



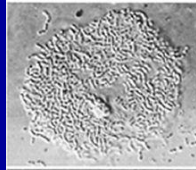
How Prebiotics in Human Milk Work



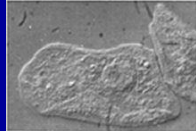
Forchielli ML and Walker A. Br J Nutr. 2005 Apr;93 Suppl 1:S41-8.

Oligosaccharides *necessary* to colonize commensal bacteria

Sugars on normal cell surfaces (throat) permit bacterial adhesion (pneumococci) and infection.



Oligosaccharides thwart attempt for bacteria to enter cell
By binding sugar receptors



Immune System Priming

- Probiotic bacteria need an invitation to the environment that hosts them
 - Prebiotic - oligosaccharides, suppress of immune reaction to probiotic while participating in host defense against pathogenic bacteria
- Nature permits *host defense without the need for an inflammatory response*....protects the epithelium...reason to have a delayed immune system...



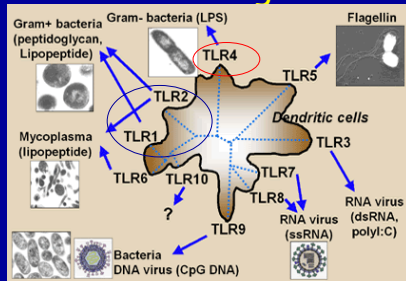
Oligosaccharides are *necessary* but *not sufficient* to properly colonize the infant's intestine

Toll like receptors (TLR) necessary to bind bacteria in concert with oligosaccharides (LPS on gram - bacteria)

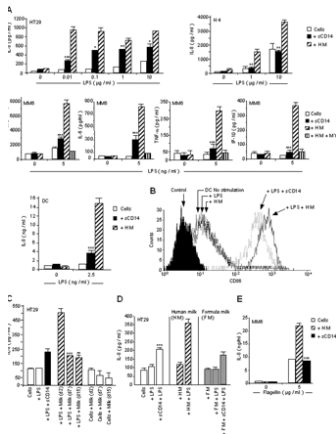
Need certain TLR's to be present

LeBoudier, The Journal of Immunology, 2006,176: 3742-3752.

Toll-like Receptors (TLR) and Their Ligands

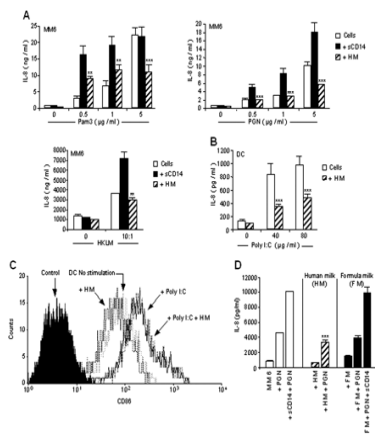


Forchielli ML and Walker A. Br J Nutr. 2005 Apr;93 Suppl 1:S41-8.



Human Milk, without Infant Formula Enhances TLR4- and TLR5-mediated responses

LeBouclier. The Journal of Immunology, 2006, 176: 3742-3752.



Negative Effect of Human Milk, without Infant Formula, on Cell Stimulation Via TLR2 and TLR3.

The Journal of Immunology, 2006, 176: 3742-3752.

TLR effect present only during the first 5 days of life

Up or down regulation of transcription of genes controlled by HM on an hour by hour basis

Any alteration in HM or addition of formula interferes with TLR regulation



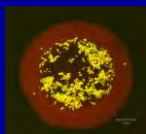
Results of Immune Priming

- Exclusively HM fed infants colonized with probiotic/commensal bacteria- *bifidobacteria*, and *lactobacillus*.
- Formula feeding leads to *bacteroides*, *clostridia*, and *streptococci*.
- Any amount of formula feeding... *just one bottle*... leads to colonization with bacteria that induces an *inflammatory response* (enhanced by factors in human milk).

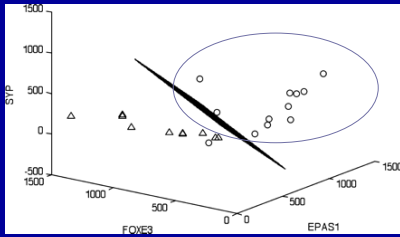
C. Kunz, et al. Ann Rev Nutrition 2000

Bifidobacteria...Probiotic or Marker of Normal GALT?

- The presence of bifidobacteria supported growth may be a marker for the normal immune modulation effects of human milk
- Immune modulation may be the factor that fights disease and prevents allergy, not the probiotic itself, or in concert with the probiotic
- Thus...is adding bifidobacteria to formula a good thing???



Genes are Differentially Regulated



3-dimensional bolstered gene expression discriminates between breast-fed (O) and formula-fed (Δ) infants
Master genes are transcription factors associated with angiogenesis and wound repair

Chapkin RS, et al. *Am J Physiol Gastrointest Liver Physiol* 298: G582-G589, 2010

Back to the Macro-level:



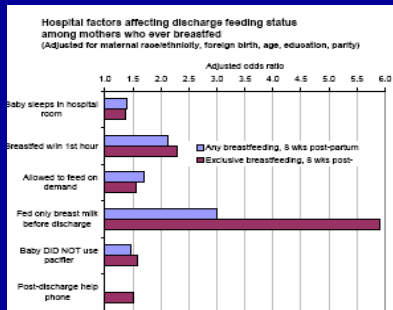
Exclusive Breastfeeding in the Delivery Hospital

Breastfeeding at 10 Weeks (PRAMS)
by Feeding at Hospital Discharge (EBC)

	Exclusive Breastfeeding	Combination Feeding
White, non-Hispanic	68%	47%
Black, non-Hispanic	69%	48%
Hispanic	64%	52%
All NJ Mothers	68%	50%

NJ PRAMS Data 2003

Exclusive Breastfeeding in the Delivery Hospital



The Institution Matters: Hospital Effect

Analysis of Variance for Exclusive Breastfeeding Among NJ Hospitals

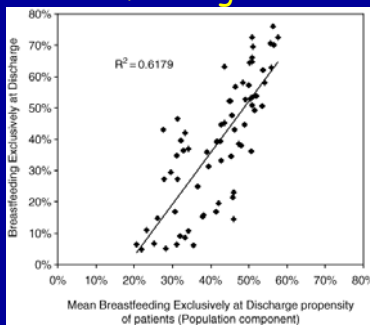
Kruse L, Denk CE, Feldman-Winter L, Rotondo FM. Birth 2005.

Source	df	Type I SS	Cum %	F value	Pr>F
Demographic Component	1	11.13	58%	4351.24	<.0001
Fixed effect, (1995-2001)	5	0.04	58%	3.08	0.0098
Fixed effect, hospital	70	7.18	96%	40.06	<.0001
Error	337	0.86	100%		
Corrected Total	413	19.21			

$R^2 = 0.955$ Hospital Effect=38%

Kruse L, Denk CE, Feldman-Winter L. Birth 2005

Population Component of Exclusive Breastfeeding at Discharge



38% of variance = Hospital Effect

Kruse L, Denk CE, Feldman-Winter L, Rotondo F. Birth. 2005 Jun;32(2):81-5.

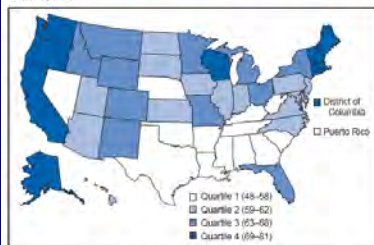
Maternity Practices at Hospitals and Birth Centers --- US, 2007

- 24% of birth facilities reported supplementing more than half of healthy, full-term, breastfed newborns
- 70% of facilities reported giving breastfeeding mothers gift bags containing infant formula samples

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5723a1.htm>

Geographic Distribution of Scores

FIGURE. Mean total maternity practice scores,* by quartile — Maternity Practices in Infant Nutrition and Care Survey, United States, 2007



*Maximum possible mean score is 100. Additional information regarding survey questions and scoring is available at <http://www.cdc.gov/mpinc>.

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5723a1.htm>

Culture of Supplementation

- Market influence
- Nurse training and culture
- Physicians' worry...
 - Dehydration
 - Jaundice
 - Hypoglycemia
 - Litigation!



Rooming in versus "Sleep"

	Nursery N=10	Room In N=11	Significance
Ave hrs sleep	5.35	5.55	NS
Mean quality of sleep	4.78	5.23	NS
Sleep Rx	7/10	0/11	P<0.05

Keefe. JOGN Nursing. Mar/Apr 1988:122-128

Reasons to Supplement

- Unresponsive hypoglycemia
- Severe maternal illness (psychosis, eclampsia, shock)
- Mother not available (maternal transfer)
- Galactosemia
- Infant unable to feed at breast (illness, congenital malformation)
- Few maternal medications
- LBW and sufficient milk is not available
- Delayed lactogenesis II (retained placenta, Sheehan), or primary glandular insufficiency
- Intolerable pain

When supplements are NOT Needed

- Colostrum QNS
- Teach how to use bottle
- Growth/appetite spurts, cluster feed
- Prevent Wt loss
- Prevent hyperbilirubinemia
- Quiet a fussy baby
- Sleepy baby
- Let mother sleep
- Prevent hypoglycemia
- Breastfeeding "too" long to prevent damage and sore nipples

Another Reason NOT to Supplement

- Joint Commissions
- **Set Measure ID:** PC-05
- **Performance Measure Name:** Exclusive Breast Milk Feeding
- **Description:** Exclusive breast milk feeding during the newborn's entire hospitalization

Joint Commission National Quality Core Measures

Excluded Populations:

- Discharged from the hospital while in the Neonatal Intensive Care Unit (NICU)
- *ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes* for **galactosemia** as defined in Appendix A, Table 11.21
- *ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes* for **parenteral infusion** as defined in Appendix A, Table 11.22
- Experienced **death**
- **Length of Stay** >120 days
- Enrolled in **clinical trials**
- Documented **Reason for Not Exclusively Feeding Breast Milk**

Joint Commission National Quality Core Measures

Allowable Values:

- **Y (Yes)** There is documentation by physician/APN/PA/CNM of a reason for not exclusively feeding breast milk during the entire hospitalization due to a maternal medical condition where breast milk feeding should be avoided.
- **N (No)** There is no documentation...OR unable to determine from medical record documentation.

Notes for Abstraction: The mother's refusal to feed the newborn breast milk **does not** constitute a reason for not exclusively feeding breast milk.

Follow-up Visit Should Include Breastfeeding Assessment

- Assessment of Lactogenesis II

- Identify risk factors for delay
- Take a history of maternal perception of timing of onset
- Avoid word such as "milk coming in"- assumes there was no milk before
- Examine breasts and breastfeeding dyad-LATCH or IBFAT

- Birth Weight, discharge weight, weight at visit

- If weight at visit less than weight at discharge nadir may not have been reached and an additional visit is warranted
- Identify maternity practices such as excess fluid, epidural, and edema that may contribute.
- Identify gestational age as an additional risk factor
- Use WHO curve to assess trajectory and growth velocity

Additional Breastfeeding Assessment

- Assess breastfeeding of dyad using a standardized format, IBFAT, LATCH, or Mother/Baby Assessment
- Determine next follow-up visit based on:
 - breastfeeding patterns
 - weight velocity
 - signs of nourishment and hydration: jaundice and void/stools
 - stage of lactogenesis

Summary

- Encourage continued *exclusive* breastfeeding
- Understand risks of supplementation
- Obtain a breastfeeding history
- Assess stage of lactogenesis
- Determine weight pattern and velocity
- Refer for community support
- Recommend follow-up visit





1510 Netherlands
'Maria Lactans'

Thank you!

Questions?

N.J.A.C. 8:43G-19 (2015)



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*** This file includes all Regulations adopted and published through the ***
*** New Jersey Register, Vol. 47 No. 5, March 2, 2015 ***

TITLE 8. HEALTH
CHAPTER 43G. HOSPITAL LICENSING STANDARDS
SUBCHAPTER 19. OBSTETRICS

N.J.A.C. 8:43G-19 (2015)

Title 8, Chapter 43G, Subchapter 19 Notes

HISTORY:

CROSS REFERENCES

Community Perinatal Center--Birthing Center, prenatal, postpartum, and newborn care provided as under this section, see *N.J.A.C. 8:33C-6.1*.

