

Optimising Breastfeeding Practices: A Link to Life Long Health

Key Facts

- ※ Breastfeeding is the unequalled way of providing optimal nutritional, immunological and emotional nurturing for growth and development of infants with the benefits proportional to the exclusiveness and duration. Research also revealed that breastfeeding is an effective way in primary prevention of chronic conditions (such as childhood obesity, cardiovascular diseases, diabetes and allergies).
- ※ The World Health Organization (WHO) recommends infants should be breastfed exclusively in the first 6 months, then with introduction of complementary food and continue to be breastfed until 2 years or above.
- ※ In Hong Kong, women are increasingly choosing to breastfeed their infants. However, there is still much room for improvement on the exclusive and continued breastfeeding rates.
- ※ Multifaceted interventions at personal, healthcare institutional, commercial and community levels are needed to create a supportive and enabling environments to promote, support, and protect breastfeeding.

Practical Tips on Successful Breastfeeding for Expectant Parents and Parents

- ※ Seriously consider breastfeeding because breastmilk is the best natural food for your child.
- ※ Obtain correct information and learn to breastfeed by attending antenatal classes offered by hospitals, Maternal and Child Health Centres of the Department of Health, and breastfeeding organisations together with your family.
- ※ Discuss your intention to breastfeed with your attending obstetrician to plan ahead the choice of pain control during labour and the postnatal in-hospital arrangement. Choose a hospital with mother-baby-friendly practices for delivery.
- ※ Gain support from the mothers' employer / supervisor to continue breastfeeding. Communicate clearly the specific support needed for expressing breastmilk at work so as to facilitate the employer / supervisor to make better work arrangement and preparation for the workplace.
- ※ Get prepared by checking the availability of baby care facilities at your destination before going out.
- ※ Seek professional help and advice early if indicated.

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Breastfeeding is a continuum of pregnancy in regard to the protection, growth, development and nurturing of the infants. Breastmilk, especially colostrum (the “first-milk”) produced in the first few days after birth, contains natural antibodies, living immune cells, enzymes, etc. that boost babies’ immunity and reduce their chance of having infection especially diarrhea and chest infection. The special enzymes contained in breastmilk help babies digest and absorb nutrients. Breastmilk has varied combinations of nutrients, including docosahexaenoic acid (DHA) and taurine etc., that help the development of babies’ different body parts, including the brain, the eyes and the digestive system. Breastfeeding also promotes mother-baby bonding and responsive parenting right after birth.

Optimising Breastfeeding Practices. Why? How? From the Public Health’s Perspective

The impact of early nutrition on long term health, such as the predisposition to non-communicable diseases in later years, is now well recognised in life course epidemiology. Promoting, supporting and protecting breastfeeding with an aim to increase its duration and exclusiveness is therefore, a public health priority.

How long should a child be breastfed

To achieve optimal growth, development and health, the World Health Organization (WHO) recommends infants should be exclusively breastfed for the first six months of life, meaning that the baby receives only breastmilk from mother excluding solids or any other fluids (including infant formulae and water), with the exception of prescribed medications, vitamins and minerals supplement. At about six months, complementary foods such as

mashed fruit and vegetables should be introduced while breastfeeding continues till two years of age or beyond.¹

Although there are concerns (such as iron deficiency or food allergy due to delayed exposure to potentially allergenic foods) over WHO’s feeding recommendation to exclusively breastfeed for six months of age ², an updated Cochrane review on optimal duration of exclusive breastfeeding in 2012 concludes that no apparent growth deficits have been demonstrated among infants from either developing or developed countries who were exclusively breastfed for six months or longer. Infants exclusively breastfed for six months had less morbidities, such as gastrointestinal infections, than those who were exclusively breastfed for three to four months, with continued mixed breastfeeding thereafter.³

Benefits of optimising breastfeeding

> *Reducing morbidities and mortalities in early life*

Breastmilk is an important contributor to a child’s immune system, especially in the first few years of life when the immunity is not fully developed. In many developed countries with quality sanitation and medical treatments, infants still suffer from excessive diseases and ill health from suboptimal infant feeding practice.

