Vitamin D deficiency rickets was first described in England around 1650. The Industrial Revolution caused poor people to be concentrated in narrow sunless alleys of crowded factory towns and big city slums and the use of soft coal caused smoke filled skies. In the United States 13,807 deaths in infants under the age of 12 months were attributed to rickets between the years of 1910 and 1961. In 1932, 50% of white children and 88% of black children were found to be rachitic.1 With the introduction of vitamin D fortified milk and formulas and the routine use of fish liver oils and other forms of vitamin D supplementation, vitamin D deficiency rickets all but disappeared by the 1960's and was deemed a “medical curiosity” in pediatric clinics.2 In recent years, however, this debilitating disease of infants and children has shown evidence of re-emergence.

The prevention of rickets has been a triumph of modern science and public health but little is known of the history. The association between rickets and a deficiency in solar radiation was observed in the late 1800's when the seasonal variation of rickets was termed a “sickness of domestication” from “living locked indoors” and that the habitat of a child is “being disturbed-domestication” from “living locked indoors” and that the habitat of a child is “being disturbed—domestication” from “living locked indoors” and that the habitat of a child is “being disturbed—domestication”. 1

How then did vitamin D deficiency rickets become better known as a dietary rather than an endocrine deficiency? Awareness that fish, particularly cod liver oil could act as a preventative and even a cure for rickets was known by the end of the 19th century. This lead support to the idea that rickets was a deficiency of diet, probably vitamin A. An American nutritionist Elmer McCollum established that the active antirachitic factor in cod liver oil was not vitamin A but a factor he called “vitamin D”, assigned as such since vitamins A, B, and C were already named. Although no other natural food was found to have vitamin D in significant amounts (part of the definition of a vitamin), vitamin D as a dietary factor became widely accepted. Semantic confusion was now created, because if “vitamin D” cured rickets it must be a vitamin deficiency disease. All the previous work demonstrating that rickets was a climatic disorder was forgotten.4

For the past several decades, we have seen a re-emergence of vitamin D deficiency rickets with multiple case reports and series appearing in the literature. These reports show that certain infants continued on page 5

THE REEMERGENCE OF VITAMIN D DEFICIENCY RICKETS-THE NEED FOR VITAMIN D SUPPLEMENTATION

by Shelley Kreiter, MD

Raczyński in 1912 pointed to lack of sunlight as the principal causative factor in rickets when newborn puppies fed exclusively on milk of their mother were reared either in sunlight or in deep shade. After six weeks, those puppies kept out of sunlight became markedly rachitic. The discovery by Huldschinsky in 1919 that UV radiation not only cured rickets in the irradiated arm of a rachitic child but in the other arm as well, proved that irradiation of the skin released a chemical into the bloodstream that could induce healing at a distant site—a hormone, by definition. In 1927, Otto Rosenheim and Thomas Webster showed that the plant sterol ergosterol became enormously antirachitic when irradiated with ultraviolet light. With this discovery, it became routine to add ergocalciferol to all milk sold in the U.S. and most European countries. A description of the skin hormone naturally released by irradiated skin was provided in 1936 when it was demonstrated that 7-dehydrocholesterol was the natural prohormone in skin that becomes calciferol on UV irradiation. Rickets is best compared to an endocrine-deficiency disease rather than a vitamin deficiency disease.3

In response to compelling scientific evidence supporting the public health importance of breastfeeding, widespread efforts are underway to increase the incidence, exclusivity and duration of breastfeeding worldwide. Despite these efforts, medical and social reasons for the use of substitute feeding options remain. With increasing awareness of the potential health hazards of artificial infant formulas, it seems appropriate to review the indications for the use of pasteurized banked donor milk. The World Health Organization recommends banked donor milk as the first alternative to mother's own milk1, even when the biological mother is HIV positive2. Although not explicitly referring to banked milk, the American Academy of Pediatrics recommends breastmilk as the ideal food for all infants, including sick and premature infants, with rare exceptions3. This article reviews the history of milk banking and provides an overview of current milk banking practices as well as indications for use of donor milk. The scope of this article will be limited to milk formally donated to milk banks.

The History of Milk Banking

As wet-nursing declined in popularity and high mortality among artificially fed infants was recognized in the late nineteenth and early twentieth centuries, milk banks were established in institutions for foundling infants and studies done to determine ideal conditions for donor screening and milk storage4. Milk banks flourished until artificial baby milk came into wider use in the 1940's and 1950's. They regained popularity in the 1970's only to decline in the 1980's due largely to the advent of HIV and the development of specialized premature formulas. There are currently seven milk banks in the United States, one in Canada and one in Mexico. Milk banks have been established throughout Europe, Central and South America, the Caribbean and the People's Republic of China. Further information can be obtained from the Human Milk Banking Association of North America, Inc (HMBANA), 8 Jan Sebastian Way #13, Sandwich, MA 02563. (508)888-4041; Fax (508)888-8050. E-mail: milkbank@capesoc.net.

continued on page 7
ABM Protocols

The protocol that follows is currently in draft form and is presented so that members of the Academy of Breastfeeding Medicine may comment on its content. Please forward your comments to Larry Gardner at gart@midway.uuchicago.edu or Cynthia R Howard at cindy.howard@viahealth.org. After a period of comment and revision the protocol will be finalized. The finalized protocol will appear in a future edition of News and Views.