Community Perinatal Center--Intermediate facility, prenatal, postpartum and newborn care as under this section, see *N.J.A.C. 8:33C-7.1*.

Regional Perinatal Centers and Community Perinatal Centers, compliance with current hospital licensure standards, see *N.J.A.C. 8:33C-4.2*.

NOTES:

LexisNexis 50 State Surveys, Legislation & Regulations

Medical Facility Licensing

NOTES:

Chapter Notes

§ 8:43G-19.1 Scope of obstetrical standards--definitions; structural organization

(a) The standards in this subchapter shall apply only to hospitals that have a separate, designated unit or service for obstetrics.

(b) The following terms, when used in this subchapter, shall have the following meanings:

"Advanced practice nurse" means a licensed registered professional nurse with certification in a specialty requiring expertise in maternal and child health who has been certified by the New Jersey Board of Nursing as specified in *N.J.A.C. 13:37-7*.

"American Nurses Credentialing Center" means an organization that is a subsidiary of the American Nurses Association, which certifies nurses in specialty practice areas, and for which the contact information is American Nurses Credentialing Center, 8515 Georgia Avenue, Suite 400, Silver Spring, MD 20910-3492, telephone (800) 284-2378, website <http://www.nursecredentialing.org>.

"Birth center" means an ambulatory care facility or a distinct part of a facility which is separately licensed as an ambulatory care facility and provides routine prenatal and intrapartum care. These facilities provide care to low-risk maternity patients who are expected to deliver neonates of a weight greater than 2,499 grams and at least 37 weeks gestational age and who require a stay of less than 24 hours after birth.

"Boarder baby" means an infant abandoned in a hospital, or an infant still in the nursery after the mother's discharge

"Clinical Practice Guidelines for Management of Hyperbilirubinemia" means the clinical practice guidelines established by the American Academy of Pediatrics Subcommittee on Hyperbilirubinemia, as set forth in Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation, (Pediatrics 2004;114:297), incorporated herein by reference, as amended and supplemented, available at <http://pediatrics.aappublications.org/content/114/1/297.full.html>.

"Community Perinatal Center" (CPC) means a licensed hospital designated within a Maternal and Child Health Service Region as one of the following:

1. "Basic" provides care to uncomplicated maternity patients and neonates in accordance with the scope of functions delineated in its formal letter of agreement with the Regional Perinatal Center. Such a facility shall provide care to patients expected to deliver neonates greater than 2,499 grams and at least 36 weeks gestation.

2. "Intermediate" provides care to complicated maternity patients and neonates in accordance with the scope of functions delineated in its letter of agreement with the Regional Perinatal Center. Such a facility shall provide care to patients expected to deliver neonates greater than 1,499 grams and at least 32 weeks gestation.

3. "Intensive" provides care to complicated maternity patients and neonates in accordance with the scope of functions delineated in its letter of agreement with the Regional Perinatal Center. Such a facility shall provide care to patients expected to deliver neonates greater than 999 grams and at least 28 weeks gestation.

"Construction Guidelines" means the Guidelines for Design and Construction of Health Care Facilities, 2010 edition, incorporated herein by reference, as amended and supplemented, published by the American Society for Healthcare Engineering of the American Hospital Association (ASHE), for which the contact information is ASHE, 155 North Wacker Drive, Chicago, IL 60606, (800) 242-2626, www.fgiguideelines.org.

"Contact hour" means a unit of measurement that describes 50 minutes of an approved, organized learning experience, either didactic or clinical practice.

"Core competencies" means the knowledge, skills, and judgment that a hospital determines to be essential to ensure the proficiency of staff in the independent performance of a particular patient care service.

"Expression" means a manual technique accomplished with the aid of an external device (that is a breast pump) to extract milk from a lactating woman.

"Formula" means infant formula as that term is defined at 21 U.S.C. § 321(z), which is incorporated herein by reference.

"Formula supplementation" means the practice of feeding breastfed infants prior to six months of age commercially prepared infant formula in addition to, or as a substitute for, breast milk.

"Gifts and promotional materials" means products and information provided free by commercial vendors or by hospitals for distribution to new mothers. These items may include infant formula, diaper bags, nursing pads, cooler packs for expressed breast milk or formula, and printed materials regarding infant feeding.

"Hand expression" means a manual technique to extract breast milk from a lactating woman that is accomplished without the aid of an external device.

"Implementing the Joint Commission Perinatal Care Core Measure on Exclusive Breast Milk Feeding" means the publication developed by the United States Breastfeeding Committee to facilitate exclusive breastfeeding in hospitals, for which citation to the current edition is, Implementing the Joint Commission Perinatal Care Core Measure on Exclusive Breast Milk Feeding, Rev. ed., Washington, D.C.: United States Breastfeeding Committee; 2010, which is incorporated herein by reference, as amended and supplemented and which can be accessed at: <http://www.usbreastfeeding.org/Portals/0/Publications/Implementing-TJC-Measure-EBMF-2010-USBC.pdf>;

"International Board of Lactation Consultant Examiners" means the independent international certification body that confers the International Board Certified Lactation Consultant (IBCLC) credential, and for which the contact information in the United States is International Board of Lactation Consultant Examiners in the Americas, 6402 Arlington Blvd., Suite 350, Falls Church, VA 22042, email iblce@iblce.org, telephone (703) 560-7330, facsimile (703) 560-7332, website: <http://americas.iblce.org/contact>.

"Lactation consultant" means an individual who is qualified to use the credential, "IBCLC," denoting certification as a lactation consultant conferred by the International Board of Lactation Consultant Examiners.

"Lactation support room" means a room designated for consultations, expression of breast milk, and/or breastfeeding, or a private space designated on a temporary basis for such purposes.

"Latch" means the attachment of a newborn to the breast for breastfeeding.

"LDR room" means a labor-delivery-recovery room designed to accommodate the birthing process from labor through delivery and recovery of a mother and her infant.

"Letter of agreement" means the document which defines the relationship between a Regional Perinatal Center and a Community Perinatal Center and specifies all tasks to be provided. This document must be developed in cooperation with the Maternal and Child Health Consortia in the region and signed by both facilities.

"Maternal postpartum room" means an obstetrics patient room where a mother stays after the birth of her newborn.

"Member in good standing" means that an acute care hospital has made timely payment of Maternal and Child Health Consortium (MCHC) financial assessments in accordance with the MCHC by-laws, which are based on a budget approved by the Department of Health and Senior Services.

"Mother-infant room" means an obstetrics patient room where mother(s) and infant(s) stay after delivery and receive care in this continuously rooming-in space during the post-partum period. The room shall comply with the space requirement indicated in the Construction Guidelines.

"National Certification Corporation for the Obstetric, Gynecologic, and Neonatal Nursing Specialties" means the not-for-profit organization that provides a national credentialing program for nurses in the obstetric, gynecologic, and neonatal nursing specialties, and for which the contact information is National Certification Corporation, 142 E. Ontario Street, Suite 1700, Chicago, IL 60611, website: www.nccwebsite.org.

"Obstetric patient" means a female patient at any stage of pregnancy, including antepartum, and up to six weeks post partum, whose primary diagnosis is related to the management of labor, pregnancy complications or complications of the puerperium.

"Perinatal" means occurring in, concerned with, or being in the period around the time of birth.

"Risk reduction specialist" means a registered professional nurse, a licensed or certified social worker or other professional in a maternal and child health addiction related field, who has specialized training and experience in perinatal addiction.

"Rooming-in" means the practice of placing the newborn(s) with the mother in the "maternal postpartum room" or "mother-infant room" 24 hours a day to facilitate maternal-infant bonding and breastfeeding on demand, as applicable, and to allow patient care to be given to mother and infant in the same room.

"United States Breastfeeding Committee" means the independent nonprofit organization whose mission is to improve the nation's health by working collaboratively to protect, promote, and support breastfeeding, and for which the contact information is United States Breastfeeding Committee, 2025 M Street, NW, Suite 800, Washington, DC 20036; phone: (202) 367-1132 ; fax: (202) 367-2132; email: office@usbreastfeeding.org; available at: <http://www.usbreastfeeding.org>.

(c) All hospitals with obstetric services shall satisfy the following conditions:

1. The hospital shall be designated as a Community Perinatal Center or a Regional Perinatal Center; and
2. The hospital shall be a member in good standing of a Maternal and Child Health Consortium.

(d) All hospitals shall provide services in accordance with a letter of agreement facilitated by the Maternal Child Health Consortium for its region. Such services shall include:

1. Prenatal and pediatric services in accordance with the HealthStart Standards, N.J.A.C. 10:49-3; and
2. Routine prenatal care which incorporates use of a comprehensive standardized perinatal record.

(e) All Community Perinatal Centers shall have a written protocol which addresses the management of patients assessed to be at risk during the prenatal period. This protocol shall assure referral of the patient to a provider with advanced capabilities in maternal-fetal medicine for initial consultation and, if appropriate, treatment.

(f) All Regional Perinatal Centers shall have a distinct prenatal clinic service devoted to women identified as high risk. This clinic shall be staffed by an advanced practice nurse on-site and a risk reduction specialist available during hours of operation. One individual may fill both positions.

(g) All Regional Perinatal Centers shall provide high risk infant follow-up service accordance with *N.J.A.C. 8:33C*.

HISTORY:

Amended by R.1992 d.347, effective September 8, 1992.

See: 24 N.J.R. 2045(a), 24 N.J.R. 3165(a).

Definitions added at (b).

Amended by R.1993 d.286, effective June 7, 1993.

See: 25 N.J.R. 1117(a), 25 N.J.R. 2554(a).

Amended by R.1999 d.436, effective December 20, 1999.

See: 31 N.J.R. 367(a), 31 N.J.R. 614(a), 31 N.J.R. 4293(c).

Rewrote the section.

Amended by R.2014 d.025, effective January 21, 2014.

See: 45 N.J.R. 194(a), 46 N.J.R. 214(a).

In (b), added definitions "American Nurses Credentialing Center", "Boarder baby", "Clinical Practice Guidelines for Management of Hyperbilirubinemia", "Construction Guidelines", "Core competencies", "Expression", "Formula", "Formula supplementation", "Gifts and promotional materials", "Hand expression", "Implementing the Joint Commission Perinatal Care Core Measure on Exclusive Breast Milk Feeding", "International Board of Lactation Consultant Examiners", "Lactation consultant", "Lactation support room", "Latch", "LDR room", "Maternal postpartum room", "Mother-infant room", "National Certification Corporation for the Obstetric, Gynecologic, and Neonatal Nursing Specialties", "Perinatal", "Rooming-in", and "United States Breastfeeding Committee".

