

WAR ON WANT was founded in the early Fifties as a campaign to make world poverty an urgent social and political issue. Today it is one of the major Third **World aid agencies** in Britain, though its original purpose remains central.

Through its International Department, War on Want undertakes development work in Africa, Asia and South America; and, in co-operation with other aid agencies, participates in disaster relief. Long-term development strategy is planned through research at home and observation in the field,

In Britain War on Want's 60 groups help by raising funds and actively campaigning on Third World issues in their localities. Its 40 medical centres collect unwanted medical and surgical supplies for shipment to hospitals and clinics overseas.

The baby killer

A War on Want investigation into the promotion and sale of powdered baby milks in the Third World.

By Mike Muller

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Thanks are due to New Internationalist magazine and their staff who first drew attention to the subject and encouraged War on Want to investigate further. Particularly to Hugh Geach who did the initial work for New Internationalist and made his material available to us,

Thanks also to the doctors and professionals in other fields who gave their time and advice, especially to Dr. David Morley of the Tropical Child Health Unit at London University's institute of Child Health, who made many helpful suggestions as well as reading the draft of this report.

Certain of the companies involved have also been very patient in explaining their view of the situation. In particular, Dr. H. Muller and Mr. G. Fookes of Nestles Dietetics Division gave me a great deal of their time, as did Mr. I. Barter of Unigate's international Division. These gentlemen are policy makers in their organisations and where quotations are attributed simply to Nestles or Cow and Gate they are from interviews with them.

War on Want is one of many Third World charities indebted to certain of the milk companies for donations of infant foods and other products for relief programmes. In disasters and other *abnormal* situations, these products can be extremely useful. We may be accused of "biting the hand that feeds" with this report, but our responsibility lies with the communities in which we work.



Baby D
2nd President.

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Buy two tins of Dumex Baby Food and get a FREE Feeding bottle now!

Dear Dumex Mothers and Babies,

Buy two tins of Dumex Baby Food and send the paper discs from inside the tins to me and I will send you a 250 cc feeding bottle specially made for members of the Dumex Babies Union.

Join the Babies Union now by feeding your baby with Dumex Baby Food so baby will grow fat and strong.



Baby d
2nd President.

Issued by Dumex Limited.
Makers of
DUMEX Baby FOOD.

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DUMEX BABIES UNION.

Name*.....

Address*

***.....

Please send a FREE Dumex Babies Union Feeding Bottle for my baby. I enclose two paper discs from two Dumex Baby Food tins.

Send this application to:
The Dumex Babies Union President,
P. O. Box 2104, Lagos.

Offer closes 31st December 1972

Summary

Third World babies are dying because their mothers bottle feed them with western style infant milk. Many that do not die are drawn into a vicious cycle of malnutrition and disease that will leave them physically and intellectually stunted for life.

The frightening fact is that this suffering is avoidable. The remedy is available to all but the small minority of mothers who cannot breast feed. Because mothers' milk is accepted by all to be the best food for any baby under six months old.

Although even the baby food industry agrees that this is correct, more and more Third World mothers are turning to artificial foods during the first few months of their babies' lives. In the squalor and poverty of the new cities of Africa, Asia and Latin America the decision is often fatal.

The baby food industry stands accused of promoting their products in communities which cannot use them properly; of using advertising, sales girls dressed up in nurses uniforms, give away samples and free gift gimmicks that persuade mothers to give up breast feeding,

Even in Britain- where standards of living are high and most families live in hygienic conditions, babies still suffer from infections passed on to them by feeding bottles – as hospital statistics show. In the shantytowns of Latin America and the squalid squatter suburbs of Africa, these conditions are a dream that will be unattainable for generations.

Where there is no choice but squalor, the choice of an artificial substitute **for breast milk is in reality a choice between health and disease.**

Malnutrition is just a part of the cycle of poverty, squalor and infection, Malnourishment can weaken a child and render him more vulnerable to infection. Or an infection, unavoidable in squalid conditions will prevent a child from absorbing the nutrients in his food and lead to malnutrition.

