unicef
for every child

INTERNATIONAL
STEP by STEP
ASSOCIATION

SUPPORTING FAMILIES FOR **NURTURING CARE**

16

RESPONSIVE FEEDING

DRAFT

©UNICEF /Giacomo Pirozzi

CONTENTS

KEY MESSAGES - why is this topic important for you?

- Feeding and eating are about more than nutrients. It is an opportunity to assist many different facets of child development from sensory, motor, to cognitive and executive function and self-regulation skills.
- Health workers frequently give information to families about feeding their young child. Often this information focuses on what foods to offer. It is important also to talk to families and offer suggestions about how to encourage the child to learn to eat the foods offered. This can help families to have happier meal times.
- Responsive feeding is a two-way process or reciprocal relationship whereby parent notices the child's cues and responds appropriately to the cue. This assists to develop the foundations of a trusting relationship that supports the child's development.
- A child needs food, health and care to grow and develop. Even when food and health services are limited, good care can help make best use of these limited resources. An important time to use good care practices is at mealtimes – when helping young children to eat.

LEARNING OUTCOMES

After completing this module, you should be able to:

- Describe responsive feeding in relation to infant and young child feeding
- Explain to a parent why responsive feeding matters
- Reflect on attitudes to infant and young child feeding in the community that you serve and how they might support or hinder responsive feeding
- Suggest some techniques a family might use to feed children in a responsive way
- Self-assess your knowledge and skills on this topic
- Link responsive feeding information and skills to other modules in these resource materials for home visitors
- Find some more information on responsive feeding

1 INTRODUCTION

WHAT IS RESPONSIVE FEEDING?

Responsive care refers to the behaviours and practices of the parents and family that provide the stimulation and emotional support as well as food and health care necessary for the child's healthy growth and development.

Infants are dependent on a caregiver to provide all their food. With age, the infant gradually develops the skills for relatively independent in eating as a young child such as picking up pieces of food and moving it to the mouth, choosing foods, and using feeding utensils. Similar to many other skills that the young child develops, responsive care practices related to eating can help, or hinder, the development of these skills and behaviours.

Responsive feeding is the two-way process or reciprocal relationship that involves:

- The child giving cues or signs or signals for hunger or fullness;
- The parent noticing the child's cues, the accurate interpretation of that sign, and responding to the sign in an appropriate way;
- The child perceiving there is a response to his/her cue and that this response is predictable.

The feeding environment or context can help to create a routine and expectations that promote interactions that extend beyond mealtimes into broader parenting.

Non-responsive feeding may include a parent controlling the feeding and deciding when and how much is eaten, or a parent ignoring the child's cues and limited interaction. Both types of non-responsive feeding can result in stressful mealtimes and overall family relationship difficulty.

Another form of non-responsive parenting may occur when child cues are misinterpreted and food is seen as the solution. This might be the parent who thinks the infant is not getting enough breast milk because the infant is crying soon after a feed, or the tired toddler in the late afternoon who wants a cuddle and a rest but is given some sweet biscuits and told to go off and play until it is family dinner time.

Self-assessments: True/False Statements

Give true/false answers to the following questions:

1.	Responsive Feeding means that the parent observes, interprets accurately and responds appropriately to the signs or signals that the baby or young child gives.
2.	*How* babies or young children are fed is as important as what they are fed.
3.	Missing the signs or not responding appropriately to the signs can contribute to both obesity and underfeeding.

II

WHY IS RESPONSIVE FEEDING IMPORTANT?

Reflection and discussion: Effect of Responsive Feeding

A. John is eighteen months old. When you ask about feeding, his mother tells you that John tends to play with his food if she allows him to try to feed himself. So she spoon feeds him and this gets all the food in his bowl into him quickly with little mess. You see that John is very overweight.

Do you think there is a link between how John is fed and his overweight?
Is this responsive feeding?

B. Maria is nine months old. When you visit you see that the house is very busy with both parents and the grandmother in the kitchen eating their own dinner and the television is on. Maria is in a high chair banging with a spoon and calling. Every few minutes one of the adults turns to Maria and puts some mashed potato in her mouth from their own plate. You ask about feeding and are told that Maria does not eat much and that her weight is low.

Do you think there is a link between how Maria is fed and her underweight?
Is this responsive feeding?

C. Simon is six weeks old. His mother says that she breastfed him about every 3 hours in the beginning. Simon used to wake up before the 3 hours and then she would rock him and he would go back to sleep. Now he is not waking up or crying as much, and if he does not wake his mother, she lets him sleep; sometimes it is 6 hours or more between feeds.

Do you think there is a link between how Simon is fed and his level of alertness?
Is this responsive feeding?

1. HOW A CHILD IS FED HAS LIFELONG EFFECTS

Families tend to feed their young children in one of three different ways.

- One way is *high control* of the feeding by the parent who decides when and how much the child eats. This may include force-feeding.
- Another feeding style is that the *children are left to feed themselves*. The parent believes that the child will eat if hungry. The parent may also believe when the child stops eating that they have had enough to eat even if very little food was consumed.
- The third style is feeding *in response to the child's cues* or signals using encouragement and praise.

Non-responsive feeding practices where the parent controls the feeding may result in overeating if, for example, children learn to eat when they are not hungry or that they should always continue eating until the bowl is empty. Eating until the bowl is empty at every meal may be beyond satiety and may be over-fullness. Finishing all the food in the bowl at every meal may mean that the parent does not respond to the child's signs that he/she has had enough to eat. The baby or child learns to ignore the inborn mechanism for satiety and a new level is set where eating to over-fullness becomes the expected feeling. Infants who gain weight rapidly are at increased risk of lifelong obesity.

"Without intervention, obese infants and young children will likely continue to be obese during childhood, adolescence and adulthood.
Obesity in childhood is associated with a wide range of serious health complications and an increased risk of premature onset of illnesses, including diabetes and heart disease."
http://www.who.int/end-childhood-obesity/facts/en/

Food may be used in situations where the child's cues are misinterpreted or the parent chooses to respond in an inappropriate way to the cues. For example, if a young child is bored or tired or looking for interaction with the parent and the parent responds to these signs by giving sugary snacks to distract the child. This child learns that their cues are not responded to in a reliable way and may become confused about what cues to give. The high amount of sugary snacks can contribute to overweight and tooth decay.

The opposite can also happen. If the parent is not observing, interpreting accurately and responding to the early signs the baby or young child may be underfed. If babies or young children gets no response to their hunger signs, they learn that these signs do not have an effect and they stop giving hunger signs. This might result in an undernourished child. A child with ill health and little interest in eating might not eat enough if the parents are not observing and interpreting the situation accurately. Undernutrition can be a result of poor food availability, or can be linked to feeding practices.

2. ATTITUDES TO INFANT AND YOUNG CHILD FEEDING IN THE COMMUNITY

Reflection and discussion

Think about the beliefs and attitudes to infant and young child feeding in your community. What are common beliefs? Are these beliefs beneficial to the child, harmful (including high cost if money is limited in the family), or neutral?

		This is a common belief	This is NOT a common belief	Is this beneficial, harmful, or neutral?
1.	To put the baby to the breast whenever baby looks for it is indulging and spoiling the baby and creates bad habits.			
2.	Young children should always eat all the meal that is put on their plate.			
3.	If young children refuse to eat their whole meal they should be punished.			
4.	Feeding the baby frequently in the first few weeks after birth can help the mother to have a good milk supply.			
5.	If a baby wants to feed more often than every 3 hours then the mother's milk supply must be poor or low quality.			
6.	A baby shows he is looking for food by crying.			
7.	By the age of 2 years a young child should eat three meals a day and does not need anything in-between.			
8.	Young children who eat all the food they are given to them will grow up to be healthy.			
9.	Young parents do not know how to care for their baby well. The home visitor needs to tell them what to do about everything.			
10.	Anything to do with the child and feeding is mother's business and not the father's.			
11.	Add some other local beliefs and practices that you are aware of:			

3. ATTITUDES, BELIEFS AND PRACTICES

Most parents want to do the best for their child. They may be influenced by:

- practices of their own parents that they remember from their own childhood
- what friends and family their own age are doing with their children
- marketing of products and behaviours in advertisements
- how parents and children are portrayed in films, shows and stories that they see in the media

Generally it is not effective to tell someone that their attitude or belief is wrong and that they should change their attitude or belief. Your role is to help the parent to consider if a behaviour, action or product might be useful for them and their child, or if it may be harmful or pose any risks, or if it is neutral – neither beneficial nor harmful.

When you hear about a belief or practice, review in your mind and then discuss with the parents:

- Is this behaviour or product known to be harmful to the child directly or to the way that the family functions?
- Is there independent[1] scientific evidence to support the use of this behaviour or product as being beneficial?
- Does the parent have a strong belief that this behaviour or product can help their child to develop better?
- Could harm occur if the behaviour or product is not in itself harmful but uses up money or time that would be better used for food, care or other needs in the family, or if it displaces other more beneficial practices of child care?
- Do you not know enough about the behaviour or product to decide if it is beneficial or harmful?