NOTES:

LexisNexis 50 State Surveys, Legislation & Regulations

Medical Facility Licensing

NOTES:

Chapter Notes

(h) The hospital shall develop and implement written policies and procedures, review them every three years and

make revisions at any time as necessary, make current copies available to obstetrics staff in all areas of the obstetrics service, and address: Page 94

1. Criteria for the identification of high-risk obstetric and newborn patients;
2. Guidelines for when to call a physician during labor;
3. Qualifications for nurses who provide maternal and infant care appropriate to the level of care provided;
4. The use of fetal monitors;
5. A protocol for the use of oxytocics for induction and stimulation of labor, including physician assessment of the patient before the drug's use, monitoring of the patient and fetus during its use, indications for discontinuance of the drug, educating staff in the use of oxytocin and a policy which addresses the availability of a physician to manage any complications that may arise during infusion;
6. A system for identifying hospital personnel while they are working in the unit;
7. The attire required to be worn in the labor and delivery areas;
8. A visitors policy that includes permitted visitors to the obstetrics unit, visitation hours, security procedures, and infection control measures;
9. Core competencies for the initiation and maintenance of infant feeding that are developed using evidence-based reference materials including, but not limited to, *Implementing the Joint Commission Perinatal Care Core Measure on Exclusive Breastmilk Feeding*.
 - i. The hospital shall ensure that all staff demonstrate proficiency in core competencies prior to providing related patient care;
10. Distribution of printed materials about infant feeding to the prenatal patient, at the pre-admission contact and on admission. These materials shall be developed:
 - i. Using evidenced-based source materials free of commercial interests that address maternal choice for infant feeding including, but not limited to, maternal and child health outcomes related to breastfeeding and formula feeding; successful breastfeeding management, and potential contraindications to breastfeeding, including maternal medications and infections; and
 - ii. In all languages spoken exclusively by at least 10 percent of the hospital community;
11. A program that ensures the cultural competence of obstetrics staff regarding childbirth, lactation, and the provision of patient care services that is delivered in a language the mother understands.
 - i. When necessary, obstetrics staff shall make use of a language line or interpreter and maintain the quality, privacy, and confidentiality of any interpreted conversations;
12. Professional resources regarding lactation, including those addressing medications that may impact breastfeeding, which are current and accessible to all staff in the obstetrics service;
13. Formula supplementation for a breastfed newborn when medically indicated or when requested by the mother;
14. Rooming-in, taking into account the mother's preference, available space, and any medical or other contraindication;
15. The use of pacifiers during the neonatal period, including the benefits of delaying pacifier use in healthy, full-term breastfed infants until breastfeeding is well established;
16. The option to exclusively breastfeed and breastfeeding assistance consistent with the lactation education requirements set forth at *N.J.A.C. 8:43G-19.3(d)*, including, but not limited to, instruction in the hand expression of breast milk and in recognizing infant feeding cues.
 - i. The labeling and storage of breast milk, in accordance with *N.J.A.C. 8:43G-19.31(n)*, to include the infant's name and date and time of storage;

17. The option to formula feed and formula-feeding assistance for mothers who use formula or a combination of breast milk and formula.

i. The labeling and storage of infant formula to include the infant's name and date and time of storage; and

18. A hospital discharge policy that addresses:

i. The distribution of gifts and promotional materials and the impact of such distribution on exclusive breastfeeding and formula feeding;

ii. A plan for patients who will be discharged less than 48 hours after delivery, including the need for home health services; and

iii. Maternal education about infant feeding consistent with exclusive breast feeding, formula feeding, or a combination, as applicable, and the availability of the appropriate community-based resources.

(i) A current list of physicians and nurse-midwives, their specific obstetric service privileges, and an on-call schedule shall be available in the department to professional staff.

(j) On obstetric units where Cesarean sections are performed, all requirements of surgical standards shall apply.

(k) The hospital shall require submission of a copy of the prenatal record for all patients registered to deliver at the hospital once the patient reaches 34 weeks gestation. These prenatal records shall be accessible to the obstetrical unit at all times.

(l) Restrictions shall be established and posted governing entry into the delivery/cesarean suite.

(m) Entry into the surgical area shall be restricted to staff and support persons. Scrub attire shall be required.

(n) All pregnant women admitted to the hospital with unknown or undocumented hepatitis-B surface antigen (HBsAg) assay results shall be immediately screened for the hepatitis-B virus using the HBsAg test or other standardized hepatitis-B tests. Test results should be available within 24 hours but no later than 48 hours. All positive HBsAg test results shall be reported on a designated reporting form within five working days of determination to the New Jersey Department of Health and Senior Services, Immunization Program.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: 23 N.J.R. 2590(a), 24 N.J.R. 590(a).

Text on prenatal record added at (f).

Amended by R.1992 d.347, effective September 8, 1992.

See: 24 N.J.R. 2045(a), 24 N.J.R. 3165(a).

Text regarding transfer of patients at (e) deleted; subsections recodified.

Amended by R.1999 d.436, effective December 20, 1999.

See: 31 N.J.R. 367(a), 31 N.J.R. 614(a), 31 N.J.R. 4293(c).

Rewrote the section.

Amended by R.2014 d.025, effective January 21, 2014.

See: 45 N.J.R. 194(a), 46 N.J.R. 214(a).

Rewrote (a).

§ 8:43G-19.3 Obstetrics staff qualifications

(o) There shall be a physician director of the obstetric service who is responsible for all obstetric care in the hospital and is board certified in obstetrics.

(p) There shall be a nurse manager of the obstetric service, which may include labor and delivery, who is a

1. A minimum of three years of experience in inpatient obstetric services within the five years immediately preceding the date of appointment;
2. Educational preparation in maternal-fetal neonatal nursing, in accordance with hospital policy; and
3. Completion of 24 contact hours in maternal-fetal or neonatal nursing approved by a nationally recognized nurse education accrediting body every three years.

(q) All health professionals assigned to the post-partum service shall be trained in the care of both mothers and infants.

(r) For all obstetrics staff who provide breastfeeding care and consultation, the hospital shall develop and implement an education and training program for employee orientation and annual employee in-services, thereafter, that addresses:

1. Training content and printed teaching materials concerning the topics specified at *N.J.A.C. 8:43G-19.2(a)* that are developed using current evidence-based source materials and are free of commercial interests;

2. A review of hospital policies and procedures that support breastfeeding, including those required at *N.J.A.C. 8:43G-19.2, 19.12, 19.14, and 19.15*;

3. A review of the printed materials that the hospital provides to obstetrics patients and strategies for supporting and reinforcing the contents of those materials; and

4. A review of the training program's content and efficacy every three years and revisions made at any time as necessary.

(s) A hospital designated as a CPC-Intensive or Regional Perinatal Center shall have an advanced practice nurse who is responsible for in-house training in perinatal care.

1. This individual shall be a registered professional nurse with a master's degree in a maternal and child health nursing specialty from an accredited college or university and who has:

- i. A minimum of three years experience in maternal and child health inpatient services within the five years immediately preceding the date of appointment; and

- ii. Certification in Perinatal Nursing conferred by the American Nurses Credentialing Center or the National Certification Corporation for the Obstetric, Gynecologic, and Neonatal Nursing Specialties.

HISTORY:

Amended by R.1992 d.347, effective September 8, 1992.

See: 24 N.J.R. 2045(a), 24 N.J.R. 3165(a).

Text added to require recent experience and education; new subsections (d)-(f) added.

Amended by R.1999 d.436, effective December 20, 1999.

See: 31 N.J.R. 367(a), 31 N.J.R. 614(a), 31 N.J.R. 4293(c).

Rewrote the section.

Amended by R.2014 d.025, effective January 21, 2014.

See: 45 N.J.R. 194(a), 46 N.J.R. 214(a).

Added new (d); recodified former (d) as (e); and rewrote (e).

§ 8:43G-19.4 Obstetrics staff time and availability

(t) The obstetric service in hospitals designated as a CPC-Basic shall be covered at all times by a board eligible or certified obstetrician or a board eligible or certified family practice physician with obstetric privileges, who is present in the hospital or available by telephone and able to arrive within 30 minutes of being summoned, under normal transportation conditions. If coverage is provided by a family practice physician as described above, there shall be a mechanism of coverage to ensure that an obstetrician is able to arrive within 30 minutes of being summoned to perform

(u) The obstetric service in hospitals designated as a CPC-Intermediate shall be covered at all times by a board eligible or certified obstetrician or board eligible or certified family practice physician with obstetric privileges, or an obstetric resident with at least three years of training, who is either present in the hospital or available by telephone and able to arrive within 30 minutes of being summoned, under normal transportation conditions. If coverage is provided by a family practice physician as described above, there shall be a mechanism of coverage to ensure that an obstetrician is able to arrive within 30 minutes of being summoned to perform a cesarean section.

(v) The obstetric service in hospitals designated as Community Perinatal Centers Intensive shall be covered at all times by a board eligible or certified obstetrician, who is present in the hospital.

(w) The obstetric service in hospitals designated as a Regional Perinatal Center shall be covered at all times by a board certified obstetrician with certification in maternal-fetal medicine, who is either present in the hospital or available by telephone and able to arrive within 30 minutes of being summoned, under normal transportation conditions. This physician may fulfill the requirement for physician coverage at (c) above during those times in which he or she is present in the hospital.

HISTORY:

New Rule, R.1992 d.347, effective September 8, 1992.

See: 24 New Jersey Register 2045(a), 24 New Jersey Register 3165(a).

Amended by R.1999 d.436, effective December 20, 1999.

See: 31 New Jersey Register 367(a), 31 New Jersey Register 614(a), 31 New Jersey Register 4293(c).

Rewrote the section.

NOTES:

LexisNexis 50 State Surveys, Legislation & Regulations

Medical Facility Licensing

CASE NOTES:

Registered nurse requirement in labor-delivery and obstetrics rooms under former N.J.A.C. 8:43B-8.4. In re: *Kessler Memorial Hospital*, 154 N.J.Super. 147 (App.Div.1977), reversed 78 N.J. 564, 381 A.2d 44 (1979) dissenting opinion.

§ 8:43G-19.5 Obstetrics patient services

(x) Obstetric patients shall be informed upon admission about hospital policies and procedures, including at least policies regarding visitors, and the unit's security procedures.

(y) Prenatal instruction shall be offered and include, at a minimum, information about childbirth, parenting, breast and breast/bottle feeding, immunizations, prevention of infection and disease in infants, and alternative methods of pain management during childbirth.

(z) There shall be the capability of starting a Cesarean section within 30 minutes of the decision to perform such a delivery method.

(aa) The medical record for the obstetric patient shall include the prenatal record, documentation of the course of labor, including fetal monitoring strip or any other comparable electronic data record, delivery, and the postpartum period and a copy of any vital records filed in accord with N.J.S.A. 26.

(bb) Criteria shall be developed in consultation with the social work department for identifying patients in need of social work services and/or discharge planning and making referrals as needed.

HISTORY:

See: 23 New Jersey Register 2590(a), 24 New Jersey Register 590(a).

Text on dietary criteria added at (g).

Amended by R.1999 d.436, effective December 20, 1999.

See: 31 New Jersey Register 367(a), 31 New Jersey Register 614(a), 31 New Jersey Register 4293(c).

Rewrote the section.

§ 8:43G-19.6 Maternal-fetal transport and neonatal transport

(cc) Maternal-fetal transports for maternal management shall only be accepted by a hospital designated as a Regional Perinatal Center. Maternal-fetal transports, when the expected birth weight or gestational age falls below the facility's certified capability for neonatal care, shall be made in accordance with the facility's letter of agreement to utilize the regional transport system within the consortium region.

(dd) Each Community Perinatal Center shall establish and implement interhospital transport agreements for patients who require a higher level of care for maternal-fetal management or delivery than the hospital is designated to provide. Such agreements shall be facilitated by the maternal and child health consortium, documented in the facility's letter of agreement with the Regional Perinatal Center and shall be in accordance with the consortium's regional transport system.

(ee) Facilities designated as a CPC-Intermediate, CPC-Intensive, or a Regional Perinatal Center shall establish criteria and implement transport agreements with birth centers within their region for patients who require a higher level of care for maternal management delivery, or neonatal management than the birth center is designated to provide. Such agreements shall be facilitated by the maternal and child health consortium and be in accordance with the consortium's regional transport system.

(ff) The maternal and child health consortium, in association with the Regional Perinatal Center shall develop transport criteria and implement policies and procedures that establish a regional maternal-fetal transport system which includes, at a minimum, a transport team staffed by health professionals with special training in maternal and fetal care in accordance with hospital policy. This transport system shall be in accordance with the regional perinatal plan.

(gg) Each Community Perinatal Center shall establish and implement interhospital transport agreements for neonates who require a higher level of care than the hospital is designated to provide. Such agreements shall be facilitated by the maternal and child health consortium, documented in the facility's letter of agreement with hospitals designated as CPC-Intensive and/or Regional Perinatal Center, and shall be in accordance with the consortium's regional transport system. The transport agreement shall also include provisions for return of the neonate to the sending hospital when the problems that required transport have been resolved.

(hh) All Regional Perinatal Centers and CPC-Intensives which have executed letters of agreement to accept neonatal transports shall have, at a minimum:

1. A transport team staffed by health professionals with special training in neonatology;
2. Board eligible or certified anesthesiologists available with special training in the care of neonates;
3. Formal consultative relationship with physicians in the following pediatric subspecialties: anesthesiology, cardiology, hematology/oncology, infectious diseases, nephrology, neurology, pulmonary, radiology, and surgery; and
4. Written policies and procedures specific to the required 30 minute arrival time for the physicians with pediatric subspecialties identified in (f) 3 above.

HISTORY:

New Rule, R.1992 d.347, effective September 8, 1992.