The results can be seen in the clinics and hospitals, the slums and graveyards of the Third World. Children whose bodies have wasted away until all that is left is a big head on top of the shrivelled body of an old man. Children with the obscene bloated belly of kwashiorkor,

Why are mothers abandoning breast feeding in countries where it is part of the culture? Are we helping to promote the trend? What's the responsibility of the baby food industry? What are we doing to prevent avoidable malnutrition?

These questions are being raised by doctors and nutritionists throughout the Third World. War on Want believes that by opening the subject to public debate a solution may be found faster than through silence.

Introduction

The object of this report is not to prove that baby milks kill babies. In optimum conditions, with proper preparation and hygiene, they can be a perfectly adequate infant food.

The conditions in much of the Third World are, however, far from the optimum, And in communities where the standard of living is low, housing is poor and mothers do not have access to the basic facilities that most English housewives would take for granted, baby milks can be killers.

Despite this, there is in these communities a trend away from breast feeding, the safest, surest method of nourishing the young infant.

Again, It is not our object to prove that the baby food industry is exclusively responsible for this trend. Social change is a complex phenomenon and the trend towards artificial feeding is particularly marked in new urban communities.

People talk of "urbanisation" with awe. It is a process difficult to define and whose effects are not easy to quantify, although the product is often a terrible parody of so-called "civilised" ways of life, Urbanisation is a very convenient explanation for any puzzling social change,

It is easy to accept the view that city life is essentially different from country life and there is little that can be done to prevent each new generation of town dwellers from doing things in the town way.

But the alluring bright city lights which hold so much promise are merely advertising hoardings and neon signs. In the cultural maelstrom of the new city where traditional cultures face up to the cut-throat materialism of the "modern" way of life, new attitudes are easily moulded even by this crude commercialism.

So in this report we have focussed on one aspect of urbanisation and its effect on women's attitudes towards breast feeding: the role of the baby food industry and the commercial promotion that it employs.



THE: PARAPHERNALIA necessary for *successful* artificial feeding. A shop window in London.

The bare bones of malnutrition : a perspective on the problem

Recent research (1) has shown that Chilean babies who were bottle fed during the first three months of their life suffered treble the mortality rate of their brothers and sisters who were exclusively breast fed. This stark fact highlights the problems of infection – and the malnutrition often associated with it – created by the early abandonment of breast feeding.

The relationship between early weaning onto breast milk substitutes and disease has been documented by detailed research in Jamaica (2), Jordan (3), India (4) and Arab communities in Israel. (5) It is being noted with concern by doctors in the field. The term “weanling diarrhoea” is now accepted as the most pertinent description of a broad spectrum of infant ailments in the developing world.

The link between infection and malnutrition is as clearly documented,

“There is abundant evidence that diarrhoea is more frequent and serious in malnourished than in well-nourished infants and children and that diarrhoea promotes malnutrition by reducing the intake and absorption of food. Protein-calorie malnutrition in its various forms is associated with acute or chronic diarrhoea” notes one of the definitive works on malnutrition. (6)

The form which malnutrition takes is also changing as the problem of early weaning in poor conditions grows. Kwashiorkor, the classic form of acute malnutrition, is usually found amongst children over a year old rather than amongst infants. It occurs mainly where there is a deficiency of protein in the diet, although it is also closely linked with infection.

A doctor describes the form of malnutrition which is normally found in the infant under 12 months old: (7) “The baby’s weight gain stops and then starts sliding down, and he becomes increasingly like a little shrivelled up old man, a condition that we call marasmus. Now when the child’s nutrition slips into this state he becomes increasingly susceptible to infection . . . you have got a vicious circle being set up in which the malnourished child is prone to get diarrhoeal disease from the infections he is exposed to and because of the diarrhoeal disease he is able to assimilate even less of the food that is given him because his tummy and intestines are not working properly; as a result, his nutritional status gets worse.”

Nowadays, the medical profession is increasingly looking at kwashiorkor and marasmus as manifestations of the same Protein-Calorie Malnutrition (PCM). But it is the marasmus that affects the infant and it is this form that results from early weaning in poor conditions.

Marasmus is on the increase, according to many doctors, largely because of the growth of urbanisation and urban influences.

Poverty leads to another abuse of baby milk which has disastrous consequences. Poor mothers will often “stretch” the milk they buy to make it last longer. One doctor estimates that it is often diluted with as much as three times as much water as it ought to be.

