Implementing Point Five

Requirements for Point Five

Encourage sustained breastfeeding beyond six months, to two years or more, alongside the introduction of appropriate, adequate and safe complementary foods

Basic Requirements

In the community, breastfeeding mothers should be advised to breastfeed exclusively for the first six months and to avoid giving their babies anything other than breastmilk during this period unless this is clinically indicated. All breastfeeding mothers should be informed that solid foods and other drinks should not be introduced before six months and that breastmilk will continue to be of value during the period of complementary feeding and for as long as mother and baby want.

The Guiding Principles for Complementary Feeding from Six Months are:

- Maintain breastfeeding;
- Practise responsive feeding;
- Prepare and store complementary foods safely;
- Increase the amount of complementary food gradually while supporting breastfeeding;
- Ensure the consistency of the food is appropriate for the age of the infant / young child's age;
- Adapt meal frequency and energy density as the infant / young child ages;
- Ensure the nutrient contact of complementary foods meets the needs of the infant / young child; and
- Adapt feeding during and after illness.

Introduction

The first two years of a child's life are a critical window during which the foundations for healthy growth and development are built. Infant and young child feeding is a core dimension of care in this period. It is scientifically accepted that breastfeeding is the biological norm for healthy child development. Ideally breastfeeding should be sustained until the baby is at least two years old, but beginning at around six months breastmilk should be complemented with appropriate solid foods.

From around six months, breastfeeding is sustained when the child continues to have sufficient access to the mother to breastfeed combined with the gradual introduction of nutrient-rich foods that complement rather than replace breastfeeding.

In general, these foods are higher density allowing for small feedings. Infant formula or other drinks introduced at this stage will replace, rather that complement, breastmilk. The term complementary foods rather than weaning foods is used so as not to imply that these foods are meant to displace breastmilk or to initiate the withdrawal of breastfeeding

Mothers need support to maintain breastfeeding

Social support is the key factor in extending successful breastfeeding into the second year of life and beyond. Partner, family/whanau, peer and workplace support are needed to enable mothers to openly breastfeed their toddlers. When the social environment, at home, in public and in the workplace, accepts breastfeeding beyond the first year of life as normal, women will be more likely to continue.

Governments need to support families

In 2005 the World Health Assembly urged 'Member states to protect, promote and support exclusive breastfeeding for six months as a global public health recommendation, taking into account the findings of the WHO Expert Consultation on optimal duration of exclusive breastfeeding, and to provide for continued breastfeeding up to two years of age or beyond, by implementing fully the WHO global strategy on infant and young child feeding that encourages the formulation of a comprehensive national policy, including where appropriate a legal framework to promote maternity leave and a supportive environment for six months' exclusive breastfeeding, a detailed plan of action to implement, monitor and evaluate the policy, and allocation of adequate resources for this process'.

While many mothers care for their own children at home, it is important that crèches and any other facility providing care for breastfeeding babies/children have a suitable area where mothers and staff can breastfeed. Ideally there will also be an area where any mother feels comfortable to express milk that is to be left for the feeding of her child.

Sustained breastfeeding is supported by natural weaning

Ideally, breastfeeding should be sustained until the child develops food interests beyond breastfeeding and does not demonstrate an interest in maintaining the breastfeeding relationship. When a mother does not offer to breastfeed, but does not refuse to breastfeed when the child asks, natural weaning can occur at the child's pace, which is generally a gradual process. Many individuals in our society believe that a child should be weaned from the breast at an early age, usually before one year.

Dr Katherine Dettwyler, an anthropologist, argues that when we look cross-culturally, in many traditional societies most children are not weaned until between two and four years. There are numerous reasons to breastfeed the

older child, including emotional comfort and nurturing, and the importance of the immune factors, vitamins and enzymes associated with breastmilk. Dr Karleen Gribble's study of Australian women (2005) and their toddler's breastfeeding past two years of age revealed that "the decision to continue to breastfeed beyond infancy is as much a desire of the child as it is of the mother".

Nutritional status of breastfed infants

Scientific evidence suggests that the normal pattern of growth for breastfed infants is to gain less weight and to be leaner at one year of age than infants who are fed infant formula, while maintaining normal activity level and development. This early growth pattern is known to influence later growth patterns resulting in less overweight and obesity in breastfed children[1].

The iron status of breastfed infants has been a topic of various studies. Although the amount of iron in human milk is small, it is well absorbed. In addition to the iron provided by breastmilk, infants use the iron reserves present at birth to supply their needs for red blood cell synthesis and growth.

Liver iron stores are used during the first six months of life. Data from affluent populations indicate that in normal birth-weight infants who are exclusively breastfed, there is little risk of iron-deficiency anaemia prior to nine months of age. Changes in the regulation of iron absorption between 6 and 9 months enhance the infant's ability to adapt to a low-iron diet.

