

# Liquid White Gold

The Official Newsletter of the Utah Mothers' Milk Bank Task Force\*

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BREASTFEEDING AWARENESS MONTH\*\*

## There Should Be A Human Milk Bank in Utah because ...

... practically, breastfeeding mothers who are able and willing to donate their extra milk need a convenient place to deliver it.

... technologically, a human milk bank in Utah will use technology-assisted power of nature to treat its most vulnerable patients.

... reputationwise, Utah will be viewed as a trail blazer. Hospitals across the country are competing for best quality care. Hosting a milk bank demonstrates the highest standard of care.

... ethically, a human milk bank in Utah will provide our most needy patients with the most effective treatment in the most timely fashion.

... businesswise, a human milk bank in Utah will allow dispensing of the best available product, human milk, at a lower cost than any artificially mixed formula and/or medicine.

... a human milk bank in Utah is simply an idea that has come of age.

To paraphrase the motto of the 2007 Breastfeeding Café (12), human milk “grows healthy children, healthy families, healthy communities, and a healthy world” and it should start right here, at home.

(12) [www.utahbreastfeeding.org](http://www.utahbreastfeeding.org)

## A Human Milk Bank in Utah An idea that has come of age

### The Need Exists

Premature babies are born smaller and smaller, technology to keep them alive is increasingly complex, medical costs are incessantly climbing. The medical evidence is there: premature babies fed human milk (mother's own or banked) end up healthier and their care costs less than those fed artificial formulas. Many Utah breastfeeding mothers shy away from the trouble of shipping their excess breastmilk to milk banks outside Utah. Currently, Utah physicians and neonatologists order banked human milk from Mothers' Milk Bank in Denver, the nearest human milk bank to the Salt Lake Valley.

### The Support Organization Is Established

The terms banked milk, banked human milk, banked mothers' milk, and donor milk are used interchangeably in the context of milk banking. Milk banks provide human milk primarily for sick infants and young children. The Human Milk Banking Association of North America (HMBANA) is a nonprofit organization that has set the standards and developed guidelines for human milk banking practices for Canada, Mexico, and the United States. Circumstances that warrant dispensing of donor milk include, but are not limited to, treatment of various medical conditions, such as prematurity, malabsorption, feeding intolerance, immunologic deficiencies, and congenital anomalies. If supplies of banked milk exceed medical needs, donor milk can be dispensed for lactation failure, adoption, and illness of the mother that requires breastfeeding interruption (1).

\*The Mothers' Milk Bank of Utah Task Force was created in the summer of 2006 to evaluate the feasibility of establishing a milk bank in the Salt Lake valley.

\*\*In his declaration of the month of August 2007 as the **Breastfeeding Awareness Month**, Governor John Huntsman "encourage[is] citizens to actively participate in promoting and supporting breastfeeding." The Breastfeeding Café is such an activity.

The Utah Breastfeeding Coalition is a group of health professionals, public health organizations, educators, policy makers, employers and other community individuals and groups whose purpose is to collaboratively promote, protect and support breastfeeding in Utah.

Liquid White Gold is sponsored by the Utah Breastfeeding Coalition (UBC) Editor: Nicole J Bernshaw, IBCLC, Mothers' Milk Bank of Utah Task Force Coordinator

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(1) Guidelines for the Establishment and Operation of a Donor Human Milk Bank. HMBANA, 2005. [www.hmbana.org](http://www.hmbana.org)

## It Makes Sense For Babies And Their Families

Ideally, a baby should be fed his own mother's milk. However, sometimes this is not possible and this is when a human milk bank makes a difference. Premature babies are the most vulnerable recipients of donor milk. As soon as they can tolerate feeding by mouth, they should be fed human milk, if not their mother's own milk, at least banked milk. Human milk is good at "priming" the infant's gut. Studies have shown that premature babies who receive human milk tolerate feedings by mouth more easily and more rapidly than if fed formula, reaching discharge weight faster and therefore leaving the hospital earlier (2). Babies need to be with their mothers, not in an isolette in a hospital. In this way, banked milk supports mother-baby togetherness.

Mothers with excess milk love to donate it so someone will benefit from it. Some mothers who have lost a baby, either at birth or soon thereafter, find that expressing and donating their milk fills a therapeutic need and brings closure in a healthy way. Milk donation must be made easy for donors. The lack of a milk bank in Utah has deprived many mothers from the opportunity to contribute to a worthy cause.

(2) Guidelines for the Establishment and Operation of a Donor Human Milk Bank, HMBANA, 2005.

## It Makes Sense For Hospitals

According to their nonprofit mission, Intermountain Healthcare (IMHC) provides medical care regardless of ability to pay. Recipients who cannot pay, for the most part, are of a lower socioeconomic status. In 2005, IMHC donated \$65 million in charitable assistance (3). A serious, sometimes fatal condition observed in very premature babies (less than 1000 grams, or 2 pounds 3 ounces) is necrotizing enterocolitis (NEC). Babies with NEC have portions of their digestive tract that are dying and many need emergency surgery. Given that prematurity occurs more frequently in low socioeconomic families, NEC is more likely to affect these families as well.

One study has shown that the length of the hospital stay of premature babies with NEC can be as long as 60 days more than premature infants not affected by NEC and that additional hospital costs average over \$200,000 per survivor (4). It has been known for over a decade that human milk reduces the incidence of NEC in the preterm infant (5). Therefore, by supporting a milk bank in Utah, IMHC could reduce the length of hospital stay and improve the babies' health at a lesser cost, as well as permit rechanneling of charitable assistance to other needy individuals.