The **result** is even more immediate than with infection. The young infant can only drink a certain amount of liquid each day so he cannot get enough protein or calories. The result is undernutrition leading rapidly to malnutrition.

In *the long term*

Malnutrition causes enough immediate suffering and death to be a priority for the national health programmes of most developing countries.

In the long-term, though, it causes what many believe to be irreparable damage physically and mentally.

Until a few years ago, there was no clear proof of the effects of early malnutrition on mature behaviour. But recently, evidence has been growing which points to irreversible mental effects of malnutrition in children under two years old.

The human brain grows to its adult size in a brief period, 80% of the growth occurring during the three months before birth and the first 18-24 months after. Malnutrition during this period does result in markedly smaller brain sizes, but the brain is a complex organ and no link has been shown between brain size and the conventional measures of brain performance.

The measurement of intelligence and the factors affecting it, is emotive and controversial ground. But in a recent study, Prof. Jack Tizard of the Institute of Education, London University produces evidence to show that children who have suffered from malnutrition lagged behind in, language development and other indicators of intellectual performance.’ (9)

“This developmental delay could not be accounted for merely by the poverty of their material and social environment but was shown also to be related to their subsequent physical growth” (a good indicator of the effects of malnutrition) notes Prof. Tizard. (10)

He is careful to put the long-term effects of malnutrition into perspective and emphasises that the immediate effects measured in terms of health and happiness are as important,

This perspective is illustrated by a study which he describes. A group of children in a Mexican village were given supplementary foods from birth and compared with another group who received the normal village diet.

“The supplemented group grew faster and developed more quickly than did a control group. They slept less, spent more time out of their cots, talked and walked at a younger age and were more vigorous in play, and more **likely to take the lead** in games with their brothers and sisters and age mates. And because they were, more precocious, healthy and lively, they became more interesting to their parents and more highly regarded by them. Hence **they** received more attention than did other children in the village and this in turn increased their behavioural competence.

“In other words, the children themselves brought about changes in the social environment which in turn contributed to their own development.”

Breast versus bottle: the original convenience food

Breast milk is the original convenience food. No mixing, warming or sterilising needed; no dirty pots and bottles to wash up afterwards; always on tap from its specially designed unbreakable containers. And it is genuinely the most nutritious wholesome product on the market. A copy-writer's dream.

Yet despite all its advantages, breast milk is losing ground rapidly to inferior artificial substitutes in many developing countries. The trend is particularly marked in the cities, but is also being noted wherever the urban influence spreads.

In Chile where the fall has been most extreme, 95% of 1 year olds were being breast fed 20 years ago. Now, only 20% of infants are being breast fed at 2 months. (1) But the pattern is similar in many other parts of the world,

The uniqueness of human milk

The superiority of mother's milk over all the artificial substitutes has to be emphasised – although it is only to be expected of a product that has evolved, along with man, through thousands of years of evolution.

The milks of different animals are very different from one another. Human milk contains only 1.3% protein, cows milk 3.5%. Rabbits milk contains 14% but then rabbits grow fast!

If humans lived in icy Arctic waters, a woman's milk might have the high fat content of whales' milk. We don't, so it doesn't. Human milk has evolved to fill the needs of the human infant!

The proteins and fats in human milk differ considerably from those of cows' milk; differences which are important to the digestibility of milk by the human infant.

Infant milk manufacturers nowadays make "humanised" products, resembling mothers' milk as closely as possible. They admit, though, that their products are just approximations of the real thing. And many doctors believe that if the infant is to be artificially fed it might as well be with cheap, relatively unmodified cows milk as with one of the more sophisticated products of modern food technology.

Protection against infection

Human milk also protects the young infant against disease. The mechanism is still not clearly understood but is due to more than any initial dose of antibodies in the colostrum (the milk-like substance produced in the first few days after birth.)

"Those of us whose paediatric practice dates back many decades into the pre-antibiotic era will have no hesitation in testifying in favour of human milk as the best therapeutic diet for infants with severe (and usually fatal) acute staphylococcal infection (to cite only one example)": notes Prof. Paul Gyorgy of the University of Pennsylvania. (2)

The natural pill

There are long-term benefits from breast feeding which are as important. These will be emphasised in a World Health Organisation report (in the Technical Monograph series) due to be published in mid-1974.