Remember your communication skills: ask open questions, reflect and clarify, accept what the person is saying, give some information and offer suggestions.

Case study

1. A mother tells you that she is planning to feed her 6 week old baby to a strict schedule of 4 hourly feeds and no feeding from 10pm to 6 am because she believes this schedule will train the child into good habits.

Review the points listed earlier:

- Could harm occur if a young baby has his milk intake restricted in this way? Would there be a negative effect on the mother's milk supply or on health of her breasts if the milk is not moving?
- Would the only mother-child contact be at these 5 feeding times a day?
- Will the baby be left alone to cry if he looks for feeding or care at other times?
- What benefit does the mother see to this schedule? Might the mother feel overwhelmed by responding to the needs of her baby?
- What might happen if you accepted the mother's viewpoint (accepting is not the same as agreeing) and gathered more information before you offer information or suggestions about this belief?
- How can you explain to the mother about the normal feeding, waking and sleeping patterns of a young baby and how to respond? After listening to the mother's

[1] Independent means that the studies on its effectiveness were done by someone other than the company producing the product.

thoughts on using this schedule, you could offer information such as the small size of the baby's tummy so small frequent feeds are needed; that babies need contact, a feeling of security and love and the baby may wake for reasons other than hunger. You might discuss some ways of meeting the baby's needs without the mother feeling overwhelmed.

2. A father sees a milk-based drink advertised as providing special nutrients for the growing child and it shows a picture of a young child dressed like a teacher. The father thinks that using this product will make his two-year old child's brain develop better than the family foods his child receives at present. The product is very expensive for their family budget. The father asks what you think. Review the points

- Could harm occur if this product is used? Might the cost of the product reduce money for other needs in the family?
- Is it beneficial to the child to have this product? Could the child get sufficient nutrients in the diet without this product?
- The purpose of marketing a product is to increase the sales of the product and thus the profits for the company. In some countries, home visitors have been asked by pharmaceutical or food companies to promote breast-milk substitutes. You should be aware of the Code of Marketing of Breast-milk Substitutes[2]. If there is a strong belief by the family in the product, though no independent evidence that it is beneficial, you may be able to discuss the many benefits of breastfeeding for the baby. Remember your communication skills: ask open questions, reflect and clarify, accept what the person is saying, give some information and offer suggestions.
- What might happen if you acknowledged that the brain development of a young child is very important and that it is good for the father to think about this? You could offer information on the foods in the family diet that can help this development without the high cost of the product. (Oily fish, eggs, ground nuts and seeds, whole grain cereals and breads including oats, beans especially kidney and pinto beans, deeply coloured vegetables and fruits, lean meat, dairy products, and eating beans with a vitamin C source in the same meal to aid absorption of iron). You could suggest this father talk with the mother about eating family foods or spending money on a special product that is advertised.

Do not judge or decide for the person. Help the individual person to evaluate the product or behaviour in the context of their child and family.

©UNICEF /Giacomo Pirozzi

[2] Code of Marketing of Code of Marketing of Breast-milk Substitutes.
http://www.who.int/nutrition/publications/code_english.pdf

4. INVOLVING FATHERS IN HEALTHY EATING

Fathers and other family members or friends may be a strong influence on the attitudes and beliefs in the family. In particular, father who want to be closely involved with their newborn may feel left out of the breastfeeding relationship, but may be very open to discuss how they can better support the mother. As the family's home visitor you can engage the father already during the antenatal period and make him an ally and support the mother through her early breastfeeding challenges[3].

Video clip

Dads can do that! Strategies to involve fathers in child feeding. See how fathers in Ethiopia go against tradition when they try their hand at cooking an enriched porridge. Learn how game-show style competition gives Vietnamese dads practice speaking up for breastfeeding (3 minutes) http://aliveandthrive.org/resources/video-dads-can-do-that-strategies-to-involve-fathers-in-child-feeding/

Self assessment

Can you define responsive feeding and explain to a parent why responsive feeding matters?

©UNICEF/John McConnico

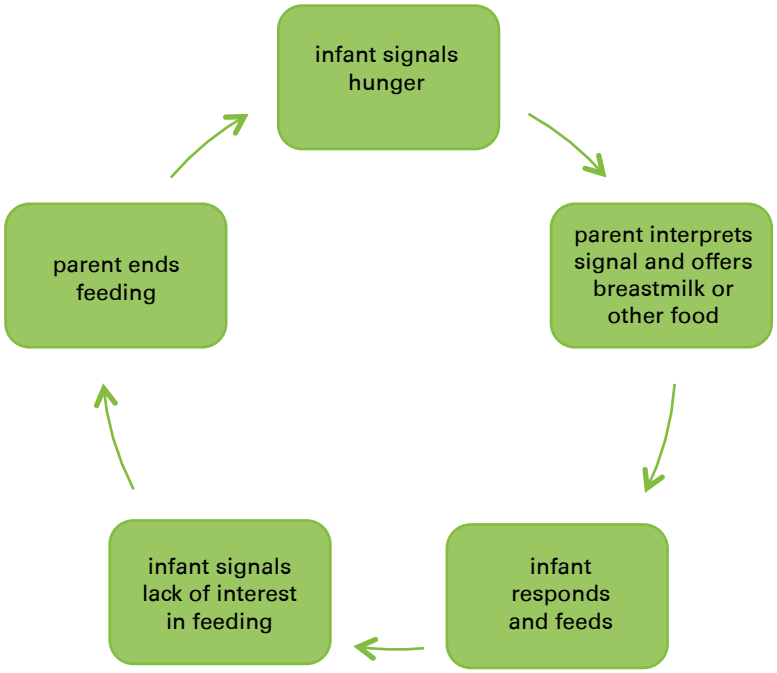
[3] Brown, A., & Davies, R. (2014). Father's experiences of supporting breastfeeding: Challenges for breastfeeding promotion and education. Maternal & Child Nutrition. 10(4): 510–526. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4282396/

III

HOW TO USE RESPONSIVE FEEDING SKILLS

Responsive feeding is important from birth on through the early years and beyond. The child shows signs, the parents recognise the signs and respond, and both child and parents learn from this interaction. As the family's home visitor, you can facilitate these responses.

Figure 1. Child-Initiated and Directed Feeding



Already during the antenatal home visits with a pregnant woman, you can start to discuss responsive breastfeeding and feeding practices.

1. NEWBORN

Before birth the foetus receives continuous feeding via the placenta. For many components, when the level of a nutrient drops in the foetal system then more of that nutrient comes across the placenta from the mother's system. These responses are at an automatic biochemical level.

When the infant comes into the world outside the womb his natural instinct is stabilise his heart rate, breathing, temperature and to re-establish the feeling of security. The newborn infant who is immediately placed on his/her mother's abdomen has the skills to crawl to the breast and self-attach to suckle. The mother's breast has the same smell as her amniotic fluid, the baby hears her heart beat and her breathing, and suckling comforts the baby, while getting warmth from the mother's body. This first milk is high in protective properties to establish the baby's immune system in response to the new environment. Immediate skin to skin contact colonises the baby with the mother's flora rather than with the flora of the hospital or health workers. The skin-to-skin contact provides optimal blood sugar levels. This close time together helps the mother and baby to bond. "It is my birthday – give me a hug"

Signs the baby shows at this time

There is a pattern of signs that most infants will show at birth:

- newborn cry,
- relaxation,
- awakening,
- salivating and mouthing hands,
- preparing to crawl (fists and head moving) and then moving forward through arm and leg movements,
- exploring the breast by licking, mouthing, touching and massaging of the breast by the baby's hands,
- self-attaching and suckling, and then
- sleep.

Parents' response (appropriate)

The mother responds by gently touching her baby and making soft noises - communication. Her body responds to the baby's actions by releasing the hormone oxytocin which contracts her womb, gives a feeling of relaxation, and helps to stabilise her blood pressure, as well as helps milk production. The father supports this process with observing, noticing, being patient and caring for the mother also with warmth and reassurance.

What the baby learns from these responses

The baby is soothed and feels stable with little crying, thus conserving his energy stores. The baby learns to trust the mother's chest as a safe place to be. This contact and response sequence provides early optimal natural stimulation to the various sensory organs and the brain of the infant and may assist in longer term sensory-neural development.

Facilitating these natural responses

The infant is dried while on the mother's abdomen and both are covered lightly with a warm, dry blanket if the room is cold; the baby is free to move and is not wrapped.

This stabilising process can take 20 to 60 minutes and sometimes longer and those assisting the birth need to be patient and not interfere. Weighing, vitamin K injection, wrapping, bathing and other non-urgent procedures can wait.

Point out the skills of the baby to the parents as the baby goes through the instinctive stages of this first hour, and the responses of the parents.

The baby should be offered help only if he is not able to self-attach to the breast after several attempts or after attempting for about five minutes.