The Millennium Cohort Survey of 15 890 infants suggested that an estimated 53% of diarrhea hospitalisations and 27% of lower respiratory tract infection hospitalisations in the United Kingdom (U.K.) could have been prevented each month by exclusive breastfeeding, when compared with not breastfeeding.⁴

Similarly, a prospective population-based cohort study of Hong Kong children found that those who had breastmilk only (no formula-feeding) for 3 or more months were associated with 36% and 49% lower risk of hospital admission in the first 6 months of life for respiratory infections and gastrointestinal infections respectively.⁵

Breastfeeding has also been shown to lower the risk of sudden infant death syndrome (SIDS). For exclusive breastfeeding of any duration, a meta-analysis reported an overall 73% reduction in the risk of SIDS.⁶

> Preventing chronic diseases in later life

Non-communicable diseases such as cardiovascular diseases, diabetes and allergies are largely preventable and yet, they are the leading causes of morbidities and deaths worldwide. Research on the developmental origins of health and diseases revealed that interventions such as exclusive breastfeeding for the first 6 months were effective in primary prevention of these chronic conditions through nutritional programming in early life.^{7, 8}

A recent systematic review and meta-analysis on the long-term consequences of breastfeeding conducted by WHO reported that exposure to longer duration of breastfeeding was associated with an increase in the performance in intelligence tests (of 3.5 points on average), a modest reduction in prevalence of overweight or obesity in children (of about 10%), and a small reduction in systolic blood pressure (less than 1 mmHg) in childhood and adolescence. Furthermore, breastfeeding might offer a protective effect against type II diabetes, particularly among adolescents.⁹ The effect sizes though modest would have significant impact at the population level. Similar health benefits, however, cannot be shown in local study. The Hong Kong's 'Children of 1997' birth cohort found no association between breast-

feeding and child adiposity at the age of about 7 years or blood pressure at about 13 years.^{10, 11}

> Saving millions of dollars in health care and promoting sustainability of societies

Premature weaning of infants and young children from breastfeeding can cost health systems billions of dollars. An economic study estimated that the United States (U.S.) would save \$13 billion U.S. dollars a year and prevent an excess of 911 deaths with nearly all are infants, if 90% of the families could comply with the exclusive breastfeeding recommendations for 6 months.¹² Similar findings were also revealed in other developed countries such as U.K.¹³ Optimising breastfeeding practices at the population level builds a good foundation of public health for sustainable development of societies. Thus, supporting optimal breastfeeding is one of the best investments in public health nutrition.

Authorities' recommendation on promotion, protection and support of breastfeeding

Like many health related behaviour, multifaceted interventions at personal, healthcare institutional, commercial and community levels are needed to promote, support, and protect breastfeeding. In 2005, WHO and the United Nations Children's Fund (UNICEF) issued the Innocenti Declaration on Infant and Young Child Feeding which made a call for action for all governments to implement a comprehensive national infant and young child feeding policy. An international comparison study also concluded that "robust evidence presented in documents and recommendations by government agencies, high-quality systematic reviews and some randomised controlled trials indicate that multifaceted interventions and not just a single intervention have a cumulative and positive effect on the promotion and support of breastfeeding."¹⁴

