HIV transmission
BREAST MILK
The decision to breast or bottle feed a new born baby is a very controversial issue. This module presents information for mothers to make informed choices on how to best feed their babies. For mothers who are HIV positive, the section provides options to either breastfeed or bottle feed as safely as possible. The final choice about feeding is for the mother to decide. All mothers and situations are different and mothers should make the decision without pressure.
**Session Objective:**
Providing information on how and why HIV is transmitted from mothers to babies through breastfeeding
Providing information to women and men on how it is best to feed babies when a mother is HIV positive.

**Session Overview**
There are several discussions in this module on the choices mothers have for feeding their babies.

**Key Message**
Mothers have choices when they feed their babies. These choices need to be available to all mothers.

**Expected Learning Outcomes**
Participants know how and why HIV is transmitted through breast milk
Can identify ways of reducing the risks of transmission through breast milk
Can make informed choices about how to feed their babies
Are able to advocate for access to ARV’s for themselves and their children during lactation and beyond
Are able to advocate for access to baby formula, clean water and bottles so that women can also choose to bottle feed with ease

**Toolkit References**
ARVs
Condom use

**Time needed:**
1 hour 30 minutes

**Materials needed:**
Flipchart paper and pens
How is HIV transmitted:

Note to facilitator

This is a quick information session.

**High risk body fluids:**
- Blood
- Breast Milk
- Semen
- Vaginal Fluids

Note that part of the human tragedy of HIV is that the virus is transmitted through our most intimate relationships; our first relationship with our mothers and through our adult sexual relationships.

**Effective transmission**
- HIV must find a way to enter the blood stream
- HIV needs to be present in sufficient quantities
- Duration of exposure needs to be long enough

HIV in breast milk.

Note to facilitator:

Breastfeeding when a mother is HIV positive is a complex issue. It is recommended to invite a clinic sister to help you with this session if possible. Some of the activities can only be done if you have been trained. Please do not include those activities if you have not received training.

HIV is present in large quantities in breast milk. It is estimated that between 40% - 30% of babies will contract HIV from breastfeeding1. In this session, we explore why this is the case and what we can do to prevent mother to child transmission through breastfeeding. The module will end by explaining how to breastfeed as safely as possible when ARV’s and formula are not available.
Why is HIV transmission from mother to child so prevalent through breastfeeding?

Discussion:

Ask participants why we breastfeed. Write the answers on flipchart.

You should receive some of the following answers:

- Breast feeding is best for babies
- It is the most nutritious form of food for babies
- It is cheap
- It can create a very loving bond between mother and child
- It helps mothers recover from labour and delivery
- It is safe for babies as all the essential nutrients, enzymes and hormones are available.
- Giving baby’s breast milk gives them their mother’s antibodies to help them through their first 18 months of life.

The general feeling is that breastfeeding is good for both mother and child and needs to be encouraged. Furthermore, it is often the only option for feeding in poor, rural and highly traditional communities.

BUT: What if I am HIV positive?

Note to facilitator:

The information that follows should be given to all women as part of quality pre-natal care. Stress the importance of good breastfeeding habits, good bottle feeding habits and that every mother, can choose what is best for her baby.

Exclusive breastfeeding for HIV positive mothers is the ideal option in many parts of the world that do not have access to ARV’s, formula and clean water. However, while exclusive breastfeeding can significantly reduces the risk of transmission, it does not eliminate it. You will need to ensure that participants understand this fact. Also make sure mothers understand that the greatest risk factor in transmission of HIV through breast milk is by “mix feeding” (Breast feeding and bottle feeding at the same time).
Breast milk and the gut (digestive system) of the developing baby:

Note to facilitator:
Here is the drawing you will need to do:

- Lining of the gut
- Blood stream of the baby
- Baby’s stomach
- Stomach acid
- Milk of an HIV positive mother
- Stomach acid: kills HV

Upper part of baby’s digestive system

Breast milk of an HIV positive mother
Breast milk is very gentle on the gut of a baby. All the nutrients, enzymes and hormones are easily absorbed through the linings of the gut and enter the blood stream WITHOUT causing tears in the lining of the gut. During exclusive breastfeeding the risk of HIV gaining access to the baby’s blood supply is reduced.

The nutrient molecules in either formula or food are much larger than those in breast milk and cause small tears in the mucous membrane and lining of the gut. These tears provide HIV direct access to the baby’s blood supply.
Note: The WHO recommends that HIV positive mothers can exclusively breastfeed until their babies are six months old. This recommendation is based on the needs of women in poor, rural and traditional communities and on the science around the development of the immune system.

Note: Babies continue to need milk through the first year of their lives. If you choose to stop breastfeeding after a certain period, ensure that they have some milk either in the form of formula or cow’s milk to feed your child. Note that goat’s milk is the closest type of milk to human breast milk, which is a good feeding option for babies.