These instinctive responses of the infant to move to the breast and self-attach persist for at least the first thirty days after birth. These responses are triggered by the baby lying chest to chest with the mother semi-reclined. If the baby and mother did not have this skin to skin contact at birth or if the baby is unsettled then skin to skin can be used at any time. The home visitor can show the mother how skin to skin contact can settle her baby and help them to feel close.

2. EARLY WEEKS TO SIX MONTHS

This is the time of exclusive breastfeeding. It is also a time when mothers need support with breastfeeding and will benefit from practical tips and advice on positioning the baby, how to increase the flow of milk, get sufficient rest, etc.

Initially, newborns may not know if they are hungry or uncomfortable or frightened, but they know that sucking makes them feel better, whatever the cause of their unease. As they become more aware of themselves and learn about the world around them, their cues or signs and their responses are changing.

Even very young babies have preferences about eating. Similar to adults, some babies want to nurse 6- 8 times a day and some are 'snackers' and want to nurse 12-14 times a day. Babies are aiming to double their birth weight in six months and triple it in a year; to do that they need to eat frequently.

Many parents try to get their baby into a feeding routine. However, babies thrive best when they are allowed to feed in response to their individual needs. This is called baby-led feeding, feeding on demand, or responsive-feeding.

Signs the baby shows at this time

- *"I am starting to get hungry":*
  Sucks on hands, blanket or other things that touch the mouth
  Turns head as if looking for the breast
  Opens mouth and reaches out with tongue

If these signals are ignored, the baby may start to make small noises and fuss a little.

- *"I am really hungry now and I am distressed!"*
  If these signals also are ignored, the baby may then go to a full cry. The back is arched and the body is tense. The tongue is up and back rather than reaching forward and down to cup the breast. Trying to feed a crying baby is hard for both mother and baby. Crying is not good for a baby. It puts their whole system under stress and uses up energy stores which can contribute to poor weight gain.

- *"I had enough to eat"*
  Body relaxed and arms are at rest at his side
  Releases the breast, though some babies like to go on sucking very lightly until they fall asleep

Parent's response (appropriate)

Learns the early signals of hunger that baby shows and responds.

Keeps baby near so that early signs can be noticed.

The baby uses a variety of sucking patterns to start the milk ejection reflex (short, rapid sucks), to transfer milk (deep, slower sucks), or when sucking for comfort (small, intermittent sucks). The baby actively leads the feed and the mother's breast responds to the signals from the baby.

If the mother's milk supply is low her baby will want to nurse more often and her body responses by making more milk. This interaction is the way babies and mothers are designed.

What the baby learns from these responses

Babies learn that the parents respond to their signs and meet their needs. If early signs are noticed by the parents and responded to, then the baby does not need to give signals of distress, such as crying, to get noticed and a response.

Facilitating responsive feeding

Encourage parents to keep the baby near so they can notice early signals that the baby is getting hungry rather than wait to hear loud crying, or waiting to feed by the clock.

Point out any signals you notice that the baby shows to indicate that s/he is hungry or full.

Notice when the parents respond lovingly to the baby's signals and make a positive comment about the response.

Discourage use of a pacifier as this may mask early signs of hunger. The baby may learn their signals for hunger are responded to with a pacifier to suck rather than food and may stop signalling when hungry. This can result in low weight gain.

Reflection and discussion

How often do you eat or drink?

Some people eat big meals with very little in-between and some people like to eat small meals frequently. Some people seem to have something in their mouth nearly the whole time. When we are stressed we may look for a cup of tea or coffee or maybe a bar of chocolate.

If you were thirsty, would you like to wait until someone else decided you could have a drink even if you kept asking for a drink? And someone else decided how much you could then drink and how quickly you had to drink it?

If it is acceptable for adults to eat or drink when they want, why do we try to make babies eat by a timetable and not in response to their needs?

Video clip

"Why you might want to put the baby books down..." In an animation video, Dr Amy Brown from Swansea University, UK, encourages new parents to put the books down and instead be more responsive to their baby's needs https://www.youtube.com/watch?v=DagfgMeMSXI&feature=youtu.be&list=PLofILgxNjBdyr7i2Zx-ArwTEU2PwXWgf4

Other videos in the series include "Should babies sleep through the night?"
https://www.youtube.com/watch?v=VYGziCvEcoY&list=PLofILgxNjBdyr7i2Zx-ArwTEU2PwXWgf4&index=3

and
"How you can help support a breastfeeding mum?"
https://www.youtube.com/watch?v=03yQs9tAe3c&list=PLofILgxNjBdyr7i2Zx-ArwTEU2PwXWgf4&index=2

Additional resoucres

BFHI Link Issue 33 May 2008 – Baby Signs parent handout
http://www.babyfriendly.ie/images/Link%20May%202008%20Issue%2033v2%20Learning%20Baby%20Signs%20Parent.pdf

If a baby is not breastfeeding

Responsive feeding is also relevant if the baby is not breastfeeding. A baby who is not breastfeeding is at higher risk of a number of health condition; one of these conditions is obesity. The type of milk consumed (mother's milk or breastmilk substitutes) is part of the difference. The effect of bottle-feeding is another aspect.

A baby stops sucking when he has had enough and releases the breast. You cannot force a baby to suck at the breast if the baby does not want to. A baby fed by bottle has little control of the rate of feeding if the bottle is held in his mouth.

It can be difficult for the baby to control their suck, swallow and breathe cycle if the milk keeps flowing from the bottle teat whether the baby sucks it or not. The baby may seem to be very hungry and gulping down the milk when in fact he is trying to swallow rapidly so that he does not choke on the fast flow.

The baby's inborn ability to stop feeding when he has had enough (appetite regulation) is over-ridden if a parent jiggles the bottle to get more milk into the baby and does not respond to the baby's signs of satiety.

If a baby needs to be fed with a bottle, responsive or paced bottle feeding is more comfortable for the baby and may reduce the risk of later obesity. Give mothers the following feeding tips:

- Watch your baby for signs of hunger rather than feeding to a strict schedule.
- Hold your baby upright, not lying back, and support his head and neck with your hand. Feed your baby skin-to-skin if possible. Do not prop the bottle and leave the baby.
- Gently stroke lips with the teat and let baby draw the teat into his mouth, rather than pushing the teat into his mouth.
- Hold the bottle so only the teat tip is full of milk, aiming to keep the bottle level.
- Pause frequently, turn the teat slightly and withdraw it from the baby's mouth. Let the baby take a few breaths and when he roots again for the teat, let the baby take the teat into his mouth. A bottle feed should take about 10-20 minutes. It is not a race to see how fast you can feed the baby. Feeding slowly allows the baby's system time to recognise satiety before the stomach is to the point of being over-full.
- If the baby does not show interest in taking more feed, respect what the baby is telling you. If the baby is sleepy and releasing the bottle teat it means the baby is finished. Do not jiggle the teat or waken the baby to get the baby to finish the bottle.
- Remember to hold your baby close at times other than feeding so that the baby learns that holding doesn't always mean food.

3. CUP FEEDING

Feeding bottles and teats can be difficult to clean and their use can increase the risk of infections; using an open cup is easier to clean. Cup feeding also means the parent must stay focused on the baby – responsive feeding.

Some key points about safe cup feeding:

- The baby should be calm and awake;
- Hold the baby sitting upright on your lap;
- Rest the cup lightly on the baby's lower lip and touch the outer part of the baby's upper lip with the edge of the cup;
- Tip the cup so the milk just reaches the baby's lips;
- Baby will lap the milk with his tongue or may sip it;
- Allow the baby to take the milk at their own pace; do not pour the milk into the baby's mouth;
- Keep the cup in the same position during the feed. The baby may pause during the feeding; do not remove the cup when the baby stops sipping.
- End the feeding when the baby closes her/his mouth and is no longer interested in feeding

The following video clip illustrates the feeding of a very young infant with a cup.
https://www.youtube.com/watch?v=o01U_i2CDFw

4. 6–12 months

"When does my baby need something other than milk", is a common question asked by new parents. The variety of terms used adds to the confusion. The word *weaning* comes from old English meaning to accustom to, such as to *accustom* to other foods; however sometimes the term weaning is used to mean ceasing all breastfeeding. And it may mean ceasing breastfeeding and giving other milk to a young baby but no other foods. The phrases *adding spoon feeds* or *starting solids* are also used, but what if the foods and fluids are not on a spoon, such as a piece of banana or crust of bread, or if the food is not solid such as semi-liquid baby cereal? Very confusing!

Just because the baby reaches towards foods or swallows the food put into their mouth at an early age does not mean the baby needs the food. Early addition of other foods can increase the risk of obesity, digestive problems and can displace the essential nutrients provided by milk. It is easier to feed a baby who is ready for complementary foods than struggling to feed a baby starting too early. However, leaving the addition of complementary foods much later than six months may leave some gaps in the nutritional needs of the baby in the following months.

The recommendation of most national and international organizations (WHO, UNICEF, AAP and others) is for exclusive breastfeeding for the first six months and continued thereafter with appropriate complementary foods (define) into the second year and beyond.

