Provincial Milk Bank: Information on Collection, Transportation, Processing & Distribution of Donor Human Milk in BC

March 28, 2019.

This document is a working document.

Suggestions regarding changes are welcomed.

Contact Fjones@cw.bc.ca with any questions or suggestions.

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Contents

1.0 Introduction

Mother's own milk for her own baby is recognized as the most suitable and beneficial feeding except in very rare situations. Pasteurized human donor milk is the second choice when mother's own milk is insufficient (volume) or unavailable. PDHM should never replace mother's own unless mother's own milk poses a medical risk to her baby (a very rare situation). Usually PDHM is used to bridge to exclusive breastfeeding.

The BC Women's Provincial Milk Bank ("Milk Bank") is located at and operated by BC Women's (BCW's). The Milk Bank is responsible for the processing (pasteurizing and testing) of donor human milk which it distributes in BC. The Milk Bank works with regional health authorities (HAs) which collect donor milk from donors and distribute pasteurized milk to babies in need within their respective HA. Most of the time these babies are in Neonatal Intensive Care Units (NICUs); however, as provincial supply allows, BCW's makes milk available to other units to provide to inpatient babies who meet the eligibility criteria but are not in the NICU. In addition, a small number of outpatients are able to access pasteurized donor milk. Once a strong system of provincial milk donation is developed, depending on supply and ability to process increasing amounts of milk, an increased number of outpatients may be able to access pasteurized milk from the bank.

1.1 Definitions

Donor: A typical donor is a healthy woman who is producing more milk than she needs to feed her own baby. Instead of discarding the extra milk, she expresses, freezes and donates it to the Provincial Milk Bank to help feed other babies when their own mother's milk is insufficient or not available. Bereaved mothers may also choose to donate their extra milk to the Milk Bank and have reported this to be very helpful in their grieving process. Donors are unpaid volunteers.

Donors are considered **approved** when accepted by the Provincial Milk Bank to donate milk. All donors are pre-screened by the BCW milk bank clerk and then screening is done by a select group of screeners which are part of BCW's Lactation Services. Screening requirements are established by the Human Milk Banking Association of North America (HMBANA). Screening starts with a brief telephone interview to confirm potential donors are in good health, free of select medications and/or supplements that would prevent them from donating milk and are willing to undergo blood testing. If all of these conditions are met and no issues are identified through the blood testing, the donor is approved. This approval does not indicate that the mother's milk is safe to be shared informally.

Milk Collection Depot: A site that is affiliated with the Provincial Milk Bank that collects and stores raw, frozen donor human milk and then transports to BCW's for processing. Milk Collection Depots are set-up in designated locations in BC and are operated by individual health authorities. Milk is accepted once the Provincial Milk Bank notifies the depot that the donor has been approved.

Provincial Milk Bank: Located at and operated by BCW's, the Milk Bank screens donors and receives, processes and distributes donor milk to BC's hospitals. Processing involves pasteurizing and testing of the milk.

Donor Milk Dispensing Site: A site that is affiliated with the Provincial Milk Bank that stores and distributes pasteurized donor milk to babies. Most of the time this function is carried out in NICUs; however, as provincial supply allows, other inpatient units may also dispense milk. For babies that require donor milk post-discharge, arrangements are made through BCW's for

mothers[1] to pick up frozen donor milk at BCW's or have frozen donor milk couriered to their home. A fee is charged for donor milk that is provided on an outpatient basis and for courier transportation, if required.

Other Definitions Relevant to This Guideline

Human Milk Banking Association of North America (HMBANA): HMBANA was established in 1985 and is a professional association for supporters of non-profit donor human milk banking. It is governed by a board of directors made up of milk bank directors of non-profit milk bank members in North America and members of the medical community and other experts.. HMBANA members are expected to voluntarily abide by HMBANA's annually revised "Guidelines for the Establishment and Operation of a Donor Human Milk Bank" and are assessed for accreditation through a mandatory annual inspection based on these Guidelines. The Provincial Milk Bank is a founding member of HMBANA. www.hmbana.org.

Pasteurized Donor Human Milk (PDHM): Raw milk is pasteurized using the Holder Pasteurization Method to remove potentially harmful bacteria and viruses. Once pasteurized and tested, the milk is provided to babies when their own mother's milk is insufficient or not available. In this guideline, the term donor milk refers to PDHM only.

1.2 Purpose of this Guideline

This guideline discusses the importance of donor human milk in very low birth weight and/or very sick babies in the absence of mother's own milk. It also outlines the responsibilities of the Provincial Milk Bank and its partnering HAs in the collection, transportation, processing and distribution of donor milk.

The guideline is organized into sections which include:

1. Rationale for donor milk.
2. Overview of donor screening, collection, processing and distribution of donor milk in BC.
3. Donor screening, education and ways to recruit.
4. Responsibilities, requirements and operating protocols for Donor Collection Depots.
5. Responsibilities, requirements and operating protocols for Donor Milk Dispensing Sites.

For sites operating a Milk Collection Depot or a site which dispenses donor milk, it is recommended that pertinent sections of this guideline be extracted and developed into a "Reference Manual" for staff (e.g., relevant procedures, forms, patient handouts, etc.).

[1] Mother implies mother/guardian throughout this guideline.

1.3 Why donor milk?

Importance of human milk

The beneficial effects of human milk for term and pre-term babies, both healthy and sick, are universally recognized (American Academy of Pediatrics, 2012). Breastfeeding and/or using expressed milk offers several advantages, including reduced rates of infections, reduced incidence of Sudden Infant Death Syndrome and improved neurocognitive testing (Canadian Pediatric Society, 2012). Breastfeeding also provides health and non-health benefits for the mother, including reduced rates of breast and ovarian cancers and a delay in the return of ovulation and greater postpartum weight loss (Canadian Pediatric Society, 2012). Breastfeeding is economical for families and creates savings for society in general (Canadian Pediatric Society, 2012). Despite advances in infant formulas, breast milk provides a bioactive matrix of benefits that cannot be replicated (Canadian Pediatric Society, 2010).

In recent decades, progress in the fields of perinatal and neonatal health care have resulted in improved survival rates of premature and very sick infants, most of whom are admitted to neonatal intensive care units (NICUs). Many of these babies are born at low (<2,500 grams) or very low (<1,500 grams) birth weights and ensuring that they have adequate nutrition is a particular challenge (Arslanoglu, 2010).

Don't forget…..Mother's own milk is always best!

Nothing can meet the needs of a baby in the same health promoting way as baby's own mother's milk. Mothers of premature and sick babies in particular need extra support and encouragement to breastfeed (or manually express milk). By two weeks postpartum, mothers should be producing about 500-800 mL per 24 hours.

To encourage milk production, teach new mothers to:

- Place their baby skin-to-skin as soon as possible and for as long as possible.
- Spend as much time with their baby as possible.
- Hand-express their milk within the first six hours after birth - ideally within the first hour particularly if their baby is separated from their mother and is therefore unable to initiate breastfeeding. Drops of expressed milk can be collected in a syringe and which is capped, labelled and taken to the NICU for Oral Immune Therapy (OIT) often given q2h. Any extra can be stored in a fridge, if the milk can be used within 24-48 hours, or a freezer if stored for longer periods. A spoon may also be used to collect the milk and then the milk transferred to a bottle and stored in the refrigerator/freezer. If the mother is unable to do this, then a close family member or friend can be taught how to hand express. Ideally this teaching is provided to the family before the birth.
- Express every two to three hours after the first expression, including during the night. During the night time hours, prolactin levels are highest and regular expression helps establish a

mother's milk supply. After the first 24 hours, many mothers find using a breast pump along with hand expression to be the best method for them.

Donor milk is an excellent alternative when mother's own milk is not available

Although breastfeeding and/or mother's manually expressing their own milk for these very low birth weight and/or very sick babies is optimal, it is not always possible. When mother's own milk is not available or is insufficient, the Canadian Paediatric Society (CPS) and American Academy of Paediatrics (AAP) both recommend the use of banked pasteurized donor human milk as the preferred alternative (Canadian Pediatric Society, 2010) (American Academy of Pediatrics, 2012).

Given limitations in supply, the CPS recommends that sick, hospitalized neonates be prioritized for the use of banked donor milk as these babies are the most likely to benefit (Canadian Pediatric Society, 2010). Three systematic reviews concluded that donor milk significantly reduced the incidence of necrotizing enterocolitis (NEC)[2] in preterm babies when compared to formula feeding (Kantorowska, A et al, 2016) (Quigley, M et al, 2008) (Boyd, C et al., 2007) (McGuire, W; Anthony, Y, 2003). Donor milk has also been reported to be effective for nutritional uses (feeding intolerance, failure to thrive, malabsorption syndromes), post-surgical treatment, allergies, chronic renal failure, leukemia and intractable pneumonia (Updegrove, 2005).

Another benefit of donor milk[3] is that it provides a temporary alternative for mothers of premature and sick babies that find their breast supply low or non-existent in the early days postpartum. Using donor milk emphasizes the importance of human milk for the baby. Research demonstrates that NICUs that provide breastfeeding support and have donor milk available have higher breastfeeding rates than those that do not have donor milk available (Kantorowska, A et al, 2016) (Arslanoglu, S et al, 2013). On the other hand, NICUs which provide donor milk but do not provide good breastfeeding support or education to staff tend to increase their human milk feed rate by replacing formula with donor milk but do not increase their breastfeeding rates (Delfosse NM et al) (Torres, U et al, 2010). In addition, if pasteurized donor milk is not available, mothers of NICU babies may present to the NICU with milk received from friends, family members or other contacts or purchased online from strangers which, if utilized, may create additional risk for their baby. Offering pasteurized donor milk in NICUs, while at the same time actively supporting breastfeeding, promotes informed feeding choices and capitalizes on the benefits of breastfeeding and breastmilk.