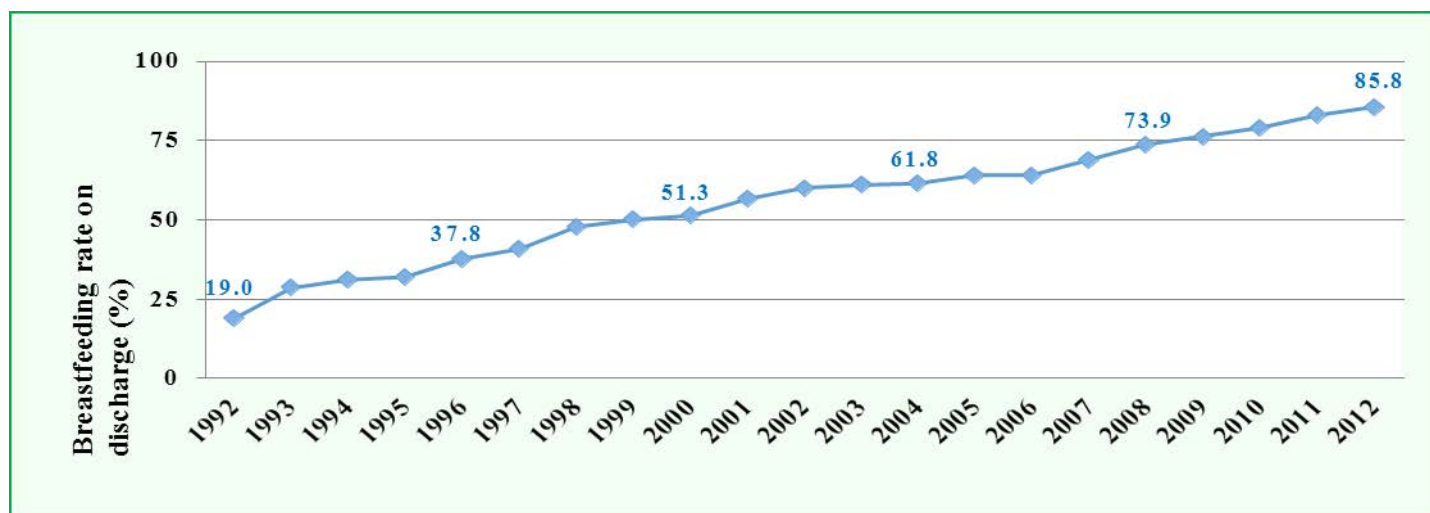
Local Situation

Breastfeeding prevalence

With the concerted efforts on breastfeeding promotion, more mothers are now aware of the benefits of breastfeeding and choose to breastfeed their infants. The breastfeeding initiation rate in Hong Kong has been increasing in the past two

decades. The annual surveys conducted by the Baby Friendly Hospital Initiative Hong Kong Association (BFHIHKA) showed that the breastfeeding rate on hospital discharge increased substantially from 19.0% in 1992 to 85.8% in 2012 (Figure 1).¹⁵

Figure 1: Breastfeeding rate on discharge from hospitals, 1992-2012

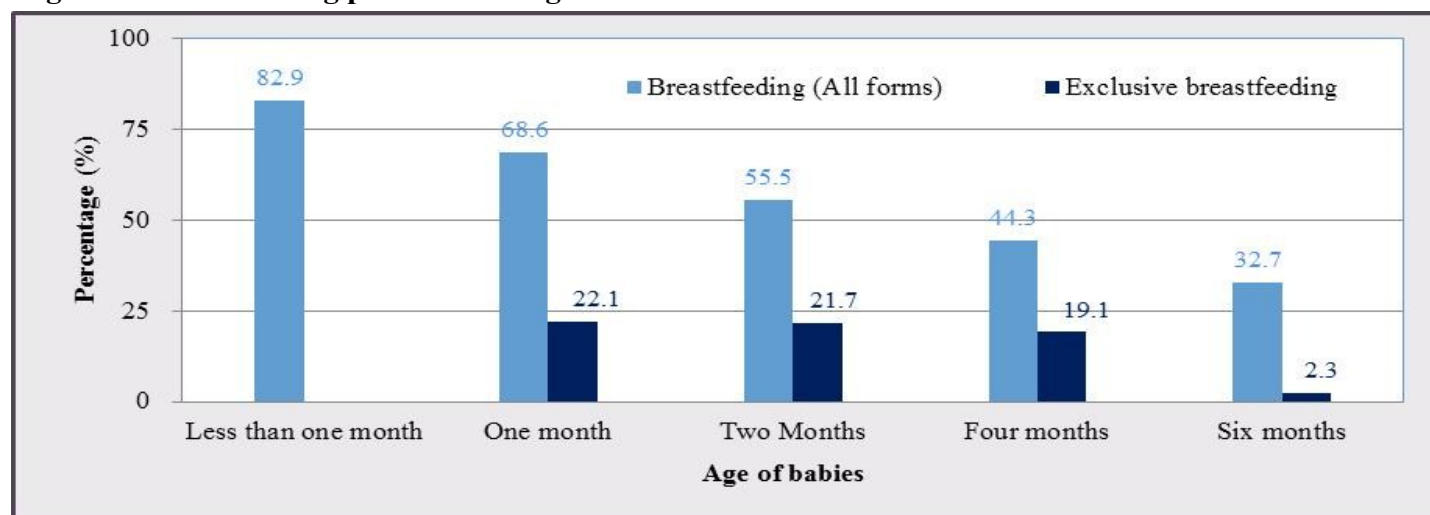


Source: Baby Friendly Hospital Initiative Hong Kong Association.