See: 24 New Jersey Register 2045(a), 24 New Jersey Register 3165(a).

Amended by R.1999 d.436, effective December 20, 1999.

§ 8:43G-19.7 Obstetric space and environment

(ii) The obstetric service shall be physically separate from any service not concerned with obstetric care.

(jj) The obstetric service shall have a minimum of 10 obstetric beds.

HISTORY:

Amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Added (a) designation; and added (b).

NOTES:

LexisNexis 50 State Surveys, Legislation & Regulations

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NOTES:

Chapter Notes

§ 8:43G-19.8 Obstetric staff education and training

Requirements for the obstetric education program shall be as provided in *N.J.A.C. 8:43G-5.9*.

§ 8:43G-19.9 Interdisciplinary breastfeeding team

(kk) The hospital shall establish an interdisciplinary breastfeeding team that represents the various professional healthcare disciplines and lay advocacy groups to include, at a minimum, nurses, nurse managers, maternal-child physicians, health educators, breastfeeding support staff, pharmacists, and patient/community representatives.

(ll) The members of the interdisciplinary breastfeeding team shall address:

1. Hospital practices affecting breastfeeding;
2. The hospital's Continuous Quality Improvement Program on how to improve breastfeeding outcomes, as requested; and
3. Solutions to reducing hospital barriers to breastfeeding.

(mm) The interdisciplinary breastfeeding team shall meet at least annually.

HISTORY:

New Rule, R.2014 d.025, effective January 21, 2014.

See: *45 N.J.R. 194(a)*, *46 N.J.R. 214(a)*.

Section was "Reserved".

§ 8:43G-19.10 Obstetric continuous quality improvement

(nn) There shall be a continuous quality improvement program for obstetrics that is integrated into the hospital continuous quality improvement program and includes regularly collecting and analyzing data to help identify health-service problems and their extent, and recommending, implementing, and monitoring corrective actions on the

(oo) The continuous quality improvement program for obstetrics should include at least: high-risk screening, review of unattended deliveries, transports to other facilities and return transports, appropriateness of Cesarean sections, use of oxytocic drugs, prevention of infections in the nursery, fetal morbidity and mortality and maternal and infant morbidity and mortality.

(pp) If non-obstetric patients are admitted to the obstetric unit, the continuous quality improvement program shall review cases of all non-obstetric patients transferred from the obstetric unit.

HISTORY:

Amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section.

§ 8:43G-19.11 Labor and delivery staff time and availability

(qq) There shall be at least one registered professional nurse present whenever a patient is in a labor area. Nurse staffing assignments for patients in active labor shall be determined by patient acuity levels.

(rr) All deliveries shall be attended by an obstetrician, a physician with obstetrical privileges, a certified nurse-midwife or an obstetric resident with at least three years of training.

(ss) There shall be at least one registered professional nurse attending the patient once she reaches full dilation until she enters the recovery phase of delivery.

(tt) If oxytocics are administered, the following shall occur within one hour prior to administration: the patient shall be examined vaginally by either a physician with obstetric privileges, a certified nurse midwife or an advance practice nurse in accordance with hospital bylaws, and electronic fetal heart rate monitoring shall be initiated.

(uu) All obstetrics departments shall have the capability of starting an emergency cesarean section within 30 minutes of the decision to perform a cesarean section.

(vv) A health professional certified in neonatal resuscitation shall be available within the obstetrics unit for each delivery.

(ww) A pediatrician or pediatric resident shall be present in the delivery room for all high-risk deliveries.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: *23 New Jersey Register 2590(a)*, *24 New Jersey Register 590(a)*.

Physician to examine patient prior to use of oxytocics; neonatal resuscitation to be available when infant is present.

Recodified from *N.J.A.C. 8:43G-19.13* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section.

§ 8:43G-19.12 Perinatal patient services

(xx) A registry of all births shall be maintained through either the electronic certificate or a maternity log book located in the obstetrics area and shall include the minimum data set required by the Department of Health and Senior Services and in accordance with *N.J.S.A. 26:8-30*, and *N.J.A.C. 8:2*.

(yy) Obstetrics anesthesia services policies and procedures shall include at least:

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1. The obstetric service in consultation with the anesthesia service shall develop and implement written policies and procedures that govern anesthesia services in all labor, delivery and recovery areas. The policies and procedures shall be reviewed annually, revised and implemented.

2. All individuals who administer anesthetic agents to obstetric patients shall be credentialed in accordance with medical staff policies. The physician director of anesthesia services shall participate in the credentialing process and delineation of privileges of all personnel who administer anesthetic agents.

3. The obstetric service, in consultation with the anesthesia service, shall establish protocols governing the use of anesthetic agents for pain management. These shall include the qualifications and responsibilities of persons who administer the use of anesthetic agents for pain management. Policies and procedures shall address the use of patient monitoring equipment and identify the types and levels of agents which may be used for pain management.

4. A preanesthesia note, reflecting evaluation and classification of the patient according to American Society of Anesthesiologists (ASA) Physical Status system, shall be made or certified by the physician administering or supervising the administration of anesthesia and entered into the medical record of each patient who will be administered an anesthetic agent.

5. Anesthetic or pain control agents administered to non-surgical obstetric patients classified for anesthesia risk as an ASA Class I, II or III shall be administered and monitored in accordance with obstetric service policies and procedures governing anesthesia care.

6. Anesthetic or pain control agents administered to non-surgical obstetric patients classified for anesthesia risk as an ASA Class IV, V or Emergency shall be in accordance with the following sections of N.J.A.C. 8:43G-6, Anesthesia Services, as amended:

- i. *N.J.A.C. 8:43G-6.1*, Definitions;
- ii. *N.J.A.C. 8:43G-6.3(d)* through (k), Anesthesia qualifications for administering anesthesia;
- iii. *N.J.A.C. 8:43G-6.5(b)*, Anesthesia patient services;
- iv. *N.J.A.C. 8:43G-6.6*, Anesthesia supplies and equipment; safety systems;
- v. *N.J.A.C. 8:43G-6.7*, Anesthesia supplies and equipment; maintenance and inspection; and
- vi. *N.J.A.C. 8:43G-6.8*, Anesthesia supplies and equipment; patient monitoring.

7. For patients undergoing surgical deliveries, including cesarean sections, anesthesia care shall be in accordance with all applicable sections of N.J.A.C. 8:43G-6, Anesthesia Services.

8. There shall be a program of quality assurance for anesthesia care provided in obstetric services that is integrated into the hospital and the anesthesia service quality assurance programs.

(zz) There shall be written policies and procedures for the care of patients during the recovery phase of delivery. The policies and procedures shall be reviewed annually, revised as needed, and implemented. These policies and procedures shall include at least:

1. Delineation of the primary medical responsibility for postanesthesia care of the patient;
2. Monitoring of patients, including availability of monitoring equipment, and use of an objective scoring system to determine when the patient has recovered from anesthesia;
3. Requirements for documentation of patient status;
4. Protocol for patient emergencies;
5. Criteria and responsibility for discharge from recovery;
6. Recovery staff qualifications, which shall be as follows:
 - i. All registered professional nurses assigned to recovery services shall have training in basic cardiac life support.

ii. Recovery services shall be staffed at all times by at least one registered professional nurse with critical care training, as defined by the hospital, whenever a patient recovering from a cesarean section and/or classified as ASA Class III, IV, V or Emergency is present;

7. Recovery staff time and availability, which shall be as follows:

i. There shall be at least two health care personnel, one of whom is a registered professional nurse and the other of whom is either a registered professional nurse or a licensed practical nurse, present in recovery services whenever a patient in the recovery phase of delivery is present. The nurse identified in (c)6ii above may function as the registered professional nurse required herein.

ii. There shall be a ratio of at least one registered professional nurse present in the recovery service area for every three patients in the recovery phase of delivery; and

8. Recovery patient services, which shall be as follows:

i. Postanesthesia notes shall be entered into the patient's medical record by a member of the hospital's anesthesia team early in the postoperative period.

ii. The condition of each patient shall be continually evaluated, with an objective scoring system used to track the patient until she has recovered from anesthesia.

iii. The patient's vital signs shall be monitored and recorded at least every 15 minutes during recovery.

iv. Postanesthesia care for patients recovering from a cesarean section and/or classified as ASA Class III, IV, V or Emergency shall also follow 8:43G-35.4(a) through (i).

(aaa) The hospital shall develop and implement written policies and procedures using evidence-based resources regarding perinatal patient care, which address:

1. Allowing the newborn to remain with the mother or a primary caregiver as the preferred source of body warmth during the critical first hour following delivery, unless such contact is contraindicated or not accepted by the mother;

2. Performing newborn assessments while the newborn is with the mother or primary caregiver, unless contraindicated;

3. Offering support to mothers who wish to breastfeed their newborns and assisting, as necessary, to facilitate positioning and latch during the first hour after an infant's birth; and

4. Reviewing these policies and procedures every three years and making revisions at any time as necessary.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: 23 N.J.R. 2590(a), 24 N.J.R. 590(a).

Text added at (b) on anesthesia; at (c) on recovery.

Recodified from *N.J.A.C. 8:43G-19.14* and amended by R.1999 d.436, effective December 20, 1999.

See: 31 N.J.R. 367(a), 31 N.J.R. 614(a), 31 N.J.R. 4293(c).

Rewrote (a); and in (b), inserted a reference to ASA Class III in 5, and deleted a reference to ASA Class III in 6. Former *N.J.A.C. 8:43G-19.12*, Labor and delivery policies and procedures, repealed.

Amended by R.2014 d.025, effective January 21, 2014.

See: 45 N.J.R. 194(a), 46 N.J.R. 214(a).

Section was "Labor, delivery, anesthesia and recovery patient services". Added (d).

(bbb) At least one registered professional nurse shall be on duty in the postpartum area whenever a patient is present.

(ccc) Nurse staffing assignments for postpartum patients shall be determined by patient acuity levels.

(ddd) There shall be written policies and procedures for the care of postpartum patients. The policies and procedures shall be reviewed annually, and revised as needed, and shall include at least the following:

1. Monitoring and documentation of patient's vital signs, condition of uterus, and rate of bleeding.
2. Identification and management of postpartum complications; and
3. Physical care, including care of the perineum and breasts, and ambulation.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: 23 New Jersey Register 2590(a), 24 New Jersey Register 590(a).

Text added at (c), requiring policies and procedures.

Recodified from *N.J.A.C. 8:43G-19.15* by R.1999 d.436, effective December 20, 1999.

See: 31 New Jersey Register 367(a), 31 New Jersey Register 614(a), 31 New Jersey Register 4293(c).

Former *N.J.A.C. 8:43G-19.13*, Labor and delivery staff time and availability, recodified to *N.J.A.C. 8:43G-19.11*.

§ 8:43G-19.14 Postpartum patient services

(eee) The hospital shall provide or arrange for an organized program of education in self-care and newborn care.

(fff) The hospital shall provide each mother a comprehensive evaluation of infant feeding (that is breastfeeding and/or formula feeding, as appropriate) and follow-up assessments, as necessary, performed by a lactation consultant or an obstetrics staff member with demonstrated core competencies in infant feeding.

1. An obstetrics staff member with the qualifications described in (b) above shall teach and assist a mother with hand expression and/or the use of a breast pump within four hours of the mother either being separated from her infant(s) or experiencing ineffective breastfeeding.

(ggg) Discharge planning for a postpartum patient shall be documented in the medical record by the appropriate obstetrics staff and shall address:

1. A plan for patients who will be discharged less than 48 hours after delivery, including the need for home health services; and
2. Maternal education about infant feeding consistent with exclusive breastfeeding, formula feeding, or a combination of both, as applicable, and appropriate community-based resources.

HISTORY:

Recodified from *N.J.A.C. 8:43G-19.16* and amended by R.1999 d.436, effective December 20, 1999.

See: 31 N.J.R. 367(a), 31 N.J.R. 614(a), 31 N.J.R. 4293(c).

In (a), deleted "postpartum" preceding "education"; and in (b), added a second sentence. Former *N.J.A.C. 8:43G-19.14*, Labor, delivery, anesthesia and recovery patient services, recodified to *N.J.A.C. 8:43G-19.12*.