ABM Clinical Protocol Number 2: Hospital Discharge Recommendations for the Breastfeeding Term Infant and Mother

A central goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

Background

The ultimate success of breastfeeding is measured in the duration of breastfeeding and of exclusive breastfeeding, not in the initiation of breastfeeding alone. Anticipatory attention to the needs of the mother and baby at the time of discharge from the hospital is crucial in insuring successful, long-term breastfeeding. The following principles and practices are recommended for consideration prior to sending a mother and her full term infant home:

Recommendations

1. Formal documented assessment of breastfeeding effectiveness should be performed by a trained observer at least once during the last 8 hours preceding discharge of the mother and baby (in addition to similar assessments performed earlier in the hospitalization). This includes evaluation of positioning, latch, milk transfer, baby’s weight, clinical jaundice and all problems raised by mother such as nipple pain or perception of inadequate supply.

2. All problems with breastfeeding, whether observed by hospital staff or raised by mother, should be attended to prior to discharge of the mother and baby, with a plan of action that includes follow-up of the problem after discharge.(1)

3. Staff should encourage the mother to practice exclusive breastfeeding for approximately the first six months of the infant’s life and to continue breastfeeding until one year of age and beyond with the addition of complementary foods at about six months of life.(2) Mothers will benefit from education about the rationale for exclusive breastfeeding and why artificial milk supplementation is discouraged. Such education is a regular component of anticipatory guidance that addresses individual beliefs and practices in a culturally sensitive manner. Special counseling is needed for those mothers planning on returning to outside employment or school.

4. Families will benefit from appropriate, non-commercial educational materials on breastfeeding (as well as on other aspects of child health care).(3) Discharge packs containing infant formula, pacifiers, commercial advertising materials and any materials not appropriate for a breastfeeding mother/baby should not be given.(4-10)

5. Breastfeeding mothers and appropriate others will benefit from anticipatory guidance prior to discharge regarding the next month of breastfeeding (e.g. engorgement, growth spurts, diminished milk supply). Specific guidance should be written in form to all parents regarding assessment of (a) adequacy of breastfeeding based on stool and urine output; (b) jaundice; and (c) sleep and feeding patterns.

6. Every breastfeeding mother should receive instruction on techniques for expression of milk by hand and/or by pump so that she can maintain her milk supply and obtain milk for feeding to the infant if mother and baby are separated or the mother is otherwise unable to breastfeed directly from the breast.

7. Every breastfeeding mother should be provided with names and phone numbers of individuals who can provide advice, counseling and health assessments related to breastfeeding on a 24 hour-a-day basis (e.g. “hot line”, pediatric office, newborn nursery, emergency room), as well as on a less intensive basis (e.g. “warm line”).(1;9;11)

8. Mothers should be provided with lists of various peer support groups (e.g. La Leche League) with phone numbers and addresses and encouraged to contact and consider joining one of these groups.(12;13)

9. Prior to discharge, appointments should be made for (a) an office or home visit by a breastfeeding-trained licensed health care provider 24 to 72 hours following discharge; (b) a routine preventive care visit when the child is two weeks of age; and (c) the mother’s six week follow-up visit to the obstetrician/family physician.(14-17)

10. The great majority of full-term breastfed infants will thrive on human milk exclusively for about six months without supplementation with vitamins, iron, water or other foods. Prior to discharge, physicians should assess the infant and mother for possible need for vitamin D. Premature infants should receive a multivitamin supplement that includes vitamin D.(18) Iron supplementation may also be indicated. Some physicians may wish to prophylax all full-term breastfed infants with vitamin D, as well. Exclusively breastfed, full-term infants living in climates with reduced sunlight, especially in winter, or who are not taken outside, and darker skinned infants have been noted in many communities to be at a higher risk for rickets. These issues should be discussed with parents prior to discharge.(2)

11. If mother is medically ready for discharge but the infant is not, every effort should be made to allow the mother to remain in the hospital either as a continuing patient or as a “mother-in-residence” with access to the infant for exclusive breastfeeding. Maintenance of a 24 hour rooming-in relationship with the infant is optimal during the infant’s extended stay. (19-22)

12. If mother is discharged from the hospital before the infant is discharged (as in the case of a premature or sick infant), the mother should be encouraged to spend as much time in the hospital with the infant as possible and continued on page 6
Evidence

Infant Morbidity: The

Source: Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of Breastfeeding Interven-
tion Trial (PROBIT), A Randomized Trial in the

The extent of the benefits conferred to healthy
term infants by breastfeeding remains somewhat
controversial, in part because rigorously scientif-
ic studies have been difficult to conduct. It is un-
ethical to randomize infants to breast or formula
feeding; hence studies evaluating the benefits of
breastfeeding have heretofore been limited to ob-
servational designs. Such studies are prone to
potential problems including reverse causality and
selection and measurement bias. Additionally, as
the magnitude of benefit derived from breastfeed-
ing varies with the level of sanitation, the gener-
alizability of many studies is limited.

