

# WHO/UNICEF **BREASTFEEDING** **IN THE 1990s**

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Cosponsored by USAID and SIDA

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**Review and implications**  
**for a global strategy**

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Based on the technical meeting,  
Geneva, 25-28 June 1990

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## Preface

In 1979, the WHO/UNICEF meeting on Infant and Young Child Feeding in Geneva affirmed "the right of every child and every pregnant and lactating mother to be adequately nourished as a means of attaining and maintaining physical and psychosocial health." (1) Furthermore, the report noted that "malnutrition in infants and young women cannot be separated from malnutrition and poor health in women. The mother and her infant form a biological unit; they share also the problems of malnutrition and ill-health, and whatever is done to solve these problems must concern them both together." (1)

This understanding serves as one of the foundation stones for maternal and child health and family planning programmes. The nutritional status of women and children is not merely a question of food and calories. It relates to food availability and costs; patterns and prevention of infectious disease; the environmental, social and economic circumstances of families, and their health behaviour; and, the patterns of infant and young child feeding. Among the factors that affect the latter are: the knowledge and practices of health workers; the health, social and economic status of women; the patterns of breastfeeding; the availability of appropriate and timely complementary (weaning) foods; and the marketing of breastmilk substitutes.

This paper is particularly focused on breastfeeding because:

- of its critical importance to the health of both the child and the mother;
- of new scientific information which has important programme and policy implications; and
- a sufficient number of country and programme experiences promoting, protecting and supporting breastfeeding have been accumulated to both inspire and guide others in promoting, protecting and supporting breastfeeding.

In the eleven years since the WHO/UNICEF meeting on Infant and Young Child Feeding, dramatic scientific research findings have further clarified why breastfeeding should become a vital component in every national and international health programme. During the same period, experience from a large number of national breastfeeding programmes has indicated the need for a more integrated approach to breastfeeding policy and programme development.

By 1987, it was already becoming clear that all this new evidence should be brought together so that benefits could be reaped worldwide. The informal

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# **Assessment:**

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## **Nature and Magnitude of the Problem**

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### **Introduction**

The most suitable food for all infants is breastmilk. It is available from birth and can continue for as long as mother and young child choose.

It is generally recognized that the evolutionary development of mammals rests with the secretion of milk, the composition of which ensures the sound development of the species. Furthermore, we know that the composition of the milk changes depending on the metabolic, immunologic and physiologic needs of the growing offspring.

In a similar way, human infants and human breastmilk have developed over the millennia. For the human infant, nothing but breastmilk is required for the first four to six months of life, neither substitutes, nor supplements, nor water, even in hot, dry climates. Breastmilk alone is effective in ensuring the optimal growth and development of both fullterm and the vast majority of low birth weight infants.

### **Why the concern about exclusive breastfeeding**

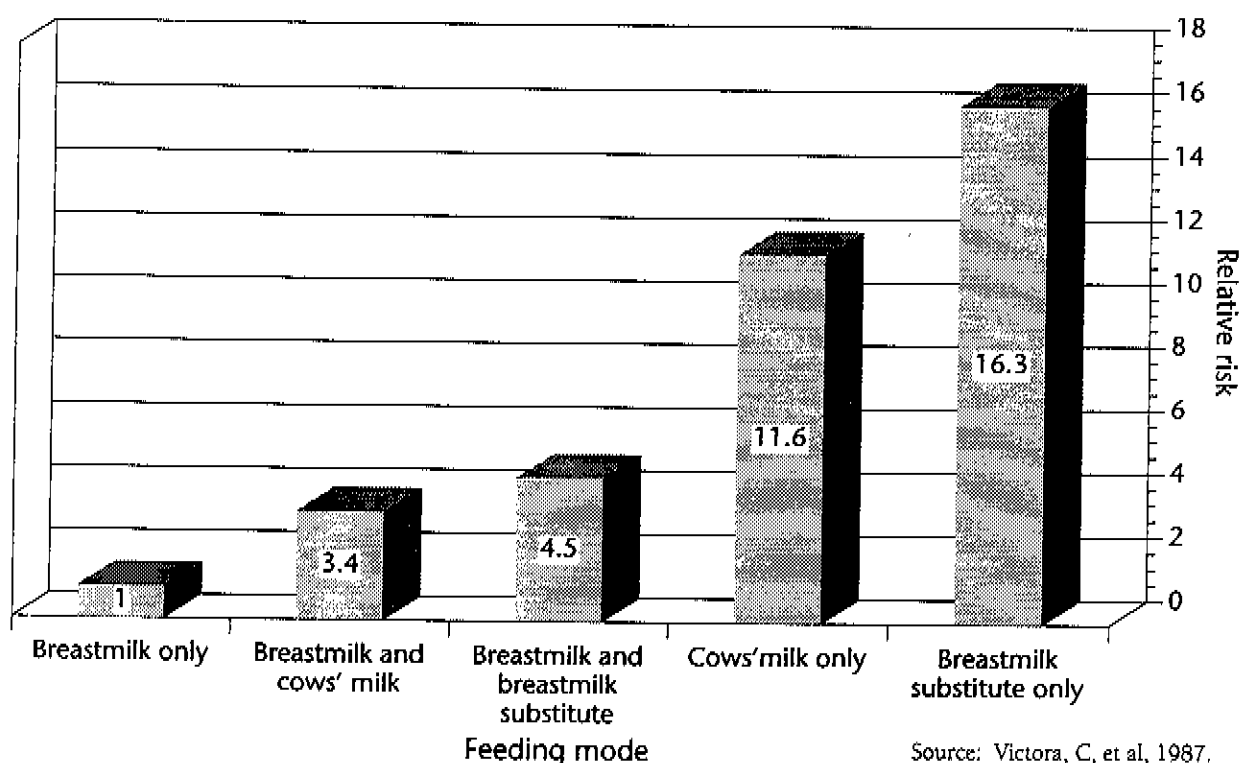
Recent scientific research makes it clear that the benefits for a baby who is breastfed and given no other supplementary food or drink, from birth and for the first four to six months of life, are considerably greater than had ever previously been imagined.

Medical experts have long recognized that "partial" breastfeeding, in which the baby also receives cows' or goats' milk, fruit juices, infant formula or water, compromises the protective and health benefits of breastfeeding and at the same time may pose dangers to the health of the young child. It is only recently that the significant advantages of "exclusive" breastfeeding over other patterns of breastfeeding in which the baby is given breastmilk substitutes, fruit drinks, water and infrequent ritualistic food have become known.

The scientific basis for insisting on exclusive breastfeeding as a goal has only recently become available. The results of research in Brazil (2) and in India (3), during the 1980s, now clearly presents the evidence for the tremendous health benefits of exclusive breastfeeding.

The Brazil study showed that infant mortality from diarrhoeal disease of those who were exclusively breastfed was one-third to one-fourth the risk of

**Figure 1**  
**Relative risk of diarrhoea mortality by feeding made during infancy,**  
**Porto Alegre and Pelotas, Brazil**



infants who were only partially breastfed, and one-eleventh to one-sixteenth the risk of those who were not being breastfed at all (see Figure 1). Infant deaths from respiratory and other infections were similarly reduced by up to fourfold.