Amended by R.2014 d.025, effective January 21, 2014.

Rewrote (b) and (c).

§ 8:43G-19.15 Newborn care policies and procedures

(hhh) A current roster of physicians, their specific pediatric privileges, and an on-call schedule shall be kept in each nursing unit in newborn care.

(iii) A physician or an advanced practice nurse skilled in neonatal assessment shall perform a complete physical examination of the neonate within 24 hours of birth. This examination may serve as both the initial and discharge examination if the neonate is discharged within 24 hours. If the neonate remains in the hospital for more than 24 hours, a second examination shall be performed prior to discharge.

(jjj) Isolation practices recommended by the Centers for Disease Control shall be used for isolation patients in the newborn nursery, and are incorporated herein by reference. (See CDC Guidelines for Isolation Precautions in Hospitals, publication number PB85927401, available from National Technical Information Services, 5285 Port Royal Rd., Springfield, VA 22161, telephone 703-487-4600.)

(kkk) The newborn nursery shall identify and report any outbreak of disease, or any single case of a disease as specified in *N.J.A.C. 8:57-1.1* through *1.5* also known as Chapter II of the State Sanitary Code.

(lll) The hospital shall screen all newborns for high risk factors associated with hearing impairment pursuant to *N.J.S.A. 26:2-103.4*, biochemical disorders pursuant to *N.J.S.A. 26:2-111*, and congenital heart defects no sooner than 24 hours after birth by using pulse oximetry pursuant to *N.J.S.A. 26:2-111.4*.

1. The hospital shall report congenital defects and shall complete birth certificates and death certificates pursuant to *N.J.S.A. 26:8-40.21* and *26:8-28*, respectively.

(mmm) Policies and procedures for screening all newborns for hearing impairment, in accordance with *N.J.S.A. 26:2-103.1* et seq., shall require that the hospital or birth center:

1. Screen all newborns for hearing impairment using electrophysiologic measures;
2. Screen all newborns for high-risk indicators associated with hearing loss, using criteria established at *N.J.A.C. 8:19-1.6*, prior to discharge or no later than one month of age;
3. Complete and report to the Department all specified components of the Electronic Birth Certificate, including the hearing screening results within one week of discharge, in accordance with *N.J.A.C. 8:19-1.2*;
4. Designate a licensed physician or licensed audiologist to oversee the administration of newborn electrophysiologic screening by licensed physicians, licensed audiologists and/or other qualified individuals receiving direction and training by the designated licensed physician or audiologist to administer the electrophysiologic screening; and
5. Establish policies and procedures, in accordance with *N.J.A.C. 8:19-1.3* and *1.4* for the provision of follow-up services for newborns that do not pass or receive electrophysiologic screening in one or both ears and for those that are identified as being at-risk of developing a hearing loss.

(nnn) Policies and procedures for the early detection of biochemical disorders in newborn infants, including at least hypothyroidism, galactosemia, and phenylketonuria, pursuant to *N.J.S.A. 26:2-110* and *111*, shall include, but not be limited, to the following:

1. Collection of blood specimens from newborn infants on collection kits provided by the Department;
2. Collection of blood specimens 24 hours after the newborn infant's first feeding or 48 hours after the newborn infant's birth or upon the newborn infant's discharge from the facility, whichever comes first;
3. Development of a system within the facility for the submission of blood specimens to arrive at the Department's laboratory no later than 96 hours after the newborn infant's birth;

4. Designation of a staff member(s) to be responsible for receiving verbal and written positive screening test results and documenting the results in the newborn infant's medical record; and

5. Provision of written information, provided by the Department and/or the facility, to all parents and physicians regarding the testing of biochemical disorders and the possibility of incorrect screening test results if the blood specimen is not collected.

(ooo) The hospital shall require a newborn's medical record to contain documentation of the following:

1. A summary of the mother's obstetric and relevant medical history;
2. Anesthesia, analgesia, and medications given to the mother;
3. Reasons for induction of labor and operative procedures, if performed;
4. Date and time of birth and copies of all vital records;
5. Birth weight and length;
6. Condition of the newborn at birth, including the one- and five-minute Apgar scores, time of sustained respirations, details of any physical abnormalities, and any pathological states observed and treatment given before transfer to the nursery;
7. Any abnormalities of the placenta and cord vessels;
8. Length of gestation;
9. Procedures performed in the delivery room;
10. A record of the newborn assessment, performed by a physician or registered professional nurse upon the newborn's admission to the nursery;
11. A plan of care;
12. An initial physical examination performed by a physician, which bears the physician's signature and the date of the examination;
13. A physical examination that includes measurement of the newborn's head circumference, performed at discharge or upon transfer to another facility by a physician, and which bears the physician's signature and the date of the examination;
14. The administration of, and the newborn's response to, vitamin K, eye prophylaxis for ophthalmia neonatorum, and any other medication or treatment;
15. The results of the infant-feeding evaluation and any follow-up assessments;
16. An interdisciplinary comprehensive treatment plan that addresses the recommendations regarding either breastfeeding or formula-feeding based upon the assessments conducted pursuant to (h)15 above;
17. Formula supplementation of breast milk; and
18. Assessment of the risk for hyperbilirubinemia in every newborn born at 35 or more weeks of gestation, as performed by the newborn's physician in accordance with the Clinical Practice Guidelines for Hyperbilirubinemia.
 - i. The newborn's physician shall document in the medical record the newborn's pre-discharge serum or transcutaneous bilirubin measurement and parental counseling about hyperbilirubinemia, when applicable.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: 23 N.J.R. 2590(a), 24 N.J.R. 590(a).

Details of roster, notification procedure and ophthalmic treatment specified.

Recodified from *N.J.A.C. 8:43G-19.17* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 N.J.R. 367(a)*, *31 N.J.R. 614(a)*, *31 N.J.R. 4293(c)*.

Rewrote (b); deleted a former (c); recodified former (d) through (i) as (c) through (h); in the new (e) and (g), deleted references to *N.J.S.A. 26:2-112*; and in the new (f), added a reference to electronic date entry at the end of 2. Former *N.J.A.C. 8:43G-19.15*, Postpartum policies and procedures and staff time and availability, recodified to *N.J.A.C. 8:43G-19.13*.

Amended by R.2005 d.279, effective September 6, 2005.

See: *37 N.J.R. 709(a)*, *37 N.J.R. 3365(a)*.

Rewrote (f).

Amended by R.2014 d.025, effective January 21, 2014.

See: *45 N.J.R. 194(a)*, *46 N.J.R. 214(a)*.

Rewrote (e) and (h).

§ 8:43G-19.16 Normal newborn nurse staff qualifications, staff time and availability

(ppp) Hospitals designated as a CPC-Basic may provide care to neonates born greater than 2,499 grams or at least 36 weeks gestation. The only exception to this criteria is if it has been documented in the medical record that the neonate was expected to meet the weight and age criteria and the neonate does not require a higher level of care than otherwise specified for a CPC-Basic. Service restrictions placed on CPC-Basic include:

1. Mechanical ventilatory support shall not be provided except for resuscitative measures; and
2. Total parenteral nutrition shall not be provided.

(qqq) The physician director of newborn care in hospitals designated as a CPC-Basic shall be board certified in pediatrics.

(rrr) There shall be a nurse manager of the normal newborn nursery who may also function as the nurse manager of the obstetric service. This individual shall be a registered professional nurse with, at a minimum:

1. Three-years of experience in inpatient neonatal services within the five years immediately preceding the date of appointment;
2. Educational preparation in maternal-fetal neonatal nursing, in accordance with hospital policy; and
3. Completion of 24 contact hours of maternal-fetal or neonatal nursing approved by a nationally recognized nurse education accrediting body every three years.

(sss) There shall be a health professional certified in neonatal resuscitation available within the unit at all times.

(ttt) The normal newborn nursery shall be covered at all times by a pediatrician, family practice physician with pediatric privileges, or certified neonatal or pediatric nurse practitioner who is either present in the hospital or available by telephone and able to arrive within 30 minutes of being, summoned, under normal transportation conditions.

(uuu) The normal newborn nursery shall have a registered professional nurse present whenever a neonate is in the newborn nursery. Additional staffing, assignments shall be determined by acuity levels appropriate to infants.

(vvv) The normal newborn nursery shall have at least one registered professional nurse to every eight neonates. However, so long as one registered nurse is on duty as required by (d) above, licensed practical nurses may be used to comply with the nurse:infant ratio requirement.

HISTORY:

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Former *N.J.A.C. 8:43G-19.16*, Postpartum patient services, recodified to *N.J.A.C. 8:43G-19.14*.

§ 8:43G-19.17 Intermediate nursery staff qualifications, staff time and availability

(www) Hospitals designated as a CPC-Intermediate may provide care to neonates born greater than 1,499 grams or at least 32 weeks gestation. The only exception to this criteria is if it has been documented in the medical record that the neonate was expected to meet the weight and age criteria and the neonate does not require a higher level of care than otherwise specified for a CPC-Intermediate. Service restrictions placed on CPC-Intermediate include:

1. In no case shall continuous or intermittent positive pressure ventilatory support be administered to an intubated neonate for more than 48 hours, except in cases where authorization has been received from the neonatologist on-call at the Regional Perinatal Center or the CPC-Intensive and the CPC-Intermediate has demonstrated the ability to intubate and is able to hourly monitor the partial pressure of oxygen in the neonate's blood. Authorization from the neonatologist on-call at the Regional Perinatal Center or the CPC-Intensive shall be obtained on a daily basis and shall be documented in the medical record; and

2. All neonates, regardless of birth weight, who require surgery, or other highly specialized services shall be transported to a higher level facility capable of providing the care.

(xxx) The physician director of newborn care in hospitals designated as a CPC-Intermediate shall be board certified in pediatrics.

(yyy) There shall be a nurse manager of the intermediate nursery who meets the qualifications of the nurse manager specified in *N.J.A.C. 8:43G-19.16(c)*. This individual may also function as the nurse manager of the obstetric service.

(zzz) There shall be a health professional certified in neonatal resuscitation available within the unit at all times.

(aaaa) The intermediate nursery shall be covered at all times by a board eligible or certified pediatrician with certification and/or training and experience in neonatal medicine or a certified neonatal or pediatric nurse practitioner who is either present in the hospital or available by telephone and able to arrive within 30 minutes of being summoned under normal transportation conditions. A physician who has training and experience in neonatal medicine or a certified neonatal or pediatric nurse practitioner shall be present in the hospital whenever a neonate is receiving any form of positive pressure oxygen therapy.

(bbbb) The intermediate nursery shall have at least one registered professional nurse to every four infants requiring intermediate care services. Additional staffing assignments shall be determined by the acuity levels of the infants.

HISTORY:

New Rule, R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Former *N.J.A.C. 8:43G-19.17*, Newborn care policies and procedures, recodified to *N.J.A.C. 8:43G-19.15*.

§ 8:43G-19.18 Neonatal intensive care nursery staff qualification, staff time and availability

(cccc) A CPC-Intensive may provide care to neonates greater than 999 grams and at least 28 weeks gestation. A CPC-Intensive may provide care to neonates born in the facility who are below the specified weight and age criteria only if the infant does not require a higher level of care than otherwise specified for CPC-Intensive and if it has been documented in the medical record that the birth was expected to meet the weight and age criteria. A CPC-Intensive may provide long term ventilatory support and total parenteral nutrition.

(dddd) A Regional Perinatal Center may provide care to all neonates regardless of weight and gestational age and may provide long term ventilatory support and total parenteral nutrition.

(eeee) The physician director of the neonatal intensive care nursery in a CPC-Intensive and a Regional Perinatal Center shall be board certified in pediatrics with certification in neonatal medicine.

(ffff) There shall be a nurse manager of the neonatal intensive care nursery in CPC-Intensive and Regional Perinatal Centers who meets the qualifications of the nurse manager specified in *N.J.A.C. 8:43G-19.16(c)*.

(gggg) There shall be a health professional certified in neonatal resuscitation available within the unit at all times.

(hhhh) The neonatal intensive care nursery in CPC-Intensive and Regional Perinatal Centers shall be covered at all times by a neonatal fellow or a board eligible or certified pediatrician with training and experience in neonatal medicine, or a certified neonatal or pediatric nurse practitioner who is present in the hospital.