Amongst these is the contribution that breast feeding

makes to child spacing – and thus the growth of population. In many traditional cultures a woman would not sleep with her husband until she had weaned her child completely. If she was breast feeding for two or three years, this would obviously have an effect on child spacing.

There may also be a direct physiological effect. It has been observed that women who allow their children to breast feed without restriction do not menstruate for up to two years. (3) The average in one Nigerian community was 16 months after the birth of a child. (4) This physical birth control is unreliable and may be due simply to maternal malnutrition and anaemia. But there are suggestions that the effect is more marked where breast feeding is "on demand" rather than the "token" breast feeding – as in Britain where children are fed on schedule. (5)

In societies where children seem to follow one another yearly in most families, the importance of a cultural practice that extends the gap to 2% or 3 years need not be emphasised.

There are also complex links emerging between breast feeding and emotional and physical development. One early survey showed that breast-fed children learnt to walk significantly earlier than the bottle-fed, apparently because breast feeding is a more active process for the baby. (6) In the main, breast feeding is also associated with better emotional development although here again "token" breast feeding has different effects.

Why take to the bottle?

IN CHILE the total abandonment of breast feeding in the space of 20 years may, paradoxically, have been due to a misconceived social welfare policy. The government introduced a free milk scheme in the 1940s (on the lines of the British National Dried) which today reaches 85% of the population. Politely, a report from the United Nations Protein Advisory Group (PAG) (7) talks of the "displacement" effect on breast feeding of milk products distributed ad lib through the health services.

IN JAMAICA where there has been no such philanthropic action, there is still a trend from breast feeding. A survey of infant feeding around Kingston revealed that nearly 90% of mothers started bottle feeding before 6 months, (8) (the time at which most authorities agree it is necessary for the baby to have some additional foods).

Why did they begin bottle feeding? Fourteen per cent said that they had been told to start by a milk company nurse or been given a free sample and bottle when they were still satisfactorily breast feeding. Only 13% gave up breast feeding because they were working. The largest proportion, 43% said that they had insufficient milk.

"There is some doubt as to the validity of the reasons given by some mothers for beginning the bottle," writes Dr. McGregor who conducted the research. "Many mothers who said they had insufficient milk obviously had enough when questioned further."

It is interesting to note that milk company advertising stresses "when breast milk is not enough."

IN IBADAN, NIGERIA (9) a study of infant feeding practices revealed a similar situation. More than 70% of the mothers surveyed began bottle feeding their babies

before they were four months old. This in a country where breast feeding has traditionally continued for up to four years!

"The reasons given for mixed feeding largely involve the health and strength of the baby; bottle feeding was seen to hasten physical development. Concepts of "power and strength" popular in Nigerian culture and used frequently in food advertising were strongly associated with this method of feeding" says the report.

"Ninety-five per cent of the mothers who combine breast and bottle feeding believed they had been advised to **do so** by medical personnel, mainly midwives or nurses. Milk company representatives who give talks on feeding appear to be identified as hospital and clinic staff."

Social change

The move from traditional rural cultures to an urban way of life strongly influenced by the West is a major factor in the trend from breast feeding. As the social position of women changes and they go out to earn a wage, there are obvious pressures against breast feeding. Adoption of Western attitudes, like looking at the breast as a cosmetic sex symbol rather than a source of nourishment, reinforce the trend.

The cultural vacuum of newly urbanised communities makes them vulnerable to the adoption of new practices – which may be harmful.

But to move from breast feeding, the existence of an alternative is almost a pre-condition. And there is little

doubt that in the cultural maelstrom of Third World societies, in which traditional rural communities face up to the material promises of the consumer society the infant food companies have not hesitated to promote an awareness of their products. And the means they have used have often had serious effects on the well-being of the babies for whom they are intended.

Sales girls in nurses' uniforms

A paediatrician of international 'repute **gave** this interpretation of the role of the milk industry at a workshop on "New Urban Families."