[2] NEC is a serious medical condition primarily seen in premature infants where portions of the bowel undergo tissue death. It is the second most common cause of morbidity in premature infants and requires intensive care over an extended period.

[3] Donor milk refers to pasteurized donor human milk throughout this guideline.

Expansion of the BC Women's Milk Bank to a Provincial Milk Bank

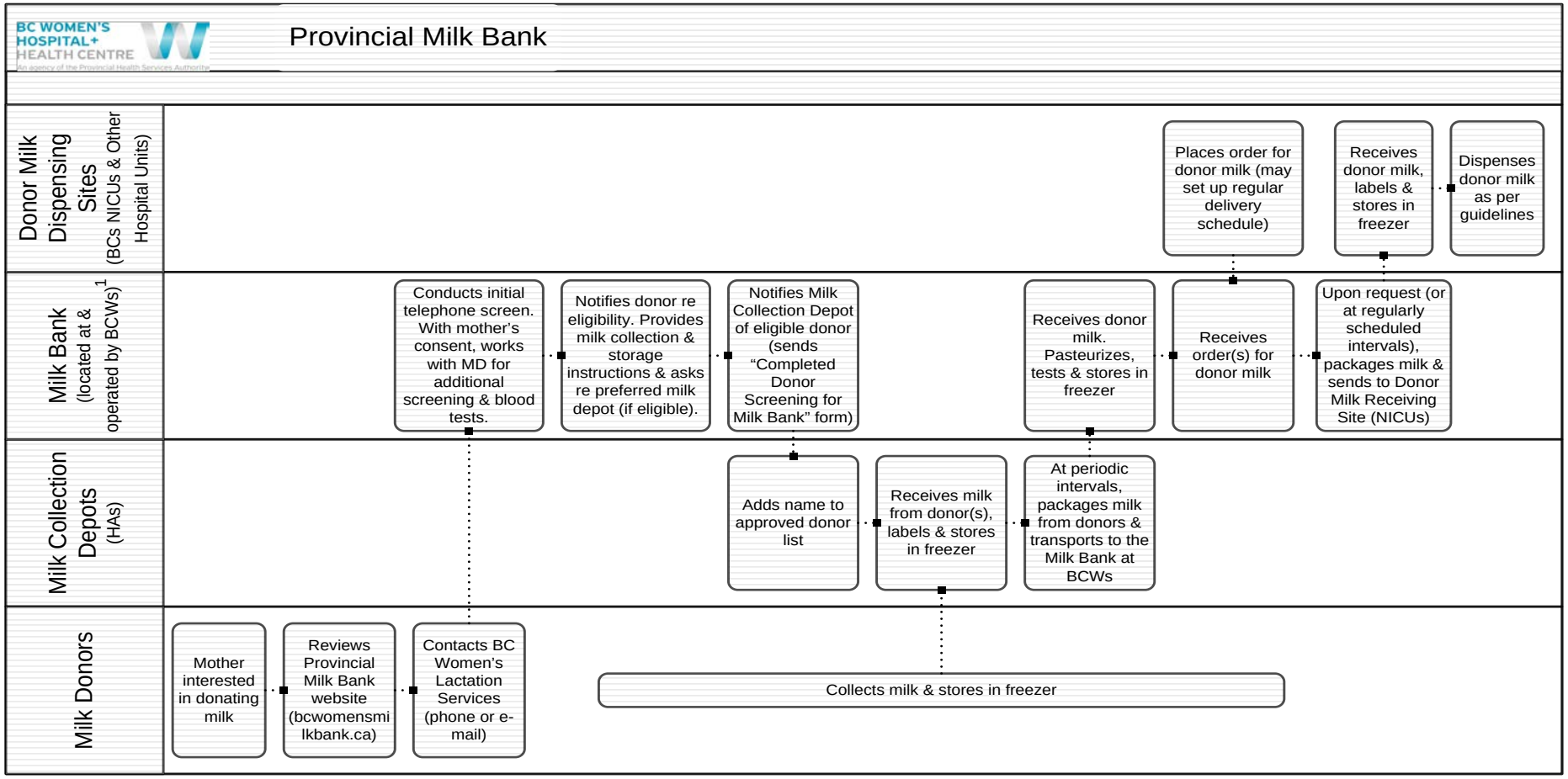
Since 1974, the BC Women's (BCW's) Milk Bank has provided pasteurized donor human milk for babies at BCW's. The Milk Bank is a charter member of the non-profit Human Milk Banking Association of North America (HMBANA). This distinction has taken increasing importance as donor milk has become a high-demand commodity by for-profit entities as well as among online informal sharing networks. Members of HMBANA guarantee safety protocols to ensure only the healthiest milk is provided to babies.

A recent increase in the demand for pasteurized donor milk in BC, particularly for babies in BC's NICUs, has spurred the initiation of health authority partnerships throughout the province to collect and distribute donor milk. These collaborations enable the **Provincial Milk Bank** to collect, transport, process and distribute donor milk to BC babies in need.

2.0 Donor Screening and Milk Collection, Processing and Distribution in BC

Section 2.1 provides a visual representation of the process for donor screening and donor milk collection, processing and distribution in BC.

2.1 Overview of Donor Screening and Milk Collection, Processing and Distribution in BC



For babies that require donor milk post-discharge, arrangements are made through BCWs for mothers to pick up frozen donor milk at BCWs or have frozen donor milk couriered to their home. A fee is charged for donor milk that is provided on an outpatient basis and for courier transportation, if required.

[1] The Milk Bank (located at and operated by BCW's) consists of two components:
(1) Lactation Services: Responsible for screening donors and providing clinical consultation to the Milk Bank; and
(2) Milk Bank: Responsible for the technical aspects of processing the milk.

2.2 Principles of Collaboration: Provincial Milk Bank and Health Authorities

1. All parties will make every effort to encourage and support mothers to breastfeed and for babies to receive their mother's own milk. This includes teaching new mothers to begin expressing their milk within one hour of birth (ideally) or at least by six hours postpartum.
2. Recruitment of milk donors is everybody's responsibility. Health authorities will attempt to collect at least enough donor milk to cover the requirements for babies being treated in their health authority.
3. Potential donors are referred to the BCW's Lactation Services[4].
4. BCW's Lactation Services, in collaboration with donor mothers and their physicians, is responsible for donor screening. Questions regarding screening processes and results are directed to BCW's Lactation Services.
5. BCW's Lactation Services or the Milk Bank advises the relevant Milk Collection Depot of the names of approved donors. Milk Collection Depots may not accept donor milk from a woman unless notified by BCW's that the donor is approved.
6. Milk Collection Depot operations are the responsibility of the respective health authority. Depots work collaboratively with the Milk Bank to support a safe and adequate supply of milk.
7. Milk Bank operations are the responsibility of BCW's. The Milk Bank receives milk from Milk Collection Depots and processes and distributes the milk to Milk Dispensing Sites (NICUs and other hospital units).
8. Health authorities are responsible for funding the costs of shipping raw milk to and processed milk from the Milk Bank.
9. Health authorities are responsible for putting processes in place that encourage appropriate utilization of donor milk in NICUs and other hospital units (see section 5.1 for criteria).
10. Prior to a baby receiving donor milk, the mother's agreement for the baby to receive donor milk must be documented in the baby's chart. A physician's or registered midwife's order is also required.
11. For babies that require donor milk post-discharge, arrangements are made through BCW's for mothers to pick up frozen donor milk at BCW's or have frozen donor milk couriered to their home. A fee is charged for donor milk that is provided on an outpatient basis and for courier transportation, if required.

[4] The Milk Bank (located at and operated by BCW's) consists of two components:
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12. If provincial demand for donor milk exceeds supply, distribution is prioritized according to medical need. The most fragile and sick babies are the highest priority. The Milk Bank will work with designated nursing leaders (who will consult with local neonatologists/ paediatricians as required) at each site to determine the priority for distribution.
13. Confidentiality requirements on patient information are followed by all parties.

3.0 Milk Donors

3.1 Donor Screening

Screening donors for eligibility to provide donor milk requires staff time and blood tests. For this reason, mothers are asked to consider donating at least 4,500 mL (150 ounces) or more of milk. The only group exempt from this requirement is bereaved mothers. Many bereaved mothers report donating milk to be a way of honouring their child and helping their grieving process (Welborn, 2011). Some mothers of bereaved babies will donate the milk that they stored during their baby's short life and others will initiate or keep pumping milk for a period after the baby's death while they work through their initial grief.