(3) [http://intermountainhealthcare.org/kp/public/about\\_intermountain/nonprofit](http://intermountainhealthcare.org/kp/public/about_intermountain/nonprofit).

(4) Impact of Necrotizing Enterocolitis on Length of Stay and Hospital Charges in Very Low Birth Weight Infants. Bisquera JA, Cooper TR, and Berseih CL. Pediatrics 109(3):423-428, 2002.

(5) Breast milk and necrotizing enterocolitis. Lucas A and Cole T. Lancet 336(8730):1519-1523, 1990.

## It Makes Sense For Health Insurance Companies

A minimum of \$3.6 billion could be saved if breastfeeding rates were increased from current levels (64% in hospital, 29% at 6 months) to those recommended by the Surgeon General (75% and 50%) (6) in relation to only three childhood illnesses: otitis media (earache), gastroenteritis, and NEC (7). By favoring the use of human milk, health insurance companies could avoid many of these medical costs claimed by people who are fortunate enough to have health insurance.

Avoiding NEC is an example of how health insurance companies can benefit from supporting the establishment of a milk bank. One study showed that the average medical cost for an infant with NEC was \$186,200 more than for a premature infant without NEC. If the infant required surgery, the cost climbed an additional \$73,700, for a total additional cost of \$259,700! (4)

The incidence of NEC has been reported to vary between 0.9 to 2.4 per 1000 and it appears to be increasing (8).

(6) [www.healthypeople.gov](http://www.healthypeople.gov)

(7) The Economic Benefits of Breastfeeding: A Review and Analysis. Weimer J. Food and Rural Economics Division, Economic Research Service, US Department of Agriculture. Food Assistance and Nutrition Research Report No. 13, March 2001.

(8) Necrotizing enterocolitis mortality in the United States, 1979-1985. Holman R, Stehr-Green J, Zelasky M. American Journal of Public Health 79:987-989, 1989.

**No matter how one slices the pie, a human milk bank is cost effective while promoting health care. Anyone who thinks otherwise is self-serving.**

## S o m e t h i n g I s O u t O f S y n c

No one can contest that human milk provides just what a baby needs for normal nourishment, health, growth, and development. The medical literature is replete with studies that demonstrate the hazards of not feeding breastmilk to babies. The American Academy of Pediatrics and the World Health Organization both say that a baby should enjoy his/her mother's milk exclusively for the first six months of life. Yet, despite its inferiority, formula is given in discharge bags to mothers as they leave the hospital and it is dispensed free of charge to the participants of the WIC program (8).

"Hospitals should market health, and nothing else" (9) and it should start with human milk being made available to all babies. After all, hospitals do not distribute gift bags containing any other food or product. Why, then, would artificial breastmilk substitutes be promoted to replace infants' sole source of natural food, breastmilk, robbing them from optimal - and normal - nutrition and health?

(8) WIC's promotion of infant formula in the United States. Kent G. [www.InternationalBreastfeedingJournal.com/content/1/1/8](http://www.InternationalBreastfeedingJournal.com/content/1/1/8) (2006)

(9) [www.bantthebags.org/](http://www.bantthebags.org/) BantTheBags.org is a national campaign to stop hospital-based marketing of infant formula to new mothers.

What is WIC? WIC, or the Special Supplemental Food Program for Women, Infants and Children, is a program of the US Federal Government that has the mission of "safeguard[ing] the health of low-income women, infants, and children up to age 5 who are at nutritional risk" (10) by providing them with food (through vouchers), education, and referral to medical care if needed. WIC was launched in 1974, at a time when there was very little research on human milk and when artificial baby milk was considered equal, if not superior to human milk. Today, despite overwhelming evidence of the unique properties of human milk, WIC provides more than half of the formula used in the US, making it the largest infant formula distributor in the country. Yet it serves less than half the infants. WIC receives large rebates from formula manufacturers and gives formula free of cost to the most vulnerable segment of our society. In 2004, WIC's food budget was over \$3.5 billion. A very small portion is allocated to breastfeeding promotion. Consequently, despite heroic efforts from WIC's lactation professionals, "the impact of the WIC program on the initiation and duration of breastfeeding has been minimal" (11). Both hospitals and WIC must cease distributing formula freely and must actively support breastfeeding in order to adhere to their mission of promoting health.

(10) [www.fns.usda.gov/wic/aboutwic/mission.htm](http://www.fns.usda.gov/wic/aboutwic/mission.htm)

(11) An Open Letter to the WIC Program: The Time Has Come to Commit to Breastfeeding. Tuttle CR. Journal of Human Lactation 16(2):99-103, 2000.

### How much will it cost to establish a milk bank in Utah?

Laboratory equipment and supplies (minimum to high-tech)	\$35,000 to \$75,000
Office equipment and supplies	\$5,000
Laboratory and office space (depends on location), let's assume per year:	\$15,000
Personnel (first year)	\$75,000
Screening of blood and milk samples (varies on testing labs)	
<b>Total</b>	<b>between \$130,000 and \$170,000</b>

### Where will the funds come from?

Grant applications to philanthropic organizations and governments (state and federal), subsidies from local health organizations, and donations from private individuals are all possibilities. Nonprofit hospitals and health insurance companies have much to gain in supporting a milk bank. Let's consider the additional costs associated with necrotizing enterocolitis based on the average cost of \$200,000 for one premature birth (see reference #4):

Additional cost of medical NEC (no surgery)	\$186,000
Additional cost if surgery is required	\$73,700
<b>Total</b>	<b>\$259,700</b>

Avoiding **one** case of NEC, with or without surgery, would get the Mothers' Milk Bank of Utah to a great start. It would allow the purchase of latest technology equipment at the onset and would still provide plenty of money for the screening of blood and milk samples.