The second half of the first year is a time to learn the skills of eating the foods that form the family meals. Using the term *complementary feeding* or *complementary foods* gets across that these foods are added to complement a milk diet, not to replace it. Mothers should be advised to maintain the same nursing pattern, not to decrease nursing frequency or amount. Mother's milk or adequate replacement milk is the main source of nutrition for infants through the first year.

Noticing signals and responding appropriately during the exclusive breastfeeding stage may actually enhance parent's ability to observe appropriate cues for complementary feeding from 6 months of age.

Signs or signals of readiness for foods other than milk that the baby may show at this stage

Watch for the baby's ability to:

- Remain sitting upright without support; lean forward and return to a stable upright position. Shoulder and head muscles are strong enough for head control;
- Have the hand control to pick up a small item intentionally and move it to the mouth;
- Control the tongue movements that would allow food to be moved around the mouth;
- Control the swallowing of saliva; and
- Make controlled chewing and munching movements when watching others eating.

Signs or signals that are NOT good indicators of readiness - as they could mean other things:

- Waking more frequently at night or being unsettled;
- Easily distracted when breastfeeding;
- Teething, drooling, or chewing fists;
- Low weight gain;
- Showing interest in others eating;
- Playing with food (but not swallowing it);
- Accepting food if an adult puts it into the baby's mouth;
- Parents seeking a new activity for their baby.

©UNICEF /Giacomo Pirozzi

Parents' response (appropriate)

Taking into account the child's age, the parent recognises and responds to the cues or signals. If the cues or signals and age are indicating to start complementary foods, the parent starts this stage.

Smiles and patience is needed as the baby learns this new skill. Think of feeding the baby as a time to interact with the baby rather than focusing on the amount of food eaten.

Include the baby in family meals so the baby is offered foods the family is eating and sees others using skills of eating.

Watch the baby and feed in response to the baby's signs. Some babies may be more willing to try foods after they have had a milk feed rather than try a new food when they are very hungry.

Go at the baby's speed and stop feeding when the baby shows s/he has had enough. Do not force the baby to eat. Pushing babies to eat more than they want is a starting point for obesity. Always stay with the baby when s/he is eating. Eating should be an enjoyment.

> *"Respond to your child's signs of hunger and feeding abilities. Give help and encouragement without force feeding. Feed slowly and patiently, experimenting with different foods, tastes and textures, minimising distractions, using plenty of smiles, eye contact and encouraging words, so that feeding becomes a time for learning and love."*
>
> #3 Guiding Principles for Complementary Feeding, PAHO/WHO 2002.

What the baby learns from these responses

The early stage of complementary feeding (6-9 months) is about the baby learning to move food around their mouth, and about tastes and textures. They are learning hand and eye coordination and to handle utensils. Regular opportunities for eating, patience, smiles, encouragement and respect for the child's signals are responses that assist this learning.

Alternatively, if complementary feeding is about a parent rapidly spooning food into the baby's mouth until the bowl is empty and ignoring signals from the baby, then very different learning occurs.

Facilitating responsive feeding

Health promoting complementary feeding requires not only that foods of adequate energy and nutrient quality are available, but also a range of appropriate behaviours by the parents.

Discuss with the parents how to have adequate time, knowledge, and skills to feed in a responsive manner.

Explore any traditional rules for food distribution within the family or beliefs concerning certain foods for young children that might limit the food that the child receives.

Help the parent to understand that some mess from the baby exploring food and self-feeding is a part of the baby's development.

A parent may be afraid the baby will choke and thus give only pureed foods. Explain how offering the child a variety of textures and self-feeding are important for development. To reduce the risk of chocking have baby sitting up straight, allow baby to eat slowly at the baby's pace, and make sure that all eating is supervised by an adult. Inform parents of the basic steps of what to do if a child appears to be choking (on food, toys or objects)[4].

Mothers should be advised to maintain the same nursing pattern, not to decrease nursing frequency or amount. Mother's milk is still the main source of nutrition until 12 months – and continues to be an important part of the diet, for immunities and for comfort into the second year and longer.

In addition, the parent needs to process and handle foods in ways that ensure their safety Food safety points are outlined later in this module.

What about the baby who is not interested in self-feeding? Consider if the parents are providing an appropriate environment with appropriate foods available, patience and encouragement to self-feed, and provide opportunities for the baby to see the parents and other children eating. Explore if there are barriers such as lack of parent time or resources, relationship issues, or parental health and well-being challenges. Observe the baby for other development skills, and if these milestones are being reached? Is feeding the only area of concern?

Video clip

Feeding Cues- Trust Me, Trust My Tummy. Toronto Public Health
https://www.youtube.com/watch?v=vQvEIslQLO0 (15 minutes)

[4] Discussed in Module 9 Home Environment and Safety

5. 12–36 MONTHS

Signals or signs the child may show at this time/during this period

- Shows active interest in food: pointing to foods, knowing names of foods, asking for food when hungry
- Chooses foods s/he likes and refusing other foods (these preferences may change frequently)
- Becomes more skilled with utensils and imitating other people who are using them
- May be easily distracted from eating.

Parents' response (appropriate)

- Respond to their child's signs. Offer healthy foods and avoid sweets, biscuits and salty snack foods.
- Anticipate meal times and have food ready before the child is over-hungry, tired or crying.
- Assist the child with skills of eating while allowing child to pick up foods with their fingers and to self-feed
- Feed slowly and patiently, and encourage children to eat, but do not force them. If a child receives more attention for refusing food than for eating it, the child may eat less in order to get the attention.
- Offer a variety of foods. If a new food is refused, offer 'tastes' of it at different times. Show that you like the food. If children refuse many foods, experiment with different food combinations, tastes, textures and methods of encouragement.
- Minimize distractions during meals if the child loses interest in eating easily.

What the child learns from these appropriate responses

Food (and fluid) is provided when the child shows s/he is hungry (or thirsty). This builds trust between the child and parent.

Feeding times are periods of learning and love. They are times to interact with the family, with eye-to-eye contact and attention.

There are many flavours and textures in foods; it is good to try a variety of foods.

However if feeding is not responsive the child may learn that eating is unpleasant. Unresponsive feeding may contribute to malnutrition or to later obesity and eating problems.

Facilitating responsive feeding

When you are talking with caregivers, try and notice what practices they are using that you can praise. Offer a few suggestions for other practices they could try.

Children may eat better if meal times are pleasant. Feed when the child is alert and happy. If the child is sleepy or over-hungry and upset, he/she may not eat well. Regular mealtimes and the focus on eating without distractions, may also help a child learn to eat.

When you talk with a parent, ask who feeds the child. Children are more likely to eat well if they like the person feeding them. Give positive attention for eating, not just attention when the child is eating poorly.

Give children their own serving of food, so they are not competing with other children for food on a shared plate.

Older siblings may help with feeding, but will still need adult supervision to ensure that the young child is actively encouraged to eat and that the sibling does not take their food.

A young child needs to learn to eat:
encourage and give help
…with lots of patience.

6. RESPONSIVE FEEDING TECHNIQUES

RESPONSIVE FEEDING TECHNIQUES

Respond positively to the child with smiles, eye contact and encouraging words.
Feed the child slowly and patiently with good humour.
Try different food combinations, tastes and textures to encourage eating.
Wait when the child stops eating and then offer again.
Give finger foods that the child can feed him/herself.
Minimise distractions if the child loses interest easily.
Stay with the child through the meal and be attentive.

©UNICEF /Giacomo Pirozzi

Case study

Think about each of the scenes presented here with a 15 month old child and parent.

What is the style of feeding?

Is this responsive to the child? What might be the effect of this style of feeding a young child?

What could you mention to the parent that was positive?

Could you suggest a different way of feeding that would be more responsive to the child?

Meal time A

The child is sitting next to the parent (or on the parent's knees) with the child's arms held out of the way to prevent the child from putting his/her hands near the bowl or the food.

The parent spoons food into the child's mouth. The pace of spooning is rapid.

If the child struggles or turns away, he/she is brought back to the feeding position.

Child may be slapped or forced if he/she does not eat.

The parent decides when the child has eaten enough and takes the bowl away.

Meal time B

The child is on the floor sitting on a mat.

The parent gives an older sibling a bowl, and the sibling puts the bowl of food beside the child with a spoon in it.

The parent and the older sibling turn away and continue with other activities.

The parent does not make eye contact with the child or help with feeding.

The child pushes food around the bowl, looks to the parent and sibling for help, eats a little, cannot manage a spoon well, tries with his hands but drops the food, gives up and moves away.

The parent says, "Oh, you aren't hungry" and takes the bowl away.

Meal time C

The parent washes the child's hands and her/his own hands and explains to the child why hand washing is important. The parent then sits level with the child so that both are comfortable.

The parent keeps eye contact and smiles at the child. Using a small spoon and an individual bowl, small amounts of food are put to the child's lips. The child opens the mouth and takes food a few times. The parent talks about the food "Now a spoon of carrot; it is a lovely orange colour" to help stimulate language development and general cognitive development.