(iiii) The neonatal intensive care nursery in CPC-Intensive and Regional Perinatal Centers shall be covered at all times by a board certified pediatrician with certification in neonatal medicine, who is either present in the hospital or available by telephone and able to arrive within 30 minutes of being summoned, under normal transportation conditions. This physician may also serve as the physician director of the neonatal intensive care nursery.

(jjjj) The neonatal intensive care nursery shall have at least one registered professional nurse to every two neonates requiring intensive care services. Additional staffing assignments shall be determined by the acuity levels of the infants.

HISTORY:

New Rule, R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Former *N.J.A.C. 8:43G-19.18*, Newborn care staff qualifications, repealed.

§ 8:43G-19.19 Newborn care patient services

(kkkk) The newborn service shall provide for immediate resuscitation of the newborn, including at least:

1. Short-term ventilation with laryngoscope, endotracheal tube, and bag-valve-mask;
2. Oxygen administration;
3. Intravenous therapy;
4. Temperature control; and
5. Infusion equipment.

(llll) Each bassinet and incubator in the nursery shall bear the identification of the newborn to whom it is assigned. This identification shall include at least the newborn's last name, sex, date, time of birth, feeding method, the mother's first and last names, and the physician's name.

(mmmm) There shall be a system for the identification of each newborn immediately upon delivery and during the hospital stay, and for maintaining the security of the newborn.

(nnnn) There shall be a system for verifying the identity of mothers and infants whenever an infant is removed from, or returned to, the nursery.

(oooo) The hospital shall assist Medicaid-eligible patients, including newborns, by expediting the verification and documentation of hospital-based services. For example, the hospital may issue a document of birth for infants prior to discharge (including hospital of birth, mother's name, mother's Social Security number, newborn name, date of birth, and sex) to enable infants to receive Medicaid services from county welfare offices before an official birth certificate is issued.

Amended by R.1992, d.347, effective September 8, 1992.

See: 24 N.J.R. 2045(a), 24 N.J.R. 3165(a).

Amended by R.1993 d.286, effective June 7, 1993.

See: 25 N.J.R. 1117(a), 25 N.J.R. 2554(a).

Recodified from *N.J.A.C. 8:43G-19.20* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 N.J.R. 367(a)*, *31 N.J.R. 614(a)*, *31 N.J.R. 4293(c)*.

Deleted former (b) through (e); recodified former (f) through (i) as (b) through (e); and in the new (e), deleted "that accept such documentation" following "offices" in the last sentence. Former *N.J.A.C. 8:43G-19.19*, Newborn care staff time and availability, repealed.

§ 8:43G-19.20 Newborn care supplies and equipment

(pppp) Each room used as a nursery accessory room shall be equipped with at least three foot-controlled, covered, and labeled receptacles: one for the disposal of wet or soiled diapers, one for the disposal of trash, and one for the sanitary disposal of linens other than wet or soiled diapers. Disposable liners shall be used in the diaper and trash receptacles.

(qqqq) Bassinets and equipment not in routine use shall be stored outside the nurseries or nursery accessory rooms.

(rrrr) Individual supplies, linen, and equipment shall be provided for each infant.

(ssss) If newborns are weighed on a common scale, an impervious cover that completely covers the surface of the scale pan shall be used and changed after each newborn is weighed.

(tttt) Prepackaged formula shall be used within the time period designated on the package.

(uuuu) Each incubator and bassinet shall be cleaned and disinfected after each time a newborn occupying it is discharged. The detergent and disinfectant used shall be registered by the U.S. Environmental Protection Agency.

(vvvv) Provisions shall be made for the emergency repair and replacement of equipment in the newborn nursery.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: 23 New Jersey Register 2590(a), 24 New Jersey Register 590(a).

Equipment checks deleted at (g).

Recodified from *N.J.A.C. 8:43G-19.22* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Former *N.J.A.C. 8:43G-19.20*, Newborn care patient services, recodified to *N.J.A.C. 8:43G-19.19*.

§ 8:43G-19.21 Scope of nurse-midwifery standards

The standards in *N.J.A.C. 8:43G-19.22* through *19.26* shall apply only to hospitals that have a separate, designated service or unit for nurse-midwifery. Hospitals which do not have a separate, designated service or unit for nurse-midwifery but grant obstetrical privileges to nurse-midwives are not required to follow *N.J.A.C. 8:43G-19.24(a)* and *19.25*.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: 23 New Jersey Register 2590(a), 24 New Jersey Register 590(a).

Exception added.

Recodified from *N.J.A.C. 8:43G-19.23* and amended by R.1999 d.436, effective December 20, 1999.

See: 31 New Jersey Register 367(a), 31 New Jersey Register 614(a), 31 New Jersey Register 4293(c).

Changed N.J.A.C. references throughout. Former *N.J.A.C. 8:43G-19.21*, Newborn care space and environment, repealed.

§ 8:43G-19.22 Nurse-midwifery structural organization

Nurse-midwifery services shall be organized as part of the obstetric service. The physician director of obstetrics shall be responsible for assuring that nurse-midwifery services conform with applicable rules and hospital policies and procedures.

HISTORY:

Recodified from *N.J.A.C. 8:43G-19.24* by R.1999 d.436, effective December 20, 1999.

See: 31 New Jersey Register 367(a), 31 New Jersey Register 614(a), 31 New Jersey Register 4293(c).

Former *N.J.A.C. 8:43G-19.22*, Newborn care supplies and equipment, recodified to *N.J.A.C. 8:43G-19.20*.

§ 8:43G-19.23 Nurse-midwifery policies and procedures

(www) Nurse-midwifery services shall be based on written policies and procedures that are reviewed annually, revised as needed, and implemented. These policies and procedures shall include mechanisms by which medical staff in the obstetric and newborn services consult with and assist nurse-midwives.

(xxx) The hospital shall delineate and fully review the privileges and credentials of each nurse-midwife periodically.

(yyy) There shall be standing orders for nurse-midwifery services.

HISTORY:

Recodified from *N.J.A.C. 8:43G-19.25* by R.1999 d.436, effective December 20, 1999.

See: 31 New Jersey Register 367(a), 31 New Jersey Register 614(a), 31 New Jersey Register 4293(c).

Former *N.J.A.C. 8:43G-19.23*, Scope of nurse-midwifery standards, recodified to *N.J.A.C. 8:43G-19.21*.

§ 8:43G-19.24 Nurse-midwifery staff qualifications

(zzzz) There shall be a certified nurse-midwife who serves as director of nurse-midwifery services, coordinates and is responsible for all nurse midwifery services provided in the hospital, and monitors the quality of nurse-midwifery care.

(aaaaa) All nurse-midwives practicing in the hospital shall be registered professional nurses and currently certified by the New Jersey Board of Medical Examiners.

HISTORY:

Recodified from *N.J.A.C. 8:43G-19.26* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Substituted "certified" for "licensed" throughout. Former *N.J.A.C. 8:43G-19.24*, Nurse-midwifery structural organization, recodified to *N.J.A.C. 8:43G-19.22*.

§ 8:43G-19.25 Nurse-midwifery staff education

Requirements for the nurse-midwifery education program shall be as provided in *N.J.A.C. 8:43G-5.9*.

HISTORY:

Recodified from *N.J.A.C. 8:43G-19.27* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Former *N.J.A.C. 8:43G-19.25*, Nurse-midwifery policies and procedures, recodified to *N.J.A.C. 8:43G-19.23*.

§ 8:43G-19.26 Nurse-midwifery quality assurance methods

The quality assurance program for nurse-midwifery services shall include physicians and nurse-midwives and shall monitor at least high-risk screening, transfers and return transfers, and mortality and morbidity by birth weight.

HISTORY:

Recodified from *N.J.A.C. 8:43G-19.29* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Former *N.J.A.C. 8:43G-19.26*, Nurse-midwifery staff qualifications, recodified to *N.J.A.C. 8:43G-19.24*.

§ 8:43G-19.27 Obstetric/non-obstetric mix program

(bbbbb) If the hospital places non-obstetric patients on the obstetric unit, it shall establish written policies and procedures that are reviewed at least once every three years, revised more frequently as needed, and implemented. These policies shall include:

1. Criteria and procedures for admission of female non-obstetric patients;
2. Criteria for non-admission;
3. Method for ensuring that no obstetric patient is excluded from the obstetric service; and
4. Protocols for cultures of non-obstetric patients, including the type of cultures, when, and under what circumstances they are performed.

(ccccc) A log book of non-obstetric patients admitted to the obstetric service shall be maintained. This log book shall include, in addition to patient's name, at least:

1. Dates of hospital admission and discharge;
2. Admission and discharge diagnoses;
3. Date and type of surgery, if performed, including associated procedures, and name of surgeon;
4. Morbidity and cause, if applicable;

5. Destination, date, and reason for transfer to other units of the hospital; and

6. Medical record number.

(ddddd) An admission check sheet and questionnaire shall be filled out upon admission to the hospital for every non-obstetric patient admitted to the obstetric service, and shall be included in the patient's medical record.

HISTORY:

Recodified from *N.J.A.C. 8:43G-19.32* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section. Former *N.J.A.C. 8:43G-19.27*, Nurse-midwifery staff education, recodified to *N.J.A.C. 8:43G-19.25*.

§ 8:43G-19.28 Obstetric/non-obstetric mix patient services

(eeee) A non-obstetric patient shall not be admitted to the obstetric service if she has any of the following conditions:

1. An oral temperature of 100.4 degrees Fahrenheit or higher upon admission;
2. Substance abuse or misuse;
3. A history of household contacts with staphylococcal infection or other contagious diseases that have occurred within one month prior to admission;
4. Known malignancy requiring the use of radioactive therapeutics;
5. Has received antibiotics other than prophylactic antibiotics, with the exception of local application of antibiotics such as bladder irrigation or local vaginal preparation during the two-week period prior to admission; or
6. Has received preoperative prophylactic antibiotics more than six hours prior to surgery or more than 72 hours following surgery.

(ffff) A non-obstetric patient shall be transferred from the obstetric service if she:

1. Has a fever as defined by hospital policy;
2. Has any sign of infection, including infection discovered at the time of surgery.

(ggggg) All surgical procedures performed on non-obstetric patients on the obstetric service shall be performed in the operating suite.

(hhhhh) The same visitors policy shall apply to both obstetric and non-obstetric patients on the mixed obstetric service.

HISTORY:

Amended by R.1992 d.72, effective February 18, 1992.

See: *23 New Jersey Register 2590(a)*, *24 New Jersey Register 590(a)*.

Patient priority specified at (b).

Recodified from *N.J.A.C. 8:43G-19.33* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

§ 8:43G-19.29 Physical plant general compliance for new construction, alteration or renovation for newborn care

Physical plant standards for newborn care areas shall be in compliance with *N.J.A.C. 5:23-3.2* of the New Jersey Uniform Construction Code.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Recodified from *N.J.A.C. 8:43G-19.35* by R.1999 d.436, effective December 20, 1999.

See: 31 New Jersey Register 367(a), 31 New Jersey Register 614(a), 31 New Jersey Register 4293(c).

Former *N.J.A.C. 8:43G-19.29*, Nurse-midwifery quality assurance methods, recodified to *N.J.A.C. 8:43G-19.26*.

§ 8:43G-19.30 Functional areas for newborn care

(iiii) Functional areas for newborn care shall be as follows:

1. Neonatal resuscitation area or room;
2. Admission/observation/continuing care nursery or area;
3. Normal newborn nursery or holding nursery;
4. Infectious isolation nursery;
5. Intermediate care nursery;
6. Neonatal intensive care nursery;
7. LDR rooms;
8. Maternal postpartum rooms;
9. Mother-infant rooms; and
10. Lactation support room.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 N.J.R. 3642(a), 22 N.J.R. 2705(a).

Recodified from *N.J.A.C. 8:43G-19.36* and amended by R.1999 d.436, effective December 20, 1999.

See: 31 N.J.R. 367(a), 31 N.J.R. 614(a), 31 N.J.R. 4293(c).

Rewrote (a). Former *N.J.A.C. 8:43G-19.30*, Scope of obstetric/non-obstetric mix standards, repealed.

Amended by R.2014 d.025, effective January 21, 2014.

