Breastfeeding Workshop:
Empowering primary healthcare workers for better child and maternal health
Welcome to the breastfeeding workshop by Kenya Association for Breastfeeding and LactaHub – Breastfeeding Knowledge Platform

During this congress you can find us at our booth!

www.breastfeedingke.org
www.LactaHub.org
Benefits of Breastfeeding

For the Mother

• Lowers risk of breast and ovarian cancer
• Lose pregnancy weight
• May lower risk of osteoporosis
• Bonding with baby
• Saves money
• Involution of the uterus
• reduced risk of Postpartum depression
Benefits of Breastfeeding

For the Baby

- Protects against allergies and eczema
- Less incidences of stomach upset, diarrhoea, and constipation than formula
- Reduces the risk of urinary tract infections, inflammatory bowel disease, gastroenteritis, ear infections, and respiratory infections
- Reduces the risk of SIDS
- Protects against diseases such as spinal meningitis, type 1 diabetes, and Hodgkin's Lymphoma
- May make your baby smarter
- Help prevent obesity
- Bonding and attachment to mother
Anatomy of the Breast

- Suspensory ligament
- Fat tissue
- Alveoli
- Duct
- Areola
- Nipple
- Montgomery tubercles
- Lobule
- Lobe
- Ribs
- Chest muscles
1. Mammogenesis (mammary gland development)
2. Lactogenesis I: initial phase of milk production (prenatal Week 16 - upto 72 hours postpartum) colostrum production begins
3. Lactogenesis II: Milk production is established (starts between 30 - 72 hours postpartum) changes in milk volume and composition is observed
4. Galactopoiesis long-term maintenance of milk secretion to meet demand of breastfeeding
Physiology of Lactation

- **Baby**: Suckling stimulates receptors in the nipple to send signals to the brain (hypothalamus)
- **Brain**: Hypothalamus stimulates the posterior pituitary gland to release oxytocin (milk letdown) and anterior pituitary gland to release prolactin (milk production)
- **Breast**: Mammary glands produce and release milk

Positive feedback loop: increased milk production triggers increased suckling by infant
Types & Benefits of Breastmilk

- **Colostrum** (liquid gold): produced in the late stages of pregnancy until approximately 3-4 days after delivery. It is high in protein, calories and is also rich in antibodies. *(Lactogenesis I)*

- **Transitional milk** is produced from approximately day 4-10 and is lower in protein composition than colostrum *(Lactogenesis II)*

- **Mature milk** is produced from day 10 until the termination of breastfeeding. *(Galactopoiesis)*

  - Mature milk contains **foremilk** and **hindmilk**. Foremilk is higher in volume and high in water and lactose but low in fat. Hindmilk is lower in volume and higher in fat.
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Colostrum
Important for new babies

Foremilk
Rich in water and nutrients to keep your baby healthy and hydrated

Hindmilk
Rich in fat and calories which your baby needs to grow strong and healthy

It's important that your baby gets both of these
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NEWBORN STOMACH SIZE

Day One
Size of a grape
5-7ml

Day Three
Size of a Plum
22-27ml

One Week
Size of a Passion Fruit
45-60ml

Two Weeks
Size of a Large Egg
80-150ml
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Positioning At The Breast

There are many ways to position your baby

- Cradle position
- Cross cradle for small infants
- Cross position for twins
- Lying down
- Under arm position
- Under arm position for twins

*How you position and attach your baby is important for success.*
Attachment At The Breast

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Breastfeeding Observation

- **Body Position**
- **Responses**
- **Emotional Bonding**
- **Anatomy**
- **Sucking**
- **Termination of feed**
Helping A Breastfeeding Mother

Video by Global Health Media

Link: https://www.youtube.com/watch?v=4X4_RBHslbs
# Common Challenges and Solutions

<table>
<thead>
<tr>
<th>Problems</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sore nipples</td>
<td>Flat/Inverted nipples</td>
</tr>
<tr>
<td>Low Milk Supply</td>
<td>Review BBB cycle</td>
</tr>
<tr>
<td>Fussy/gassy baby</td>
<td>Review attachment &amp; access baby for potential tongue-tie (ankyloglossia)</td>
</tr>
<tr>
<td>Engorgement/Mastitis</td>
<td>Maintain breastfeeding/expressing frequency</td>
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</table>
Breastfeeding Workshop: An 8-Level Approach To Solving Lactation & Breastfeeding Challenges
The Healthy Children Project (HCP) 8 – Level Problem Solving Process emerged from five sources:

- Years of clinical practice as lactation care providers
- Drive to integrate the multidisciplinary lactation care provider practices
- Supervision of students
- Complexity of teaching problem solving skills to novices and experienced lactation care providers
- Insights in case analysis

OVERVIEW OF HCP 8-LEVEL PROBLEM SOLVING PROCESS

- Combines the use of empirical knowledge with critical thinking skills
- Helps to refine choice from a sea of possibilities
- Develops a broader vision of care to families
HCP 8-LEVEL PROBLEM SOLVING PROCESS

