

# **IMPACT OF A CAMPAIGN ON BETTER INFANT FEEDING PRACTICES CONDUCTED AT KAYAMKULAM AND SHERTHALA MUNICIPALITIES**

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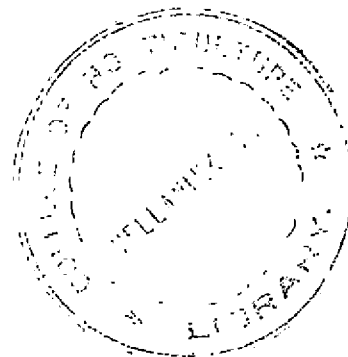
DECLARATION

I hereby declare that this dissertation entitled "Impact of a Campaign on Better Infant Feeding Practices conducted at Kayamkulam and Sherthala Municipalities" is a bonafide record of research work done by me during the course of research and that the dissertation has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

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C E R T I F I C A T E

Certified that this dissertation entitled  
"Impact of a Campaign on Better Infant Feeding Practices  
conducted at Kayamkulam and Sherthala Municipalities"  
is a record of research work done independently by Smt.  
A.JAIFANISA BEEGUM under my guidance and supervision and  
that it has not previously formed the basis for the award  
of any degree, diploma, fellowship or associateship to  
her.

A handwritten signature in black ink, appearing to read "L. Prema", written over a horizontal line.

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## INTRODUCTION

" It is only those who have not heard the sweet babble of children will say that the lute or the flute is sweet", so says the great sage Tiruvalluvar in the Kural. The words of the Kural embody the traditional care of India for children. The children of India constitute nearly 40 per cent of our total population and represent the most critical part of our human resources. The present state of health and nutrition of this crucial age group will largely determine both the quality and calibre of our nation by 2000 AD and beyond.

It is commonly assumed that infant nutrition in the first few months is assured by breast feeding. This is an integral part of the reproductive process. Further it is the natural and ideal way of feeding the infant besides a being unique biological and emotional basis for child development. Until the second half of the 19th century breast feeding was accepted as the natural and inevitable way to feed infants.

But in the last century due to perceived social priorities the custom of breast feeding seems to be on

the decline, most noticeably among the third world populations. This growing trend of keeping away from breast feeding especially in developing countries needs to be stopped. This is mainly due to the consequent threat both to the health and at times even to the survival of the infant. In many developing countries unsanitary conditions in and around the home, the use of unclear water and insufficient money to buy enough breast milk substitutes make young mothers to wean their babies quite early leading to disastrous results. Poor infant feeding practices act as a severe obstacle to social and economic development of a nation. Infant and toddler mortality rates in India are much higher than those reported for many other countries. Breast-feeding is the best and natural for assured nutrition and infant health in any setting. Actions are needed to protect and support this practice. If nothing is done to reverse this trend which increases mothers who keep away from breast feeding an increased incidence of diarrhoeal diseases, malnutrition and death among infant is most likely.

Because breast feeding is so important to good health, efforts are being made in all parts of the world to promote and protect breast feeding through extensive campaigns and legislative controls. This social and

nutritional problem is particularly acute in rural areas and in the small and medium towns in Kerala. (By 2000 AD the majority of them are likely to become bigger towns and even cities.) The problem population in these towns is constituted by slum-dwellers and squatters who form the main segment of the migrating population from rural areas. They constitute about 50-75 per cent of the population in these towns.

In the past very few project planners had paid any adequate attention to the uplift of the urban poor. But now many of the administrations of urban areas are becoming conscious of this major problem requiring not only immediate corrective action but long range planning and progressive implementation of action plans. The major problems awaiting solution are inadequate housing, lack of potable water, open sewage uncollected garbage, malnutrition, inadequate facilities for schooling and health care of children. Seized of these problems in its totality, UNICEF has taken up programmes in this country. In Kerala State, UNICEF is currently assisting the Municipalities located in the coastal belt between Quilon and Cochin to tackle some of these problems. These towns are Kayamkulam and Shertalai.

An extremely serious situation exists today in relation to infant health in these areas and sufficient efforts are to be made to improve the situation. The solution to the problem may be found in a number of different ways. Possibly the most appropriate method is to diffuse knowledge about modern infant feeding practices among these population. A large and systematic effort is therefore necessary to reverse the newly acquired wrong habits of the people. Nursing mothers have to be educated that breast feeding is natural. A continuous educational programme appears to be the best. Among the various educational methods, generally a campaign is the most suitable one to get either a new practice adopted or to give up a wrong practice acquired.