In the Indian studies, diarrhoea episodes among infants who were exclusively breastfed in the first five months of life were one-fifth to one tenth the frequency compared with those who were not breastfed.

Some of the reasoning behind the new evidence is obvious. Contamination can occur if a mother gives her young child even a small amount of fruit juice, vitamin drink or water. However, this argument does not explain the higher rates of morbidity, among non-breastfed children, in a study from Scotland, UK, where there is clean water and where contamination is less of a problem. Infants who were breastfed for at least 13 weeks had one-third to one-quarter of the number of episodes of diarrhoea and the protective effect of breastfeeding lasted throughout the first year of life even after breastfeeding had been discontinued. (4)

The conclusion that breastfeeding has protective qualities in itself is supported by many recent research findings which indicate that exclusive breastfeeding not only has a preventive effect against diarrhoea but also provides protection against respiratory infections, eczema and asthma.

Of particular interest to those concerned with the family planning component of maternal and child health is how breastfeeding can make an effective contribution to family planning in the period after delivery. From data compiled during the past 10 years, it is clear that "fully or nearly fully" breastfeeding on demand, and amenorrhoea, gives at least 98% protection from pregnancy for the first six months if menses have not returned. (5) The level of protection due to breastfeeding then falls off in relation to the intensity and frequency of the baby's sucking at the breast, but continues to be a significant fertility-reducing factor.

In order to ensure a desirable birth interval of at least 24 months, an effective method of family planning should be introduced after the infant has completed the exclusive breastfeeding pe-

do not have access to modern methods of contraception, exclusive breastfeeding makes an important contribution to child spacing on a community basis. For example, in Senegal where mothers breastfeed for an average of 19 months or in Bangladesh where mothers breastfeed 31 months, lactation amenorrhoea results in average birth intervals of two years or more. (6) While effective when averaged out in a population, on an individual basis the risk of pregnancy may be as high as 10 to 15% between six and 12 months after a birth. This makes the use of other family planning methods an important requirement after four to six months.

Given the protective benefits of breastfeeding, WHO recommends that women breastfeed their babies whether or not they are infected with the human immunodeficiency virus (HIV). In the available population-based data, there is no evidence of a significant difference in HIV infection rates between groups of infants who have been breastfed and those fed on breastmilk substitutes. With the exclusion of such uncommon and special circumstances as a breastfeeding mother receiving unscreened blood, or other evidence of recent acquisition of HIV infection or clinical AIDS, all women should be encouraged and provided with the support to breastfeed.

### Patterns of breastfeeding practice

On the basis of the latest research, the cause for concern among the leading advocates of breastfeeding today is not so much the existing prevalence rates as the fact that in some countries only a very small percentage of infants are exclusively breastfed for the first four to six months of life (see Figure 2, page 10). The median percentage for exclusive breastfeeding from the Demographic and Health Surveys (DHS) is 13-18% of children four months of age or less.

Instead, the most common practice is to continue breastfeeding in combination with water or bottles containing breastmilk substitutes which dilute the benefits of breastfeeding.

Although country reports from a variety of sources including the World Fertility Survey (WFS) and the Demographic and Health Survey (DHS) reveal that rates of breastfeeding at birth are 98% in Africa, 96% in Asia and 90% in South America, the number of babies exposed to the risks of suboptimal breastfeeding practices such as: not

feeding the baby exclusively on breastmilk during the first 4-6 months, short duration breastfeeding, delayed initiation and discarding the colostrum, is too high.

For example, while the median duration of breastfeeding is greater than 20 months for four out of five African and Asian countries surveyed, it is less than 10 months in four out of six South American countries. In order to maximize the maternal and child health benefits, it is also desirable that babies are breastfed for up to two years or beyond. However, median duration of breastfeeding is much shorter than this in many countries, particularly in South America.

Even in countries where mothers breastfeed their children for longer periods, the duration of exclusive breastfeeding is very short. In Colombia, for example, rates of exclusive breastfeeding are 46% at the end of the first month, 10% at the end of the second month and only 2% at the end of the third month. Similar patterns are seen all over the world (see Figure 2).

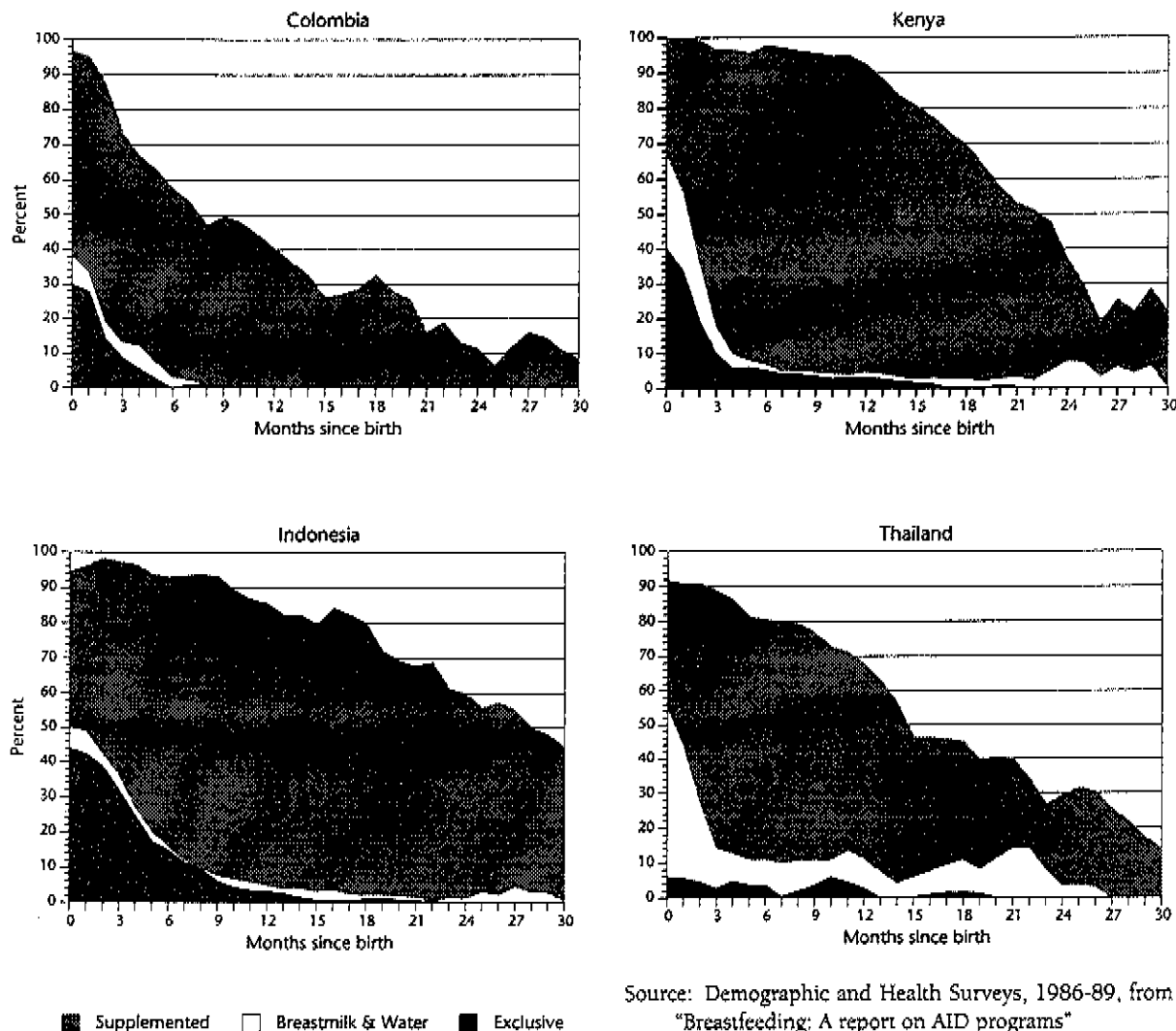
Another problem is that many babies are not being given the yellow, first milk, colostrum, which is rich in immunoglobulins and other protective components ideally suited to the specific needs of the newborn. Suckling immediately after the delivery also hastens uterine contractions and may reduce the maternal risk of postpartum haemorrhage.