What if my baby is having difficulty feeding?
For most babies (although not all), their guts can digest breast milk successfully and HIV will be excreted. However, there may be problems with the gut, for example – reflux, gastric flu, diarrhoea, constipation, vomiting – which increases the rate of HIV transmission.

HIV positive mothers
STOP Breastfeeding immediately if you can under these circumstances:
- Gut illnesses cause tears in the lining of the gut and will give HIV direct access to the bloodstream.
- Ensure that they are getting enough water and electrolytes.
- Try and bottle feed with either formula or goat’s milk if available.

Mothers not infected with HIV
CONTINUE to breastfeed
- Your body manufactures hormones and antibodies that help the baby fight disease.
- It is a good way to ensure that your baby continues to be hydrated.

Get to a doctor as quickly as possible
Having a sick baby with a gut problem is very scary for any mother. For an HIV positive mother, this experience can be worse, as she will have to stop breastfeeding her baby. However, this suggestion might not be an option for many mothers without access to formula or clean water. These mothers are faced with the difficult choices of either continuing to breastfeed and risk transmitting HIV to their child, or to stop feeding and starve their child. Due to the medical interventions available in the 21st century, mothers should not have to face this choice. Faith leaders in particular need to actively lobby for access to proper healthcare for all women so that these types of choices become a thing of the past.

CHOICE 1: Breastfeed exclusively. As soon as you introduce either formula or any other type of food STOP BREASTFEEDING.
Cracked nipples and mouth sores?
If you have cracked nipples or if your baby has sores in his or her mouth, you will have to stop breastfeeding. With cracked nipples, a mother’s blood will mix with breast milk, increasing the risk of HIV transmission. If the baby has sores in his or her mouth, also stop breastfeeding. In this case, there is direct access to the blood stream for HIV. Because babies feed so often and for long periods of time, the sores will be exposed to the HIV positive breast milk for a prolonged period. Thus, any HIV neutralising properties that the saliva contains will be overwhelmed by the quantity of HIV in the milk and the prolonged exposure.

**CHOICE 2: Breast feeding while under ARV treatment**

**Note to facilitator:**
The section on ARV’s is rather dry and simply there to provide basic information. Find out about the ARV treatment protocol for mothers in your area before you deliver the information below. Remember that not everyone has access to these drugs.

**Breastfeeding and ARV’s**
If you have access to ARV’s, the treatment protocol should be followed. Using ARV’s while breastfeeding will vastly reduce the risk of HIV transmission through Breast milk. (See following section):

**CHOICE 3: Bottle feed with formula, understanding the safe methods.**
Using formula milk for HIV positive mothers and their babies is the ONLY way to guarantee that the baby will not get HIV from breast milk. However, you will need the following:
- Access to clean water. You can ensure that your water is clean by straining it through a cloth and boiling it for at least 20 minutes before you used it to make up a formula feed. Even in cities your water supply needs to be clean or ensure that you boil it for at least 20 minutes.
- You need to have a steady water supply. New-borns need feeding every 2 hours and, as babies grow, they will need milk feeding between 5 and 6 times a day before they are able to take solid food. An erratic water supply or a water supply that is highly labour intensive will not meet the needs of bottle-feeding mothers and their babies.
- You will need bottles and teats and you will need to be able to sterilise them.
CAUTION
One of the leading causes of deaths in Africa for children under 5 is diarrhoea. Diarrhoea is often caused by small water-born infections that babies and children acquire from unsterilized water and bottles. If you are in anyway unable to sterilise your water and bottles, consult your clinic sister for safe breastfeeding advice.

- You will need good access to age appropriate formula for your baby. Some clinics provide this free of charge, however, this can be an expensive outlay for a family. If this is the case, consider breast feeding or pasteurising your breast milk under the correct supervision.
- Do not dilute any formula feeds. Formula is very specifically designed to give your baby good nutrition in correct dosages. If you dilute your formula to make it last longer, once again wither breastfeed, pasteurise your milk or use a milk substitute like pasteurised goat’s milk.

For HIV positive mothers, formula feeding is the only way to guarantee that your baby will not get HIV from your breast milk. HOWEVER, if you cannot, there are ways that significantly diminish transmission if you take a few basic precautions. Using Antiretrovirals will also ensure that you do not transmit HIV to your baby and, if you have access that may be the best option for you.

We hope that this module has given you information about the various choices that you can make around feeding your baby and, if you are HIV positive, feeding your baby so that HIV transmission is diminished or eliminated. Feeding your baby is not only important in terms of nutrition but also important in terms of your baby’s emotional health. Whatever choice you make, or are forced to make, most mothers will do the best their babies.

Further reading: WHO guidelines on ensuring a safe blood supply

(Endnotes)
1 Van Dyk, Atla ‘HIV/AIDS Care & Counselling – A Multidisciplinary Approach’ 2005 Pearsons Educastion South Africa (pg 32)