Therefore a campaign on better infant feeding practices was proposed by the Kerala Agricultural University, in two selected small towns in the State, with the following objectives.

1. To encourage those women who are already breast feeding their infants by imparting adequate scientific information on the practice.
2. To wean away those women who have adopted artificial feeding for their infants by imparting information on the hazards of artificial feeding and about the advantages of breast feeding.

3. To impart knowledge about the introduction of complementary foods at the correct time during the first year of life even when breast feeding is continued and
4. To train the personnel of the SMTD Project area, school teachers, etc. so that the trained personnel in turn may continued to disseminate knowledge on better infant feeding practices including breast feeding.

## REVIEW OF LITERATURE

In India there is a catch in the apparent progress in demographic evolution. While the over all death rate of population in the country has been falling during this century. The proportion of total deaths occurring in the first five years of life has been on the increase (Health Statistics of India 1978)<sup>1</sup>. Nearly 20 per cent of deaths occur in the 1st month of life, 10 per cent in the post-neonatal period of infancy and another 18 per cent in the period between one and five years of age (Health Statistics of India, 1978)<sup>1</sup>. Ghosh (1980)<sup>2</sup> reports that while infant mortality rate in developing countries is 7 to 8 times more than that in developed countries, the mortality rate during the pre-school period in developing countries is 45 to 50 times more than that in the developed countries. According to Health Statistics of India (1978)<sup>1</sup> infant mortality rate is higher in rural areas compared to urban areas.

In India, today, there are nearly 100 million children below the age of 5 years and two to three per cent of these, exhibit the severest forms of protein energy malnutrition viz. Marasmus and Kwashiorkor. All India statistics show that malnutrition is the underlying cause of deaths in 7 per cent of deaths of pre-school

children (Berg, A.D. 1970)<sup>3</sup>. He reports that malnutrition is responsible for more child deaths than all other causes combined and it is estimated that 6,600 children ~~and~~ 5 years of age die every day of malnutrition in India.

The proximate determinants of child mortality have been assessed as maternal factors, nutritional status and occurrence of infection (Chatterjee, 1984)<sup>4</sup>. Poor rural Indian children receive inadequate supplements to breast milk in the latter part of infancy and insufficient feed in early years of childhood. They are at the same time subject to a heavy load of gastro intestinal diseases, respiratory infection and preventable communicable diseases. The malnutrition and undernutrition are the important underlying causes of mortality in the country (Ghosh 1977)<sup>2</sup>. Terrel et al. (1982)<sup>5</sup> had identified certain development indicators which may help to reduce infant mortality rate. They include literacy of women availability of medical services, awareness of family planning measures, economic independence of women of the reproductive age, employment opportunities in Agriculture, Industry and other services.

Successful period of breast feeding is the protection, a child can have against infection and malnutri-



tion. In many parts of the world, substantial evidence has established the direct and indirect relationship of breast feeding to lower rates of illness, death and malnutrition among children. Breast milk is a perfect infant food, providing babies with complete balanced nutrition. It is also a fluid with living cells which are constantly changing and adapting to the immunological and nutritional needs of the baby (Clavano 1984)<sup>6</sup>. A second natural miracle of breast feeding is the "homing mechanism" which enables mothers to produce and transit to their babies, through breast milk, antibodies against infections (Clavano 1984)<sup>6</sup>. Breastmilk initially appears as colostrum, a concentrated yellowish fluid measuring approximately 25 ml during the first 24 hours (Clavano 1984)<sup>6</sup>. The antiinfective cellular components present in the colostrum are capable of destroying viruses, bacteria and fungi. Breast milk has also been found to contain taurine, which is essential for the development of brain cells. A third advantage of breast feeding is its contraceptive effect, since it significantly reduces the likelihood of next pregnancy (Clavano 1984)<sup>6</sup>.

Exclusively breast fed young infants showed distinctly better growth than those receiving commercial

supplements as shown by studies conducted in Bombay and Calcutta (Gopujkar 1984)<sup>7</sup>. Despite the fact the most of the infants surveyed were living in poverty and in unhygienic conditions, it was remarkable that 60-70 per cent of infants in Bombay and Madras, and 50-60 per cent in Calcutta had attained in their early infancy, a level of growth comparable to international standards. The explanation for this appears to be statutory practice of breast feeding still widely in vogue among the urban poor (WHO 1984)<sup>8</sup>. UNICEF (1984)<sup>9</sup> reports that for infants who are breast fed, the first six months after birth are often the healthiest time in their lives. UNICEF (1984)<sup>9</sup> also reports that even in every poor villages, or in the slums of the cities, young infants are often sleek limbed and shining with health reflecting the protection which breast milk offers.