Despite the wide range of benefits in feeding the baby colostrum, it is often discarded and replaced by items such as water, glucose, honey and ritual foods which not only deprive the infant of the immunological qualities of colostrum but also carry the risk of contamination.

### Extending exclusive breastfeeding

There is good evidence that countries can increase both the prevalence and the duration of breastfeeding through policy and programme change. Reports from Belize, Brazil, Costa Rica, Honduras, India, the Philippines and Poland, among others, provide success stories. In Belize, where the chartered non-governmental organization, "Breast is Best" League has been advocating full breastfeeding for some years, the number of women who exclusively breastfeed their infants for 4-6 months has increased from 42% in 1980 to 51% in 1989. An evaluation of the impact of a breastfeeding programme in Greater Sao Paulo,

**Figure 2**  
Country profiles of breastfeeding patterns



Source: Demographic and Health Surveys, 1986-89, from "Breastfeeding: A report on AID programs"

Brazil, indicated that not only had average duration of breastfeeding increased but so had exclusive breastfeeding. (7)

Some programmes have had a swift impact. The first phase of the PROALMA project in Honduras, for example, resulted in changed hospital breastfeeding practices within as little as two years. The duration of exclusive breastfeeding increased to 1-2 months and the duration of any breastfeeding increased to 12 months. (8)

Without special interventions, including logistic support for low-income employed mothers, many populations may begin to see a pattern of decline in optimal breastfeeding. Mothers in the middle and upper class begin to

use infant formula partly out of convenience and partly as a result of marketing efforts. Low-income mothers, facing the constraints of urbanization and employment outside the home, are often forced to adopt the practice. In the Philippines, between 1973 and 1983, there was a 5.4% decline in breastfeeding which was more pronounced in the urban areas. (9)

If the negative patterns in breastfeeding practices are not halted, they later extend to the rural women who come to associate breastfeeding with poverty. The process can be particularly rapid in a country undergoing urbanization or economic boom. With the oil wealth of the 1970s, for example, the Arab Gulf countries saw a sharp decline in breastfeeding.

## Breastfeeding as a human right

Because breastmilk is the best food for an infant and young child, breastfeeding has been recognized as a human right. The International Convention on the Rights of the Child, adopted by the United Nations General Assembly, November 1989 aims "to ensure that all segments of society ... are informed, have access to education and are supported in the use of breastfeeding."

The "Affirmation of Bangkok" by the Task Force for Child Survival, March 1990, provides the message adopted by WHO and UNICEF as a common goal for health development of women and children by the year 2000. It urges national leaders and the international community to affirm the desirability and feasibility of: "Empowerment of all women to exclusively breastfeed their children for the first four to six months of life and to continue breastfeeding with complementary food well into the second year." (10)

This statement was further strengthened at the recent WHO/UNICEF Technical Meeting, "Breastfeeding in the 1990s", cosponsored by USAID and SIDA which concluded that: "To help ensure optimal maternal and child health and nutrition, all women should be empowered to breastfeed exclusively, and all infants should be fed exclusively on breastmilk, from birth, for the first 4-6 months of life. Children should continue to be breastfed, while receiving adequate complementary foods, through the second year of life and beyond. The way to achieve this child-feeding ideal is to create an environment of awareness that will motivate all mothers to breastfeed and an environment of support that will truly make it possible."

Breastfeeding is not only the right of the child but also the right of the mother. The Inter-agency Group for Action on Breastfeeding believes that enabling women to breastfeed their babies must now be considered among the most important interventions for child nutrition, health and survival.

## The need for a breastfeeding programme

The new research points to the need for an initiative. The agenda must aim at shaking out the complacency which has existed towards sub-optimal infant feeding practices, and encourage increases in the prevalence of exclusive breastfeed-

ing, recognizing that partial breastfeeding is not optimal and constitutes a major problem.

This is not to suggest that the initiative needs to begin from scratch. Many governmental and non-governmental efforts over the past 10 years have made an extremely valuable contribution to stemming any decline in breastfeeding around the world, and have resulted in an increase in the percentage of women who have ever breastfed in a number of countries.

There have, for example, been high profile attempts to control the marketing of breastmilk substitutes in a large number of countries, and also to encourage positive promotion of breastfeeding in national and international health programmes and the media.

Of particular importance has been the work within countries to give effect to the aim and principles of the International Code of Marketing of Breast Milk Substitutes. During the nine years since the Code became WHO policy, Member States have been reporting on their actions to the Director-General, who then reports to the World Health Assembly at two-yearly intervals.

In many countries, media promotion followed the launch of the 1978 "Breast is Best" policy slogan of the American Academy of Pediatrics. As a result of the media amplifying this slogan, millions of people around the world were reminded of the benefits of breastfeeding.

However, some aspects of this "social marketing" have been counterproductive. For example, the experience of the Brazilian National Breastfeeding Programme revealed that in some instances the reiteration of "Breast is Best" only served to put more pressure on mothers by reminding them of what they already knew, without providing the knowledge and skills they needed to succeed in breastfeeding. What was really needed was an approach which could resolve the constraints and obstacles women face in attempting to breastfeed, and which could provide women with the support from employers and the practical skills they need to breastfeed successfully.

What is now agreed is that there is a need to draw on the expertise of all natural allies to develop strategies for the promotion, protection and support of breastfeeding. According to an AID-sponsored report by the Academy for Educational Development and reviewing 10 years'

experience of media promotion of breastfeeding for an Inter-agency Workshop on Health Care Practices Related to Breastfeeding, December 1988:

"Promoting breastfeeding solely through the mass media is unlikely to lead to long-term behavioral changes in the absence of some form of interpersonal support... such as health workers and counsellors."

Fortunately, there are now a large number of individuals, organizations and agencies who are committed to the goal of exclusive breastfeeding in the 1990s. They include leading health professionals and consumer and women's groups operating at the international, regional and national level. It is with their expertise in policy, research, education and training, counselling and mother support that successful international and national breastfeeding programmes can be built.