See: 45 N.J.R. 194(a), 46 N.J.R. 214(a).

In (a)1, substituted "resuscitation area or room" for "Resuscitation Area or Room"; in (a)2, substituted "continuing

care nursery or area" for "Continuing Care Nursery or Area"; in (a)3, substituted "newborn nursery" for "Newborn Page Nursery" and "holding nursery" for "Holding Nursery"; in (a)4, substituted "isolation nursery" for "Isolation Nursery"; in (a)5, substituted "care nursery;" for "Care Nursery; and"; in (a)6, substituted "intensive care nursery;" for "Intensive Care Nursery."; and added (a)7 through (a)10.

§ 8:43G-19.31 General newborn care functional area requirements

(jjjj) General requirements for functional areas designated in *N.J.A.C. 8:43G-19.36* shall be as required in (b) through (s) below.

(b) The hospital shall ensure that functional areas of maternal/infant care, as appropriate, are equipped with the following:

1. Readily available breast pumps and collection kits;
2. Indirect, high-intensity, or portable lighting that shall be available and adjustable to satisfy diagnostic and procedural requirements; and
3. Exam items that shall be available or immediately accessible in the unit including, at a minimum, otoscopes, ophthalmoscopes, infant scale, exam gloves, and a hand-washing sink.

(c) The hospital shall make provisions in all maternal postpartum rooms and mother-infant rooms, wherever possible, to facilitate a mother's continuous care of her infant and a physician's examination of a newborn in the post-partum room.

(d) Viewing windows shall be extensive throughout the newborn suite. Exterior windows shall be energy efficient and insulated.

(e) Newborn care areas shall have oxygen and medical air piped from a central source in accordance with National Fire Protection Association 99 Standard for Health Care Facilities (NFPA 99), published by the NFPA, Box 9101, One Batterymarch Park, Quincy, MA 02269-9101, incorporated herein by reference.

(f) Oxygen air and suction systems shall have chime alarms to signal loss of suction or low oxygen and air supply.

(g) A temperature of 72 to 78 degrees Fahrenheit and a relative humidity of 30 to 60 percent shall be maintained.

(h) An emergency call system shall be provided in each nursery.

(i) A free-standing handwashing sink shall be provided with hands free control in a bowl large and deep enough to prevent splashing. A liquid soap dispenser and disposable towel dispenser shall be provided at each sink.

(j) Each infant station shall be supplied by at least two branch circuits.

(k) Ventilation requirements shall be in accordance with Section 7.31.D of the "Guidelines for Construction and Equipment of Hospital and Health Care Facilities" (The American Institute of Architects Press), 1996-97 edition, as amended and supplemented, published by the AIA, 1735 New York Ave. NW, Washington, DC 20006, (202) 626-7475, incorporated herein by reference.

(l)) The newborn nursery shall be a closed unit, physically segregated from other areas.

(m) There shall be a waiting room available in the obstetrics area.

(n) There shall be a toilet and telephone available for use by the public in the obstetrics area.

(o)) A separate room or area within the nursery workroom or clean utility room shall be provided for the storage of infant formula and breast milk. A refrigerator/freezer used only for the storage of breast milk and formula shall be provided.

(p) There shall be at least one staff office and a staff lounge in, or adjacent to, the obstetrics area.

(q) There shall be a soiled utility room which shall contain the following:

1. A clinical sink;

2. A work counter;
3. A handwashing sink;
4. Liquid soap dispensers;
5. A paper towel dispenser; and
6. Space for storage of soiled equipment, soiled linen and trash receptacles.

(r) There shall be a neonatal unit clean work area or room which shall contain:

1. A counter with cabinets;
2. A refrigerator;
3. A handwashing sink;
4. Liquid soap dispensers;
5. A paper towel dispenser; and
6. Space for storage of clean equipment and clean linen.

(s) There shall be a housekeeping room in the obstetrics area which shall contain a floor receptor or service sink and provisions for storage of supplies and housekeeping equipment.

(t) There shall be an administrative center or nurses station which may be combined with or include a center for reception and communication. This area shall be designed to permit visual observation into the newborn nurseries and storage space.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 N.J.R. 3642(a), 22 N.J.R. 2705(a).

Recodified from *N.J.A.C. 8:43G-19.37* and amended by R.1999 d.436, effective December 20, 1999.

See: 31 N.J.R. 367(a), 31 N.J.R. 614(a), 31 N.J.R. 4293(c).

Rewrote the section. Former *N.J.A.C. 8:43G-19.31*, Obstetric/non-obstetric mix structural organization, repealed.

Amended by R.2014 d.025, effective January 21, 2014.

See: 45 N.J.R. 194(a), 46 N.J.R. 214(a).

Rewrote (b); added new (c); recodified former (c) through (s) as (d) through (t); and in (g), substituted "72 to 78" for "75" and "30 to 60" for "50".

§ 8:43G-19.32 Neonatal unit resuscitation area

(kkkkk) There shall be an infant resuscitation area for each cesarean/delivery room. This area shall be located either within the cesarean/delivery room or in a separate but immediately accessible room. The square footage requirement for the infant resuscitation area is as follows:

1. If the resuscitation area is located within the cesarean/delivery room, a minimum of 40 square feet of additional clear floor area shall be provided; or
2. If the resuscitation area is located in a separate room, this room shall have a minimum of 150 square feet of clear floor area and shall also contain a free-standing handwashing sink.

1. An overhead source of radiant heat;
2. A large wall clock with a clearly visible second hand;
3. A flat working surface for charting;
4. A table or flat surface for trays;
5. One oxygen outlet;
6. One medical air outlet; and
7. One suction outlet.

(mmmmm) A minimum of six single or three duplex electrical outlets shall be provided in each resuscitation area or room. If a separate resuscitation room is provided, an electrical outlet to accommodate a portable X-ray machine shall also be provided.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Recodified from *N.J.A.C. 8:43G-19.46* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section. Former *N.J.A.C. 8:43G-19.32*, Obstetric/non-obstetric mix policies and procedures, recodified to *N.J.A.C. 8:43G-19.27*.

§ 8:43G-19.33 Neonatal admission/observation/continuing care nursery or area

(nnnnn) There shall be an admission/observation/continuing care nursery available for infants who are stable but require frequent feedings or close observation. This nursery may be located in the normal newborn nursery or may be provided in a separate area.

(ooooo) If the admission/observation/continuing care nursery is provided in a separate area, the following physical plant requirements shall be followed:

1. There shall be a minimum of 24 square feet of floor area exclusive of auxiliary work areas for each infant station with a minimum of three feet between bassinets;
2. One oxygen outlet, one medical air outlet and one vacuum outlet shall be provided for each infant station;
3. Two duplex electrical receptacles shall be provided for each infant station;
4. A hands-free handwashing sink shall be provided in the room; and
5. This area shall be served by a connecting workroom.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Recodified from *N.J.A.C. 8:43G-19.47* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

§ 8:43G-19.34 Normal newborn nursery or holding nursery

(ppppp) There shall be either a normal newborn nursery or a holding nursery. A normal newborn nursery shall be located close to the postpartum unit and shall be inaccessible to unrelated traffic. If a holding nursery is provided, it shall meet the requirements of (b) through (g) below.

(qqqqq) The number of bassinets shall equal the number of licensed obstetric beds.

(rrrrr) A minimum of 24 square feet for each bassinet exclusive of auxiliary work areas shall be provided, with three feet between bassinets in all directions from edge of one to the other with a separate aisle four feet wide, in addition to the required bed space.

(sssss) A maximum of 16 bassinets shall be permitted in one normal newborn nursery.

(ttttt) One oxygen outlet, one medical air outlet and one vacuum outlet for each infant station shall be provided.

(uuuuu) Oxygen air and suction systems shall have chime alarms to signal loss of suction or low oxygen and air supply.

(vvvvv) Two duplex wall-mounted electrical receptacles shall be provided for every infant station.

(wwwww) A free-standing handwashing sink with hands free controls shall be provided, with a minimum of one sink at each end of the nursery, and at a ratio of one sink for every six infant stations.

(xxxxx) There shall be at least one lactation support room available for consultation, breastfeeding and expression of breast milk.

(yyyyy) A soiled utility room shall be provided.

(zzzzz) A clean utility room or area shall be provided.

(aaaaa) An examination and treatment room or work area shall be provided within the suite. Such room or work area shall contain a work-counter, storage, and a free-standing sink equipped for handwashing with foot control.

(bbbbb) Storage facilities for the newborn nursery shall be as follows:

1. There shall be storage space for items such as linens and formula within the area;
2. There shall be an equipment storage room for large items of equipment; and
3. There shall be storage space within the nursery area for an emergency cart.

(ccccc) The normal newborn nursery shall be served by a connecting workroom.

(ddddd)) There shall be separate changing areas for men and women, located so that staff are able to change clothing prior to entering the clean area of the neonatal nursery unit.

(eeeeee) A scrub gowning area shall be provided for staff and housekeeping personnel at the entrance of each nursery, but separate from the work area. The scrub gowning area shall contain a free-standing handwashing sink with hands free controls and a bowl large enough to prevent splashing. The following shall be provided:

1. Racks, hooks or lockers for storage of street clothes and personal items;
2. Cabinets with clean gowns; and
3. A receptacle for used gowns.

HISTORY:

See: 21 N.J.R. 3642(a), 22 N.J.R. 2705(a).

Recodified from *N.J.A.C. 8:43G-19.48* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 N.J.R. 367(a)*, *31 N.J.R. 614(a)*, *31 N.J.R. 4293(c)*.

Rewrote the section.

Amended by R.2014 d.025, effective January 21, 2014.

See: *45 N.J.R. 194(a)*, *46 N.J.R. 214(a)*.

In (i), substituted "lactation support" for "multi-purpose" and "breastfeeding and expression of breast milk" for "breast feeding, lactation training and conferences".

§ 8:43G-19.35 Infectious nursery

(fffff) An infectious isolation nursery shall be available in at least one level of nursery care.

(ggggg) The infectious isolation nursery shall be an enclosed and separate room within the nursery unit with provision for observation of the neonate from adjacent nurseries or control area.

(hhhhh) The isolation nursery shall be served by an anteroom that contains a freestanding handwashing sink with hands free controls and separate storage facilities for clean and soiled materials and gowns.

(iiiiii) One oxygen outlet, one medical air outlet and one vacuum outlet shall be provided for each infant station.

(jjjjj) Two duplex receptacles shall be provided for each infant station.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Recodified from *N.J.A.C. 8:43G-19.50* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section. Former *N.J.A.C. 8:43G-19.35*, Physical plant general compliance for new construction, alteration or renovation for newborn care, recodified to *N.J.A.C. 8:43G-19.29*.

§ 8:43G-19.36 Intermediate care nursery

(kkkkk) The intermediate care nursery shall be a separate nursery designed exclusively for the care of intermediate level infants located away from general hospital traffic and close to the delivery room and the intensive care nursery, if provided.

(lllll) Each infant patient station shall have a minimum of 50 square feet of floor space, excluding ancillary space for storage. There shall be four feet between incubators or bassinets with a separate aisle five feet wide, in addition to required bed space.

(mmmmm) Each infant care station shall have two oxygen outlets, two medical air outlets and two vacuum outlets.

(nnnnn) Oxygen air and suction systems shall have chime alarms to signal loss of suction or low oxygen and air supply.

(ooooo) Four duplex receptacles shall be provided for each station.

(pppppp) A handwashing sink with hands free controls, soap dispenser and towel dispenser shall be provided at the entrance of the intermediate care nursery. One sink shall be provided for every three infant care stations within the nursery. Page

(qqqqqq) A soiled utility room shall be provided.

(rrrrrr) A clean utility room or area shall be provided.

(ssssss) Storage facilities for the intermediate care nursery shall be as follows:

1. There shall be storage for supplies needed for immediate use for each infant care station; and

2. There shall be at least 20 square feet of floor space for equipment for each infant care station immediately accessible to the nursery.

(tttttt) There shall be at least two multi-purpose rooms available for consultation, breast feeding, lactation training and conferences.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Recodified from *N.J.A.C. 8:43G-19.51* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section. Former *N.J.A.C. 8:43G-19.36*, Functional areas for newborn care, recodified to *N.J.A.C. 8:43G-19.30*.

