



Current Role of Maternal and Child Health Service

Dr. Joanna LEUNG

Senior Medical Officer, Family Health Service, Department of Health



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Introduction

The Maternal and Child Health Service in Hong Kong has undergone remarkable development since the establishment of the first Government's Infant Welfare Centre in 1932. At the time, both the Maternal Mortality Ratio (MMR) and the Infant Mortality Rate (IMR) were very high; expectant mothers seldom had antenatal checkups and it was not unusual for babies to fail to survive beyond their first year of life. Malnutrition and gastro-intestinal disturbance were major infant problems and the emphasis of the Infant Welfare Centre was on proper infant feeding, and providing health education to mothers on infant care. In the 1940s, the government deemed it necessary to introduce maternal health care programmes into the Infant Welfare Centres, and from then on, the centres were called Maternal and Child Health Centres (MCHCs).

Due to the rapid rise in population, more centres and maternity homes were opened in the 1950s and 1960s. Early antenatal care was promoted and postnatal service was started. The improved environmental and socio-economic factors, advances in medicine, increased awareness amongst pregnant women of the need for regular antenatal checkups, and the implementation of an organised childhood immunisation programme, all contributed to the significant reduction in IMR and MMR over the last few decades. In the 1970s, the Maternal and Child Health Service began to take up a new role of health promotion with emphasis on Family Planning and the early detection of developmental abnormalities (the Comprehensive Observation Scheme). In the 1980s, various screening services were introduced, such as the Cervical Cytology Screening Project, serological testing for rubella antibody for women of childbearing age, neonatal screening for G6PD deficiency and congenital hypothyroidism. Breastfeeding rates were low at the time and there was more emphasis placed on the promotion of breastfeeding.

In the 1980s-1990s, the decline in birth rate and the increasing proportion of deliveries occurring in hospitals contributed to the steady closure of maternity homes. Two antenatal screening programmes were introduced at the turn of this century, namely antenatal thalassaemia and Human Immunodeficiency Virus (HIV) screening. The Woman Health Service was set up in 1994 to serve perimenopausal women by providing a range of health promotion and screening services; since 2000, this service has been extended to all women aged 64 or below. A territory-wide parenting programme was implemented in 2002 to promote positive and

effective parenting. The year 2004 saw the launch of an organised, territory-wide cervical screening programme to encourage and facilitate women to have regular cervical smears, and the gradual replacement of the Comprehensive Observation Scheme by the Developmental Surveillance Scheme as a means to monitor the developmental progress of children.

The Current Maternal and Child Health Service of the Department of Health

The Family Health Service of the Department of Health (DH) contributes to a significant proportion of the maternal and child health service provided at the primary care level in Hong Kong. It provides a comprehensive range of health promotion and disease prevention services to children from birth to 5 years and women below 65 years of age to help mothers, their children, and their families lead healthy lives. The Service operates through 31 Maternal & Child Health Centres and 3 Woman Health Centres across the territory.

Maternal Health Services

I. Antenatal Health Care

The MMR was 1.4 per 100,000 registered live births in 2007, and has remained low in the past two decades. Hong Kong residents have access to free antenatal care provided at the public hospitals and MCHCs. The MCHCs collaborate with public hospitals to establish a comprehensive antenatal shared-care programme to monitor the whole pregnancy and delivery process. Expectant mothers receive checkups at scheduled intervals, routine blood tests, related health advice and counselling. Prospective parents also have access to a comprehensive maternal health education programme in the form of information leaflets, health talks, workshops, and audio-visual materials. Women identified to have obstetric or medical risk factors at MCHCs are referred to the public hospitals for further management. Women identified to have psychosocial problems or risk factors (e.g. those with substance abuse or mental health problems, or pregnant teenagers) receive comprehensive assessment so that a holistic management plan can be tailored according to individual needs.