The parent praises the child and makes pleasant comments – "You are getting good with your spoon", "do you want the blue bowl or the white bowl" while feeding slowly.

The child stops taking food by shutting the mouth or turning away. The parent tries once - "Another spoonful of lovely dinner?" The child refuses, and the caregiver stops feeding.

The parent offers a piece of food that the child can hold - bread crust, piece of cooked vegetable or something similar. "Would you like to feed yourself?" The child takes it, smiles and sucks/munches it.

The parent encourages "You want to feed yourself, do you?"

After a minute, the parent offers a bit more from the bowl. The child starts taking several spoonfuls again.

The child grabs the spoon, and the parent gives him/her a spoon and encourages self-feeding.

Some thoughts on the case studies

Meal time A

This is an example of controlled feeding. This way, children may not learn to regulate their intake by themselves, which may lead to obesity and food refusal later. In such a situation, the child may feel eating is very frightening and unpleasant.

As the home visitor you could recognise that this parent is concerned that the child eats enough, and perhaps the good foods given could be mentioned. After recognising something positive, you could offer information that at this age a child learns about self-feeding. You can suggest ways the parent can assist the child to learn self-feeding skills, ways to respond to the child with smiles and encouragement. Gently explore if there are factors that result in the parent rushing feeding, such as many calls on the parent's time, or the parent is feeling it is difficult to cope with life, or another child was suffering from malnutrition, etc. Such factors can affect how the parent responds to the child, and they need to be addressed rather than only telling a parent what they should be doing differently.

Meal time B

This is an example of feeding by leaving the child to feed for himself/herself. Leaving the child on his or her own while eating can result in malnutrition if the child has a poor appetite or is too young to manage the skills of eating. The child may be hungry and sad and feel frustrated in wanting to eat, but not being able to eat.

As the home visitor you could recognise perhaps the good foods given. After recognising something positive, you could offer information that at this age children can learn self-feeding, however they do not yet have sufficient skills to eat all their meal without encouragement and assistance. You can suggest ways the parent can assist their child by sitting with him/her while eating, respond to the child's attempts of learning to use a spoon with smiles and encouragement, while also gently and patiently offering some spoonfuls.

Meal time C

This is an example of feeding the child in response to the child's signs - responsive feeding. The child may feel happy about eating, like the contact and the praise of the caregiver, enjoy feeding him/herself and learning skills. The child may have a healthy weight and positive attitudes to eating. Mealtime is used as an opportunity to also build the child's skills and broader development.

As the home visitor you could recognise that the parent is responding to the child's signs and mention some specific signs that you see. You can reinforce positive choices of foods.

7. CHILDREN DEVELOPING DIFFERENTLY

Some families will have more need for your support in feeding their newborns or young children. This includes families whose infants are born pre-term, with low birth weight, or small for their gestational age and/or have congenital and other disorders (e.g., PKU, Down syndrome, cleft palate, cerebral palsy, etc.). Sometimes, parenting organizations will have useful materials for dealing with feeding issues. In addition, several resources are provided at the end of this module.

8. FEEDING DURING (MINOR) ILLNESS[5]

Reflection and discussion

In your community are young children fed differently during illness?

Have you noticed that families do any of the following actions when a young child is ill:

- give less food, or none at all,
- give only thin, watery foods with little nutritional value,
- give special foods believed to help recover from the illness,
- offer more high quality foods,
- encourage the child to eat more?

Is it different if the illness is a fever, or diarrhoea or other condition? What might be the effect of these feeding practices when a child is ill?

Some families may believe that ill children cannot tolerate much food and feed an ill child very little. This can lead to losing weight and not growing. Children recover more quickly from illness and lose less weight if they are helped to eat and drink when they are ill.

Children who are ill may lose weight because:

- the child does not feel hungry, is weak and lethargic,
- the child is vomiting, has diarrhoea or the child's mouth or throat is sore,
- parents withhold food thinking that this is best during illness,
- there are no suitable foods available in the household,
- the child is hard to feed and the parent is not patient.

During infections, the child needs more energy and nutrients to fight the infection. If they do not get extra food, their fat and muscle tissue are used as fuel. This is why they lose weight, look thin and stop growing.

The goal in feeding children during and after illnesses is to have them return to their pre-illness growth.

Encourage children to drink and to eat during illnesses and provide extra food after illnesses to help them recover quickly.

[5] Adapted from WHO Complementary Feeding Counselling: a training course Session 13

Reflection and Discussion: Suggestions for Feeding During Illness

As a home visitor what suggestions could you give to a parent regarding responsive feeding during a child's illness?

Illness/ Condition	Information/Suggestion
Child's mouth or throat is sore	
Child has a blocked nose	
Child has fever	
Child has a chest infection or cough	
Child has diarrhoea	
Child is vomiting	
Child is sleepy	

Some possible tips for parents:

Illness/ Condition	Information/Suggestion - possible replies
Child's mouth or throat is sore	*The child may be more comfortable if you rinse his/her mouth with water before offering foods*
	Sour fruits, very sweet foods or spicy foods may irritate the mouth.
	Could you give soft or smooth foods?
	It might help to drink through a straw.
Child has a blocked nose	*It often helps to clear the nose before feeding.*
	You could try to feed slowly as this would give the child time to breathe?
Child has fever	*Extra fluids/breastfeeds are good during a fever.*
	Watch for when the fever is down. The child may be more interested in some food then.
	Have you tried frequent small amounts of food?
Child has chest infection or cough	*What about sitting the child upright and slowly giving small amounts?*
Child has diarrhoea	*Continuing to give some foods during diarrhoea helps the child to avoid losing weight.*
	Extra fluids/breastfeeds are important.
	Some families give bananas, mashed fruits, soft rice and porridge during diarrhoea. Would you like to try this?
	If diarrhoea is severe, oral rehydration solution is needed.
Child is vomiting	*Could you give very frequent fluids/breastfeeds in small amounts?*
Child is sleepy	*Could you watch for times child is alert and feed then?*

When a child is ill, you can suggest to the parents:

- Offer drinks and food with lots of patience and encouragement.
- Have a person that the child likes help with feeding.
- Make the child comfortable before feeding – wash, rinse out his/her mouth, and feed in a comfortable position.
- Offer smaller amounts of food than usual but give food more frequently during the day. Suggest that the parent looks for signs that the child might accept some food whenever possible, for example if he/she has just woken up or if the child's fever is down.
- Give foods that the child likes to eat. Give as much variety as possible.
- Feed the child nutrient-rich complementary foods if he/she will eat them. Offer the child foods of a thick consistency as well as the thinner foods that the child may prefer when ill. Semi-liquid foods or smoother foods may help if the child has a sore throat, sore mouth or vomits with coughing.
- Encourage the child to take extra fluids.
- Increase the amount of breastfeeding. Breastfeeding will provide fluid, nutrients, and protective factors to help combat infection as well as comfort. Small frequent breastfeeds may be easier for the child to manage.

Feeding the child who is ill

Encourage the child to drink and to eat – with lots of patience

Feed small amounts frequently

Give foods that the child likes

Give a variety of nutrient-rich foods

Continue to breastfeed

When a child is recovering, you can suggest to the parents:

- feed more frequently, give an *extra meal* or nutritious food between meals,
- give an *extra amount* at each meal if the child's appetite is good,
- use foods that are *extra rich* in energy and nutrients such as animal products, fruits and margarine or oil can be added to meals,
- encourage the child to eat, using *extra patience and love,*
- continue to breastfeed and give *extra breastfeeds* if the child is not eating.

Feeding during Recovery

Feed an *extra* meal

Give an *extra* amount

Use *extra* nutrient rich foods

Feed using *extra* patience and love

Give *extra* breastfeeds

IV RESPONSIVE FEEDING IS PART OF NURTURING CARE AND WELLBEING

Feeding and eating is about more than nutrients. It is an opportunity to assist many different facets of child development from sensory, motor, to cognitive and executive function and self-regulation skills.

With infant and young child feeding, the focus is often on what foods are provided, the nutrients in the foods and then the child's weight and growth. What is fed is important but how it is fed is also important. How a child eats can be a marker for other areas of development. For example, if a young child is not developing skills of using eating utensils or drinking from an open cup, there may also be difficulties with other motor skills; an infant who is finding it hard to coordinate attaching to the breast, sucking and swallowing may have an oral condition or a neurological issue; a child who strongly reacts to certain foods may have a sensory issue or a food intolerance; stressful mealtimes may indicate a broader family issue. Feeding and eating does not exist separately from the rest of the child and the family.

As a home visitor you are a professional coming to the home and providing accurate evidenced-based information and assisting families to discuss how that information relates in their family. You are not there as a friend on a social visit who is talking about their own experiences and opinions or marketing products. Look back at the "Attitudes activity" earlier in this module – what attitudes around feeding do you hold and how might your attitudes affect your work with families?