§ 8:43G-19.37 Neonatal intensive care nursery

(uuuuuu) The neonatal intensive care nursery shall be near the cesarean/ delivery room and shall be removed from routine hospital traffic.

(vvvvvv) The intensive care nursery shall provide 100 square feet per bassinet or incubator allowing a minimum of six feet between bassinets and at a minimum, an eight foot wide aisle.

(wwwwww) There shall be three oxygen outlets, three medical air outlets and four vacuum outlets for each infant care station.

(xxxxxx) Oxygen air and suction systems shall have chime alarms to signal loss of suction or low oxygen and air supply;

(yyyyyy) There shall be seven duplex receptacles for each infant care station.

(zzzzzz) Storage facilities for the neonatal intensive care nursery shall be as follows:

There shall be storage and counter space for immediate use within the infant's room for each infant care station;

1. There shall be at least 30 square feet of floor space for equipment for each infant care station immediately accessible to the nursery.

(aaaaaa) A soiled utility room shall be provided.

(bbbbbb) A clean utility room or area shall be provided.

(cccccc) A free-standing handwashing sink with hands free controls shall be provided at the entrance to the intensive care nursery. One sink shall be provided for every three infant care stations within the nursery.

(dddddd) There shall be on-call room(s) for staff on the same floor of the hospital with an adjoining toilet, lavatory and shower.

(eeeeee) There shall be at least three multi-purpose rooms available for consultation, breast feeding, lactation training and conferences. Page

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Recodified from *N.J.A.C. 8:43G-19.52* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section. Former *N.J.A.C. 8:43G-19.37*, General newborn care functional area requirements, recodified to *N.J.A.C. 8:43G-19.31*.

§ 8:43G-19.38 Shared services

(fffff) If the intermediate care and neonatal intensive care nurseries are located in the same suite, then the following services may be shared:

1. Janitor's closet;
2. Soiled utility;
3. Clean utility;
4. The three multi-purpose rooms required for a intensive care nursery;
5. Storage room;
6. Male/female staff lockers, lounge and toilets; and
7. On-call room.

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Recodified from *N.J.A.C. 8:43G-19.53* and amended by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Rewrote the section. Former *N.J.A.C. 8:43G-19.38*, Staff offices and lounge, repealed.

§ 8:43G-19.39 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Section was "Infant formula facilities".

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§ 8:43G-19.40 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Section was "Neonatal unit soiled utility room".

NOTES:

§ 8:43G-19.41 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Section was "Neonatal unit clean work area or room".

NOTES:

§ 8:43G-19.42 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Section was "Neonatal unit janitor's closet".

NOTES:

§ 8:43G-19.43 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

Section was "Neonatal unit clerical area".

NOTES:

§ 8:43G-19.44 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Section was "Neonatal unit multipurpose rooms".

NOTES:

§ 8:43G-19.45 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Section was "Neonatal unit nursery area".

NOTES:

§ 8:43G-19.46 (Reserved)

HISTORY:

Recodified to *N.J.A.C. 8:43G-19.32* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

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§ 8:43G-19.47 (Reserved)

HISTORY:

Recodified to *N.J.A.C. 8:43G-19.33* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

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§ 8:43G-19.48 (Reserved)

HISTORY:

Recodified to *N.J.A.C. 8:43G-19.34* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

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§ 8:43G-19.49 (Reserved)

HISTORY:

New Rule, R.1990 d.422, effective September 4, 1990.

See: 21 New Jersey Register 3642(a), 22 New Jersey Register 2705(a).

Repealed by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

Section was "Continuing care/growing area".

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§ 8:43G-19.50 (Reserved)

HISTORY:

Recodified to *N.J.A.C. 8:43G-19.35* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

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§ 8:43G-19.51 (Reserved)

HISTORY:

Recodified to *N.J.A.C. 8:43G-19.36* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

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§ 8:43G-19.52 (Reserved)

HISTORY:

Recodified to *N.J.A.C. 8:43G-19.37* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

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§ 8:43G-19.53 (Reserved)

HISTORY:

Recodified to *N.J.A.C. 8:43G-19.38* by R.1999 d.436, effective December 20, 1999.

See: *31 New Jersey Register 367(a)*, *31 New Jersey Register 614(a)*, *31 New Jersey Register 4293(c)*.

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UNITED STATES BREASTFEEDING COMMITTEE: CORE COMPETENCIES IN BREASTFEEDING CARE AND SERVICES FOR ALL HEALTH PROFESSIONALS



Core Competencies in Breastfeeding Care and Services for All Health Professionals

Revised Edition

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About USBC

The United States Breastfeeding Committee (USBC) is an independent nonprofit coalition of more than 40 nationally influential professional, educational, and governmental organizations. Representing over half a million concerned professionals and the families they serve, USBC and its member organizations share a common mission to improve the Nation's health by working collaboratively to protect, promote, and support breastfeeding. For more information on USBC, visit www.usbreastfeeding.org.

Background

Breastfeeding is a basic and cost-effective measure that has a significant positive impact on short- and long-term health outcomes for individuals and populations.¹ The greatest health impact is found with early initiation, exclusive breastfeeding for the first six months of life, and continued breastfeeding with appropriate complementary foods for the first year of life and beyond.² Lack of breastfeeding is a significant risk to the public health of our nation and increases health care spending.³

In order to establish and maintain breastfeeding, women need education and support from a knowledgeable health care community.⁴ Evidence-based knowledge, skills, and attitudes are lacking among health professionals in many disciplines.⁵ The volume of new information, advances in treatments and technologies, and health care system challenges, combined with the relative paucity of professional training in human lactation and breastfeeding, leave many providers without satisfactory answers for their patients.^{6 7}

Purpose

These core competencies in breastfeeding care and services were developed to provide health professionals with a guideline and framework to integrate evidence-based breastfeeding knowledge, skills, and attitudes into their standard health care delivery practices.

The United States Breastfeeding Committee recommends that *all* health professionals possess the core competencies identified in this document in order to integrate breastfeeding care effectively and responsibly into current practice and thus provide effective and comprehensive services to mothers, children, and families.

Effecting Change

Educators are in a unique position to lead the way by incorporating these core competencies into the undergraduate, graduate, and post-graduate curricula of health professionals.^{8 9 10 11} These core competencies provide a structure for educators to respond to the emerging necessity of educating all health care providers regarding breastfeeding and human lactation in the context of findings from the World Health Organization (WHO)¹² and the Agency for Healthcare Research and Quality (AHRQ).¹³

Maternal and child health (MCH) education and practice is based upon a life cycle framework that recognizes that there are pivotal periods in human development that present both risks and opportunities for improving health outcomes for individuals and populations.¹⁴ In particular, USBC calls upon MCH leaders to emphasize the synergistic value of these breastfeeding core competences to the health of women, children, and families.

Breastfeeding Core Competencies

Competence in the following areas represents the *minimal* knowledge, skills, and attitudes necessary for health professionals from *all* disciplines to provide patient care that protects, promotes, and supports breastfeeding.

At a minimum, every health professional should understand the role of lactation, human milk, and breastfeeding in:

- The optimal feeding of infants and young children^{3 15}
- Enhancing health and reducing:
 - long-term morbidities in infants and young children^{2 15}
 - morbidities in women^{15 16}

All health professionals should be able to facilitate the breastfeeding care process by:

- Preparing families for realistic expectations
- Communicating pertinent information to the lactation care team¹⁷
- Following up with the family, when appropriate, in a culturally competent manner after breastfeeding care and services have been provided¹⁸

USBC proposes to accomplish this by recommending that health professional organizations:

- Understand and act upon the importance of protecting, promoting, and supporting breastfeeding as a public health priority^{2 3 16 19 20}
- Educate their practitioners to:
 - appreciate the limitations of their breastfeeding care expertise^{17 21}
 - know when and how to make a referral to a lactation care professional^{17 21}
- Regularly examine the care practices of their practitioners and establish core competencies related to breastfeeding care and services^{20 22}

Knowledge_____

All health professionals should understand the:

- 1.1 basic anatomy and physiology of the breast^{8 23}
- 1.2 role of breastfeeding and human milk in maintaining health and preventing disease^{2 15}
- 1.3 importance of exclusive breastfeeding, and its correlation with optimal health outcomes^{15 24}
- 1.4 impact of pregnancy, birth, and other health care practices on breastfeeding outcomes^{19 25}
- 1.5 role of behavioral, cultural, social, and environmental factors in infant feeding decisions and practices^{26 27}
- 1.6 potentially adverse outcomes for infants and mothers who do not breastfeed²⁸
- 1.7 potential problems associated with the use of human milk substitutes²⁹
- 1.8 few evidence-based contraindications to breastfeeding^{30 31}
- 1.9 indications for referral to lactation services¹⁷
- 1.10 resources available to assist mothers seeking breastfeeding and lactation information or services^{30 32}
- 1.11 effects of marketing of human milk substitutes on the decision to breastfeed and the duration of breastfeeding^{1 33 34}

Skills_____

All health professionals should be able to:

- 2.1 practice in a manner that protects, promotes, and supports breastfeeding^{2 3 16 22}
- 2.2 gather breastfeeding history information sufficient to identify mothers and families who would benefit from specific breastfeeding support services³⁵
- 2.3 seek assistance from and refer to appropriate lactation specialists^{22 24}
- 2.4 safeguard privacy and confidentiality³⁶
- 2.5 effectively use new information technologies to obtain current evidence-based information about breastfeeding and human lactation^{22 37}

Attitudes_____

All health professionals should:

- 3.1 value breastfeeding as an important health promotion and disease prevention strategy^{30 38}
- 3.2 recognize and respect philosophical, cultural, and ethical perspectives influencing the use and delivery of breastfeeding care and services^{18 22}
- 3.3 respect the confidential nature of the provision of breastfeeding care and services³⁶
- 3.4 recognize the importance of delivering breastfeeding care and services that are free of commercial conflict of interest or personal bias^{22 23 34}
- 3.5 understand the importance of tailoring information and services to the family's culture, knowledge, and language level^{18 39}
- 3.6 seek coordination and collaboration with interdisciplinary teams of health professionals¹⁷
- 3.7 recognize the limitations of their own lactation knowledge and breastfeeding expertise¹⁷
- 3.8 recognize when personal values and biases may affect or interfere with breastfeeding care and services provided to families⁸
- 3.9 encourage workplace support for breastfeeding⁴⁰
- 3.10 support breastfeeding colleagues^{41 42 43}
- 3.11 support family-centered policies at federal, state, and local levels⁹

All health professionals do not need to have the level of competence expected of those practitioners who care for childbearing women, infants, and young children. Health professionals who care for childbearing women, infants, and young children can be further divided into two groups:

1. Those that provide **primary care** are front-line practitioners who care for women of childbearing age and/or infants and young children.
2. Those that provide **secondary care** may be front-line practitioners or practitioners with enhanced knowledge and skills specifically referable to the use of human milk and breastfeeding.

Those health professionals who provide primary and secondary care for childbearing women, infants, and young children should be able to:

- 4.1 understand the evidence-based *Ten Steps to Successful Breastfeeding*^{25 44}
- 4.2 obtain an appropriate breastfeeding history⁴⁵
- 4.3 provide mothers with evidence-based breastfeeding information²⁴
- 4.4 use effective counseling skills¹⁸
- 4.5 offer strategies to address problems and concerns in order to maintain breastfeeding^{24 46}
- 4.6 know how and when to integrate technology and equipment to support breastfeeding³⁶
- 4.7 collaborate and/or refer for complex breastfeeding situations⁴⁷
- 4.8 provide and encourage use of culturally appropriate education materials³³
- 4.9 share evidence-based knowledge and clinical skills with other health professionals^{35 48}
- 4.10 preserve breastfeeding under adverse conditions^{24 49}

In addition, those health professionals who provide secondary or more direct “hands-on” care for childbearing women, infants, and young children should also be able to:

- 5.1 assist in early initiation of breastfeeding⁵⁰
- 5.2 assess the lactating breast⁵¹
- 5.3 perform an infant feeding observation^{37 51}
- 5.4 recognize normal and abnormal infant feeding patterns^{51 52}
- 5.5 develop and appropriately communicate a breastfeeding care plan^{51 52}

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