Process for women wishing to become milk donors

1. Suggest that prospective donors review the Provincial Milk Bank website for information about the Milk Donor Program and the eligibility requirements: www.bcwomens.ca (search for Milk Bank).
2. Ask prospective donors to complete the "expression of interest form" that is on the website. Questions can be e-mailed or faxed to mbscreening@cw.bc.ca or 604 875-2871 (fax). Alternatively they can phone BCW's Provincial Milk Bank Reception at 604-875-3743 for additional information. Our clerk usually calls within a day or two of receiving the interest form.
3. The first contact with the BCW's involves a brief conversation about the milk donor program and, if there is interest, is followed by asking the woman ~20 screening questions. The questions focus on the woman's general health, risk factors, sufficiency of her milk supply and willingness to have blood tests completed. In cases where the mother has donated milk with a previous child, the screening process must be repeated.
4. If, during this initial conversation, a mother meets the eligibility criteria, they are asked to express and store at least 1,800 – 2,100 mL (60 – 70 ounces) of milk prior to undertaking the full screening process. This is to ensure the mother will have sufficient milk to donate and to make the cost and time of screening worthwhile. The mother is provided education about how to collect, store and label her milk and is asked to call back after she has collected 1,800 – 2,100 mL (60 – 70 ounces). A donor screening file is initiated, with name and personal health number being used for identification purposes at each stage of the screening and donation process.

5. Once the mother calls back to say she has collected 1,800 – 2,100 mL (60 – 70 oz) of milk, the BCW's Lactation Service completes the initial donor interview.
6. BCW's e-mails the mother the online forms or mails the mother an information package which includes a letter of introduction, medical history questionnaire for her to complete, medical information release form and donor consent form. The woman is asked to return the completed forms via the online system with two forms requiring signature which must be printed ,signed and faxed or mailed back.
7. Once completed forms have been received, the BCW's Milk Bank Clerk faxes a short questionnaire to the mother's physician. The physician is asked to fax the completed questionnaire to BCW's Lactation Services.
8. When BCW's Lactation Services receives the completed questionnaire from the physician and reviews it, the Milk Bank Clerk is asked to contact the physician's office to request the required blood tests be arranged. The prospective donor is also called to advise her as to where she is in the screening process.
9. When the blood test results are received, the BCW's Lactation Service fills out the *Completed Donor Screening for Milk Bank* form (Appendix 1) and sends a copy to the Milk Bank. The form identifies whether the mother is eligible to be a milk donor.
    - If eligible, the Milk Bank contacts her to identify her preferred donor Milk Collection Depot.
    - If not eligible, BCW's Lactation Services contacts the office of the mother's physician to ensure appropriate follow-up is offered. After the physician has followed-up with the mother, BCW's contacts the mother.
10. The Milk Bank sends a copy of the *Completed Donor Screening for Milk Bank* form to the mother's preferred Milk Collection Depot. The depot then knows to expect milk from the donor.
11. Upon receipt of a copy of the *Completed Donor Screening for Milk Bank* form, the Milk Collection Depot contacts the mother to provide information about the milk depot (hours, parking, drop-off location, etc.).
12. If a prospective donor or an active donor wishes to review and/or make corrections to their record, this can be arranged through the Coordinator, Lactation Services (604-875-2282).

While the screening process is being completed, women are encouraged to express and store their milk. Milk that has been expressed before mothers have been approved as donors may be acceptable if the milk has been collected and stored appropriately.

3.2 Donor Education

Safety and integrity of donor milk is a priority. Donors are provided education about the collection and handling of their milk in their initial contact with the BCW's Lactation Service. This

teaching is reinforced in a written handout available at www.bcwomens.ca (search for Milk Bank, *Information for Milk Donors*). All partners have a responsibility to reinforce this teaching.

Key points for inclusion in donor education:

1. Clean technique for milk collection:
    - Hand washing prior to pumping
    - Using clean equipment (washing breast pump parts, drying and storing)
    - Appropriate containers for storing donor milk
    - Handling donor milk containers
2. Labelling donor milk:
    - Donor's name
    - Date expressed
3. Freezing and storing milk.
4. When to call the BCW's Lactation Services (phone: 604-875-2282):
    - Mother, baby or someone else in the home gets sick.
    - Mother has mastitis or a yeast infection on nipples.
    - Baby has thrush.
    - Mother receives vaccinations.
    - Mother or intimate partner gets a tattoo.
    - Changes in mother's health, health behaviours (e.g., alcohol practices or starts smoking) or risk factors for disease.
5. Transporting donor milk to the Milk Collection Depot.

    Donor education on appropriate hygiene is very important as one of the main reasons that donor milk is not eligible for use is high contamination rates. Careful hygiene (especially appropriate cleaning of pump parts) reduces the contamination rates.

3.3 Donor Recruitment

Donor recruitment is everybody's responsibility. There are a variety of outreach strategies to encourage women to donate milk. Many women are unaware of milk donation as an option. Outreach helps to bridge this gap.

Partnerships with community-based health care clinics/services and agencies/groups that work with pregnant and/or breastfeeding women can be good sources for donors. Examples include:

- Physician/Midwife offices
- Prenatal clinics
- Local health units
- NICUs
- Local hospitals
- Parenting groups
- Allied health care providers (e.g., nutritionists and pharmacists).
- Maternity stores
- Day-cares
- Elementary schools

Outreach could include a presentation or printed information about the benefits of pasteurized donor milk and the services of the local depot to facilitate the process of milk donation. A handout for prospective donors is available at - www.bcwomens.ca - search for milk bank (*Mothers: Will you donate your extra mother's milk?*), as is a poster.

Involvement of the local media can also be a successful strategy. Stories of donors and recipients are especially effective in encouraging milk donation. Key messages for local media:

- A mother's own milk is absolutely the best food for her own baby. Pasteurized donor milk is never used to replace mother's own milk. Pasteurized donor milk is second choice but when mother's own milk is insufficient or not available, pasteurized donor milk is an excellent option.
- Pasteurized donor milk is made available through the Provincial Milk Bank.
- BC Women's Provincial Milk Bank is located at and operated by BCW's. The Milk Bank is responsible for the processing (pasteurizing and testing) of all donor human milk in BC.
- Milk is collected at HA-operated Milk Collection Depots from donors who have completed the screening. Depots send frozen milk to BCW's for processing.
- Pasteurized milk is distributed by the BCW's Provincial Milk Bank to health authorities (HAs). HAs, in turn provide pasteurized milk, with the mother's agreement, to babies in need within their respective HAs.
- The majority of donor milk goes to babies in neonatal intensive care units (NICUs).
- The Milk Bank screens all donors and pasteurizes and tests all donor milk before distributing.
- The Milk Bank at BCW's has been providing babies in the neonatal intensive care unit at BCW's with pasteurized donor human milk for over 40 years. The Milk Bank was founded in 1974 by a gastroenterologist to help a young child who was not growing well. The baby did

so well on the donated milk the doctor decided that a donor milk bank could help other babies.

- A recent increase in the demand for pasteurized donor milk in BC, particularly for babies in BC's NICUs, has spurred the initiation of health authority partnerships throughout the province to collect and distribute donor milk.
- The Provincial Milk Bank is a founding and current member of the Human Milk Banking Association of North America (HMBANA).
- There are currently 28 HMBANA member banks in North America with another 5 in various stages of development (check the website at www.hmbana.org for the latest numbers).
- Mothers who donate milk are providing a wonderful gift that will last a lifetime to children they will never meet. Milk donors are a special group of truly wonderful women without whom the Provincial Milk Bank could not function!

4.0 Milk Collection Depots

4.1 Responsibilities

A Milk Collection Depot serves the local community by providing a space for women to drop off their milk for donation. Typically depots are located in hospitals and public health units. Commercial or private spaces (e.g., home) are not acceptable.

Milk Collection Depots are required to operate according to HMBANA Guidelines. If an incident occurs that may potentially compromise the safety of the milk, it is the depot's responsibility to contact the BCW's Lactation Service at 604-875-2282 to discuss the circumstances and determine whether follow-up action is required.

Each depot is expected to designate a "depot organizer" (or "depot lead"). This is usually a Public Health Nurse. The role of the organizer includes:

- Creating opportunities to educate the local community about donor milk and the role that Milk Collection Depots play in the donation process.
- Creating mechanisms to promote milk donation and support prospective donors in assessing their potential eligibility (see www.bcwomens.ca - search for Milk Bank - for criteria).
- Providing a convenient drop-off site and location for local area mothers/donors.
- Organizing and overseeing a system for safe handling, storage, documentation and transportation of the milk. Recruits and supervises staff/volunteers to assist.
- Being a point of contact for BCW's Lactation Services and the Milk Bank, including joint problem solving when issues arise.

4.2 Space, Equipment and Staff

Space and equipment required to operate a depot are minimal and include:

- Space for milk drop-off by donors and pick-up by couriers (easy access and parking are important considerations).
- Freezer dedicated for donor milk that has a lock and is in a secure location.
- Thermometer for daily measurement of freezer temperature.
- It is recommended that the freezer be on emergency power.
    - If not on emergency power, freezer must be set-up with a "recording thermometer" that records temperature changes over a period of time so that the user can determine whether there has been a problem with the temperature since the last recording.
    - Ideally the thermometer will also have an alarm that will alert the user (or after-hours designate) if the temperature rises above a pre-programmed acceptable level.
- Access to a telephone and fax machine.

Staffing requirements include:

- Staff member designated to oversee the depot operations.
- Staff member (or volunteer supervised by staff) to contact newly screened donors and provide information about the local depot (hours, parking, drop-off location).
- Staff member (or volunteer supervised by staff) to receive donor milk from donors.
- Staff member (or volunteer supervised by staff) designated to package, complete the documentation and ship milk to the Milk Bank.
- Staff member (or volunteer supervised by staff) to check freezer temperature daily and sign-off on the *Freezer Temperature Log* (Appendix 2).