It is a redeeming feature of our current nutritional situation that, women in our poor rural communities are generally able to breast feed their infants successfully over prolonged periods, some times extending to 2 years (Gopalan 1983)<sup>10</sup>. In the worldwide study of 45 different cultural and ethnic groups, it was found that on an average the infant is breast fed for 1 to 2 years, though 4 years was not very uncommon and in some communities it may

continue for as long as 6 years (Ebrahim 1980)<sup>11</sup>.

There is no evidence of a significant relationship between the quality of breast milk and the health of the mothers. Gopalan (1983)<sup>10</sup> reports that inspite of the poor diets, the mothers, milk is of good quality especially with regard to protein content. The results of chemical measurements of the constituents of milk are similar as in many countries (Morley 1979)<sup>12</sup>. The malnourished mother may however, secrete a smaller volume of breastmilk.

But for this remarkable asset of breast feeding practices, the picture of health and nutrition of our children would be more worse than what it is today. As matters stand now from the nutritional point of view, perhaps the happiest period in the life of a poor child in India is the first six months of its life when the child is at the mother's breast (Gopalan 1983)<sup>10</sup>. In Philippines, the decision to encourage breast feeding instead of bottle feeding of new born babies at Bagnio General Hospital reduced clinical infections by 88 per cent, diarrhoeal infections by 93 per cent and infant mortality by 95 per cent (UNICEF 1984)<sup>9</sup>.

Studies in several countries have concluded that infants breastfed for less than six months (or not all) were 5 to 10 times more likely to die in the second six months of life than babies who were breastfed for six months or more (UNICEF 1984)<sup>9</sup>. In the United States a study in New York state has found that bottle fed infants were hospitalised three times more frequently than breast fed infants during their first year of life (UNICEF 1984)<sup>9</sup>.

In India where the practice of breast feeding and the value of human milk in infant feeding have been practiced since time immemorial, a declining trend in this practice has been observed due to urbanisation and industrialisation by Thimmayamma and Rau (1982)<sup>13</sup>. Helsing and King (1982)<sup>14</sup> have reported that both the percentage of mothers who are breast feeding at different times after delivery and the average duration of breast feeding are definitely increasing.

Narayana and Gujoral (1981)<sup>15</sup> have reported that in an upper socio-economic group in a cosmopolitan town in India, 73 per cent of the women had stopped breast feeding by the age of 6 months as compared to 34.7 per

cent in a slum community. In contrast an earlier study conducted by Narayana et al. (1974)<sup>16</sup> in a rural area had revealed that even among the richer women, only 4.4 per cent had discontinued breast feeding at 6 months. Studies undertaken in urban and rural low income group women in Hyderabad by Ramachandran (1984)<sup>17</sup> indicate the breast feeding still remains universal in these segments of population upto 18 to 24 months. A study done by Clavano (1982)<sup>18</sup> among both rural and urban populations in nine countries found that during the period 1975 to 1977, the lowest percentage of mothers initiating breast feeding was in the Philippines and Guatemala. According to Clavano it also shows that the trend away from breast feeding in the philippines seemed to have become pronounced throughout urban areas. Urbanisation which is often equated with industrialisation is universally accepted as a major factor of the observed decrease in the duration of breast feeding (Terrel and Bertrand 1982)<sup>5</sup>. In the urban poor community in Northern Europe one sixth of the mothers interviewed indicated that they had never breastfed (Clavano 1984)<sup>6</sup>.

UNICEF (1984)<sup>9</sup> reports that the reason for the return to breast feeding in the industrialised world is

the scientific discovery of its many advantages, and the rapid communication and acceptance of that knowledge by more educated and better informed mothers (UNICEF 1984)<sup>9</sup>, facts that the same knowledge must be made available in the developing world where millions of mothers are using breast milk substitutes which they do not need, cannot afford, and are unable to safely use.

In Brazil, the percentage of babies being breast fed has fallen from 96 per cent in 1940 to 40 per cent in 1974, in Chile, from 95 per cent in 1955 to 20 per cent today. In Mexico from 95 per cent in 1960 to less than 40 per cent by 1966, in Singapore from almost 80 per cent in 1951 to only 10 per cent in 1971, in the Philippines from 63 per cent in 1958 to 43 per cent in 1968, in Republic of Korea from 55 per cent in 1950 to 35 per cent in 1970 (UNICEF 1982-83)<sup>19</sup>.