"The last twodecades have been characterised by the expansion of the activities of infant food firms into less developed countries, with competitive advertising campaigns, so that unaffordable, high-status, processed milks have been thrust upon unprepared communities. These high-pressure advertising campaigns employ all available channels and media making use of modern techniques of motivation and persuasion. In some places firms employ "milk nurses" to make home visits and to attend clinics to promote sales further." (10)

The companies which use nurses (sometimes qualified, sometimes not) say that their function is "educational," They are supposed to give nutritional advice and instruction to mothers rather than just sell their company's product.

A new mother in a developing country, who happened to be married to a specialist in infant nutrition, took a



THE SUPERIORITY of mother's milk over all the artificial substitutes needs no emphasis with this mother from Guinea. FAO photo by Marcel Ganzl.

professional interest in the sales pitch of a milk nurse who visited her unsolicited.

The nurse began by saying, in general terms, that breast feeding was best. She then went on to detail the supplementary foods that the breast-fed baby would need. Vitamin drops to be started at 3 or 4 weeks; cereals at 6-8 weeks; fruit juices, properly prepared, soon after. The nurse was implying that it was possible to start with a proprietary baby milk from birth which would avoid these unnecessary problems. (11)

The milk companies with whom we spoke emphasised the complexity of the social changes going on in the Third World of which early weaning is just a small part. Yet, as we show in a later section, they are unwilling to look at the more complex effects of their own advertising. We accept that the trend away from breast feeding is not all due to corporate promotion. But at the same time, examples like that above make us reluctant to take the effects of promotion at face value.

Those who can't . . . probably could!

Cow and Gate regards the problem of the mother who cannot breast feed as a particularly important reason for staying on the market, promotion and all.

"Just think what the situation would be if we were to say, all right, we think these people are right," says Ian Barter of *Cow and Gate*. "Withdraw all consumer support; we won't have any nurses; we won't have any of this literature; we won't have tins on display at the chemists because this in itself is telling the mother that there is a substitute available. Take them all out and we'll just have a few in medical centres for her to go and get them from the hospital if the hospital will stock them in such circumstances.

"Well, what would the result be? It would be the death of thousands of children because there are tens of thousands of mothers in these countries who have got to have some substitute for their milk in order to feed their babies."

This conclusion does not necessarily follow, and we will deal with the alternatives later, But just how many mothers are there who cannot breast feed?

A survey conducted by Dr. David Morley in a rural Nigerian village found less than 1% of mothers with serious breast feeding problems. Between 2% and 3% had temporary trouble due to illness but still breast-fed for most of the first six months of their babies' lives. (12)

Even in developed countries where breast feeding is no longer a part of mainstream culture, physical "lactation failure" as the doctors term it, is not a very great problem. One Chelmsford hospital sends home 87% of its new mothers breast feeding their babies successfully. The 13% who don't are those who cannot and those who do not want to – with the latter possibly the larger group.

In the urban areas of the Third World, figures are hard to come by. Nestlé's estimate that perhaps 5% of mothers would have difficulty. Doctors confirm this as the likely maximum figure.

A confidence trick

Why can't mothers breast feed?

Except in the hard-core few per cent, who have direct physical problems, the reasons are emotional and psychological. The "letdown reflex" which controls the flow of milk to the mother's nipple is a nervous mechanism. And it is easily upset by emotional influences – fear, pain, uncertainty or embarrassment.

This is why one author described breast feeding as a confidence trick. (13)

Confidence is no problem in traditional societies. Dr. Morley describes how his attempt to study the amounts of milk that breast-fed babies in a village were getting, ended in dismal failure,

Although he and his fellow workers instructed all the mothers to bring their children to be weighed before and after breast feeding, the study had to be abandoned because many of the mothers just went ahead and fed their babies without having them weighed.

"We soon came to understand that the decision to put the baby to the breast is made subconsciously by the mother while her attention is involved elsewhere," comments Dr. Morley. (14)

Somewhere between village and town an awareness of an alternative to this incredibly natural process creeps in. Somehow, mothers are deciding that a bottle is necessary in addition to the milk she provides.

Some mothers may even become so concerned about not having enough milk that they will not have enough.

A significant part of all company promotion that we have seen emphasises "when mother's milk is not enough, our product will help to make up the difference." In a Third World context, is that approach really ethical?