Communication is the core of home visiting and of family relationships. There are different approaches that are used and also discussed in the Module: *Caring and empowering enhancing communication skills for home visiting personnel,* including:

- Be pleasant and approachable in your body language, voice and manner.
- Observe and listen first.
- Ask open-ended questions to find out what families already know, clarify their thoughts and expectations, and explore what new knowledge and skills they need.
- Focus on what is going well and practices you can reinforce before mentioning issues that should be addressed. Offer suggestions and not commands.
- Check the caregiver's understanding of information and follow-up actions.

Usually, families want to do the best they can for their children. Telling a parent the practices they could or should use is not enough for change to happen. It is essential to discuss the specific home situation with the parent/s and talk about the resources *that are available to that particular family*. When you have listened and learned from the family you are better able to offer suggestions that might be tried.

Family difficulties may include limited food, water or fuel; the fact that the parent has many duties and little time or energy for helping children eat; the parent may have limited knowledge of responsive feeding practices; other family members may influence what childcare practices are used; and parents may be isolated from supportive family and friends.

Resources for Care

Knowledge
Health
Economic resources
Time
Emotional support

Help families to find ways to use the appropriate resources. Do not just tell them what they *should* do.

Reflection and Discussion: Barriers and suggestions for responsive feeding

What are some of the difficulties families have to put these responsive feeding practices into action?	What suggestions could you offer a family to overcome some of these difficulties?

©UNICEF /Giacomo Pirozzi

1. RESOURCES FOR RESPONSIVE FEEDING PRACTICES

Parents need resources in order to provide these responsive feeding care practices. These resources include:

Knowledge - plus the skills and confidence to put the knowledge into practice. For example, a parent may know the recommendation to breastfeed exclusively for six months but s/he may not have the skill or confidence to deal with another family member who thinks additional foods are needed much earlier. Or young parents away from their families may hear how feeding time is also developing wider skills of the child but not know techniques to make feeding a happy time. A parent may not have skills of cooking.

Health. If the parent is ill, s/he may not have the energy and strength to care for the child even if s/he has the knowledge of good practices. If a child's illness is affecting food consumption, this needs to be looked at as part of the discussion.

Economic resources to buy food, water, fuel, cooking pots, and utensils.

Time to provide care is also an important resource. New parents may not realise the amount of time it takes to care for a child and the need to plan how this time can be found.

Emotional support from family members and community networks is also needed to help good feeding care practices to be used.

Consider all these types of resources when you are making suggestions to parent. It is not only factual knowledge that they need in order to change practices. Offer suggestions and discuss how these might apply in their situation.

Reflection and Discussion

Local sources of assistance

It is important for you in the visiting of your families to know local resources that can support families in feeding their children (for example, breastfeeding support groups, booklets with healthy eating information, financial assistance for purchase food, and nutrition advice for special conditions).

A. Think about what needs your families have and the local sources that could help address these needs.

Resource gap	Local sources
Knowledge and skills	
Health	
Economics/financial support	
Time	
Emotional support	

B. For areas where there are gaps in support, are there actions you could take to support your families in responsive feeding?

2. WHEN IS IT A FEEDING CONCERN THAT NEEDS ACTION TO SAFEGUARD THE CHILD?

Each service may have its own criteria for the information to be given, action to take and referral process if there is a concern about the child. Find out what the criteria and process is where you work. Some examples are:

Immediate care needed: (Red Flags) when the baby is

- Uninterested in feeding for more than 4-6 hours (depending on age) or unable to maintain suckling during two consecutive feeds
- Fussy or distressed during feedings; has trouble breathing during feeding; difficult to wake for feedings or tires easily; or has difficulty finishing feeding
- Less than 2 months of age and feeding fewer than 8 times in a 24 hour period or has fewer than 6 wet diapers in 24 hours
- Hard to wake, hard to keep awake, not holding eye contact, has reduced activity
- Vomiting up full feeds/forceful vomiting
- In pain or obvious discomfort that interferes with eating
- Older baby: refusing to eat anything, accepting feedings only when sleepy during more than two consecutive feeds/meals

The mother

- Is not breastfeeding and there is no reliable access to replacement feeding
- Is mixing formula stronger or weaker than the standard dilution or is mixing formula powder with expressed breast milk
- Her breasts are sore, hot, overfull, painful or red or nipples are too sore to feed.
- Appears to have little interest in the baby, not responding to cries, not feeding baby

Needs discussion with the parents and further observation to determine if it is urgent to seek additional care (Yellow Flag)

- The volume of feeding is decreasing with age rather than increasing
- The duration of feeding is regularly greater than 30 minutes per feeding
- The infant under 6 months feeds less than 6 times per day
- Feeding is frustrating and stressful to parent or child
- Parents have difficulty interpreting or responding appropriately to feeding cues
- An infant more than 6 months who has not yet started spoon feeding
- An infant less than 5 months old who is receiving foods or fluids other than mother's milk or adequate replacement milk
- An infant with dry, hard, pellet-like and difficult to pass stools
- An infant with frequent/chronic loose, watery, large, or unusually foul-smelling stools, that are not accompanied by other signs and symptoms of immediate care needed such as dehydration
- Gray, white or pale-coloured stools
- Baby under 6 months fed on cow's milk, goats milk, soya, rice or nut milks, milk drinks for older children, or specialist formula not prescribed by a dietitian or paediatrician (such as lactose free, low protein, hypoallergenic, high energy formulations)
- There is little food in the home and the baby is 6 months or older
- Growth monitoring shows a pattern of the child not gaining weight. Weight may be static (straight line across on growth chart) or weight may be dropping down across the percentile lines.
- Growth monitoring shows a pattern of the child rapidly gaining weight that is not related to catch-up growth with weight increases upwards and crossing two or more the percentile lines.
- Food preparation area and equipment may be a risk to safe feeding.

Self assessment

How confident are you in your knowledge and practices related to responsive feeding?

Practice	I know about this and have the skills	I routinely do this in my work	I need more knowledge and skills
Communicating in a pleasant manner, listening and responding to individual needs			
Providing accurate information on responsive feeding at all stages from birth onwards			
Keeping my personal attitudes and views on feeding to myself.			
Keeping up to date with information on feeding infants and young children			
Linking feeding with other care and development discussions with families			
Finding local resources to assist families to use responsive feeding.			
Explaining signs of hunger and satiety that parents can notice.			
Recognising if there is a need for referral or extra services and arrange for this.			

Final Summary

- Responsive feeding is a two-way process based on a reciprocal relationship whereby the parent notices the child's cues and responds appropriately to the cue. This contributes to establishing the foundations for a trusting relationship that supports the child's development.
- It is important to talk to families and offer suggestions about how to encourage the child to learn to eat the foods offered, and not only what foods to offer. This can help families to have happier meal times.
- A young child needs to learn the skills of eating. Talk with parents how they can encourage their child to develop these skills and how they can give help …with lots of patience.
- Children recover more quickly from illness and lose less weight if they are helped to eat and drink when they are ill and are provided with extra food after the illness.
- Help families to find ways to use available resources better. Do not just tell them what they should or should not do.

V ANNEXES

INFORMATION CARD 1: SIGNS OR SIGNALS OF READINESS FOR FOODS OTHER THAN MILK

Watch for the baby's ability to:

- Remain sitting upright without support, can lean forward and return to stable upright position, Shoulder and head muscles are strong enough for head control.
- Have the hand control to pick up a small item intentionally and move it to the mouth.
- Control the tongue that would allow food to be moved around the mouth.
- Control their swallowing of saliva.
- Make controlled chewing and munching movements when watching others eating.

Signs or signals that are NOT good indicators of readiness - as they could mean other things:

- Waking more frequently at night or being unsettled.
- Easily distracted when breastfeeding.
- Teething, drooling, or chewing fists.
- Low weight gain.
- Showing interest in others eating.
- Playing with food (but not swallowing it).
- Accepting food if an adult puts it into their mouth.
- Parents seeking a new activity for their baby.

Smiles and patience is needed as the baby learns feeding skill. Think of feeding the baby as a time to interact with the baby rather than focusing on the amount of food eaten.
Include the baby in family meals so the baby is offered foods the family is eating and sees others using the skills of eating.

INFORMATION CARD 2: RESPONSIVE FEEDING TECHNIQUES

RESPONSIVE FEEDING TECHNIQUES (6-36 months old)

Respond positively to the child with smiles, eye contact and encouraging words.

Feed the child slowly and patiently with good humour.

Try different food combinations, tastes and textures to encourage eating.

Wait when the child stops eating and then offer again.

Give finger foods that the child can feed him/herself.

Minimise distractions if the child loses interest easily.

Stay with the child through the meal and be attentive.

A young child needs to learn to eat:
encourage and give help
…with lots of patience.