## Why breastfeeding is important

### Saving lives

Exclusive breastfeeding for the first four to six months, with appropriate complementary feeding in addition to breastfeeding for at least the first year of life, could prevent the deaths of an additional 1.3 million infants each year, according to the Center to Prevent Childhood Malnutrition. (11)

A 1989 study in Brazil which revealed that the exclusively breastfed infant was 14.2 times less likely to die from diarrhoea, 3.6 times less likely to die from respiratory disease and 2.5 times less likely to die from other infections than a non-breastfed infant. (2)

For premature and low birth weight infants breastmilk – even if it has to be expressed by the mother and fed with a cup, spoon or dropper – provides vital protection from many life-threatening infections. A paediatrician at Kenyatta National Hospital, Kenya, who wherever possible feeds low birth weight newborns with their mother's own milk, has shown that only babies fed on breastmilk were protected from the outbreaks of pneumonia and diarrhoea which occasionally occurred in the newborn unit. (12)

"Exclusive" and "almost exclusive" breastfeeding are also particularly effective in the first 4-6

months postpartum in helping to delay the birth of a second or subsequent child. This also has a beneficial effect on the health and life chances of the mother and child.

The mother's health is also enhanced through breastfeeding because it has a protective effect against breast and ovarian cancer.

### Saving money

Artificial feeding of infants and young children places an enormous, and often unnecessary burden on women, families, health services and national development programmes. For example, the average cost of feeding a six-month-old infant for one month on infant formula is equal to at least the average monthly per capita income in many developing countries. These costs do not include the additional fuel and water needed to ensure the hygienic preparation of the bottle-feed.

However, in some circumstances, including when the mother cannot breastfeed at work, these high costs may constitute an essential expenditure because the mother's income may be vital to the family's needs.

Exclusive breastfeeding, with attention to ensuring an adequate diet for the mother, allows her to avoid the costs of any special complementary food or drink during the first six months and, because it also helps protect the child against diarrhoea and other infections, exclusive breastfeeding allows the mother to avoid the financial costs and time burden of caring for an infant in times of illness.

After six months, while continuing to breastfeed, the mother can complement her child's diet on small and frequent portions of family meals. Although taken on its own, normal adult food may not be sufficiently energy-rich to meet a baby's needs, there is now clear evidence that breastmilk is so nutritious that it will fully complement almost any adult diet. Breastmilk alone provides about one third of the energy and nutrients that a child needs during the second year of life.

During the entire period of breastfeeding, the mother can also be assured that if she eats a sufficient quantity of food from the family's staple diet, her intake will be efficiently converted into breastmilk which contains the appropriate mix of nutrients for her child.

Hospitals have also achieved savings through the promotion of breastfeeding. At the Jose Fabella Memorial Hospital in the Philippines, a "rooming-in" policy was introduced in which beds were pushed together in pairs so that mothers could safely cradle their babies between them. The babies are in constant, close proximity to their mothers to allow early initiation of breastfeeding on demand, and to promote the establishment of sound breastfeeding practices. Almost 100% of the infants born at the hospital are exclusively breastfed and the programme has produced annual savings of more than US\$ 100,000. (13)

Savings included not only reductions in infant formula and bottle purchases but also a reduction of US\$4.00 per delivery in nursing costs at the 350 maternity-bed hospital.

Instead of encouraging breastfeeding, government programmes sometimes support the free distribution or the subsidization of infant formula. By stopping such practices, national nutrition practices may improve and funds can be saved. The US Public Health Service has calculated that if all new mothers breastfed for even the first month of their baby's life, WIC, the US government programme for women, infants and children, would save US\$ 30 million on infant formula in one year. (14)

Breastfeeding is a cost-effective complement to family planning. In Honduras, if the breastfeeding programme in 1981-87 had not been successful in increasing the mean duration of breastfeeding, fertility in the urban areas would have increased by one birth per woman on average. (15) In Ghana, contraceptive prevalence would have to increase by 11% in order to compensate for the 25% decline in breastfeeding. (16)

## **Obstacles to breastfeeding**

The obstacles to successful programmes of exclusive breastfeeding exist in many spheres both within and outside the health sector, and particularly in maternity services as outlined in "Protecting, Promoting and Supporting Breast-feeding, the special role of maternity services". (17).

## **Knowledge and skills of health workers**

Some of the problems are created by the poor knowledge and skills of health workers, including top medical experts. In many countries, for example, professionals have taken negative views about breastfeeding into rural areas where breastfeeding had otherwise been valued and accepted practice.

## **Health and maternity care practices**

This lack of knowledge stems from inadequate training about breastfeeding in the medical, nursing and midwifery schools. Most medical textbooks provide virtually no guidance on lactation management. Now, however, some editors of medical textbooks have begun to seriously address instruction on breastfeeding. One example is "Reproductive Health: Global Issues" a new teaching manual developed by the International Federation of Gynecology and Obstetrics (FIGO) and Columbia University, in collaboration with WHO, which devotes a full section to breastfeeding.

Once knowledge and attitudes towards breastfeeding change among health professionals, many of the existing health care practices which create obstacles to breastfeeding will also change. For example, once doctors and nurses become aware of the benefits both to the infant and the mother of establishing early sucking, the deleterious practice of separating the mother from her child for many hours is likely to be stopped. Early initiation makes the process of breastfeeding easier to establish and may make it more likely that breastfeeding will be sustained for longer periods.

Similarly, it would also be easier to embark on a policy of "rooming-in", in which mothers and babies stay together and breastfeed babies on demand, once there are enough health professionals on the maternity ward convinced of the benefits of exclusive breastfeeding. Equally, health workers need to be able to support breastfeeding and to help mothers to overcome problems.

## **Working women**

Labour legislation can also pose an obstacle to breastfeeding. Action is needed to ensure that adequate labour legislation both exists and is

effectively enforced. Over the years, it has become wrongly assumed that women who work outside the home have no option but to bottle-feed. Instead, employed women should be provided with support to breastfeed as a responsibility of society.

In some western countries, high levels of breastfeeding have already brought about change. For example, in Norway, there is now a tacit understanding that government employees wishing to breastfeed their infants will be allowed nursing breaks.

However, for many women, both in industrialized and less industrialized countries, the decision about whether to breastfeed is decided by fear of loss of employment or discrimination in the job market.

Sometimes the obstacles are not at work but in getting to work. Many women have to travel long distances to their place of employment on crowded transport. For them, the only option is separation from the child, possibly leaving behind expressed breastmilk to be fed to their children while they are away.

### **Social support**

Urbanization in itself can present obstacles to breastfeeding. Women who have left home to take up the advantages of urban employment may

never succeed in breastfeeding. Without the guidance and support for breastfeeding which would formerly have been provided by close female relatives in their villages, mothers may easily give up what often initially appears to be a difficult task. Although the vast majority of women can breastfeed, many lack confidence and need the support of someone experienced or knowledgeable.

In many places, traditional culture which supported favourable breastfeeding practice is in decline. For example, the tradition of postpartum seclusion in many parts of Africa and South East Asia offered a mother a 40-day rest period after the birth of her baby – enough time to establish successful breastfeeding.