Despite the high breastfeeding initiation rates, the sustained exclusive breastfeeding rates remain low. The Family Health Service (FHS) of the Department of Health (DH) conducts regular breastfeeding surveys in its Maternal and Child Health Centres (MCHCs). As shown in Figure 2, the survey conducted in 2013 on babies born in 2012 revealed

that although 68.6% of mothers have breastfed their baby at 1 month, only 22.1% were exclusively breastfeeding. Also, the exclusive breastfeeding rate drops from 22.1% at 1 month to 2.3% at 6 months.¹⁶ There is still much room for improvement for local exclusive breastfeeding rates when compared with overseas countries (Table 1).

Figure 2: Breastfeeding patterns among babies born in 2012



Source: Family Health Service, Department of Health.

Table 1: Breastfeeding rate (%) in selected countries and areas

	Ever Breastfeed- ing rate (%) (initiation)	Exclusive breastfeeding rate (%)			
		at 1 month	at 2 months	at 4 months	at 6 months
Norway (2010)	98.5	84	75	48	10
Australia (2012)	96	-	-	39	15
U.K. (2012)	81	-	-	12	1
U.S. (2013)	76.5	48.6	42.5	29.1	16.4
Taiwan (2013)	-	66.9	56.1	44.9	27.9
Japan (2011)	-	51.6	55.0	55.8	-
Malaysia (2010)	94.7	-	-	19.3	14.5
Singapore (2013)	96	35	28	-	1
Hong Kong (2012)	82.9	22.1	21.7	19.1	2.3

Source: Family Health Service, Department of Health.

Factors affecting the duration of breastfeeding among Hong Kong mothers

Studies showed that there were a number of factors for suboptimal breastfeeding among local mothers. A prospective study examined weaning practice of Hong Kong mothers over the infant's first year of life. It revealed that 'insufficient milk' was the most common reason for early weaning before 1 month, while 'returning to work' was more frequently cited by those who weaned from 1 to < 6 months.¹⁷ Furthermore, consistent with overseas' experience, greater exposure to baby-friendly hospital (BFH) practices on breastfeeding such as early skin-to-skin contact, rooming-in and breastfeeding on demand were found to be protective¹⁸, while in-hospital formula supplementation was detrimental to breastfeeding duration.¹⁹ To achieve successful initiation and continuation of breastfeeding, more efforts are required to tackle these barriers.

On-going measures and initiatives to optimise breastfeeding

The Government has recognised the importance of breastfeeding and adopted a systematic approach to promote, protect and support breastfeeding in Hong Kong. On-going measures and initiatives have been implemented, which are in line with

the policy and public health recommendations to promote the initiation and duration of breastfeeding in developed country settings.²⁰ These include strengthening breastfeeding support in healthcare facilities, promulgating breastfeeding support at workplace, supporting breastfeeding in community, and developing a code of marketing breastmilk substitutes to combat overwhelming formula milk marketing practices.

◇ Strengthening breastfeeding support in healthcare facilities

Breastfeeding outcomes improve significantly when there is adequate and timely professional support especially in peripartum and early postnatal periods. The Baby Friendly Hospital Initiative (BFHI), a global movement jointly launched by the WHO and UNICEF in 1991, is a set of maternity care practices that have been shown to be effective in improving breastfeeding initiation and duration when implemented together. The BFHI was revised in 2006 by extending the practices to cover mother-friendly care around the period of delivery and BFHI in community healthcare facilities.

Under the BFHI, a maternity facility can be designated “baby friendly” when it has implemented the “Ten Steps to Successful Breastfeeding (Ten Steps)” and does not accept free or low cost breastmilk substitutes. In August 2013, the Hospital Authority announced a plan for all 8 public birthing hospitals to be designated BFH, with Queen Elizabeth Hospital (QEH), Queen Mary Hospital (QMH) and Kwong Wah Hospital (KWH) as the pioneers of this project.