This ingenious study by Kramer et al. cleverly
circumvents the ethical issues of randomizing in-
fants to different feeding methods and yet man-
eges to address two very important questions within
the gold standard of a randomized trial. The study
is a cluster randomized trial of an intervention
modeled after the WHO-UNICEF Baby Friendly
Hospital Initiative (BFHI) and the outcomes are
both breastfeeding practices and infant morbidi-
ties during the first year post-partum. This study
is the first randomized trial of the effect of Baby
Friendly Hospital policies on breastfeeding dura-
tion and exclusivity (prevalence of predominant
and exclusive breastfeeding at both 3 and 6
months of age). Additionally the investigators
measured gastrointestinal (GI) and respiratory in-
fections and atopic eczema, to evaluate the link
between feeding method and infant morbidity.

The Republic of Belarus was chosen as the site
for this study because maternity hospital prac-
tices are similar to those of the United States
and Europe 20-30 years ago. Thus, there is ample
contrast between intervention and control sites
enhancing the ability of this study to assess the ef-
fects of the breastfeeding promotion efforts. Fur-
thermore, sanitation in Belarus is similar to
western industrialized nations, allowing generali-
ization of study results to these populations. Sa-
lent differences between western societies and
Belarus include much longer maternity hospital
stays (6-7 days), much longer maternity leaves
(typically 3 years!), and the corresponding ab-
sence of day care centers.

Thirty-four hospitals, each with an affiliated
clinic, were paired by population demographics
and breastfeeding rates. One of each hospital pair
was randomly assigned intervention vs. control
status. Personnel at intervention sites were
trained according to the 18 hour WHO BFHI
course. Hospitals and clinics were monitored to
ensure that policies and procedures were consist-
tent with BFHI at intervention sites and that con-
trol sites did not modify policies and procedures
to become more Baby Friendly. Two hospitals re-
 fused their assigned status and one clinic was
found to falsify data, leaving a total of 31 hospi-
tals and clinics with a total of 17,046 mother-in-
fant pairs. Ninety seven percent of infants
(16,491) completed the entire 12 months of fol-
low-up. Data were collected on feeding method,
growth, and symptoms of GI, respiratory, atopic
or other illnesses at 1, 2, 3, 6, 9 and 12 months of
age. Routine data audits and maternal interviews
at each site were performed to check data validi-
ty. Data was analyzed for all infants available for
a given visit. Analyses were conducted by inten-
tion-to-treat and stratification rather than pairing.
Multivariate analysis controlled for potentially
confounding factors including maternal age,
breastfeeding experience, birthweight, smoke ex-
posure, number of children in the household and
family history, when relevant.

Mothers who gave birth at intervention as
compared to control hospitals had higher rates of
breastfeeding continuation at 3 months (73% vs.
60%), 6 mos. (50% vs. 36%) and throughout the
first year with an adjusted odds ratio (OR) of ap-
proximately 0.5 for having been weaned at 3, 6, 9
and 12 months (p<.05 at all time points). The au-
tors report that differences were even more pro-
nounced for exclusive breastfeeding, but that an
OR could not be calculated because such a small
number of control infants were exclusively, or at
6 months, predominantly, breastfed. Intervention
mothers were more than 7 times more likely to be
exclusively breastfeeding at 3 months and more
than 12 times more likely to be doing so at 6
months. Prevalence of GI infection was signifi-
cantly decreased in intervention infants, 9% vs.
13%, adjusted OR 0.6 (95% CI 0.40-0.91), as was
atopic eczema 3% vs. 6%, adjusted OR 0.54
(95% CI 0.38-0.92). The frequency of respiratory
infections, however, was not decreased regard-
less of the method used to code respiratory out-
comes [i.e. two or more respiratory tract infec-
tions (including otitis media, croup, wheez-
ing and pneumonia), 2 or more episodes of upper
respiratory tract infection or wheezing each, or
one or more episodes of otitis media or croup].

An editorial in the same issue by Ruth
Lawrence rightly notes that generalization to the
United States, where maternity leaves are not
anywhere near 3 years and day care is abundant,
may be limited. These are factors that may affect
both the frequency of respiratory infections and
protective effects of breastfeeding. She notes as
well the tremendous value of the cohorts in the
future for epidemiologic evidence of protection
with breastfeeding against childhood cancer,
Crohn's disease, juvenile diabetes, celiac disease
and more.