II. Postnatal Health Care

Postnatal mothers are provided with health assessment,



physical examination and contraceptive advice. Immunisation against rubella is given to all non-immune women. Postnatal mothers are also given help and support to adapt to changes in life through experience sharing in support groups and individual counselling. Recognising that postnatal depression (PND) is a common and serious disorder affecting approximately 12% of Hong Kong mothers after delivery¹, MCHC nurses have been trained to identify mothers with probable PND, and to provide these mothers with supportive counselling. The Comprehensive Child Development Service (CCDS) is a government policy initiative piloted in 2005, with the aim to provide comprehensive and timely support to children and their families. In MCHCs with CCDS, mothers with probable PND are identified using the Edinburgh Postnatal Depression Scale, and visiting psychiatric nurses and psychiatrists from public hospitals provide on-site counselling and specialised support to mothers with special needs. With the systematic screening of PND in CCDS centres, the proportion of mothers identified to have probable PND increased to 10.7 %, compared with the previous detection rate by opportunistic screening of 3.8%.² By March 2009, there will be 13 MCHCs with CCDS covering 8 districts, with the plan to roll out the CCDS to the rest of the districts subject to resource availability.

III Family Planning Service

Family planning contributes to improving the health outcomes of women and children. Effective use of contraception by women wanting to postpone or cease further childbearing averts abortion-related and obstetric-related mortality and morbidity.³ It also brings potential health and survival benefits for children, mainly as a result of wider intervals between births. Findings of studies in both developing and developed countries show that conception taking place within 18 months of a previous livebirth are at a greater risk of low birthweight, prematurity, and being small for gestational age.⁴

In the 1960s, programmes to promote family planning began locally and in many countries in response to the rapid population growth, which was secondary to the 'baby boom' and improvement in child survival.

Since the 1970s, the MCHCs offer accessible and affordable family planning services at a nominal fee of \$1 per visit to women of childbearing age to help them make informed choices about the number and spacing of the children, and to prevent unintended pregnancies. The fertility indicators have shown a continuous decline for the past 25 years, with the total fertility rate fallen to below replacement level, despite a moderate rebound in recent years.⁵

IV Woman Health Service

Women have different health needs at various stages in life. They are often the caretakers of their children, spouse and even their parents and hence they play a significant role in health promotion within their families. Working women have the additional job-related responsibilities and stress. The Woman Health Service, available at 3 Woman Health Centres and 10 MCHCs, aims to promote the health of women and address their health needs through enhancing the awareness and encouraging the practice of healthy

lifestyle, education on the prevention of important health problems and the provision of effective screening services. Topics discussed in the health education programme include conditions specifically affecting women such as cancer of the breast and cervix, menstrual disorders, menopause, urogynaecological conditions etc., as well as general lifestyle and health topics such as weight management, exercise and management of hypercholesterolaemia. Our mission is that women should be aware of and have access to knowledge related to a spectrum of health issues, with a view to maximising their chance of enjoying a quality life throughout their lifespan, as well as being a positive influence on the health of their children, their family and the community.

Child Health Services

Since 2000, the Family Health Service has revamped its child health services and implemented the 'Integrated Child Health and Development Programme' (ICHDP). The ICHDP is a universal health promotion and disease prevention programme for children (0-5 years) and their parents, aiming to improve the health of the target population group. It comprises 3 components, designed to meet the developmental needs of preschool children in a coordinated way. The 3 components are i) health and developmental surveillance programme, ii) immunisation programme, and iii) parenting programme. Each year, over 90% of the local newborns whose parents are Hong Kong residents receive services from the MCHCs.

i) Parenting Programme

As well as providing the child with basic necessities, the role parents play in the parent-child relationship can influence the child's development in all domains. There is evidence that poor parenting skill is associated with behavioural, mental and physical health problems in later life.^{6,7} The Family Health Service launched the parenting programme in 2002 with the aim to equip parents/caregivers of all children attending MCHCs with the necessary knowledge and skills to bring up healthy and well-adjusted children. The programme consists of two levels of intervention:

- a) Universal Programme: Expectant parents and parents of all children attending MCHCs receive anticipatory guidance on childcare and parenting issues which are appropriate to the ages of the child.
- b) Intensive Programme: Parents of children aged 2 to 5 with early signs of behavioural problems or those who encounter difficulties in parenting will be given more intensive group training (Positive Parenting Programme (Triple P)) at MCHCs. The Triple P is a parenting programme adapted from Australia and has been evaluated to be effective in the local context. Parents who have completed Group Triple P are found to have significantly lower level in their children's behavioural problems and in dysfunctional parenting styles, higher sense of parental competence and improved marital relationship.⁸

Children with established behavioural problems or with more complicated family issues such as maternal depression or marital conflict are referred for further management by clinical psychologists at Child Assessment Centres, psychiatrists at public hospitals,



and/or social workers of Social Welfare Department or non-governmental organisations as appropriate.

ii) Immunisation Programme

As recommended by the Scientific Committee on Vaccine Preventable Diseases of the Centre for Health Protection, immunisation is provided to protect children against 9 infectious diseases, namely tuberculosis, poliomyelitis, hepatitis B, diphtheria, tetanus, pertussis, measles, mumps and rubella. The Government Influenza Vaccination Programme also provides free influenza vaccination to selected subgroups. Children aged between 6 months and less than 6 years from families receiving Comprehensive Social Security Assistance (CSSA), as well as pregnant women receiving CSSA, can receive immunisation against influenza at MCHCs.

iii) Health and Developmental Surveillance Programme

Health professionals in MCHCs work in partnership with parents in the continual monitoring of health and development of the child. A series of routine reviews is conducted by health professionals so that timely identification and referral of children with health and developmental problems can be achieved. This programme includes:

a) Newborn Assessment

Parents are advised to bring their babies to the MCHCs soon after hospital discharge so that any congenital abnormalities, neonatal jaundice, and feeding problems can be identified early and managed accordingly. This is also a good opportunity to discuss with parents matters related to childcare, parenting, as well as to identify any family and social problems that require attention. Breastfeeding advice and coaching are provided for mothers who are or intend to start breastfeeding. Babies who have not received any hearing screening in hospitals are offered the Automated Otoacoustic Emission (AOAE) screening test in MCHCs.

b) Growth Monitoring and Nutrition

Growth parameters of the child are measured at specified ages, and whenever there is a concern about growth problems, with the aim to inform parents of their child's growth, address any growth concerns, and allow early identification of growth abnormalities. Nutritional advice including weaning information is provided as appropriate.

c) Developmental Surveillance

Parents are empowered to monitor the child's development through anticipatory guidance. At specified ages, health professionals obtain relevant developmental history, identify parental concerns, perform observation on the child's development, and provide parents with appropriate advice. Children identified to have significant developmental problems are referred to the Child Assessment Service for further management. Pre-school teachers are also provided with training to identify and manage children with suspected developmental problems. A referral mechanism has been developed for teachers to refer these children to MCHCs for further management.

d) Hearing Screening

Since 2007, newborn infants undergo universal hearing screening at all HA hospitals prior to discharge. Some

private hospitals also provide hearing screening services at a cost. Infants who have missed the hearing screening at the hospitals are offered the AOAE screening test in MCHCs, usually before 1 month of age.

e) Vision Screening

A vision screening test is performed in MCHCs on all children at 4 years of age by optometrists or orthoptists, with the aim to detect amblyopia and other associated conditions such as squint, anisometropia, and severe refractive error.