Support for breastfeeding mothers by community healthcare professionals and peer support programmes are other interventions that are proven to enhance breastfeeding intention and confidence.^{20, 21} These supports should cover the period of pregnancy and after the baby is born. Therefore, DH has formulated a breastfeeding policy that encourages and supports mothers to breastfeed their babies through different means, including training of maternal and child health professionals; providing education for parents through workshops as well as various educational materials; and providing guidance and skills support for breastfeeding mothers in the MCHCs and through the breastfeeding hotline; and conducting publicity activities to enhance public awareness of breastfeeding.

◇ *Breastfeeding friendly workplace policy*

WHO recommends exclusive breastfeeding for the first six months after birth, with subsequent introduction of complementary food while continuing breastfeeding until the age of two or beyond. However, returning to work was found as one of the main factors contributed to early cessation of breast-feeding.¹⁷ A breastfeeding-friendly working environment that enables and supports working mothers to combine breastfeeding and work would facilitate them to sustain breastfeeding their babies to the recommended age. On 22 August 2013, the Secretary for Food and Health made a public health recommendation to Heads of Government Bureaux / Departments appealing their support for adopting a

Breastfeeding Friendly Workplace Policy for Government employees. The specific measures recommended to be provided to lactating staff for up to a year after delivery include:

- * allow lactation breaks (one to two 30-minute breaks during a working day) for milk expression;
- * provide a private space with comfortable chairs and electric outlets for operating the breast pump; and
- * provide refrigerating facilities for safe keeping of expressed breast milk.

While the government is taking the lead on promoting breastfeeding-friendly workplace in the government, private enterprises are encouraged to adopt this Policy to support their lactating employees.

◇ *Support breastfeeding in community*

To provide more support to breastfeeding women in the community, the Government issued the Advisory Guidelines on Babycare Facilities in 2008 and the Practice Note on the Provision of Babycare Rooms in Commercial Buildings in 2009 respectively. As at December 2013, there were some 277 babycare rooms in government properties. The latest information is available at FHS’s website and will be updated from time to time. In the coming few years, more babycare facilities will be provided in community premises including stadia, libraries and cultural centres and new shopping malls in housing estates etc.

In Hong Kong, publicity campaign is launched around the World Breastfeeding Week in August every year to raise public awareness on breastfeeding. In collaboration with community partners and other stakeholders, DH has promoted the benefits of breastfeeding through various channels including television and radio advertisements, newspaper feature articles, media interviews,

producing and distributing information resources on breastfeeding. In addition, DH plans to roll out further community publicity activities to raise the public's acceptance of breastfeeding in public places.

◇ *A local code of marketing of breastmilk substitutes*

Recognising the International Code of Marketing of Breastmilk Substitutes as an important public health tool to protect breastfeeding and ensuring proper use of breastmilk substitutes through appropriate marketing practices, DH set up a multidisciplinary taskforce to develop a local code, namely "Hong Kong Code of Marketing and Quality of Formula Milk and Related Products, and Food Products for Infants & Young Children" (Hong Kong Code), in June 2010. The drafting of the Hong Kong Code has already been completed and has undergone public consultation in 2013. The Secretariat is now collating all the comments received and will announce the public consultation result in due course.

Tips for Expectant Parents and Parents on Breastfeeding

While concerted efforts from all parties of the community are required to create a supportive and enabling environment for breastfeeding, here are some practical tips for expectant parents and parents on successful breastfeeding:

✓ *Seriously consider breastfeeding*

Expectant parents should note that breastmilk is the best natural food for your baby. Please do consider exclusively breastfeeding your baby for the first six months, then with the introduction of complementary foods, to continue breastfeed till two years of age or beyond.

✓ *Obtain correct information and learn to breastfeed early*

Obtain correct information on breastfeeding and

have appropriate expectations of child rearing practices by attending antenatal classes offered by hospitals, MCHCs of DH, and breastfeeding organisations together with your family.

Please note that many free seminars on infant feeding offered to the public are sponsored by formula milk companies. The information provided may be biased due to inherent and significant conflict of interest.