Commentary:

This study is well designed, implemented, and
analyzed. Particular strengths include the very
large sample size and use of standardized WHO
definitions of exclusive and predominant breast-
feeding. Many existing studies on the protective
benefits of breastfeeding suffer from inadequate
or non-standard definitions. Most important is
the study design that allows randomization and eval-
uation of population clusters and eliminates the
issue of self-selection. Consequently, the true ex-
perimental question answered here is the effect of
breastfeeding promotion on clinical outcomes,
certain to be a very conservative estimate of the
effects of breastfeeding itself on clinical out-
comes. For example, while only 50% of mothers
were still breastfeeding to any extent at 6 months
in the intervention group, the group had signifi-
cantly less GI infections and atopy than the con-
trol group. More than half of the control infants
also breastfed to some extent for at least 3
months. This exposure to breastfeeding may have
affected the investigators' ability to detect a
difference in respiratory tract infections. This
subtlety is sure to escape many, and in fact, an
article by the Associated Press on January 24, 2001
misquotes the data: "About 3 percent of the
breast-fed infants developed atopic eczema, com-
pared with 6 percent of the other babies." It is cu-
rious that the authors did not choose to also
present outcome data by duration and exclusivity
of breastfeeding. Would we then have seen a dif-
ference in respiratory infections?

Design weaknesses in this study are minor.
Skeptics will need to be convinced that the level
of sanitation in this poor and developing country
is truly similar to that in the developed world, for
example with equivalent municipal water-
coliform counts or average numbers of diarrheal
illnesses in adults. One might also take issue with
the definition used for GI infections. It is well
known in clinical pediatrics that vomiting and
even loose stools can be non-specific systemic re-
tactions to illness such as a urinary tract infection.
It is possible that GI infections may be over rep-
presented in the Kramer study, although it is likely
that these infants do have an infectious etiology
of their illness. While the definition of respira-
tory tract infection is more specific, it is certainly
conceivable that fast breathing could be a result of fe-
ter, and the source of the fever an infection at
another site. It, however, is unlikely that less than
completely specific definitions would result in
systematic bias differentially affecting outcomes
between study groups.

Nowhere in the text or Tables do the authors
demonstrate that the small differences in the two
populations are not statistically significant, a mat-
ter of great importance to the study's conclusions.
Even if the populations are equivalent at birth, the
possibility should be considered that something
other than breastfeeding promotion happens in
the process of a Baby Friendly hospital stay (e.g.
improved bonding) that renders these two popu-
lations distinct and impacts morbidity. Nor are
continued on page 6

Literature Review

Baby Friendly Hospitals Reduce Infant Morbidity: The Evidence

by Caroline J Chantry, MD
Members are Invited to Provide Comments on a Draft Strategic Plan for The Academy of Breastfeeding Medicine 2001-2005

by Miriam Labbok MD, MPH

The Board has spent many hours and days developing a draft five-year plan for ABM. It is designed to help define the specific and unique role of ABM. Based on recognized principles for such an endeavor, the Board met to discuss our organization's mission, vision, guiding principles, constraints and opportunities, weaknesses and strengths, ultimate goals and achievable 5-year objectives. The Board feels the following plan is feasible, consistent with ABM values, appropriate for physicians to pursue, and likely to achieve the desired goals or sub-goals presented in a 3-5 year time period. Presented below are the major new and/or action sections of this plan.

Your immediate input is needed! A copy of the full document can be obtained by mail from Dr. Miriam Labbok at mlabbok@usaid.gov. Please send your comments to Dr. Labbok at this address. If you do not have access to mail, please send comments to ABM News and Views at PO Box 81323, San Diego, CA, 92138-1323.

Member comments will be summarized for presentation to the Board at their next regular meeting. So please get your comments to us within the next 4 weeks!!!!!!! The final plan will be implemented as soon as this process is completed.

DRAFT 5-YEAR PLAN FOR ABM

The PREAMBLE includes our Mission Statement, and Vision Statement, as follows:

ABM is an independent self-sustaining multi-specialty international physician-to-physician organization that promotes breastfeeding education, knowledge, attitudes and skills for physicians, worldwide.

GUIDING VALUES include:

- We are advocates for breastfeeding and believe that every mother should have the fully informed choice and ongoing physician support to breastfeed, and that every child should have the opportunity to be optimally breastfed.
- We believe that physicians should be significant participants and leaders in this effort.
- We believe that education is a basis for action, and that physicians of all disciplines must receive appropriate education to be able to play this role.
- We value research-, scientifically-, and analytically-based information.
- We recognize the importance of family, community, and society in the support of breastfeeding.
- We believe that breastfeeding is an issue that has environmental, legal, social/cultural, and human rights implications, in addition to medical implications, that should be considered.
- We value coordination and collaboration with other organizations with common interests.
- We value independence from commercial influence and believe this is necessary to avoid bias and for ethical reasons.

GOALS AND MEASURABLE OBJECTIVES FOR THE FIVE-YEAR PLAN include:

1. **Ultimate Goal:** Physicians of all disciplines will have sufficient education to protect, support and promote breastfeeding within their practices and communities.