Third World context: the three stone kitchen

"Wash your hands thoroughly with soap each time you have to prepare a meal for baby," is how the instructions on bottle feeding begin in the Nestles Mother Book.

Sixty-six per cent of households in Malawi's capital have no washing facilities at all. Sixty per cent have no indoor kitchen. (1) Nest/es sells milk for feeding babies in these communities.

"Place bottle and lid in a saucepan of water with sufficient water to cover them. Bring to the boil and allow to boil for 10 minutes:" says Cow and Gate's Babycare Booklet for West Africa. A picture of a gleaming aluminum saucepan on an electric stove.

The vast majority of West African mothers have no electric stoves. They cook in a "three-stone" kitchen. That is, three stones to support a pot above a wood fire. The pot that must be used to sterilise baby's bottle also has to serve to cook the family meal – so sterilising and boiling of water will probably be forgotten. Cow and Gate milks are fed to babies in this kind of West African community.

Nestles are particularly anxious to emphasise to critics that all their infant feeding products have instruction leaflets in the main languages of the country where they are sold. On the leaflet are simple line drawings to illustrate the method of preparing the feed.

Most Third World mothers however, are illiterate, even in their native language. And the four simple line drawings, taken by themselves, are almost meaningless. Have Nestles undertaken any research to find out whether mothers' understanding can be improved? "We can't undertake work of that nature," say the policy makers of Nestles Dietetics (Infant Feeding) Division.

"Cow and Gate is a complete food for babies under six months and can be used as a substitute for breast feeding . . . says the Cow and Gate booklet.

In Nigeria, the cost of feeding a 3 month old infant is approximately 30% of the minimum urban wage. By the time that infant is 6 months, the cost will have risen to a crippling 47%. (2) In Nigeria, as in most developing countries, the minimum wage is what the majority earn. Cow and Gate products are sold throughout Nigeria.

The situation is similar in most developing countries. The Protein Advisory Group of the United Nations (PAG) published a table giving the cost of artificially feeding a baby as a percentage of the minimum wage in some of these countries (with Britain as a comparison).

Obviously, for the majority of mothers in these countries, bottle feeding is just not a viable alternative. For even if they can afford to buy enough milk, it is unlikely that they can fulfill the minimum requirements for giving it to the baby safely.

This is recognised by most authorities, "In the less technically developed areas of the world . . . immediate and serious basic difficulties attend attempts to artificially feed young infants on a cows' milk formula," (milk powder) says the PAG Manual on Feeding Infants and Young Children. "These include lack of sufficient money to buy adequate quantities, poor home hygiene (including water supply, fuel, feeding utensils, storage etc.) and inadequate nutritional knowledge of the mother. Under these conditions, usual for the majority in less developed countries, artificial feeds mean the use of too diluted, highly contaminated solutions of cows' milk,



AN AFRICAN KITCHEN. Proper preparation and sterilisation of baby's milk is not likely here.

Country	Minimum wage	Cost at 3 months		Cost at 6 months	
	per week	per day	% of wage	per day	% of wage
	US \$	US \$		US \$	
United Kingdom	39.20	0.84	2.1	1.20	3.0
Burma	1.01	0.53	50.5	0.81	76.2
Peru	5.60	0.34	6.0	0.50	8.9
Philippines	2.69	0.67	25.2	1.09	40.5
Indonesia	3.00	0.25	8.3	0.62	20.7
Tanzania	7.02	1.57	22.4	2.44	34.8
India	4.62	1.05	22.7	1.62	35.1
Nigeria	5.18	1.57	30.3	2.44	47.1
Afghanistan	1.30	1.05	80.8	1.62	124.6
Pakistan	3.13	1.09	34.8	1.62	51.8
Egypt	4.09	0.67	16.4	1.09	26.7

Accurate information on wages and costs of food is difficult to find. Here they are expressed in US\$ for comparison purposes. It is assumed here that the artificial food is full-cream modified milk supplies the infant's total daily need for food.

The information in this table comes from a SWA seminar held on March 24, 1970 at the London School of Hygiene and Tropical Medicine (NICEF PhD course for senior teachers of child health and students taking their post-graduate diploma in nutrition). Reproduced from the Protein Advisory Group Manual on Feeding Infants and Young Children, PAO Document 1/14 26, December 1971.