- Level 1: Take complete history
- Level 2: Assess the mother, the baby, and the feeding.
- Level 3: Develop a symptom list.
- Level 4: Formulate a problem list.
- Level 5: Reconcile the history, assessment, symptoms, and problems.
- Level 6: Generate and prioritize solutions and plans for interventions.
- Level 7: Reconcile prioritized solutions and planned interventions with problems.
- Level 8: Evaluate solutions and interventions.
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HCP 8-LEVEL PROBLEM SOLVING PROCESS: INTERACTIVE LEVELS 1 - 4

Figure 1-2 The HCP 8-Level Problem-Solving Process: Interactive Levels 1–4

- Level 1: Take a complete history
- Level 2: Assess the mother, the baby, and the feeding
- Level 3: Develop a symptom list
- Level 4: Formulate a problem list
A mother presents with the following symptoms:
- Hard breast
- Skin is shiny on the breast
- Breast larger than normal
- Breast warm to the touch
- Breast pain

What are we dealing with here?
What are the possible solutions?
Technically, the list of symptoms would be called “engorgement”

Possible “textbook” solutions:
- *Pumping*
- *Application of cold compress*
- *Soaking breasts in basin of warm water*

Using problem solving process, in addition to list of symptoms above we would need a **history** and **assessment** before we would be able to determine the **problem**
CASE A: MAY

The history indicates that:
- May is four days postpartum.
- May has been nursing only every three to four hours during the daytime.
- The baby spent the first two nights in the hospital nursery at the parents’ request.

When we assess May’s breasts there is milk leaking from both nipples.
CASE B: DOMINICA

The history indicates that:

- Dominica is 12 days postpartum.
- The baby has consistently refused to feed on the left breast.
- Only the left breast has the symptoms.
LEVEL 4 – FORMULATION OF A PROBLEM BASED ON HISTORY, ASSESSMENT AND SYMPTOMS

As the cases show, the same list of symptoms can have different histories and assessments.

Symptoms:
- Hard breast
- Skin is shiny on the breast
- Breast larger than normal
- Breast warm to the touch
- Breast pain
HCP 8-LEVEL PROBLEM SOLVING PROCESS: LEVELS 4 -8

Figure 1-3  The HCP 8-Level Problem-Solving Process: Levels 4–8

- Level 4: Formulate a problem list
- Level 5: Reconcile the history, assessment, symptoms, and problems
- Level 6: Generate and prioritize solutions and plans for interventions
- Level 7: Reconcile prioritized solutions and planned interventions with problems
- Level 8: Evaluate solutions and interventions
## DOMINICA

<table>
<thead>
<tr>
<th>Level 1: History</th>
<th>Level 2: Assessment</th>
<th>Level 3: Symptoms</th>
<th>Level 4: Problem formulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominica is 12 days postpartum. According to her history, the baby has</td>
<td>Dominica’s left breast is 50% larger than the right. The baby refuses the breast</td>
<td>Dominica describes hard breasts with shiny skin; breast larger than normal and</td>
<td>Possible breast disease. Possible pediatric problem such as broken</td>
</tr>
<tr>
<td>consistently refused to feed on the left breast. Only the left breast has the</td>
<td>in every position attempted. Milk can be expressed. Left axilla area is also</td>
<td>warm to touch; breast pain</td>
<td>clavicle, torticollis or birth trauma</td>
</tr>
<tr>
<td>symptoms</td>
<td>enlarged with painful nodes palpated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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**DOMINICA**

<table>
<thead>
<tr>
<th>Level 5: Reconcile the H,A,S, &amp; P</th>
<th>Level 6: Generate and prioritize solutions, and plans for intervention</th>
<th>Level 7: Reconcile solutions and interventions with problems</th>
<th>Level 8: Evaluate solutions and interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The history assessment, symptoms, and problem reconcile.</td>
<td>Refer Dominica to Physician for breast evaluation. Recommend milk expression. Institute comfort techniques. Refer baby to pediatrician.</td>
<td>The problem and solutions reconcile</td>
<td>Dominica will have ongoing breast evaluation. Breast cancer may be diagnosed up to five years after this behaviour in the baby. Baby’s weight gain will be monitored closely</td>
</tr>
</tbody>
</table>
When you look down the list of symptoms (Level 3) you can see that the symptoms are the same in all of the cases.

As you read each case, however, you will see that nothing else is consistent from one mother to another mother.

When assessed, some mothers have milk leaking readily from the nipple, some do not.

Also, the history of the mother is an important consideration when combined with the assessment and symptoms.

Both cases include mothers in the immediate postpartum period who present with the array of symptoms we call engorgement.
KEY POINTS (cont’d)

- Although the symptoms remain the same, the plans are unique and targeted to specifics of the case

- At levels 5 & 7 we stop and consider what we know and how we know it, this is where we ask:
  - Does what I’m thinking make sense?
  - Does the problem I've constructed account for the symptoms?

- At Level 5, we stop and reconcile the history, assessment, symptoms, and the problem we have formulated.

- In order to move on to generate and prioritize solutions and plans for interventions (Level 6) we must be sure that the problems we have formulated reconcile with the history, assessment, and symptoms.