   **Five-Year Goals and Measurable Objectives:**
   - A basic curriculum for physicians will be developed in one-day and three-day formats, and piloted and evaluated.

2. **Ultimate Goal:** Curriculum completed and reviewed by Board
   - At least two pilots will be carried out and evaluated for impact and potential use
   - This effort will be assessed to understand if it is perceived as a benefit to membership
   - The Board will reach consensus on the role of ABM in physician education courses and curricula, including issues of pre-service, course development and marketing, training of trainers to carry out physician education, etc.

3. **Ultimate Goal:** Increase the number of board exams that include breastfeeding questions.
   - Content of curriculum presented to boards for consideration of inclusion in exams
   - At least one certifying board exam altered to include updated and increased breastfeeding content

4. **Ultimate Goal:** Annual educational meetings will be continued.
   - Annual meetings held with at least 20% of membership in attendance, and with overall attendance significantly increased annually
   - Annual meetings evaluated positively by attendees

5. **Ultimate Goal:** Mechanisms for communicating technical issues and educating members will continue.
   - **ABM News and Views** will be published with at least 4 issues per year
   - Evaluation of membership interest and use of electronic communication approaches completed

6. **Ultimate Goal:** Develop mechanisms to recognize skilled physicians to stimulate interest in breastfeeding education and to provide names of those who might be available to educate other physicians.
   - Mechanism will be developed and implemented to recognize and publicize special categories of membership, including categories that may be achieved by all, as well as special recognition categories
   - An award system will be develop to recognize the physician's role in breastfeeding education and to increase medical media attention to the importance of physician education, to be measured by at least two physician-oriented publications reporting on ABM and the importance of physician education

2. **Ultimate Goal:** Knowledge concerning breastfeeding and human lactation will continue to expand.

   **Five Year Goal and Measurable Objectives:**
   - The development of protocols will facilitate optimal clinical care and will identify knowledge gaps.
   - At least five protocols will be developed and opened to outside review and comment
   - At least two protocols evaluated in clinical practice and clinical practice research completed
   - Translation of protocols into languages other than English will be completed following a method of translation and back translation, with documentation of each translation maintained by the Protocol committee

3. **Ultimate Goal:** There will be a measurable increase in optimal breastfeeding worldwide.

continued on page 5
**THE REEMERGENCE OF VITAMIN D DEFICIENCY RICKETS**

Continued from page 1

are at risk for the development of the disease—those who are dark-skinned and receiving human milk without supplementation. Other infants and children living in certain climates and latitudes, those of certain religious faiths, or those with vegan diets may also be at risk. The reason we are seeing more dark-skinned infants, particularly African American infants, developing rickets is likely a consequence of increased breastfeeding in this group of women, who until recently have been less likely to breastfeed. If continued success and strides are to be made promoting breastfeeding in this group of women, their infants and children must be protected from this potentially debilitating but preventable disease. Supplementation with vitamin D is the most effective, safest and cheapest way to achieve this goal.

One objection to vitamin D supplementation of breastfeeding infants is that it implies a nutritional inadequacy of human milk. Human milk is the perfect food for babies and provides every nutrient an infant or child needs. There are no documented cases of a true vitamin deficiency caused by breastmilk. Viewing vitamin D (or calciferol) as a prohormone rather than a vitamin may help in overcoming this objection; after all, one does not expect thyroid hormone to be present in sufficient quantities in breastmilk, so why calciferol? It is unfortunate, however, that calciferol only comes as a multivitamin preparation of vitamins A and C, vitamins that are unnecessary for a healthy breastfeeding baby, again perpetuating the notion of a nutrient deficiency.

It has been suggested that supplementation of mothers may provide infants with sufficient vitamin D if the dose given to the mother is large enough. Breastmilk is low in vitamin D, not enough to be antirachitic, with levels ranging from 15-60 IU/I, reflecting maternal vitamin D levels. Dark-skinned women tend to have lower levels than light-skinned women, as melanin reduces phototransformation of vitamin D in the skin. It may be necessary to supplement mothers with 2000 IU of vitamin D a day in order to achieve infant serum levels that equal that of infants supplemented with 400 IU/day. As this dose far exceeds the daily dietary allowance recommended and the potentially toxic side effects of excessive ingestion have been well established, the safety of prolonged use of this dosage is not known. Artificial living conditions, environmental restrictions and pollution now limit sun exposure to infants, children and adults, but increasing sun exposure, the natural source of vitamin D, can no longer be recommended. Current health recommendations limit regular sun exposure and encourage the use of sunscreens, even in older infants and children.