INFORMATION CARD 3 GUIDING PRINCIPLES FOR COMPLEMENTARY FEEDING OF THE BREASTFED CHILD

(PAHO/WHO 2003)

- Practice exclusive breastfeeding from birth to 6 months of age, and introduce complementary foods at 6 months of age (180 days) while continuing to breastfeed.
- Continue frequent, on-demand breastfeeding until 2 years of age or beyond.
- Practice responsive feeding, applying the principles of psycho-social care.
- Practice good hygiene and proper food handling.
- Start at six months of age with small amounts of food and increase the quantity as the child gets older, while maintaining frequent breastfeeding.
- Gradually increase food consistency and variety as the infant gets older, adapting to the infant's requirements and abilities.
- Increase the number of times that the child is fed complementary foods as he/she gets older.
- Feed a variety of foods to ensure that nutrient needs are met.
- Use fortified complementary foods or vitamin-mineral supplements for the infant, as needed.
- Increase fluid intake during illness, including more frequent breastfeeding, and encourage the child to eat soft, varied, appetizing, favourite foods. After illness, give food more often than usual and encourage the child to eat more.

The full document with the scientific rational for each point can be downloaded from

http://www.who.int/nutrition/publications/infantfeeding/a85622/en/

Guiding principles for feeding non-breastfed children 6-24 months of age

(WHO 2005)

- Ensure that energy needs are met.
- Gradually increase food consistency and variety as the infant gets older, adapting to the infant's requirements and abilities.
- For the average healthy infant, meals should be provided 4-5 times per day, with additional nutritious snacks offered 1-2 times per day, as desired.
- Feed a variety of foods to ensure that nutrient needs are met.
- As needed, use fortified foods or vitamin-mineral supplements (preferably mixed with or fed with food) that contain iron.
- Non-breastfed infants and young children need at least 400-600 mL/d of extra fluids in a temperate climate, and 800-1200 mL/d in a hot climate.
- Practise good hygiene and proper food handling
- Practise responsive feeding, applying the principles of psycho-social care.
- Increase fluid intake during illness and encourage the child to eat soft, varied, appetizing, favourite foods. After illness, give food more often than usual and encourage the child to eat more.

Full document with the scientific rationale for each point can be downloaded from

http://www.who.int/maternal_child_adolescent/documents/9241593431/en/

INFORMATION CARD 4 FIVE KEYS TO SAFER FOOD[6]

- **Keep clean**

Wash your hands before handling food and often during food preparation.

Wash your hands after going to the toilet, changing the baby or in contact with animals.

Wash very clean all surfaces and equipment used for food preparation or serving.

Protect kitchen areas and food from insects, pests and other animals.

- **Separate raw and cooked foods**

Separate raw meat, poultry and seafood from other foods.

Use separate equipment and utensils such as knives and cutting boards for handling raw foods.

Store foods in covered containers to avoid contact between raw and prepared foods.

- **Cook thoroughly**

Cook food thoroughly, especially meat, poultry, eggs and seafood.

Bring foods like soups and stews to boiling point. For meat and poultry, make sure juices are clear not pink.

Reheat cooked food thoroughly. Bring to the boil or heat until too hot to touch. Stir while re-heating.

- **Keep food at safe temperatures**

Do not leave cooked food at room temperature for more than 2 hours.

Do not store food too long, even in a refrigerator.

Do not thaw frozen food at room temperature.

Food for infants and young children should ideally be freshly prepared and not stored at all after cooking.

- **Use safe water and raw materials**

Use safe water or treat it to make it safe.

Choose fresh and wholesome foods.

Use pasteurised milk.

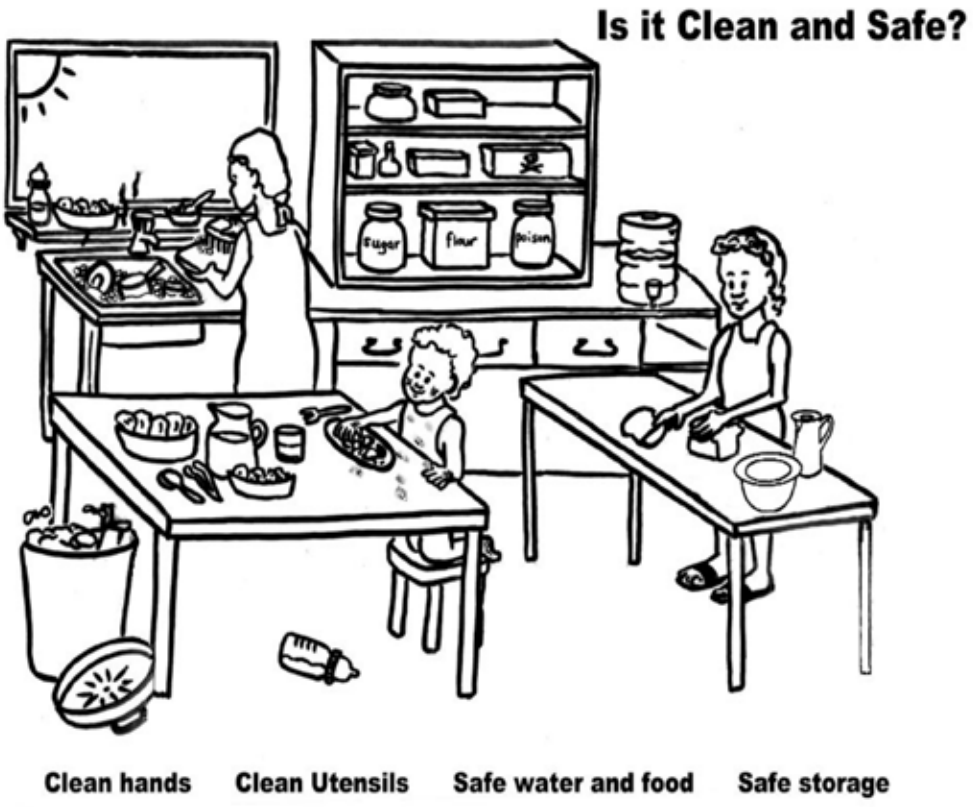
Wash fruits and vegetables in safe water, especially if eaten raw.

Do not use food beyond its expiry date.

[6] Adapted from Food Safety Unit, WHO, Geneva 2001 WHO/SDE/PHE/FOS/01.1

Reflection and Discussion

Exercise with caregivers to discuss on how to improve food safety and hygiene. Put an X where practices should be improved. Remember to find a good practice to encourage first before mentioning a practice to suggest changing.



Activity developed by Becker, G for the WHO Complementary Feeding Counselling: a training course. Art work by Paula Nic Cionnaith.

Practices to recommend	Practices to discourage
Using soapy water for washing dishes Sugar and flour are in covered containers Woman is scrubbing chopping board with soapy water Water is in a covered container Food bowl is covered with a plate and jug is covered - away from hot sun Kitchen is a sunny room with air circulation.	Poisons kept near food Food in hot sunlight Food uncovered and left out Refuse uncovered, near food and needs disposal Feeding bottle used and also on the floor Child hands and face needs to be washed before eating

WHO Five Keys to Safer Food Poster available in many languages including Russian.
http://www.who.int/foodsafety/areas_work/food-hygiene/5keys-poster/en/
Also Five Keys to Safer Food video
http://www.who.int/foodsafety/areas_work/nutrition/en/
Video in Russian https://www.youtube.com/watch?v=rYIkNG_NqeY&feature=youtu.be
WHO. Basic principles for the preparation of safe food for infants and young children.
WHO Food Safety Programme
http://apps.who.int/iris/bitstream/10665/67833/1/WHO_FNU_FOS_96.6.pdf

INFORMATION CARD 5 COMPLEMENTARY FOODS – WHAT TO FEED SUMMARY[7]

When giving complementary foods, think:

Frequency, Amount, Thickness, Variety, Active Responsive Feeding, and Hygiene.

6–12 months

Breast milk supplies half (1/2) baby's energy needs from 6 up to 12 months and continues to be the most important part of the baby's diet.

Frequency: Feed baby complementary foods 3 times a day. Additional snacks (extra food between meals) such as fruit or bread with nut paste) can be offered once or twice per day as nearer 12 months

Amount: Increase amount gradually to half (½) cup (250 ml cup). Use a separate plate to know how much the child eats.

Thickness: Give mashed/pureed family foods, not thin porridge. By 8 months baby can begin eating finger foods.

Variety: Try to feed a variety of foods at each meal. For example: Animal-source foods (flesh meats, eggs and dairy products), Staples (grains, roots and tubers); Legumes and seeds. Vitamin A rich fruits and vegetables and other fruits and vegetables. Animal source foods are very important. Start animal source foods as early. Cook well and chop fine. Avoid giving sugary drinks and sweet biscuits.

12–24 months

Breast milk continues to make up about one third (1/3) of the energy needs of the young child from 12 up to 24 months.

Frequency: Feed the young child complementary foods 5 times a day

Amount: Increase amount to three-quarters (¾) to 1 cup (250 ml cup). Use a separate plate to know how much the child eats.