These requirements could be met by one person or several people as fits for the agency within which the depot is operating.

4.3 Operating Protocols

4.3.1 Receiving Milk from Donors

The process for receiving milk from the donor is as follows:

1. The donor completes the screening process through BCW's.
2. The Milk Bank contacts the donor to ask about her preferred depot for milk donations.

3. The Milk Bank sends the *Completed Donor Screening for Milk Bank* form (Appendix 1) to the depot confirming that the donor has been approved. The depot cannot accept milk until notified by BCW's that the screening process is completed (or the form is received). If a donor arrives and there is no form, calling the milk bank is appreciated as on occasion the mother will be told she is an approved donor and drive immediately to the depot – before the form can be faxed to the depot. In order to reduce donor inconvenience, a call to the milk bank is appreciated (604-875-4743).
4. The depot contacts the mother and provides information about the depot (hours, parking and drop-off location).
5. The donor drops her milk off at her preferred depot as per instructions (drop-off is pre-arranged by phone).
6. The depot organizer or designate (staff/volunteer) checks that each container of milk is labelled with the donor's name and the date the milk was pumped. If each container of milk is not labelled, either add a label to each container or place all unlabelled containers into a secure bag(s) (e.g., zip lock) and mark the bag(s) with the donor's name and, if known, the approximate date in which the milk was pumped (e.g., June/July 2016).
7. The depot organizer or designate weighs each bag full of milk containers to determine the amount of milk and records the weight and the date the milk was dropped off at the depot on the outside of the bag using a permanent marker. The plastic bag full of milk containers is placed in the freezer (i.e., only one mother's milk per plastic bag). If milk is mixed in a bag and a mother has not labelled all bags the bank will have to discard any milk that is not clearly labelled. In addition if there is one donor per bag, it is faster for the milk bank techs to weigh and measure the incoming milk!

4.3.2 Shipping Donor Milk to the Milk Bank

There are two ways to get donated milk to the Milk Bank:

1. Donor can drop the milk off at the depot and the depot ships the milk to the Milk Bank.
2. Donor can drop the milk off at the Main Reception, BC Women's, 4500 Oak Street in Vancouver (Main Entrance Door #93).

Process for shipping milk from the depot to the Milk Bank

General principles:

1. Milk needs to be received by the Milk Bank within six months of the date that the milk was expressed (the sooner the better). Call the milk bank if there are any questions. (604-875-2282). If the depot receives milk that has been stored longer than 6 months call the milk bank to check whether milk bank will accept- we may take milk that has been stored up to a year, depending on the storage conditions.

2. Milk can only be shipped Monday through Thursday (Milk Bank **CANNOT** receive milk on the weekend).

Shipping:

- **Priority Overnight Delivery**
- Call the courier service for a late in the day pick-up.
- Keep the packed box (see below) inside the freezer until pick up. If the freezer is not large enough to hold the box, **pack the box as close to pick up date/time as possible.**

Cleaning and packing cooler:

- Ship milk in a reusable, non-porous "picnic cooler" or equivalent.
- Wash/disinfect cooler between each use:
    - Wear gloves and utilize a HA-approved low level disinfection wipe that is appropriate for non-critical patient equipment (e.g., baby scales, transport coolers).
    - Use one wipe to pre-clean the cooler and a second one to clean/disinfect it.
    - Use wipes according to manufacturer's recommendations and contact times (likely located on the side of the tub of wipes). Once cleaned, mark equipment as cleaned.
    - Examples of low level disinfection wipes approved for use at BCW's are:
        - Accel TB wipes (0.5 % accelerated hydrogen peroxide http://www.viroxaccel.ca/documents/AccelTBWebsiteProductSheets)
        - Cavi wipes (a quaternary ammonium "quat" compound http://www.metrex.com/products/surface-disinfectants/caviwipes)
- Line the cooler with a heavy plastic bag. This will keep the milk together in the event the container breaks during shipping.
- Place the bags of frozen milk close together in the centre of the cooler. **Only pack milk that is frozen solid!**
- Add ice packs/freezer gel packs to the bottom, sides and on top of the milk. **DO NOT USE regular ice!** (Ice is warmer than frozen milk and will cause the milk to thaw).
- Close the plastic bag with a twist tie or tape (to keep the air out).
- Complete the *Milk Transfer Log* form (Appendix 4) and place on top of the plastic bag in the box.
- Use duct tape or heavy packaging tape to seal the box shut.

Label & Delivery:

- Add label (Appendix 5) with address and instructions about delivery times to each box.
- Confirm delivery instructions and approximate time of delivery with the Milk Bank at 604-875-2424 local 7634. **Only ship if you have spoken to the Milk Bank staff & confirmed the day and time of delivery.**

4.3.3 Freezer Temperatures and Power Interruptions

Freezer temperatures:

- Milk must be maintained in a frozen state. Set freezer temperature at -18 Celsius or below (i.e. -19, -22C etc.).
- Freezer temperature must be taken and recorded daily. For Milk Collection Depots open M-F only, it is recommended the temperature be checked late in the day Friday and again first thing Monday morning.
- It is recommended that the freezer be on emergency power. If not on emergency power, set the freezer up with a "recording thermometer" that records temperature changes over a period of time. The temperature check on Monday must include a check as to whether the temperature rose above a pre-programmed acceptable level (i.e., warmer than -18 Celsius) over the weekend.
- Ideally the freezer or thermometer will also have an alarm that will alert the user (or after-hours designate) if the temperature rises above a pre-programmed acceptable level. This will reduce the likelihood of having to discard milk in the event of a power interruption.
- Report any variation of freezer temperature above -18 Celsius (i.e., warmer than -18 C) to the BCW's Lactation Services (604-875-2282) as soon as possible. Brief fluctuations in temperature secondary to opening the doors or self-defrosting cycles are acceptable.
    - If you check your freezer and it registers warmer than -18 Celsius (e.g., -17 Celsius), recheck it after 2 hours. Freezers may cycle out of range for short periods and this is acceptable.
    - If the freezer is consistently out of range, it needs to be serviced.
    - Milk must always remain "frozen solid."
- Freezer and alarm manuals must be easily accessible on or near the freezer/alarm.
- Freezer must be regularly cleaned and defrosted at least once every 6 months to maintain proper temperature.

Power interruptions:

- Minimizing the impact of a power interruption:
  - It is recommended that the freezer be on emergency power or precautions taken as per above.
  - Regularly ship milk to the Milk Bank (there will be less milk to discard in the event of a prolonged power interruption).
- During a power interruption (if during hours the milk depot is staffed):
  - Tape the freezer door closed and check the temperature frequently.
  - Arrange to ship milk to the Milk Bank as soon as possible.
- After a power interruption:
  - There are no "rules" as to the length of time power may be lost before milk must be discarded. There are many factors that affect the stability of the milk.
  - Questions to consider:
    - How full was the freezer at the time of the interruption? (i.e., how much air is in the freezer?)
    - How full are the containers of milk? (i.e., how much air is in each container)?
    - What was the temperature range during the time the freezer was off?
    - Was the door of the freezer kept shut during the power interruption?
    - How long was the power off?
  - In general:
    - Power failures of short duration (2 - 6 hours): If a reasonable amount of milk was in the freezer, the milk will remain frozen.
    - Power failures of longer duration (6 - 24 hours): If a reasonable amount of milk was in the freezer and the containers of milk do not have much air in them, the milk will remain frozen, especially if the freezer door was kept closed.
    - Power failures of more than 24 hours and anytime there are questions re stability of the milk: Contact BCW's Lactation Services (604-875-2282) to discuss next steps.

4.3.4 Record Keeping

There are times when it is necessary to track back a specific donor and/or a baby or group of babies that received the milk of a specific donor. A system which allows milk to be tracked from donor to recipient is important and is a requirement of HMBANA. A mock recall to test the Milk

Bank's ability to track a donation from donor through to recipient is performed every 3 years and must be completed within a 6 hour time frame. This mock recall involves the Milk Collection Depots.

Milk Collection Depots are required to keep all documentation in a secured location for a minimum of 26 years. The specific forms are listed below.

Completed Donor Screening for Milk Bank Form (Appendix 1)

- After a donor has been accepted, a copy of this form is sent to the relevant Milk Collection Depot by the Milk Bank.
- If the eligibility of a donor changes temporarily or permanently (e.g., mother admits to illicit drug use), BCW's will notify the relevant Milk Collection Depot organizer. The depot organizer will make a notation of the change in status on the Donor Screening Form. At the same time, BCW's will provide instructions to the depot organizer as to what to do if there is milk from that mother in the freezer at the Milk Collection Depot.

Freezer Temperature Log (Appendix 2)

- Milk Collection Depots must maintain a log of temperatures for freezers used for donor milk.
- Freezer temperature must be checked daily.[5]

Milk Donor Log (Appendix 3)

- Milk Collection Depots must keep a log of all milk donations.
- Log must include:

a. Date that the donor dropped milk off at the depot.

   a. Name of donor(s).
   b. Weight of donation (kg).
   c. Month(s) milk was expressed.
   d. Name of staff/volunteer accepting & logging the donation.