The current recommendations for supplementing with vitamin D are confusing for the general practitioner, who are asked to assess the amount of sun exposure, maternal vitamin D levels, or pigmentation of the skin before recommending supplementation. In order to prevent this 100% preventable disease, a usable practice guideline must be available that is simple to follow. Recommending vitamin D supplementation of all infants and children who are breastfeeding or taking in inadequate amounts of vitamin D through other food sources (i.e. fortified milk) will ensure that vitamin D deficiency rickets will be prevented in all babies including those at risk due to religious practices, pollution, climate and latitude. Failure to acknowledge the resurgence of rickets is poor medicine since the evidence is in. Currently two lawsuits involve the failure to prevent and diagnose vitamin D deficiency rickets. We must continue to promote, support and protect breastfeeding, lest we become victims of our own success, while at the same time prevent our babies from being hurt by this preventable disease.

Dr. Kreiter is Assistant Professor of Pediatrics at Wake Forest University School of Medicine.

### References


### Draft Strategic Plan

Continued from page 4

A. ABM will actively support, through education and advocacy directed towards key decision-makers and societal leaders, selected policies and practices that enhance and support women's decisions to breastfeed and to breastfeed optimally.

- Develop and sustain a committee to identify global or local breastfeeding supportive activities as well as obstacles to policy and/or societal support for breastfeeding and prepare a timely response to be sent from the Board
- The Board will endorse medical or health-related actions that enhance policy or societal support for breastfeeding
- ABM will establish a log of these responses and endorsements, as well as selected examples of policies of other physician and related health organizations, to aid in preparation and coordination of responses

4. **Ultimate Goal:** Open and timely informational exchange among all breastfeeding educational organizations will be achieved.

**Five Year Goal and Measurable Objectives**

A. The Executive Board will establish Memoranda of Understanding with major breastfeeding organizations describing modus of interaction and mutual support. This will include, but not be limited to:

- Physician Groups, e.g., American Academy of Pediatrics Breastfeeding Section, La Leche League International Medical Associates, National Medical Association

- Examination Board Committees
- Other health professional groups, e.g., National Association of Pediatrician Nurse Practitioners, International Lactation Consultant Assoc.
- Lay groups
- Policy groups, e.g., US Breastfeeding Committee, World Health Organization, World Association of Breastfeeding Advocacy
- Other, e.g., ISHMRL

Memoranda of Understanding (MUO) will be developed with at least one organization in each category, and negotiation will have begun with others.

5. **Ultimate Goal:** ABM will be a fiscally sound and self-sustaining multi-specialty international physician organization

**Five Year Goal and Measurable Objectives**

A. Significantly increase number of members:

- Membership committee will develop and implement an approach to increase membership by at least 10% annually

B. Annual conference will be budget-neutral, or budget contributory:

- Minimum of 25% of conference costs will be covered by outside support sought by program committee

C. Increase resources available for organizational development:

- At least one grant submitted seeking development resources

D. Organizational administration strengthened:

- President will initiate annual review of all bylaws, policies, and administrative units employed by ABM

E. Increased fiscal base:

- Treasurer will initiate annual review of fiscal soundness and provide recommendations for improvements

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References:

For Our Members

Who Are We?  

by Barbara Phillip, MD

Who are the members of the Academy of Breastfeeding Medicine?

A summary of year 2000 data show that we are 479 members strong and still growing from our original 1995 membership of 318. Eight five percent of our members are registered as regular members, 10% as founding/charter/sustaining/honorary and 5% as student members. We are a loyal bunch, with an annual renewal rate of more than 80%. By location, the four countries with the most representatives are the United States (75%), Canada (3.5%), Egypt (2%), and Australia (2%) - with members from 35 other countries as well! Members from the United States hail from 45 states and the District of Columbia; California, Pennsylvania and Massachusetts boast the most members.

By medical specialty, Pediatrics accounts for 52% of the membership followed by Neonatology (17%), Family Medicine (15%), and Obstetrics and Gynecology (12%). Other members specialize in Anesthesiology, Dentistry, Epidemiology, Internal Medicine, Otolaryngology, Preventive Medicine/ Public Health, Psychiatry, Radiology and Surgery.

We are a wonderfully eclectic group!

Membership renewal notices for 2001 were mailed in December 2000 and a second reminder will be sent out in February 2001. The ABM membership directory will be published this Spring so please send in your renewal as soon as possible so that your information is included.

Baby Friendly Hospitals Reduce Infant Morbidity continued from page 3

We told of any quantitative audit results of hospital procedures, other than the author's statement that hospitals were "monitored to ensure that policies and procedures were consistent with BFHI." Given the dramatic changes that were necessary, it would have been interesting to quantitatively measure performance, similarly to a BFHI certification visit. Obviously, any compliance issues would have resulted in an underestimation of the effect of the intervention.

Two additional potential sources of error merit consideration. Audits of the study data against clinic charts and maternal interviews do not suggest that inaccuracy would account for the findings of the study, but less than two percent of mothers were interviewed. Observers who are not blinded to the intervention are a potential source of bias. Lastly, it does not appear that we are privy to all comparisons that were made (pneumonia, for example). It would be reassuring to know that statistical adjustments were made for the use of multiple comparisons, if appropriate, to reduce the likelihood of spurious findings.