Thickness: Give family foods cut into small pieces, finger foods, sliced food

Variety: Try to feed a variety of foods at each meal (as previous age)

[7] Adapted from UNICEF Community Infant and Young Child Feeding Counselling Package

VI REFERENCES AND ADDITIONAL RESOURCES

Why is responsive feeding important?

Engle PL, Bentley M, Pelto G. **The role of care in nutrition programmes: current research and a research agenda.** *Proc Nutr Soc.* 2000;59:25–35
https://www.cambridge.org/core/journals/proceedings-of-the-nutrition-society/article/the-role-of-care-in-nutrition-programmes-current-research-and-a-research-agenda/D97C775FCB13F139386AA1145D950ECE (open access)

Symposium entitled **"Responsive Feeding: Promoting Healthy Growth and Development for Infants and Toddlers"** given at the Experimental Biology 2010 meeting, April 25, 2010, in Anaheim, CA. The symposium was sponsored by the International Nutrition Council. http://jn.nutrition.org/content/141/3.toc Includes:

Black MM, Aboud FE. **Responsive feeding is embedded in a theoretical framework of responsive parenting**. *J Nutr.* 2011;141:490–4. doi: 10.3945/jn.110.129973
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3040905/ (open access)

Black MM, Pérez-Escamilla R, Fernandez Rao S. Integrating Nutrition and Child Development Interventions: Scientific Basis, **Evidence of Impact, and Implementation Considerations**. *Adv Nutr.* 2015 Nov; 6(6): 852–859. Published online 2015 Nov 10. doi: 10.3945/an.115.010348 PMCID: PMC4642432 (Free version embargoed and will be available in PubMed Central on November 1, 2016

UNICEF UK Baby Friendly Initiative: **Importance of relationship building**
http://www.unicef.org.uk/BabyFriendly/Resources/AudioVideo/Importance-of-relationship-building/
This video look at the importance of developing close, loving relationships with babies in their early days and weeks. Responding to babies' needs for comfort and food is hugely beneficial for brain development and makes for more confident toddlers. Accompanying leaflet:
http://www.unicef.org.uk/BabyFriendly/Resources/Resources-for-parents/Building-a-happy-baby/

World Health Organization. **Scientific and technical advisory group on inappropriate promotion of foods for infants and young children.** (2013)
http://www.who.int/nutrition/publications/STAGmeeting_report/en/

World Health Organization. **A critical link: Interventions for physical growth and psychological development.** 1999 (English, French and Russian versions). An extensive scientific review showing that psychological interventions to support psychological development and nutrition interventions to support physical growth are effective and that combined interventions to improve both growth and psychological development have synergistic effects.
http://www.who.int/maternal_child_adolescent/documents/chs_cah_99_3/en/

World Health Organization EURO. **Feeding and nutrition of infants and young children: Guidelines for the WHO European region, with emphasis on the former Soviet countries.**
http://www.who.int/nutrition/publications/infantfeeding/9289013540/en/
http://www.euro.who.int/en/publications/abstracts/feeding-and-nutrition-of-infants-and-young-children
English Russian 2003 288 pages
[Note: This book pre-dates the change in recommendations to exclusively breastfeeding for six months (it refers to starting other foods from 4 months) and is outdated on HIV and Infant Feeding recommendations. However it may be useful for general information on foods.]

Newborn and early weeks

Breast Crawl Video (7 minutes) and educational materials http://www.breastcrawl.org/ UNICEF, India. Click on Download on the lower left side of the web page to get all the background science, references and FAQ in one document.

The First Hour after Birth: A Baby's 9 Instinctive Stages http://www.magicalhour.com/aboutus.html

Breastfeeding in the First Hours after Birth. Global Health Media Project
https://www.youtube.com/watch?v=uMcgJR8ESRc (10 minutes)

Li R, Magadia J, Fein SB, Grummer-strawn LM. **Risk of bottle-feeding for rapid weight gain during the first year of life.** Arch Pediatr Adolesc Med. 2012;166(5):431-6
http://archpedi.jamanetwork.com/article.aspx?articleid=1151630

Moore ER, Anderson GC, Bergman N, Dowswell T. **Early skin-to-skin contact for mothers and their healthy newborn infants.** *Cochrane Database of Systematic Reviews* 2012, Issue 5. Art. No.: CD003519. DOI: 10.1002/14651858.CD003519.pub3.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003519.pub3/otherversions

Paced Bottle Feeding. Breastfeeding Center of Ann Arbor, Michigan, USA
https://www.youtube.com/watch?v=1cvF1nawMNI (theory with doll) 3 minutes

6—12 months stage

Brown K, Dewey K, Allen L (1998). **Complementary feeding of young children in developing countries: a review of current scientific knowledge.** Geneva, World Health Organization (WHO/ NUT/98.1).

First Steps Nutrition Trust. **Eating well: the first year. A guide to introducing solids and eating well up to baby's first birthday.** First Steps Nutrition Trust is an independent public health nutrition charity that provides free information and resources to support eating well from pre-conception to five years.
http://www.firststepsnutrition.org/newpages/Infants/first_year_of_life.html

Naylor & Morrow. **Developmental Readiness of Normal Full Term Infants to Progress from Exclusive Breastfeeding to the Introduction of Complementary Foods,** (2001), WellStart International
http://eric.ed.gov/?id=ED479275

General

UNICEF (2016). From the first hour of life. Making the case for improved infant and young child feeding everywhere.
https://data.unicef.org/wp-content/uploads/2016/10/From-the-first-hour-of-life-1.pdf

UNICEF CEE/CIS **Resources on Early Childhood Development.**
http://www.unicef.org/ceecis/early_childhood_1467.html

WHO (2013). **Essential nutrition actions: improving maternal, newborn, infant and young child health and nutrition.** http://apps.who.int/iris/bitstream/10665/84409/1/9789241505550_eng.pdf?ua=1
[Note: WHO HIV and Infant Feeding guidance was updated in 2016. Use newer information related to HIV]
Aimed at policy makers

WHO/Hill Z, Kirkwood B, Edmond K. **Family and community practices that promote child survival, growth and development: a review of the evidence.** World Health Organization 2004
http://apps.who.int/iris/bitstream/10665/42924/1/9241591501.pdf?ua=1&ua=1 [also has Hygiene chapter]

World Health Organization. **Infant and young child feeding: Model chapter for textbooks for medical students and allied health professionals** (2009). This Model Chapter brings together essential knowledge about infant and young child feeding that health professionals should acquire as part of their basic education. It focuses on nutritional needs and feeding practices in children less than two years of age – the most critical period for child nutrition after which sub-optimal growth is hard to reverse. The Chapter does not impart skills, although it includes descriptions of essential skills that every health professional should master, such as positioning and attachment for breastfeeding.
http://www.who.int/maternal_child_adolescent/documents/9789241597494/en/

WHO/UNICEF, **Complementary feeding counselling training course** (2004). The purpose of this course is to provide knowledge and skills for health workers who work with caregivers of young children from 6 to 24 months of age. It is designed for health workers in primary health care services in the community or attached to hospital health services (community health nurses, paediatric nurses, health care assistants, community workers, supervisors, counsellors and doctors).
http://www.who.int/nutrition/publications/infantfeeding/9241546522/en/

WHO/UNICEF, Integrated Infant and Young Child Feeding Course
http://www.who.int/nutrition/publications/infantfeeding/9789241594745/en/
Being updated and to be ready by the end of 2016

UNICEF/WHO. **Care for Child Development package.** 2012-2013
http://www.unicef.org/earlychildhood/index_68195.html OR
www.who.int/maternal_child_adolescent/documents/care_child_development/en/

WHO. **5 keys to a healthy diet**. Poster and brochure. Basics general information on what to eat - with no mention of how to eat and responsive feeding, no mention of portion size.
http://www.who.int/nutrition/topics/5keys_healthydiet/en/

WHO. **Global Nutrition Targets 2025: Infographics.** Highlighting the key messages and recommended actions: Stunting, Anaemia, Low birth weight, Breastfeeding, Overweight, Wasting
http://www.who.int/nutrition/global-target-2025/infographics/en/

Children Developing Differently

Children with Disabilities – General
Contact a Family (2007). Feeding and eating. Information for parents of disabled children.
https://www.cafamily.org.uk/media/379524/feedingeating.pdf

Low Birth Weight
WHO (2011). Guidelines on optimal feeding of low birthweight infants in low- and middle-income countries.
http://www.who.int/maternal_child_adolescent/documents/9789241548366.pdf?ua=1

Down Syndrome
Canadian Down Syndrome Society. Breastfeeding a baby with Down Syndrome.
http://www.ndsccenter.org/wp-content/uploads/CDSS_breastfeeding_brochure.pdf

Cleft Lip or Palate
http://cleftlipandpalatebreastfeeding.com/
https://breastfeedingusa.org/content/article/breastfeeding-baby-cleft-lip-and-or-palate-red-carpet-treatment

Cystic Fibrosis
http://www.breastfeeding-problems.com/cystic-fibrosis-in-children.html

©UNICEF /Giacomo Pirozzi