Milk Transfer Log (Appendix 4)

- Milk Collection Depots must keep a log of all milk shipped from the depot to the Milk Bank.
- Log must include:
  a. Date the donor milk was received.
  b. Date the donor milk was shipped to the Milk Bank.
  c. Name of donor(s).
  d. Weight of milk shipped (kg).
  e. Name of staff/volunteer that prepared the container for shipping.

[5] For Milk Collection Depots open M-F only, check late in the day Friday and again first thing Monday morning. If the freezer is not on emergency power, the check on Monday needs to include checking as to whether the temperature rose above a pre-programmed acceptable level (warmer than -20 C) over the weekend.

Donor Milk Recall Form (Appendix 6)

- The Milk Bank completes this form and sends to the relevant Milk Collection Depot(s) and/or NICU(s) if milk needs to be discarded or returned to the Milk Bank (e.g., donor acquires infectious disease).
- Milk Collection Depot or receiving site records the actions taken (milk discarded or returned) on the form and keeps a copy for reference.

If a Milk Collection Depot identifies a potential issue with a donor (e.g., when donor drops off her milk, she mentions taking illicit drugs), staff at the Milk Collection Depot are asked to contact BCW's Lactation Services at 604 875-2882 as soon as possible. BCW's will provide further instructions as to what to do with the milk and, if necessary, complete and forward a Milk Recall Form.

5.0 Donor Milk Dispensing Sites

Provision of pasteurized donor human milk (PDHM) is not an "exact" science. Ideally PDHM is used as a bridge to using mother's own milk. Research indicates that with appropriate breastfeeding support, having PDHM in NICUs leads to higher, breastfeeding rates. Mothers are encouraged and supported to provide their own milk for their infants particularly in the NICU unless medically unable to breastfeed. **In situations where a mother <u>does not wish</u> to breastfeed (i.e. she does not have a medical contraindication) and she has a healthy term or near term infant, PDHM should not be suggested or provided. In this situation, the mother should be taught about the safe use of formula.**

Encouraging milk donation in BC communities enables the milk bank to provide more PDHM. In addition good communication with the milk bank helps in understanding the current availability of PDHM.

5.1 Eligibility Criteria for Babies to Receive Donor Milk in Maternity Units

PDHM is offered as an option when there is a **<u>medical indication</u>** for extra milk and the mother is unable to provide sufficient milk. An example of a medical indication is hypoglycaemia. Usually only a small amount of PDHM is required for a few feedings. Early frequent expression &/or breastfeeding is strongly encouraged as the donor milk is meant as a short term bridge to exclusive mother's own milk feeding. PDHM should never be used as a replacement for mother's own milk.

5.2 Eligibility Criteria for Babies to Receive Donor Milk in NICUs

Infants in NICUs are offered PDHM in the absence of mother's own milk with the following considerations:

Mother does not wish to breastfeed:

If the mother does not wish to breastfeed, a clear medical indication must be present to support providing donor milk (e.g. babies who are 35 weeks or less or who are < 1800 grams) The infant is weaned to formula as soon as medically stable.

Mother plans to breastfeed & is making efforts to establish a milk supply:

When parents have made an informed choice, PDHM is offered plus strong support of mother's own milk supply beginning at birth with OIT (Oral Immune Therapy) skin-to-skin care, regular hand expression (eight or more times/day) with a pump added at about 24 hours postpartum and daily "check ins' by the primary RN regarding milk supply. The first oral feed is at the breast – supplements are given by tube, spoon or cup. As the mother's milk supply builds the PDHM is replaced by mother's own milk. With twins, both babies are placed on PDHM if one has a medical indication. PDHM may be used beyond the usual 35 weeks or a certain weight particularly in situations where the mother's milk supply is building but there is a small gap.

Clinical judgement is applied in deciding when to wean off donor milk. For example twins born at 33 weeks:

Case 1: mother is struggling to increase her milk supply, she does not wish her babies to receive formula, and her supply is slowly building. The health care provider may continue with PDHM past 35 weeks. As the mother's own milk supply increases the PDHM decreases.

Case 2: mother indicates she plans to provide expressed milk and her 33 week twins are started on PDHM but it becomes clear the mother is not planning to breastfeed and makes little effort to supply milk even with support and encouragement. In this situation, the health care provider weans the babies onto formula at about 35 weeks.

Case 3: mother doesn't want to breastfeed and her 33 wk. twins are not doing well. HCP starts PDHM and at about 36 weeks as the twins have stabilized transitions to formula.

Case 4: mother doesn't want to breastfeed and her 33 wk. twins are doing well. HCP starts talking to family about weaning babies onto formula and by 35 wks. . Babies are transitioned around 235 wks. and tolerate formula well.

5.3 When PDHM is in short supply:

When there is a shortage of PDHM, BC Women's Provincial Milk Bank will reduce the amount of milk provided to **outpatients first, then healthy term newborns and then will notify NICUs.**

When there is plenty of donor milk any baby in need may be given donor milk. When there is a less milk available or a shortage exists PDHM is provided based on medical criteria- NICU babies are considered first. The criteria in order of priority are as follows:

INFANT FACTORS
Group 1:
Babies < 35 wks. &/or 1800 grams.
Post GI surgical babies until full feeds prior to D/C home Babies who have medical NEC until stable on full feeds Medical indication such as low birth weight, formula intolerance, malabsorption, post-prolonged resuscitation , HIE, drug or alcohol exposure during pregnancy, heart disease

Group 2:
Severely growth restricted babies of any gestation, multiples, where one meets the criteria for PDHM, re-institution of enteral feeds post stage 2 or 3 NEC

MATERNAL FACTORS
Group 2:
Babies of mothers with insulin–dependent diabetes mellitus

Group 3 (mother wishes to breastfeed & is actively working on milk production)
Babies whose mothers' milk has not come in and they are less than 7 days old Extenuating maternal circumstances which preclude mother's own milk (some types of breast surgery, temporary interruption, health risk from biological mother's milk, transgender or adopting couple) until baby is stable or on full feeds.

Availability of PDHM from the BC Women's Provincial Bank depends on how much milk is sent from community depots throughout BC. If there is a good supply of donated milk, then the Bank should not have a problem meeting the demand from all BC NICUs. Encourage awareness of milk donation.

In most situations the approach is support of mother's milk production and wean by 1-3 weeks to mother's own milk or formula but some babies stay on PDHM longer due to other circumstances (as described above)..

Prior to a baby receiving donor milk, the mother must agree to the use of donor milk and the agreement is documented in the baby's chart. A physician's or registered midwife's order is also required.

For any individual baby, it is up to the care providers to decide what is the best option for the infant considering the baby's condition, mother's plans regarding feeding and availability of PDHM at the time.

Auditing use of PDHM and rates of exclusive feeding of mother's own milk in a NICU/maternity unit is useful in monitoring good breastfeeding support.

5.4 Responsibilities

5.4.1 Informed consent

Agreement from the mother/designate:

- See www.bcwomens.ca (search for Milk Bank - *Donor Milk: Common Questions*) for information to be provided and reviewed with the mother/designate by phone or in person.
- See Appendix 7 for a sample form (*Use of Donor Human Milk for Your Baby*) that can be used to document the discussion and agreement to the use of donor milk by the mother/designate

5.4.2 PDHM Orders

Order from a Physician or Registered Midwife:

- A physician's or registered midwife's order is also required for a baby to receive donor milk (may be incorporated as part of an NICU's pre-printed order set).
- Order must include the baby's name, birthdate, reasons for the donor milk, amount of milk requested and expected length of time the baby will require the milk.

5.4.3 Weaning from PDHM

Weaning babies from pasteurized donor milk:

- Babies are eligible for donor milk until on full feeds – usually about two weeks. This period may be extended for babies at high risk for feeding difficulties or having feeding difficulties when weaning is attempted or if there is a shot gap between mother's supply and baby's needs and the mother is working to increase her milk supply.
- Babies are typically weaned off donor milk prior to discharge from hospital, but it is also acceptable to discharge a baby on donor milk. Refer to section 7.3 for the process of obtaining donor milk for babies post-discharge.
- If a baby is being discharged to another hospital before meeting the weaning criteria, the sending hospital provides 48 hours of donor milk.

5.4.4 Operations

The Milk Bank distributes pasteurized milk to BC's NICUs and other hospital units (as provincial supply allows). These units are responsible for ensuring the milk they receive is stored, utilized and documented appropriately.

Units receiving donor milk are required to operate according to HMBANA Guidelines. If an incident occurs that may potentially compromise the safety of the milk, it is the receiving unit's responsibility to contact the BCW's Lactation Service at 604-875-2282 (BCW's contact on weekends and after-hours: Program Manager on-call) to discuss the circumstances and determine whether follow-up action is required.

Each hospital receiving milk is expected to designate a "site organizer" (or "site lead"). The role of the organizer/lead includes:

- Creating mechanisms to educate mothers of potential recipients about the Provincial Milk Bank and the importance of donor milk. See www.bcwomens.ca (search for Milk Bank) for handout on *Donor Milk: Common Questions*.
- Organizing and overseeing a system for offering, storing, distributing and documenting the use of donor milk in eligible babies.
- Being a point of contact for BCW's Lactation Services and the Milk Bank, including joint problem solving of issues that may arise (HA contact after-hours: administrator-on-call that covers the NICU(s)).