Clinical Protocol Number 2 continued from page 2

to continue regular breastfeeding. (23) During periods when the mother is not in the hospital, she should be encouraged to express and store her milk, bringing it to the hospital for feeding to the infant.

Reference List


(22) Keeffe MR. Comparison of neonatal nighttime sleep-wake patterns in nursery versus rooming-in environments. Nursing Research. 1987; 36:140-144.


Letter to the Editor

I would like to make all family physician members of the Academy aware of some exciting developments at the American Academy of Family Physicians (AAFP). The Commission on Public Health has made breastfeeding promotion one of its priorities, and has established a task force to develop a position paper on breastfeeding. The position paper will take an approach that encompasses many facets, including some that are pertinent to the unique needs of family physicians. Several ABM members serve on the task force. Although it may take another year or so for the position paper to move through the channels of the Academy, the task force hopes to have a draft paper ready by March or April 2001. If you want more information about the AAFP’s breastfeeding promotion activities or the task force, you may contact Joyce Haas at the AAFP, 800-274-2237 or jhaas@aafp.org.

Anne Montgomery

Task force members:

Deborah Bostock . . . . . . . . . . . dbostock@usuhs.mil
Dricia Drennan . . . . . . . . . . . . . dermner@umdnj.edu
Anne Eglash . . . . . . . . . . aeglash@fac.staff.wisc.edu
R. Dee Legako . . . . . . . . . . rlegako@mmicable.com
Richard Lord . . . . . . . . . . . . . rlord@wfubmc.edu
Lea Raye Mabry . . . . . . . . . . . lrmabry@aol.com
David Meyers . . . . . . . . . . . . . dsmhjr@aol.com
Ann Montgomery . . . . . . . . . . mdiblc@home.com
Rebecca Sauz . . . . . . . . . . . . . rsauz@familymed.unmsmed.edu
Katherine Schlarath . . . . . . . . . . . slrarath@chw.edu
Julie Wood . . . . . . . . . . . . . juliewood@aol.com
The Board Reports
by Nancy Wight MD

A beautiful setting, hot desert breezes, dramatic, cooling thunderstorms, superb speakers, and active, interested participants combined to produce a fantastic 2000 ABM Annual Meeting in Tucson, Arizona, September 11-13. OK, so you missed a great meeting and feel bad. Cheer up! Preparations for the Sixth International Meeting of the Academy of Breastfeeding Medicine are well under way. “Research, Knowledge, and Advocacy - Capital Ideas in Breastfeeding” will be held November 1-5, 2001 at the Wyndham Hotel, Washington DC. This superb meeting will provide physicians the opportunity to meet other physicians from around the world dedicated to an interest in breastfeeding and human lactation. You will share experiences on physician education and clinical management of breastfeeding patients; and attend workshops, abstract presentations, and lectures regarding relevant, controversial topics such as human milk banking, maternal depression, breastfeeding advocacy, and more. The ABM Physician’s Basic Breastfeeding Course and a selection of Mini-Courses will begin the meeting. Please check www.bfmed.org for additional information and for abstract submission instructions.

The administrative office has made a smooth transition to San Diego. The web site continues to expand with an active, invaluable ListServ open to all ABM members. Newsletter subscriptions continue to increase, including those of non-members. Your ABM Board and committee members have been working hard. Please review the draft Strategic Plan outline included in this issue. We need more input from YOU! Join a committee! Recruit another member! Draft a protocol! Ask questions and give answers on our ListServ! See you in Washington DC, November 2001!

The Case for Banked Donor Human Milk
continued from page 1

Indications for the Use of Banked Human Milk

The use of human milk carries with it many of the well-documented benefits of breastfeeding, including species-specificity, easy digestion, growth and maturation factors, immunological development and allergy prevention. There are a number of well-established indications for the use of banked donor milk. These include the feeding of premature infants as well as infants with failure to thrive, malabsorption syndromes, renal failure, feeding intolerance, inborn errors of metabolism, cardiac problems, bronchopulmonary dysplasia and postsurgical nutrition. There are also accepted indications for medical and therapeutic use such as the treatment of infectious and immunodeficiency diseases, as well as the prevention of necrotizing enterocolitis and Crohn’s disease.

Practical Considerations in Donor Milk Banking

There are a number of practical issues in the day-to-day operation of a milk bank. These are addressed in the guidelines of the HMBANA. One consideration is the selection of a donor. Acceptable donors in North America include lactating women who meet eligibility criteria of the American Association of Blood Banks. Potential donors are excluded if they have risk factors for HIV transmission, a history of hepatitis, systemic disorders or chronic infections, regular use of 1 or more ounces of alcohol in 24 hours, regular use of medications, mega dose vitamins and/or herbal preparations, or a vegan diet without vitamin and mineral supplementation. Donors may be temporarily disqualified during any active infection, the 4-week period after a case of rubella in the household or administration of an attenuated live vaccine, reaction to the milk bank in coolers on dry ice.