Breastfeeding

Breast milk is the best source of nourishment for infants and is the first gift a mother can give to her baby soon after birth. The promotion and practice of breastfeeding are essential to the achievement of optimal infant and child health, growth and development.⁹ The DH has always been actively involved in promoting, protecting and supporting breastfeeding. Since 2000, a breastfeeding policy, incorporating the 'Ten Steps to Successful Breastfeeding' and the International Code of Marketing of Breastmilk Substitutes, has been implemented in all MCHCs. Breastfeeding promotion constitutes a major activity in MCHCs for antenatal and postnatal clients, as well as their families. The staff of MCHCs have received structured training to enhance their competency in providing effective counselling and management for breastfeeding mothers. A comprehensive information kit to enhance community awareness and educate on breastfeeding is made available to pregnant women, nursing mothers, their families, professionals and employers.

The local ever breastfed rate is calculated based on the percentage of discharged babies from all the public and private hospitals in Hong Kong who had been breastfed. The reports show that the percentage has increased from about 20% in the 1980s to 73% in 2007.¹⁰ The DH also carries out regular breastfeeding surveys in its MCHCs to monitor the local trend of breastfeeding practices since 1998. The latest survey was done in 2007, and examined the breastfeeding practices among the infants of the 2006 birth cohort. The findings indicate a rising trend in duration of breastfeeding, with around 13% of babies being still exclusively breastfed at 4-6 months, compared with only 6% in 1998.¹¹

The Challenges Ahead

With obesity and other chronic conditions such as diabetes mellitus on the rise, and the tendency for women to have children later in life, preconceptual care is becoming an increasingly important component of health care for women of reproductive age. Health promotion, screening and interventions for these women can aim to optimise their health, thus maximising their chance of delivering a healthy infant, and decreasing the risk of pregnancy-related maternal complications. In addition to addressing the physical health, increased emphasis is being placed on taking care of other aspects of health such as mental, social, and sexual wellbeing.



Domestic violence is a serious public health and social problem which can adversely affect the maternal and child health. As health workers who are in regular contact with women and the family unit, we should be vigilant on this issue.

Affordable and accessible family planning programmes will continue to play a significant role in preventing unintended pregnancies and reducing the need for abortion.

To be in line with the WHO's recommendation on breastfeeding (exclusive breastfeeding for the first 6 months¹² and to continue breastfeeding up to 2 years or beyond¹³), there is obviously much work that still needs to be done. Changes in cultural norms, workplace practices, and social policy are needed to encourage and sustain breastfeeding.

Like other developed countries, prevention of childhood obesity is a major health issue which is being addressed.

In terms of health service utilisation, it is a common phenomenon of Hong Kong people to attend both the public and private medical sectors simultaneously, particularly during the antenatal period. Better information exchange amongst the service providers and enhancing inter-sectoral partnerships can improve continuity of care, avoid duplication of services, and help towards delivering a coordinated, consistent and quality maternal and child health service to the Hong Kong people.

Last but not least, Gender Mainstreaming should be considered when formulating any health policy, planning programmes or embarking on health system reforms.

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衛生署母嬰健康院
幼兒健康及發展綜合計劃(0-5歲)
The Integrated Child Health and Development Programme (0-5 years)
Maternal and Child Health Centre
Department of Health

幼兒接受服務年齡 Age of child receiving service 服務計劃表因應情況而作出更改 The programme schedule may be subject to change

產前 AN	初生 0 mth	一個月 1 mth	兩個月 2 mth	四個月 4 mth	六個月 6 mth	九個月 9 mth	一歲 12 mth	歲半 18 mth	兩歲 2 yr	三歲 3 yr	四歲 4 yr	五歲 5 yr
			(★)	★	★	(★)	★	★	(★)	(★)	★	(★)

註解 Keys:

- 免疫接種 Immunisation
- 身體檢查 Physical Examination
- 生長監察 Growth Monitoring
- 發展監察 Developmental Surveillance
- 聽力篩查 (耳聲發射) Hearing Screening (Automated Otoacoustic Emission)
- 視力篩查 Vision Screening
- 親職教育 Parenting Education
- AN 產前 Antenatal
- () 如有需要 If Indicated