5.5 Space, Equipment and Staff

Space and equipment required in NICUs and other hospital units receiving donor milk is minimal and includes:

1. Space for milk drop-off by couriers.
2. Freezer dedicated for donor milk that has a lock and is in a secure location. Donor milk only can be stored in this freezer.
3. Ability to monitor freezer temperature.
    - Milk must be maintained in a frozen state. Set freezer temperature at -18^0 Celsius or below.
    - Freezer temperature must be taken and recorded daily or the freezer equipped with a temperature sensitive alarm.

- It is recommended that the freezer be on emergency power. If not on emergency power, set the freezer up with a "recording thermometer" that records temperature changes over a period of time.
- Ideally the freezer or thermometer will also have an alarm that will alert the user (or after-hours designate) if the temperature rises above a pre-programmed acceptable level. This will reduce the likelihood of having to discard milk in the event of a power interruption.
- Report any variation of freezer temperature above -18 Celsius (i.e., warmer than -18 C) to the BCW's Lactation Services (604-875-2282) as soon as possible. Brief fluctuations in temperature secondary to opening the doors or self-defrosting cycles are acceptable.
    - If you check your freezer and it registers warmer than -18 Celsius (e.g., -17 Celsius), recheck it after 2 hours. Freezers may cycle out of range for short periods and this is acceptable.
    - If the freezer is consistently out of range, it needs to be serviced.
    - Milk must always remain "frozen solid."
- Freezer and alarm manuals must be easily accessible on or near the freezer/alarm.
- Freezer must be regularly cleaned and defrosted to maintain proper temperature.

4. Access to a telephone and fax machine.

The requirements for storing refrigerated pasteurized donor milk (i.e., daily supply of thawing/thawed milk) are the same as for storing mother's own milk. Milk must be labelled with the date/time milk was removed from the freezer and the baby's name (unless used for trophic feeds). The RN must sign-out the milk when it is removed from the refrigerator. Pasteurized donor milk may be stored in the same container (labelled with the baby's name) as the mother's own milk in the refrigerator.

Staffing requirements include:

- A staff member designated to oversee milk dispensing functions in the dispensing unit.
- A staff member to order and receive pasteurized donor milk from the Milk Bank.
- A staff member designated to unpack the milk, check the contents, put the milk into the freezer and complete the documentation.
- A staff member that checks the sign-out sheets to ensure that milk taken out is documented appropriately.
- A staff member to check freezer temperatures daily and complete the documentation.

These requirements could be met by one person or several people as fits for the site.

5.6. Operating Protocols

5.6.1 Ordering and Receiving Donor Human Milk

1. A designated NICU or other hospital staff member e-mails mbscreening@cw.bc.ca or faxes 604-875-2371 a completed *Donor Milk Order Form* (Appendix 8) to the Milk Bank.
2. The Milk Bank packages frozen donor milk in coolers and includes a *Donor Milk Packing, Shipping & Receiving Form* (Appendix 9) inside the box. Milk is shipped via priority overnight courier within four business days of receiving the order.
3. A designated NICU or other hospital staff member receives the milk from the courier, checks that the milk is frozen and appropriately labelled (with the expiry date and batch number), records receipt on the *Donor Milk Packing, Shipping & Receiving Form* (Appendix 9) and places milk is placed into the freezer.

5.6.2 Handling and Dispensing Donor Human Milk

1. Each day, a 24-hour supply of donor milk is taken out of the freezer and put into the fridge. Each bottle is labelled with the recipient's name, date and time removed from the freezer. Action is documented on the *Pasteurized Donor Milk Sign-Out & Shift Count Sheet* (Appendix 10a).
2. Donor milk is provided to eligible babies and documented in the baby's health record.
3. One bottle of milk may be used for multiple recipients (i.e., trophic feeds). In these cases, the defrosted milk is aliquoted into appropriate amounts, labelled and stored in each baby's labelled bin. As the milk is removed from the fridge, the amount is recorded on the *Pasteurized Donor Milk Sign-Out Sheet: Early/Trophic Feeds* (Appendix 10b).
4. Defrosting milk:

   Milk can be defrosted in the fridge or quick defrosted. Procedure for quick defrost:

   a. Hold bottle under running warm water ensuring the lid is not submerged (to decrease the risk of contamination). Gently swirl to encourage defrosting; or
   b. Place the bottle in a clean glove or plastic bag and put in a clean container of warm water. Once all ice crystals have disappeared, use the milk or return to the fridge for later use; or
   c. Place the bottle of milk in a bottle warmer designed for the purpose of warming or defrosting human milk.

5. Milk is usable for 48 hours after it is defrosted (completely liquid). The bottle should be handled aseptically and opened as few times as possible. This is a change from 24 hours. The HMBANA's 2019 *Best Practice for Expressing, Storing and Handling Human Milk in Hospitals, Homes, and Child Care Settings* recommends usage over a 48 hour period in hospital with careful aseptic handling.
6. A bottle of milk should be completely defrosted, swirled to mix and a serving size poured off rather than partially defrosting, pouring off a serving and returning to the freezer.
7. Milk for premature infants should be at body temperature prior to feeding. If only part of a bottle of milk is needed for a feeding, the correct amount of milk is poured into a separate container for warming and the rest refrigerated.
8. Discard any milk left over in a feeding bottle after a feed. Empty donor milk bottles can be recycled.

5.6.3 Accessing Donor Milk Post-NICU Discharge

For babies that require donor milk post-discharge, arrangements are made through BCW's for mothers to pick up frozen donor milk at BCW's or have frozen donor milk couriered to their home. A fee is charged for donor milk that is provided on an outpatient basis and for the courier, if required.

All mothers are advised to have an alternative feeding plan for their baby in the event that donor milk is not available.

The process for a mother to access donor milk post-discharge is as follows:

1. The staff at the discharging hospital fax a completed *Getting Pasteurized Human Donor Milk Post-Discharge from Hospital* form to the Milk Bank (Appendix 11). A written order (recommended form provided in Appendix 12) from a Physician or Registered Midwife for donor milk must accompany this form or be provided to the mother to take with her to the pick-up location.
2. Mother contacts the Milk Bank (604-875-2424, local 7634) and confirms whether she plans to pick up the milk at BCW's or arrange for a courier to pick up the milk at BCW's and deliver to her home.
3. The Milk Bank staff documents the name of the mother of the recipient baby and the amount of milk to be picked up/couriered. The Milk Bank staff asks the mother for credit card information at the time the milk is requested. A receipt is included with the package of milk.
4. If milk is to be couriered, the Milk Bank staff provides the mother with courier pick-up information and the mother arranges the courier.
5. If milk is to be picked up, the Milk Bank staff deliver the milk to the designated milk pick-up location.

Refer to www.bcwomens.ca (search for Milk Bank) for handout on *Discharging Hospital Referral for Pasteurized Donor Human Milk*. It is important to emphasize to the mother that they must call the Milk Bank to make arrangements for pick-up PRIOR to going or dispatching a courier to the site.

5.6.4 Record Keeping

There are times when it is necessary to track back a specific donor and/or a baby or group of babies that received the milk of a specific donor. A system which allows milk to be tracked from donor to recipient is important and is a requirement of HMBANA. A mock recall to test the Milk Bank's ability to track a donation from donor through to recipient is performed every 3 years and must be completed within a 6 hour time frame. This mock recall involves the milk dispensing sites (NICUs and other hospital units).

Donor milk dispensing sites are required to keep all documentation in a secured location for 26 years. The specific forms are listed below.

Freezer Temperature Log (Appendix 2)

- Receiving hospitals must maintain a log of temperatures for freezers used for donor milk.
- Freezer temperature must be checked daily.

Milk Recall Form (Appendix 6)

- The Milk Bank completes this form and sends to the relevant Milk Collection Depot(s) and/or NICU/other hospital unit if milk needs to be discarded or returned to the Milk Bank (e.g., donor acquires infectious disease).
- Milk Collection Depot or receiving site records the actions taken (milk discarded or returned) on the form and keeps a copy for reference.

If an NICU or other hospital unit identifies a potential issue with donor milk (e.g., systemic infection identified in two babies that are receiving donor milk from the same batch), staff is asked to contact BCW's Lactation Services at 604 875-2882 as soon as possible (baby's name, batch(es) of milk involved, whether any milk from batch is left, who to contact to follow-up). BCW's will provide further instructions as to what to do with the on-site milk and, if necessary, complete the Milk Recall Form. They will also address any potential issues causing the problem the milk (e.g., donor follow-up, checking procedures within the Milk Bank, etc.).

Use of Donor Human Milk for Your Baby (Appendix 7)

- This sample form that can be used to document agreement by the mother/guardian for their baby to receive pasteurized donor milk.

Donor Milk Order Form (Appendix 8)

- Hospitals complete this form to order donor milk. It is e-mailed or faxed to the Milk Bank.

Donor Milk Packing, Shipping & Receiving Form (Appendix 9)

- The Milk Bank fills out this form and places inside the cardboard box prior to shipping milk.
- Form is also used for sites receiving milk to document receipt and condition of the milk.

Pasteurized Donor Milk Sign-Out Sheet (Appendices 10a and 10b)

- Logs for signing out donor milk from the freezer and the fridge.
- Must be maintained in a secure location in the NICU.

Fax Cover Sheet - Getting Donor Milk Post-Discharge (Appendix 11)

- Hospitals fax this form to BC Women's Provincial Milk Bank prior to the baby's discharge. A written order from a Physician or Registered Midwife for donor milk is also required.