### **Marketing practices**

Since the direct advertising of breastmilk substitutes to the public at large and to consumers is prohibited by the Code, much of the blatant abuse of advertising by infant formula companies is now greatly reduced in many countries. However, this has been replaced by more subtle forms of advertising, such as that of formula and weaning foods for older infants and for powdered milk. This inevitably has the effect of indirectly undermining breastfeeding by presenting positive images of the products of infant formula companies.

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## **Analysis:**

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# **Approaches to Protecting, Promoting and Supporting Breastfeeding**

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### **Programme experience**

If one thing has been learned about promoting and protecting breastfeeding, it is that an integrated national breastfeeding programme is crucial. Attempts to improve the patterns, prevalence and duration rates using single approaches, such as the mass media and social marketing, have rarely been successful.

What is required is for each country to analyze as precisely as possible the cause and extent of suboptimal breastfeeding practices, as well as the constraints, and to make a commitment to the promotion of breastfeeding as an integral part of all relevant programmes in health and related sectors.

In order to decide on priority themes within the programme, such as exclusive breastfeeding from birth, breastfeeding on demand, increasing the duration of breastfeeding and so on, many countries have found it invaluable to gather together as much available information on the local patterns and beliefs about breastfeeding as possible. The assessment can yield information on cultural practices and beliefs which keep women from achieving optimal breastfeeding. The recent Demographic and Health Surveys mentioned earlier are useful sources of descriptive information on breastfeeding patterns, complementing those early WHO collaborative studies of breastfeeding. However, such surveys need to be accompanied by qualitative research on breastfeeding patterns, cultural practices and beliefs, including women's perspectives on what keeps them from achieving optimal breastfeeding.

Many countries have found that a step-by-step approach towards a national programme is effective.

For example, in Brazil, the process began during the 1970s when scientists and paediatricians all over the country became aware of the low rates of breastfeeding. They then published studies from southern and north-eastern parts of the country to show poor early weaning practices. It was on this basis that health professionals were able to sensitize the public health authorities and encourage the planning and implementation of a national breastfeeding programme.

Thailand's "Expanded Programme of Breastfeeding", launched by the Department of Nutrition, Mahidol University in collaboration with the Ministry of Public Health and the Siriraj Hospital Medical School, successfully raised awareness of the importance of breastfeeding as well as the prevalence of

breastfeeding in the municipal hospitals of Bangkok. In a second phase, the project was extended to one of Thailand's large regional hospitals.

More recently, the government of Thailand authorized US\$4 million to finance a Lactation Management Training Center at Siriraj Hospital modelled on the AID-funded Wellstart management education lactation programme (see next section). Over a period of four years, the Center will provide lactation management training to health professionals for all levels within the health care system throughout the entire country.

To ensure that, following training, health professionals are imparting their new knowledge, it is necessary that they receive positive feedback for their efforts. For example, a health worker providing family planning care can consider a mother using exclusive breastfeeding for child spacing as a potential user of another method at four to six months. In this way, the health worker can promote both breastfeeding and family planning.

Among the options in launching a breastfeeding programme is the creation of a management team, as in Thailand, or a focal point, coordinator or convener, to work on breastfeeding promotion. An advisory committee of representatives from government, multilateral and bilateral agencies as well as non-governmental organizations and experts, can then be created to provide international and local experience for setting priorities and developing strategies.

In some countries, despite the lack of national breastfeeding programmes there have been initiatives involving ministries of health. For example, in the UK, the Joint Breastfeeding Initiative was set up comprising representatives from the health ministry and Mother Support Groups. So far, it has stimulated local health authorities to organize more than 40 one-day courses to raise awareness of the need for breastfeeding promotion.

### Education and training

Many countries have found that before any programme can be formally introduced, an education programme for health and medical professionals is necessary. Despite all the valuable new research on the benefits of breastfeeding for health as well as its possible influence on fertility, few professionals are qualified to embark on a "rooming-in" programme, for example.

Where there is such a leader or leaders for the breastfeeding programme, many countries have found it worthwhile to establish a central breastfeeding unit around this person or team. In fact, some experts say that a faculty on lactation management at a university medical school or midwifery/nurse training school is advisable.

The least successful courses appear to be those which are less than a week in length. Although they are able to sensitize participants to the issue, they do not produce changes in the behaviour of health workers unless they are supported by other reinforcing actions. In Brazil, particularly during a mass media campaign on breastfeeding, national congresses were used to successfully prepare paediatricians for changes in health care practices. Since then, a lactation management training centre has been established supported by WHO/PAHO, to enable sustainable education programmes.

Alternatively there are a few international centres offering training programmes. Wellstart in San Diego, US, offers a lactation management education programme. Courses provide a multi-disciplinary team with the knowledge to guide medical management in training and promotional campaigns for breastfeeding.

One of the centre's success stories is the training, in Spanish, of a team of health professionals from Honduras who returned home to train another 1000 workers employed in the national breastfeeding campaign. This multiplier effect has also followed training programmes of teams from Indonesia. A number of countries, including Thailand, the Philippines and Poland have started their own training centres on the Wellstart model.

The International Baby Food Action Network (IBFAN) Africa Training Programme runs in-country courses for groups of 25-45 health workers, nutritionists and counsellors. It has the advantage of taking place in the home countries of the participants.

The Institute for International Studies in Natural Family Planning at Georgetown University, Washington DC, offers training and technical assistance for the lactational amenorrhoea method (LAM) of family planning. It also carries out the research necessary to improve protocols for health professionals involved with breastfeeding mothers and infants.

## Hospital and maternity practices

With the benefit of experience in maternity services around the world, and in recognition of the critical role of such services in the initiation of breastfeeding, WHO/UNICEF have produced guidelines for "Protecting, Promoting and Supporting Breast-feeding, The special role of maternity services." (17) The "Ten steps to successful breast-feeding" taken from this booklet are shown below.

A catalyst for breastfeeding promotion in many national programmes has been the introduction of a "rooming-in" programme in large city hospitals. Hospitals launching the new initiative gain the satisfaction of fewer cases of diarrhoea and other illness among the babies born on the wards, and enormous resource savings in terms of nursing staff time and infant formula and bottle costs.

In Honduras, for example, a new project allowed mothers to keep their babies with them on the ward while recently-retrained health workers encouraged them to breastfeed. More than 90% of mothers initiated breastfeeding, producing substantial savings in infant formula costs in the hospitals involved in the project.

Other changes in hospital practices which have shown benefits include breastfeeding the

low birth weight infant and keeping mothers and children together, when either is unwell, to allow breastfeeding. Such programmes have been successful in India, Kenya, Mexico and the Philippines.

A 1985 study in India involving high-risk babies showed that mortality among these newborns in the first 72 hours after birth fell by 22% after the breastfeeding promotion policy was instituted. (18)

For those who doubt the feasibility of feeding premature babies with breastmilk, a leading paediatrician in Kenya has shown that it is possible to sustain lactation through manual expression of the milk during the period in which the mother or the infant is unable to breastfeed directly. Where possible, babies are given the breastmilk with a cup and spoon until they can be put to the breast. (12)

Some breastfeeding proponents have suggested that breastfeeding should be seen as the "fourth stage of labour". They also say that paediatricians should recognize breastfeeding as the first stage in the child's immunization, particularly emphasizing the need for education on feeding the baby the yellow, first milk, colostrum.