Once the milk is received at the milk bank, it is thawed and pooled with the milk of other donors unless it is a special order such as milk from a mother on a dairy- and/or soy-free diet. The pooled milk is heat-treated by Holder pasteurization (keeping the milk at 62.5 degrees Fahrenheit for 30 minutes), then frozen. Bacterial cultures are performed at various stages of this process, and milk is only shipped to recipients if the culture is negative.

Discussion and Implications for Practice

With greater awareness of the potential adverse health outcomes from the use of artificial baby milk, the use of pasteurized banked donor milk becomes an increasingly important alternative feeding method. As more women breastfeed, the potential supply of donor milk should go up, thereby making banked milk potentially more feasible. There, however, are numerous obstacles to the establishment of banked human milk as the gold standard for alternative feeding of infants. These factors vary depending on the nation involved but there are certain issues that are common to all nations. Some of the concerns include financial/funding issues, education of health care professionals about the safety, availability and indications for banked milk, raising awareness among the general public, addressing cultural taboos and concerns about safety, the cost of processing the milk and the inclusion of banked donor milk as a covered benefit in health insurance plans.

As breastfeeding advocates, physicians can play a major role in addressing some of these issues. Anytime an infant needs supplementation, the possible use of banked donor milk should be considered. Physicians can write letters to insurance companies in support of their patients’ obtaining donor milk. They can educate themselves by obtaining the HMBANA guidelines, and educate their colleagues and patients about the rationale and indications for using banked milk. If a mother has an overabundant supply or has experienced an abrupt weaning due to the death of her infant, a physician can explore the option of donating her milk. Furthermore, in special situations such as an adoption, the physician can raise the possibility of obtaining donor human milk. Physicians can actively work to start milk banks at their institutions. As more physicians incorporate these issues in their practices, the ideal goal of every baby being fed human milk will be closer to realization.

Dr. Dermer is Clinical Associate Professor of Family Medicine at the University of Medicine and Dentistry of New Jersey - Robert Wood Johnson Medical School.

References

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Human Milk Banking

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References
PRESIDENT'S NOTE
by Audrey Naylor MD, DrPH

With this first edition of News and Views published in the new century, The Academy of Breastfeeding Medicine is very pleased to be able to enclose a copy of the Blueprint for Action on Breastfeeding prepared by the United States Department of Health and Human Services Office of Women's Health. The document is the result of a unique collaborative effort of 34 governmental agencies and non governmental professional organizations with major interests in improving maternal and infant health. It provides a framework and urges that significant steps be taken to achieve the national goals for the year 2010 of 75% of all mothers initiating breastfeeding, 50% continuing at 6 months and 25% at 1 year. Specific actions are recommended for the health care system, the workplace, and within the family and community. In addition, eight areas for research are identified. A major statement such as the Blueprint can be of considerable help in creating interest among other United States governmental agencies, Congress, the business community and the general public.

It was particularly pleasing to discover that first among the recommended actions for the health care system is “train health care professionals who provide maternal and child care on the basics of lactation, breastfeeding counseling, and lactation management--". The goals of ABM are of course, exactly in line with this recommendation: physician education, expansion of knowledge in both breastfeeding science and human lactation, facilitation of optimal breastfeeding practices and encouragement of the exchange of information among other organizations with interests in maternal and infant health. Through News and Views, the development of policy statements and clinical protocols, the production of an outstanding annual meeting, the offering of basic and advanced courses in lactation management for physicians and topic specific mini courses, ABM is making a significant contribution to achieving the national goals.

Many members also contribute individually to improving the knowledge and skills of colleagues in their own community. They offer seminars, teach in medical schools, provide opportunities for students and residents to learn about lactation by serving as attending physicians, and participate in numerous other educational efforts. With this combination of individual, organizational and governmental commitment to the common purpose of promotion, protection and support of breastfeeding and human lactation, the possibility of achieving the national goals for the year 2010 indeed seems like more than an impossible dream.

Join the Academy's Listserv

The ABM listserv is up and running! The listserv was created to facilitate communication among ABM members. We hope that members will use the listserv to share thoughts on breastfeeding issues including current events, clinical questions, research, education, and ABM activities. If you are a current member and would like to subscribe, please send an e-mail to bfmed-subscribe@egroups.com, or visit our listserv website at www.egroups.com/group.bfmed. If you have any questions, please e-mail Anne Eglash MD the listserv moderator at areglash@facstaff.wisc.edu.

Letters to the editor are solicited and welcomed, whether they be in response to articles in ABM News and Views or new information that the writer wishes to share with our readers. Whenever possible, please cite scientific literature in support of the points being made. Letters will be edited for size and relevance and will be published at the discretion of the editor.

Address letters to the editor to:
Cynthia R Howard, MD, MPH
P.O. Box 81323
San Diego, CA 92138-1323
Phone: 1-877-836-9947
Fax: 619/295-0056
E-mail address: abm@bfmed.org

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