Prescription to Receive Donor Milk from the BC Women's Provincial Milk Bank Post-Discharge (Appendix 12)

- Recommended order sheet for donor milk. MDs/RMs to complete and forward with the completed *Getting Donor Milk Post-Discharge* form (Appendix 11).

To help BCW's learn more about the numbers and types of babies receiving donor milk, each NICU and other hospital units receiving milk are asked to complete and submit a form monthly with this information. Refer to the-

Monthly Report to the BC Women's Milk Bank from BC NICUs (Appendix 13).

These Guidelines are updated on a regular basis. Any suggestions for additional content or comments on the current guidelines is encouraged. Please send feedback to Fjones@cw.bc.ca.

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Special acknowledgements: Depot Guidelines, Mother's Milk Bank, San Jose, California (adapted sections with permission).

Appendix 1: Completed Donor Screening

BCW's LC/RN and MB clerk fills out and sends a copy to the relevant Milk Collection Depot

Date: _____

Mother's Name: _____

Address: _____

Phone: _____

Partner's name: _____

Baby's name: _____

Baby's birthdate: _____

Comments: _____

_____

Screening:

- ☐ Mother's forms: health forms, donor consent, physician consent
- ☐ Physician's form
- ☐ Blood test results complete
- ☐ Entered into scanning system

LC #1 signature: _____

LC #2 signature: _____

Milk bank clerk:

- ☐ On computer list (including address & postal code)
- ☐ Mother called re milk delivery

Mother's Plans

- ☐ Deliver milk directly to BC Women's
- ☐ Use Milk Collection Depot: _____

This communication is intended only for the use of the BC Women's Provincial Milk Bank. It may contain information that is confidential. If you receive this communication in error, please notify us immediately at 604-875-2424, local 7634.

Appendix 2: Freezer Temperature Log: Example

Completed daily by Milk Collection Depots and NICUs/Other Hospital Units[6]

Month/Year: _____

Date	Time	Temperature	Is temperature - 20 C or colder? (If 'no', see below)	Initial
1			☐ YES ☐ NO	
2			☐ YES ☐ NO	
3			☐ YES ☐ NO	
4			☐ YES ☐ NO	
5			☐ YES ☐ NO	
6			☐ YES ☐ NO	
7			☐ YES ☐ NO	
8			☐ YES ☐ NO	
9			☐ YES ☐ NO	
10			☐ YES ☐ NO	
11			☐ YES ☐ NO	
12			☐ YES ☐ NO	
13			☐ YES ☐ NO	
14			☐ YES ☐ NO	
15			☐ YES ☐ NO	
16			☐ YES ☐ NO	
17			☐ YES ☐ NO	
18			☐ YES ☐ NO	
19			☐ YES ☐ NO	
20			☐ YES ☐ NO	
21			☐ YES ☐ NO	
22			☐ YES ☐ NO	
23			☐ YES ☐ NO	
24			☐ YES ☐ NO	
25			☐ YES ☐ NO	
26			☐ YES ☐ NO	
27			☐ YES ☐ NO	
28			☐ YES ☐ NO	
29			☐ YES ☐ NO	
30			☐ YES ☐ NO	

The freezer temperature is to remain at -20 C or below. Report any variation (i.e., warmer than -20 C) to the BCW's Lactation Services (604-875-2282) as soon as possible. Brief fluctuations secondary to opening the doors or self-defrosting cycles are acceptable. If you check your freezer and it registers warmer than -20 Celsius (e.g., -17 Celsius), recheck it after 2 hours. Freezers may cycle out of range for short periods and this is acceptable. If the freezer is consistently out of range, it needs to be serviced. Milk must remain "frozen solid".

[6] For sites open M-F only, check temperature late in the day Friday and again first thing Monday morning. The Monday check needs to include a check of whether the temperature rose above a pre-programmed acceptable (warmer than -20 C) level over the weekend.

Appendix 3: Donor Milk Log

Completed by Milk Collection Depots to record milk drop-off by donors

Milk received from donors must be frozen. If thawed or partially thawed, please contact BCW's Lactation Services at 604-875-2282 to discuss next steps.

Date Milk Received (from Donor)	Donor Name	Weight (kg)	Month(s) Milk Expressed[7]	Received by (print name)	Received by (signature)

[7] Milk must be shipped within six months of being expressed (the sooner the better). If milk received is close to or older than six months, please ship as soon as possible to the BCW's Provincial Milk Bank.

Appendix 4: Milk Transfer Log

Completed by Milk Collection Depots and included in box when shipping milk to the Milk Bank

Date Milk Received (from Donor)	Date Milk Shipped	Donor Name	Weight (kg)

Form completed by: _____ (sign & print name)

PLEASE NOTE:

1. All donor milk containers must be labeled with donor's name.
2. Milk from different donors must be packaged in separate bags.
3. All milk containers must be shipped frozen.
4. All donor milk must be packaged and sent as per Milk Bank shipping instructions (see Collection, Transportation, Distribution and Receipt of Donor Human Milk guideline).
5. Contact the Milk Bank at 604-875-2424, local 7634 if any questions.

Appendix 5: Label for Shipping Donor Milk to the Milk Bank

Milk Collection Depots add this label to box when shipping milk to the Milk Bank

Deliver between 9:00 am – 12:00 pm

TO:

PROVINCIAL MILK BANK
BC Women's Hospital
Room #D106 (Basement, Shaughnessy Building)
4500 Oak St.
Vancouver, BC
V6H 3N1

604-875-2424 local 7634 (Milk Bank)

Appendix 6: Donor Milk Recall

BCW's completes form to instruct Milk Collection Depots and/or hospitals to hold/discard/return milk. Sites receiving documents their actions on this form

Milk Bank to complete

Date: _____

Staff completing form: _____

Recall request site: _____

Nature of problem:

_____

_____

Details of request for milk to be held/discarded/returned

_____

_____

Signature: _____

Milk Collection Depot and/or hospital to complete

Date: _____

Staff completing form: _____

Action taken: ☐ Milk held
☐ Milk discarded
If discarded:
Date: _____

Amount: _____

☐ Milk returned to the Milk Bank
If returned:
Date: _____

Amount: _____

Signature: _____

Appendix 7: Consent to Use Donor Milk for Your Baby (Example)

Mother/guardian signs to document agreement for their baby to receive pasteurized donor milk.

Why Donor Milk?

Mother's own milk is always the best for her baby. When mother's own milk is not available or is not available in sufficient amounts, then donor milk is the next best choice. Donor milk is similar in make-up to mother's own milk. It provides babies with antibodies to fight disease and infection. Human milk gives babies the best chance at survival and growth. It is especially important for sick and very tiny babies.

In BC, donor milk is available to babies through the Provincial Milk Bank ("Milk Bank"). The Milk Bank follows the guidelines from the Human Milk Banking Association of North America to ensure the safest product possible is provided. All donors and their milk are screened.

Milk Donors and Milk

- Milk Bank donors provide milk on a voluntary basis. Only healthy breastfeeding mothers who are non-smokers and have a healthy lifestyle are accepted as donors.
- Before accepting mothers as milk donors, they are screened for lifestyle factors and infections by:
  - Asking them questions about their health.
  - Asking their doctors questions about their health.
  - Testing their blood for infection, including: HIV (also called Human Immunodeficiency Virus), HTLV (Human T-lymphotropic virus, related to HIV), syphilis and hepatitis
- After the donor is screened, the donor milk is heat treated (pasteurized) and tested for sterility.
- Although there are no known cases, there is a very small chance that an infection may be transmitted through donor milk to your baby and your baby could become sick. Please discuss any concerns you have about the use of donor milk with your baby's health care team.

Availability of Milk

- Donor milk will generally be given until your own milk volumes become sufficient or your baby is on full feeds as determined by your baby's doctor. At this time, your baby will be switched to formula in the absence of mother's own milk.
- If you need donor milk after your baby is discharged from hospital, there is a fee (see www.bcwomens.ca - search for Milk Bank - for current rates). The fee covers the transportation costs and some of the milk processing costs.
- Our donor milk supply depends on how many donors we have and how quickly we can process milk. Sometimes our supply is low and we can only provide milk for the sickest babies. Your family needs to have a plan of how you will feed your baby if donor milk is not available.

Further information on pasteurized donor milk is available from your health care team and at www.bcwomens.ca (search for Milk Bank) - *Donor Milk: Common Questions*.

Agreement
The information provided on this form was discussed with me by a member of my health care team. I have had the opportunity to ask questions. I am satisfied with the explanations and understand them.

I accept the use of donor human milk for my baby.

Signature of ☐ Mother ☐ Legal Guardian	Print name of Mother/Legal Guardian
Signature of witness	Print name & designation of witness
Date & time signed (day/month/year)	

Telephone Consent
I have discussed the use of donor human milk as outlined on this form, along with the risks and alternatives, with _____who is the patient's (state relationship) _____ and he/she has given verbal consent for the use of donor human milk as described on this form.

Signature of health care provider	Print name & designation of health care provider
Signature of witness	Print name & designation of witness
Date & time signed (day/month/year)	

Statement by Professional Interpreter
I have translated the information on this form to the ❑ Mother ❑ Legal Guardian, and I have interpreted their responses to the Physician, Registered Midwife or Nurse Practitioner.