### Ten steps to successful breast-feeding

Every facility providing maternity services and care for newborn infants should:

1. Have a written breast-feeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breast-feeding.
4. Help mothers initiate breast-feeding within a half-hour of birth.
5. Show mothers how to breast-feed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in – allow mothers and infants to remain together – 24 hours a day.
8. Encourage breast-feeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breast-feeding infants.
10. Foster the establishment of breast-feeding support groups and refer mothers to them on discharge from the hospital or clinic.

From: "Protecting, Promoting and Supporting Breast-feeding. The special role of maternity services." A Joint WHO/UNICEF Statement. (17)

Unless both obstetricians and paediatricians take up the lead in the initiative for the promotion of breastfeeding, there is a danger that the child may fall between the cracks in the provision of the different specialities.

### **Maternal and child health and family planning services**

The synergistic effect of health benefits for women and children of a combined programme of improved nutrition, prevention of infectious disease and family planning are well-known. In this regard, breastfeeding has a close relationship to all the three programmes, and the new areas of responsibility for doctors and health workers should extend well beyond the maternity ward if a national breastfeeding programme is to be effective. All maternal and child health and family planning workers should be encouraged to discover how best they can promote breastfeeding and how national programmes and campaigns are likely to benefit their areas of operation.

Those involved in diarrhoeal and acute respiratory disease also need to be involved in the breastfeeding programme. As well as being able to extend the valuable information about the protective, health and nutrition benefits of breastfeeding, particularly exclusive breastfeeding, they must be ready with answers for mothers of sick babies who may be resistant, for cultural reasons, to the idea of continuing to breastfeed during these periods of illness.

Family planning and women's health workers also need to be aware that information and education about breastfeeding should be part of prenatal and Safe Motherhood programmes.

Women should know the benefits of breastfeeding both to the health of the child and to their own health, and should be aware that lactation amenorrhoea is a feasible option in family planning for the first months which should then be complemented with another method. They also need to know that breastfeeding reduces the mother's chances of developing breast or ovarian cancer.

Family planning workers have also to keep in mind that for lactating mothers to use these family planning methods has no adverse effect on breastfeeding. However, the adverse impact of oral contraceptive pills which contain estrogen should be considered and lactating women should

be introduced to progesterone only pills and intra-uterine devices (IUDs).

Clinics providing support to women who wish to use breastfeeding to delay conception have met with some success. At the Pontificia Universidad Catolica de Chile, mothers who wanted to use exclusive breastfeeding as a contraceptive were given breastfeeding support. The number of non-contracepting women who practised exclusive breastfeeding and maintained amenorrhoea for six months postpartum increased from 10% to 50%. The pregnancy rate among these women was well below 2%.

Inevitably, the success of introducing breastfeeding promotion in different areas of hospital and primary health care services depends upon the capacity of the workers to absorb new tasks. There has been a danger in some countries to expect health workers to take on all the new education work involved with a breastfeeding programme without relieving them of other duties.

### **Mother support**

There is little doubt that support from women knowledgeable about breastfeeding can be a tremendous boost for new mothers - and for the prevalence of breastfeeding.

Many women have minor problems but most of them are not medical. In some cases the women are beyond the reach of health workers. Mothers' support varies from the support provided by experienced female relatives to mother-to-mother support groups and community organizations working in cooperation with the local health services.

For example, in Costa Rica the enthusiasm for the breastfeeding programme among community organizations and nurses helped to provide a new source of support for women wishing to breastfeed. Community-based groups, such as CEFEMINA, collaborated with hospitals and clinics to provide a referral for nonmedical problems associated with breastfeeding. In return, the health workers were willing to act as a referral for the medical problems.

In other areas, groups have worked relatively independently. In a study in Mexico, community volunteers were trained to promote breastfeeding in their home area. The result was an increase in breastfeeding initiation from 75% to 89% and an increase in the numbers of women who were

exclusively breastfeeding. The project took place over a three month period during which breastfeeding in a control area showed a decline.

Groups such as La Leche League (LLL) and Nursing Mothers Association of Australia have stimulated the development of "Mother Support Groups" in more than 40 countries around the world. In order to ensure survival, each new group has had to adapt to the local culture and to the scope afforded by local policy-makers and health leaders.

For example, it was the work of the LLL in Kenya which led to the formation of the Breastfeeding Information Group (BIG) in 1978. However, since its establishment, BIG has developed its own strategy and identity suited to local needs.

Once a woman is provided with knowledge and reassurance from trained counsellors working with these groups, mother support for breastfeeding from fathers can be extremely important. In Thailand, a marketing award was given to the pioneer of the national "Expanded Programme on Breastfeeding" for a campaign in which husbands were encouraged to support their wives' breastfeeding. "If a father fully supports breastfeeding, breastfeeding will be more successful," the message read.

### Women and work

ILO Convention 156 states that "all human beings, irrespective of race, creed or sex, have the right to pursue their material well-being and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunity." Women also have the right to breastfeed, and their children to be breastfed.

The effect of employment on breastfeeding varies greatly in relation to the type and conditions of women's work. Unfortunately, there is an assumption in many parts of the world that women who work outside the home will not and cannot breastfeed their children.

In fact, in Finland, there is no significant difference in the prevalence of breastfeeding among employed and unemployed women at one month, three months and six months postpartum. Similarly, in Ibadan, Nigeria, employed mothers were found to be more likely to breastfeed than nonemployed mothers.

The key to improving the opportunities for women working outside the home is probably the social value given to breastfeeding within the culture. Because breastfeeding is valued in Mali, for example, the workplace will be expected to accommodate breastfeeding mothers.

Encouraging hospitals, medical schools and other places of employment in the health services sector to become role models by introducing policies supportive of breastfeeding can make a start in changing attitudes. In Brazil, for example, a medical university opened a day-care centre and introduced nursing breaks for breastfeeding mothers.

In Mozambique, workplace creches help to reduce infant mortality and increase productivity, but even "home day-care" can be organized so that older babies can be given expressed milk while the mother is away.

Other innovative approaches include the mobile creches used by women construction site workers in Thailand and India. The creches are moved as the women change sites. With support from government and employers, the number of creches in Delhi, Bombay and Pune, India, has expanded.

Few schemes are designed to assist rural agricultural workers or women working in the informal sector. The exception is the Self-Employed Women's Association (SEWA) in Ahmedabad, India. SEWA designed and implemented a maternity benefit scheme in 1975, providing prenatal care, training in nutrition and infant care, nutritional supplements for mothers and mothers-to-be, and cash to compensate members for loss of income immediately postpartum. The greatest problem faced by SEWA members, however, is the lack of child care. Given the proven reliability of small loans for women's income generating projects, schemes might usefully be extended to finance creche facilities.

Another important strategy is to reassess maternity policies. This has to be done with some care since enforcement of legislation may lead to discrimination. In Brazil, maternity leave was recently extended from three months to four. However, the fourth month has to be paid for by the employers and the national media has reported that employers are responding by firing women.

On a more positive note, the outcry from Zimbabwean women when an attempt was recently made to reduce maternity leave to 60 days has led the government to restore the original 90 days.