Infant readiness for complementary foods

At around six months of age many, but not all exclusively breastfed infants, will indicate an interest and readiness to be introduced to complementary foods. An expert review team concluded that 'the probable age of readiness for most full term infants to discontinue *exclusive breastfeeding* and begin complementary foods appears to be near six months or perhaps a little beyond. By six months the infant should have the neuromuscular co-ordination to eat solids, while the gut mucosa and enzymes, and the kidneys should have the maturity to cope. Added salt or sugar is not required for infant food and high sodium may be related to hypertension in later life. Unmodified cows' milk is not recommended before one year of age.

The common practice of introducing solid foods before six months is based on the norm for infants having *artificial feeding*. Transitional foods such as infant cereal were designed to compensate for *artificial feeding* nutritional deficiencies. (i.e. iron, calcium and folic acid).

Babies are able to regulate their intake of breastmilk in response to their need for fluids as well as calories. Many mothers find that breastmilk alone can continue to supply their infant's need for fluids even when complementary foods are added to the diet. Soft, locally available foods, which are in keeping with the

development of the gut mucosa and pancreatic enzymes, are offered to complement breastfeeds during the 6 – 9 month period. Care must be taken to ensure that these foods do not replace breastmilk or breastfeeding. When introducing complementary foods, breastfeed first then offer foods.

There can be a gradual increase in complementary foods, which includes dairy foods, to approximately 50% of the daily caloric need during the 9 – 11 month age. During this period the molar teeth erupt and the infant develops a grinding action enabling the handling of greater food texture. Mothers should be encouraged to offer frequent breastfeeds between small meals of other foods in order to maximise their infant's intake of breastmilk.

For older infants and toddlers, breastmilk continues to be an important source of energy, protein and micronutrients. Therefore breastfeeding should continue through 24 months and beyond. From 12 – 24 months there is a gradual change to family/whanau meals and nutritious snacks topped up by breastfeeding.

Rationale for continued breastfeeding beyond the first year of life

Evidence provided by Brown et al. suggests that breastfeeding continues to be an important nutritional and health contribution well beyond the first year of life.

- breastmilk is relatively high in fat, so it is a key source of energy and essential fatty acids. [2]
- breastmilk provides one-third to two-thirds of the average total energy intake towards the end of the first year.2
- breastmilk helps in the prevention of vitamin A deficiency between 12 and 36 months.[2]
- breastmilk intake usually continues during episodes of diarrhoea and fever when appetite for other foods decreases, thus preventing dehydration and providing essential nutrients for recovery. [2]
- morbidity and mortality rates remain lower in children who continue to be breastfed up to 2 – 3 years. [2]
- breastfeeding for at least a year has been associated with better oral development in children.[3]
- many of the anti-microbial constituents of human milk, e.g., secretory IgA, are still present in considerable amounts in the second year of lactation. [2]
- as duration of breastfeeding increased, the risk for hip fractures in the mother decreased in a dose related relationship.[4]
- sustained breastfeeding supports weight loss and healthy weight achievement in mothers.[5]
- for every year a mother breastfeeds, the mother's risk of developing type II diabetes in middle age reduces by 14%-15% (after controlling for weight and risk factors)[6]

Checklist of Actions for Successful Complementary Feeding

Every health service involved in providing care for children 6 – 24 months of age should:

- include complementary feeding in their Breastfeeding Policy and in their Artificial Feeding Policy and communicate these policies to health care providers;
- develop local feeding guidelines based on research;
- train all Level 3 and Level 4 healthcare and community workers in skills necessary to implement the policies and guidelines;
- inform all caregivers and parents about the benefits and management of complementary feeding;
- help breastfeeding mothers to initiate complementary feeding from six months, while giving adequate support to sustain breastfeeding;
- show mothers how to safely prepare and offer complementary foods, while maintaining and supporting breastfeeding, according to the age and circumstance of the child;
- teach mothers about feeding frequency, food variety and adequate quantities for growing children;
- counsel mothers how to maintain adequate feeding during illness and loss of appetite;
- establish/support infant feeding and care support groups and refer mothers to them; and
- refer all mothers and children who are malnourished, sick, or living in families with special circumstances to healthcare and available family/whanau support services.