☐ In the presence of the mother/legal guardian

Signature of professional interpreter	Print name of professional interpreter

☐ Over the phone (witnessed)

Signature of professional interpreter	Print name of professional interpreter
Signature of witness	Print name of witness & designation

Date & time signed (day/month/year):_____

Appendix 8: Donor Milk Order Form

Hospitals to complete to order milk from the Milk Bank

Site name: _____

Address: _____

_____

Postal code: _____

Contact person: _____

Telephone: _____

E-mail: _____

Order Date	Number of 60 mL (2 oz) bottles	Number of 120 mL (4 oz) bottles	Comments

The Milk Bank ships milk to hospitals within four business days of receiving the order (excluding time for overnight courier).

Please fill out and e-mail mbscreening@cw.bc.ca or fax 604-875-2371 and retain a copy for your records.

This communication is intended only for the use of the BC Women's Provincial Milk Bank. It may contain information that is confidential. If you receive this communication in error, please notify us immediately at 604-875-2424, local 7634.

Appendix 9: Donor Milk Packing, Shipping & Receiving Form

Milk Bank completes and includes this form with milk shipped to receiving hospitals. Receiving hospitals use form to document that milk was received.

Milk Bank to complete

Site requesting order: _____

Order date: _____

Packed by: _____

Packing date: _____

Contact phone: _____

Completion by: _____

Milk Bank					***Hospital***
Batch Number	**# Bottles**	**Bottle Size (circle)**	**Expiry Date**	**Frozen when Packed?**	**Received Frozen? (circle)**
		60 mL or 120 mL		Yes	Yes/No
		60 mL or 120 mL		Yes	Yes/No
		60 mL or 120 mL		Yes	Yes/No
		60 mL or 120 mL		Yes	Yes/No
		60 mL or 120 mL		Yes	Yes/No
		60 mL or 120 mL		Yes	Yes/No
TOTAL					

*If any concerns when milk is received, call the Milk Bank (604-875-2282). Do not discard any milk until the situation has been discussed with Milk Bank staff.

Receiving hospital unit to complete

Unpacked by:	
Date:	
Please indicate the condition of the milk (frozen or not) in the table above.	

Retain a copy for your records

Appendix 10a: Pasteurized Donor Milk Sign-Out & Shift Count Sheet (Example)

Hospitals use to (1) record milk removed from the freezer; and (2) reconcile the amount of milk in the freezer q shift

At the end of each shift, draw line under last bottle signed out, count the number of bottles in the freezer and reconcile bottles signed out with previous inventory in freezer. Two RN signatures are required for shift count.

Date & Time	Infant Syringe Label	Batch # (list all)	# of Bottles Removed (from each batch)	# of 60 mL (cc) Bottles Left in the Freezer	RN #1 (initial)	RN #2 (initial) (Shift Count only)
Example: Oct 3, 2013	Affix label here	A2609 B6295	2 3			

- ✓ Fill out the information above when taking out donor milk.
- ✓ The designated person will add donor milk to the freezer and record the number of bottles added.
- ✓ Outgoing and incoming RNs will double check the count at shift change and follow up with missing bottles.

Appendix 10b: Pasteurized Donor Milk Sign-Out Sheet: Early / Trophic Feeds (Example)

Hospitals use to (1) document milk removed from the fridge for early trophic feeds (while waiting for mother's own milk supply); and (2) reconcile the amount of milk in the fridge q shift

At the end of each shift, draw line under last bottle signed out, count the number of bottles in the fridge. Check any remaining syringes to ensure thawed milk has not expired (if milk has expired, discard and make a note in the appropriate column). Reconcile amount of milk used with inventory in fridge.

Date & Time	Infant Syringe Label	Batch # (list all)	Drawn from New Bottle (NB) or from Shared Syringe (S)	Amount of Milk Discarded	RN #1 (initial)	RN #2 (initial)
Example: Oct 3, 2013	Affix label here	B26043	S			

- ✓ Fill out the information above when taking out donor milk from the fridge for trophic feeds.
- ✓ The designated person will stock the trophic feed bin from the freezer and record the number of bottles added to the fridge.
- ✓ Outgoing and incoming RNs will double check the count at shift change and follow up with missing milk.
- ✓ All milk recipients must be recorded for tracking purposes.

Appendix 11: Fax Cover Sheet – Getting Donor Milk Post-Discharge

Please fax this form to BC Women's Provincial Milk Bank prior to the baby's discharge. A written order from a Physician or Registered Midwife for donor milk is also required.

Date: _____

Send to: BC Women's Provincial Milk Bank **Fax:** 604-875-2871

Pages: _____ **Phone:** 604-875-2424, local 7634 - hospitals, MDs & RMs
604-875-3743 - parents

Sent from (name of hospital & unit): _____

Sent by (staff name): _____ Phone: _____

Recipient name (baby): _____ Date of birth: _____

Parent's name(s): _____

Address: _____

_____
City Postal Code

Phone: (1) _____ (2) _____

Name of Physician/Registered Midwife (print) _____

Amount of milk requested: _____ X 120 cc (4 oz) bottles

Reason for baby to receive donor milk

Neonatal reasons: ☐ Prematurity ☐ Post-surgery ☐ Cardiac/ kidney/other problem ☐ Formula intolerance ☐ Failure to thrive

Other: _____

Maternal reasons: ☐ Breast surgery ☐ Medications ☐ Illness

Other: _____

Teaching points for parents:

- Every baby using donor milk needs to have another feeding plan in case the supply is low and milk can only be provided for the sickest babies.
- There are two ways for mothers to get milk: (1) Pick-up at BC Women's; or (2) By courier to their home (available for parents living outside the Greater Vancouver area or for milk orders of more than 50 bottles).
- **Staff or parents MUST CALL the Milk Bank (604-875-3743) BEFORE sending a courier or driving to BC Women's to pick up milk.** Advance notice is necessary to be sure milk is available. Pre-payment by credit card is required.
- A fee is charged for donor milk provided on an outpatient basis. For current rates, visit www.bcwomens.ca (search for Milk Bank). If a courier is used, the parents are responsible for the cost.
- Unused donor milk cannot be returned to the milk bank. It should not be given to other babies.
- Refer parents to www.bcwomens.ca (search for Milk Bank) for handout "Getting Donor Milk after Your Baby Leaves the Hospital."

Appendix 12: Prescription to Receive Donor Milk from BC Women's Provincial Milk Bank Post-Discharge

MDs/RMs to complete

Date: _____

Send to: BC Women's Provincial Milk Bank **Fax:** 604-875-2871

Pages: _____ **Phone:** 604-875-2424, local 7634 - hospitals, MDs & RMs
604-875-3743 - parents

MD/RM Information (MD/RM name, fax number, etc.)

Recipient name (baby): _____ Date of birth: _____

Parent's name(s): _____

Address: _____

_____
City Postal Code

Phone: (1)_____ (2)_____

Amount of milk requested: _____ x 120 ml (4 oz) bottles

Reason for baby to receive donor milk

Neonatal reasons: ☐ Prematurity ☐ Post-surgery ☐ Cardiac/ kidney/other problem ☐ Formula intolerance ☐ Failure to thrive

Other: _____

Maternal reasons: ☐ Breast surgery ☐ Medications ☐ Illness

Other: _____

Is mother breastfeeding? ☐ Yes ☐ No If no, reason: _____

Expected length of time donor milk required: _____

Teaching points for parents:

- Every baby using donor milk needs to have another feeding plan in case the supply is low and milk can only be provided for the sickest babies.
- There are two ways for mothers to get milk: (1) Pick-up at BC Women's; or (2) By courier to their home (available for parents living outside the Greater Vancouver area or for milk orders of more than 50 bottles).
- **Staff or parents MUST CALL the Milk Bank (604-875-3743) BEFORE sending a courier or driving to BC Women's to pick up milk.** Advance notice is necessary to be sure milk is available. Pre-payment by credit card is required.
- A fee is charged for donor milk provided on an outpatient basis. For current rates, visit www.bcwomens.ca. If a courier is used, the parents are responsible for the cost.
- Unused donor milk cannot be returned to the milk bank. It should not be given to other babies.
- Refer parents to www.bcwomens.ca for handout "Getting Donor Milk after Your Baby Leaves the Hospital."

Appendix 13: Report to BC Women's Provincial Milk Bank from BC NICUs & other Units

Completed by: _____ (Name) _____ (Contact number)

For (unit/hospital) _____

For (month/year) _____

1. Milk consumed this month (excluding discarded milk)
   a. Premature babies (<37 completed weeks gestation): _____ oz/mL (circle one)
   b. Term babies: _____ oz/mL (circle one)
   c. Total milk consumed (a+b): _____ oz/mL (circle one)
2. Milk discarded this month: _____ oz/mL (circle one)
3. Babies receiving milk this month
   a. Premature babies (<37 completed weeks gestation):
      i. Number receiving milk this month: _____
      ii. Of this number, number receiving donor milk for the first time: _____
   b. Term babies:
      i. Number receiving milk this month: _____
      ii. Of this number, number receiving donor milk for the first time: _____

Please complete and submit by the **7th of the next month** to: 604-875-2371 (Fax) or e mail mbscreening@cw.bc.ca.

This communication is intended only for the use of the BC Women's Provincial Milk Bank. It may contain information that is confidential. If you receive this communication in error, please notify us immediately at 604-875-2282.