### **Information, Education and Communication: Keeping the messages consistent**

Breastfeeding can be protected, promoted and supported through multimedia information, education and communication (IEC) campaigns which develop strategies and materials based on an understanding of the underlying causes of breastfeeding behaviour and the obstacles to breastfeeding faced by women.

There is no doubt that the advertising of breastmilk substitutes and other marketing practices undermine breastfeeding; the implementation of the aim and principles of the International Code of Marketing of Breast Milk Substitutes has served to protect breastfeeding from such attacks. However, other measures are needed for the Code to fulfill its potential in contributing to the promotion of breastfeeding.

What is needed to change behaviour is a breastfeeding promotion programme including use of mass media. The major success story comes from Brazil where a national breastfeeding programme was supported by an extensive media campaign. Launched initially through radio, television and press broadcasting messages, the issue later received free coverage from magazines with a combined circulation of more than three million, health professionals, Catholic Church, Brazilian Charity Legion and Brazilian Literacy Movement. The media campaign was maintained by the high profile activities of a large number of policy-makers from many ministries within the breastfeeding programme.

The Brazilian programme was reinforced further by the enactment of a national code of marketing of breastmilk substitutes and by the employment of a professional communication specialist to develop and advise the programme.

While there have been other successes, some social marketing programmes to promote breastfeeding have faced difficulties. This is often because a communication programme has preceded the full implementation of other components of an integrated breastfeeding programme.

For example, when a media campaign in favour of the promotion of breastfeeding starts before hospitals implement changes in practices in favour of breastfeeding, women may face contradictory and confusing messages.

Targeted messages to specific audiences are the most effective. For the obstetrician and midwife the message might be "Breastfeeding, the fourth stage of labour"; for those caring for children, "Breastfeeding, the first and continuing immunization"; and for employed women, "Breastfeeding rights are human rights for all women."

It is now recognized that qualitative research on attitudes, training, programme support and development have to take place before the social marketing campaign is introduced.

Some experts have suggested that while long-term training and implementation of the breastfeeding programme is taking place within the health sector, it is useful initially to create a mobile team who will visit hospitals and health centres involved. The team will not only disseminate information about breastfeeding but learn about successes and problems in the introduction of programmes as part of an evaluation process.

Visits by this mobile group to hospitals, health groups, women's organizations, consumer organizations, Mother Support Groups and sympathetic religious and cultural organizations, all provide valuable insights into what and how messages need to be conveyed. For example, the Quran encourages breastfeeding for the first two years of life providing assistance in communication among Moslem communities.

Groups involved in promoting breastfeeding can be encouraged to support information, education and communication programmes. For example, some may be willing to write articles, give interviews and help with video productions on breastfeeding. Others may create pressure on television companies to change the bottle-feeding image portrayed in many soap operas. A flow of letters to television companies in the USA are a constant reminder of the demand for positive promotion of breastfeeding. Recently, the producers of a children's television programme, *Sesame Street*, have agreed to show one the main presenters breastfeeding her new baby.

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## **Action:**

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# Elements required for a Global Strategy

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## **Policy and programme implications**

### **The need for commitment and leadership**

The policy basis for a strong programme to promote, protect and support breastfeeding has been elaborated in World Health Assembly resolutions, beginning with WHA27.43 on "Infant and Young Child Feeding" and most recently, WHA43.3 on "Protecting, Promoting and Supporting Breast-feeding" at the 43rd World Health Assembly in May 1990. (19)

Many other resolutions and policy statements have come from the governing bodies of other agencies, the regional committees of WHO, national governments, professional societies and other non-governmental organizations.

Guidelines for action on the implementation of the International Code of Marketing of Breast Milk Substitutes have existed for several years. Guidance on the role of maternity services in support of breastfeeding has recently been issued and widely distributed by WHO and UNICEF. Yet, despite such well-articulated global, and even national, policy statements and guidelines, without a determined and united group of individuals committed to raising the issue at the national level, the words do not become actions.

Country leaders need to know that:

- to initiate the development of a national programme for the promotion, protection and support of breastfeeding requires strong political commitment and leadership in all relevant sectors;
- to implement the programme requires strong technical leadership within the health sector working in collaboration with a network of individuals and organizations representing different disciplines. Expertise and support from concerned groups is essential to establish a viable programme;
- to sustain the programme requires a strong national concern and a broad constituency of support, including consumers, particularly women, women's and consumers' organizations, trade unions and professional associations.

### **Different approaches to launching the initiative**

How countries are to embark upon their own national breastfeeding policies and programmes is a matter of local circumstances and opportunities. There is

now available within a number of countries a body of experience and expertise in policy, research, education and training, counselling and mother support upon which other countries and groups can build. In some countries, this experience and the initial leadership has come from government or university departments, in others, from non-governmental organizations, particularly consumer and mother support groups.

While there is no single approach nor any particular formula, nor even a prescribed sequence of activities, there are many opportunities for action to promote, protect and support breastfeeding within the context of each setting. There are many common and complementary elements that ultimately should be present in a national programme. As noted in this paper, national programmes have evolved out of such local actions as: efforts to implement a national code of marketing of breast-milk substitutes; the experiences and network of mothers support groups for breastfeeding; and, the development of training programmes in breastfeeding and lactation management.

Advocacy of breastfeeding through programmes of information, education and communication needs to be seen at two distinct levels: that directed at policy-makers and health workers and, that directed at the community as a whole. As underlined in this paper, efforts directed at the latter would, in large part, be wasted unless the means and support for a breastfeeding programme were in place and functioning.

To stimulate a strong policy commitment for breastfeeding, it is often useful to analyze the patterns and trends in breastfeeding nationally. Such a situation analysis would facilitate: the formulation of a national policy; the establishment of realistic programme targets; the development of the programme strategy and elements; the identification of target groups; and, the formulation of primary information and communication messages. Such an approach is also useful in evaluating the programme, particularly when families, particularly women, are involved at all stages of the process.

A situation analysis might include the patterns and determinants of breastfeeding in the country, the opportunities and obstacles for programme development and the existing and potential social, human and financial resources. Relatively simple techniques and methodologies exist which can be

adapted to assist in making a rapid assessment.

Initially a national programme may focus on different programme objectives, such as: raising the prevalence of exclusive breastfeeding among those only partially breastfeeding; increasing the duration of breastfeeding; or, decreasing the numbers of mothers who have never initiated breastfeeding. Similarly the target groups selected in the early stages of a programme may be selected because of the potential impact on the overall programme. In many settings, educated middle class and professional women are particularly important because of the role models they set for the rest of society. So, too, are the practices and working conditions within the health and educational systems which serve as models for other institutions.

While there are few universal actions to be recommended, there are many universal principles that are essential for a national programme. Two such principles at a policy level are, whether by legislative, regulatory or other appropriate measures, and give effect to:

- the aim and principles of the International Code of Marketing of Breast Milk Substitutes, and
- the Joint WHO/UNICEF Statement on "Protecting, Promoting and Supporting Breastfeeding, The special role of maternity services".