✓ *Early preparation for delivery*

Discuss your intention to breastfeed with your attending obstetrician to plan ahead the choice of pain control during labour and the postnatal in-hospital arrangement. Avoid caesarian section unless there is a medical need. Use non-drug pain control as far as possible.

You may choose a hospital with mother-baby-friendly practices for delivery, e.g. allow skin-to-skin contact as soon as possible after delivery and "rooming in" (mother and baby stay in the same room).

✓ *Gain support at workplace*

Ahead of the maternity leave, expectant mother may inform her employer / supervisor about the wish to continue breastfeeding after returning to work and seek their support to express breastmilk at work. Communicate clearly the specific support needed, e.g. flexible lactation breaks, a private space for milk expression, a refrigerator for storing milk. This will facilitate the employer / supervisor to make better work arrangement and better preparation for the workplace. Please make reference to the leaflet – "An Employee's Guide to Combining Breastfeeding with Work" produced by the DH and could be found at the FHS website:

<http://www.fhs.gov.hk/english/breastfeeding/workplace.html>.

✓ *Be prepared when going out with baby*

Breastfeeding is a normal way to nurse baby. Some breastfeeding mothers may choose to breastfeed their babies in babycare facilities. Before going out with your baby, check whether the destinations have babycare facilities. A list of government premises with babycare facilities can be found in the FHS's website: <http://www.fhs.gov.hk/english/breastfeeding/community.html>.

✓ *Where to get help and support*

While breastfeeding is natural, breastfeeding mothers may still encounter some common breastfeeding problems (such as sore and cracked nipples, breast engorgement, blocked milk ducts or mastitis) and need help.

- * Ask your paediatrician / obstetrician / family doctor
- * Seek advice and help from nearby MCHCs
- * Visit useful websites:
 - * FHS, DH <http://www.fhs.gov.hk>
 - * Baby Friendly Hospital Initiative Hong Kong Association <http://www.babyfriendly.org.hk/en/>
 - * Hong Kong Breastfeeding Mothers' Association <http://www.babyfriendly.org.hk/en/>
 - * La Leche League Hong Kong <http://www.lll-hk.org/>
- * Call breastfeeding hotlines:
 - * FHS Breastfeeding Hotline on 3618 7450 / 2961 8868
 - * Baby Friendly Hospital Initiative Hong Kong Association on 2838 7727
 - * Hong Kong Breastfeeding Mothers' Association on 2540 3282
- * Ask your health care provider or hospital staff to recommend a support group

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Recommendation on Formula Milk Feeding for Young Children

Breastmilk is the best natural food for your baby. From children's nutrition and health perspective, we have the following recommendations for parents feeding their babies with formula milk:

Children under 1 year: can switch to other brands of formula milk

- * Newborn to 6-month-old babies -- No.1 Formulae marketed are very similar in composition as required by the Codex Standards. If you have difficulty securing the brand currently consumed by your child, you can switch directly to another brand.
- * 6 to 12-month-old babies -- They have started taking complementary food, you may give them either No.1 Formula or No.2 Formula of any brand, although there is currently inadequate scientific evidence to suggest the use of No. 2 Formula.
- * Cow milk is not suitable for babies under 1 year old.

Children aged 1 year or above: your child can drink cow milk

- * Milk is only a part of their balanced diet and a convenient source of calcium. A daily intake of 360 - 480 ml of milk largely satisfies the calcium requirement of young children. You can also give them other calcium rich foods like tofu, green leafy vegetables, yoghurt and cheese.
- * You can let your child drink pasteurized fresh milk, UHT milk or full fat milk powder. These are less expensive. There is no nutritional reason to switch to No.3, 4 Formulae. Children under two years should take whole milk, between 2 and 5 years take low-fat milk and those above 5 years take skimmed milk.

Expectant Mothers and Breastfeeding Mothers:

Do consider exclusively breastfeeding your baby for the first six months, then with the introduction of complementary foods and continue to breastfeed for up to two years or beyond.

For more information, please visit the Family Health Service, Department of Health website: www.fhs.gov.hk



Non-Communicable Diseases (NCD) WATCH is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community. The Editorial Board welcomes your views and comments. Please send all comments and/or questions to so_dp3@dh.gov.hk.

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