Suggested Complimentary Foods

The following progression for introducing appropriate, adequate and safe complementary foods from 6 months is suggested:

- potato, pumpkin, carrot, kumara, yam and fruits or diluted juices from these fruits - pear, apple, banana, peach, apricot, avocado. Offer a new food every 3-4 days and watch for food reactions.
- Increase the variety of vegetable and fruits offered – Silver beet, cauliflower, asparagus, broccoli, beans, taro, puha, parsnip, zucchini, cabbage, green and red pepper, peas, plums, prunes, oranges, nectarine melon, mandarin etc.
- From seven months, add plain meats – lamb, chicken, liver, add beans and lentils,
- Add egg yolk (not the white).
- From eight months add gluten containing breads and cereals – wheat, oats, rye and barley, Rewana bread, porridge, infant muesli, bread, pasta etc.
- Add flaked fish and beef.
- Add dairy products in a modified form from 8-9 months – yoghurt, custard, cottage cheese, cheese.

- Whole cow's milk and egg white can be given from twelve months.

Traditional Foods

Nga tino kai a te Maori/ Maori traditional foods include Kumara, kamokamo, puha, kai moana (seafood) and Rewana (bread). 'kumara is of special significance to Maori and is likely to be included amongst those foods introduced to infants (as complementary food). In addition to being a traditional staple of the Maori diet, it is believed to offer spiritual sustenance not found in other foods.

Pacific peoples living in New Zealand represent a number of distinct groups and therefore traditional complementary foods for Pacific infants vary greatly. For example Samoan families may feed their infant sua alaisa (special rice soup) whereas Cook island families may feed pia (arrowroot starch) and mokomoko (coconut milk).

Vegetarian Complementary Foods

Vegetarian complementary foods are similar at first but sufficient quantities of legumes, cereals, dark-green leafy vegetables and red and orange fruit and vegetables are necessary to provide sufficient iron, zinc, protein, amino acids, B vitamins, anti-oxidants, Vitamin C, carotenes and lycopene.

Families who have vegan diets, which are deficient in Vitamin B12, are encouraged to seek dietary advice to ensure their child's diet provides adequate essential nutrients.

Infants or toddlers who have hypersensitivity reactions to food are more likely to come from families in which there is a strong family/whanau history of allergies. The infant's/toddler's immune system treats the protein in the food as an antigen and forms antibodies. Symptoms may occur immediately, several hours or days after ingestion and the clinical significance should be tested with controlled food challenges. The most likely foods to cause immediate allergic reactions are nuts (especially peanuts), egg white, cow's milk, soybeans, wheat, chicken, fish and shell fish.

References:

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3. *'Duration of Breastfeeding and Distoclusion in the Deciduous Dentition.'*
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5. *'Prolonged breastfeeding is an independent risk factor for postmenopausal osteoporosis.'* Okyay DO, Okyay E, Dogan E, Kurtulmus S, Acet F, Eftal Taner C. Maturitas. (2013) Jan 24.

6. *'Trends in overweight by educational level in 33 low- and middle-income countries: the role of parity, age at first birth and breastfeeding'.*
7. Lopez-Arana S, Burdorf A, Avendano M. Obes Rev. (2013) Jun 19.
8. 'Increased duration of breastfeeding associated with decreased risk of diabetes.' Alison M. Stuebe et el. JAMA.2005; 294:2601-2610.

Implementing Point Five

Key requirements for the Safe Introduction of Complementary Foods

1. Health workers, who are asked to do so, are able to explain:
    - how the introduction of other foods other than breastmilk, before six months of age, can interfere with breastfeeding
    - the importance of sustained breastfeeding
    - the introduction of appropriate, adequate and safe complementary foods provided to the infant at the appropriate time;
    - the preparation, appropriate amount, storage and feeding of complementary foods;
    - teething and tandem feeding;
    - What action they would take if a mother presented to them with mastitis
    - workplace support / human rights in place that support and sustain breastfeeding.
2. Information communicated routinely by health workers advise parents of:
    - the importance for the mother and child of sustained breastfeeding to two years and beyond;
    - the introduction of appropriate, adequate and safe complementary foods provided to the parents at the appropriate time;
    - the preparation, appropriate amount, storage and feeding of complementary foods;
    - the importance of safe sleeping;
    - contraception compatible with breastfeeding;
    - the importance of a smokefree environment;
    - teething and tandem feeding;
    - workplace support / human rights in place that support and sustain breastfeeding.
3. Information / handouts are available to support health workers explanations.
4. The service has facilities / amenities to support an employee to breastfeed or express their breastmilk at work.

Documentation required for Point Five prior to Assessment

1. Copies of information given to women on:
    - the importance for the mother and child of continued breastfeeding to two years and beyond;
    - the introduction of appropriate, adequate and safe complementary foods provided to the parents at the appropriate time;
    - the preparation, appropriate amount, storage and feeding of complementary foods;
    - the value to the continuation of safe co-sleeping (including bed-sharing).
    - contraception compatible with breastfeeding;
    - the importance of a smokefree environment;
    - teething and tandem feeding; and
    - workplace support / human rights in place that support and sustain breastfeeding.
2. Evidence that the service supports staff to breastfeed while at work.