Policies outside the health sector also should be critically assessed for their impact on breastfeeding, particularly those that relate to maternity leave and conditions of work for women; and, overall food and nutrition policies, such as the subsidization of breastmilk substitutes and "infant foods" for children. Whatever the setting, in order to provide momentum to a programme, priority should be given to those measures that will have an immediate impact and can be effected rapidly with only limited expenditure of resources.

An area which frequently requires close attention for the development of an effective breastfeeding programme is national labour legislation. Women employed, not only in formal and informal sectors of the economy but also in some forms of agriculture, need support if they are to be empowered to exclusively breastfeed and to continue breastfeeding for up to two years or beyond. In considering the options for change, as well as in discussing the measures to ensure that existing

legislation is effectively enforced, many national policy-makers find it extremely valuable to work with national agencies supporting women in development and local women's organizations, as well as ministries of labour, agriculture and industry. Without appreciation of women's perspectives and role as mother and employee, programme implementation will be made much more difficult.

### Technical support for action

Training and information dissemination, reorganization of services and a network of support groups are critical technical elements in the implementation of a national breastfeeding programme.

Training in breastfeeding and lactation management for health workers can be organized through medical, midwifery, nursing and public health schools. An important example for such training has come from the Wellstart programme. Alternatively there are a number of non-governmental organizations, such as IBFAN Africa, which have organized national courses (see section on Education and Training).

A few countries have formed a "Task Force" on education and training from appropriate members of a national committee on breastfeeding. This group then becomes responsible not only for the training of health professionals in obstetrics and paediatrics but also for the development of training needed for all those in associated health care and other services, in particular maternal and child health and family planning and other primary health care workers. The emphasis should not only be on the information about the benefits of breastfeeding but also on the development of skills to help mothers succeed.

All health workers trained should be introduced to the WHO/UNICEF "Ten steps to successful breast-feeding" (see page 17) and encouraged to give their support to the International Code of Marketing of Breast Milk Substitutes. Whatever approach is used in training, a strategy should be developed that includes the rapid extension of the training programme, selection and adaptation of appropriate training materials and the evaluation of the effectiveness of the programme.

Some countries have found that changes in the practices in maternity wards and clinics have

been catalysts for further change. The check list included in the Joint WHO/UNICEF Statement on "Protecting, Promoting and Supporting Breastfeeding" (17) serves as a useful guide to such changes. Within other maternal and child health and family planning services, opportunities for complementarity with breastfeeding should be identified.

In order to ensure that the new information is integrated into the activities of the different health services, it is usually helpful to establish a monitoring system, including indicators of both impact and process. The impact of the programme can be gained from monitoring, for example, the increase in the number of babies being exclusively breastfed at discharge from place of delivery, at six weeks and at four months of age. The process of implementing the programme can be monitored by charting the speed in which "rooming-in", training programmes and maternity legislation changes are being introduced.

Breastfeeding rates should be reported in terms of exclusive breastfeeding. All maternity institutions should be able to report, as well as achieve, high rates of exclusive breastfeeding on discharge from maternity services. Instituting a reporting system on breastfeeding status at the time of hospital or clinic visits should be considered as part of special accelerated programmes directed at diarrhoeal or respiratory diseases, nutrition, immunization and family planning. Such additional information on breastfeeding patterns could be reported to WHO and the Director-General by countries as part of their monitoring of progress in their Health For All strategies and in their reporting on infant and young child nutrition.

A monitoring system not only helps to motivate health workers involved in the programme, by providing them with targets. The data produced also provide them with information on which the achievements of the policy and programme can be evaluated. Monitoring thus becomes a tool for both advocacy and evaluation.

### Organizing national coordination

The review of country experience shows that, for the development of an effective national breastfeeding policy, close involvement of medical and nursing school departments, professional associations and organizations, religious groups, women's organizations, consumer and mother

support groups and so on, is an important factor. These people can provide health ministries not only with a source of extensive knowledge and experience but also with a team of committed supporters who will nurture the breastfeeding programme as a natural part of their daily lives.

Drawing on the energy of this leadership, it has been essential for health ministries, in particular its nutrition and maternal and child health and family planning programmes, to provide support for the commitment as well as to ensure effective coordination among the different groups involved. It is with the help of these interested individuals or groups that a coordinator, Task Force or other mechanism should be established to guide the development of a national strategy.

Most successful country programmes have also found that it is useful to create an advisory group consisting of professionals and others concerned with breastfeeding in ministries and agencies, associations, research institutions, non-governmental organizations, consumers and mother support groups.

National coordinating groups are also effective advocates through their own networks of new evidence on the benefits of the breastfeeding policy to maternal and child health and family planning, diarrhoeal disease control and immunization programmes.

Once policy and resource commitments have been made, and a focal point for follow-up action established, there are a number of ways in which to raise awareness of the launch of a breastfeeding programme. Sometimes, the first priority is to organize a workshop to ensure that all relevant sectors are fully informed about developments in breastfeeding and about the purpose of the initiative. Such a meeting can often be used to establish or confirm programme targets and goals as well as to provide an opportunity for advocacy and support for the breastfeeding programme.

Once the support system and training for the breastfeeding programme is underway, a social marketing strategy should be developed and launched. At this stage, active promotion for breastfeeding can usefully begin including media and public campaigns. Often, once a programme is underway, a resource centre which provides a permanent information source on breastfeeding becomes extremely valuable. Resources held at

such a centre could include not only information about the programme but also teaching materials for both medical personnel and nonmedical counsellors.

While mother support groups vary in size, composition and function from country to country, many can be encouraged to work in cooperation with nurses and midwives who are supporting breastfeeding mothers.

### **A global commitment to support countries**

While recognizing that the medium and long-term effectiveness of programmes to improve and sustain the health of women and children are dependent on an integrated approach based on the principles and essential elements of primary health care, the issue of breastfeeding has been singled out in this paper because of the critical contribution it makes to so many components of maternal and child health, including family planning, timing, spacing and number of pregnancies. The issue has also been highlighted because, in many settings, the patterns of breastfeeding are considerably less than optimal, and in some countries, breastfeeding is in decline.

National authorities, scientists, international governmental and non-governmental agencies and organizations can now agree on the priority need for promoting, protecting and supporting breastfeeding, particularly exclusive breastfeeding from birth for four to six months, and continued breastfeeding, with appropriate complementary feeding, for the second year of life and beyond.

The multifaceted nature of the obstacles to breastfeeding and the need for its promotion are widely recognized. National authorities and the international community working together and with the relevant sectors and disciplines can effect a change by overcoming obstacles and providing the necessary support for improved patterns of breastfeeding.

Such efforts, however, will only be brought about through the mobilization of the technical, social and human resources required both nationally and internationally. Situation analysis should be undertaken in each country and provided with the appropriate technical and material support. Globally recognized and standardized

indicators will serve to define each situation and provide a means for monitoring progress towards nationally-derived targets.

As noted in the preface to this report, the needs of the mother can not be separated from the needs of the infant. This is especially true with respect to

the nutritional requirements of the pregnant and lactating woman, and starting with consideration of the nutrition of girls and adolescents. The policy-maker should always make her nutritional welfare, as well as that of her child, central to national policy and programme decision.

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## Appendix:

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#### "Breast-feeding in the 1990s"

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Geneva, 25-28 June 1990

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