UNICEF (1982-83)<sup>19</sup> reports that in the materially poor countries of the developing world, the advantages of breast feeding over bottle feeding can widen to a difference between life and death. Usually the bottle feeding leads to disasters because of the mother's inability to read the instructions on a tin of formula, or to afford

enough artificial milk powder for so many months. It is also mentioned that her ignorance on the need to sterilize the necessary equipments, used for bottle feeding or to return to breast feeding if bottle feeding fails, will worsen the situation. According to the reports of UNICEF (1982-83)<sup>19</sup> the low income mother who is persuaded to abandon breast feeding for bottle feeding in the developing world is being persuaded to spend a significant proportion of her small income, in order to expose her child to the risk of malnutrition, infection and an early grave. Wray (1977)<sup>20</sup> reports that introduction of expensive bottle feeds and processed supplements, poor environmental hygiene and insanitary conditions under which the feeds are prepared, stored and fed to the infant finally lead to increased infective morbidity, aggravating the already existing under nutrition and resulting in increased infant mortality. The studies conducted by Cunningham (1977)<sup>21</sup> has depicted that the death of infants and cessation of lactation results in prompt return of fertility and often the advent of next pregnancy. Studies undertaken in the urban and rural population in Hyderabad confirm the observations made in several other developing countries that absence of

lactation results in rapid return of menstruation. Rapid return of menstruation and fertility also implies early occurrence of next pregnancy (Sathar, 1983)<sup>22</sup>. Ebrahim (1980)<sup>11</sup> reports that economic necessity, forces many families to make the tme of powdered milk stretch as much as possible by offering dilute feeds to the infant with the result that there has been a marked increase in the incidence of marasmus in urban areas. Studies conducted by UNICEF (1984)<sup>23</sup> have shown that artificially fed infants were three times more susceptible to diarrhoeal infections, and 2 times more likely to contact respiratory infections than infants who are breastfed. It has also been reported that there is a higher prevalence of allergic disorders, infective morbidity, emotional instability and sudden death syndrome in bottle fed than breastfed infants (Jellifee & Jellifee 1979)<sup>24</sup>, Babies who are bottlefed are many time more likely to be malnourished and to contact infections, thus setting up the cycle of malnutrition and infection at an even earlier and more culnerable age (UNICEF 1984)<sup>23</sup>. A study conducted in Philippines, report dramatic and significant correlation between breast feeding and decreased rate of death and illness in infants



(UNICEF 1984)<sup>23</sup>. Replacing the breast feeding with infant food formulae during early life of infancy among poorer segments of population in developing countries is associated with disastrous results. Studies conducted all over the world shows that successfully breastfed infants rarely suffer from severe infections or from severe degree of malnutrition during their first six months of life and they grow well. In contrast, bottle fed infants show severe growth failure and suffer from repeated infections (Jellifee & Jellifee 1979)<sup>24</sup>.

Advertisements for commercial infant formula generally depicts a modern attractive women, bottle feeding her healthy baby (WHO, 1984)<sup>8</sup>. For women trying to copy this model, the idea of bottle feeding is appealing. Such advertisements give the impression that bottle feeding is necessary for the baby's health. In many countries education on pre-natal care does not often include enough information about, care during pregnancy or about infant feeding (WHO 1984)<sup>8</sup>. Practices in maternity wards and hospital rules do not allow women to start breast feeding early enough as to feed on demand. Moreover when health staff provide free samples

of breast milk substitutes, mothers may believe that formula are as good as if not better than breast milk (WHO 1984)<sup>8</sup>. Studies conducted by Clavano (1984)<sup>6</sup> in Northern Europe indicated that 27 per cent of the mothers from the urban economically advantaged group, 9 per cent of urban poor and 41 per cent of rural population were found to have been given free milk samples while in the hospitals. Results of studies undertaken among poorer segments of urban population, especially in the population slums of metropolitan cities in developing countries indicate that the traditional breast feeding practices have been to some extent eroded due to bottle feeding and early introduction of processed supplements which are accepted symbol of sophistication (Jellifee and Jellifee (1979))<sup>24</sup>.

Thimmayamma and Rau (1982)<sup>13</sup> have reported that according to their study, 50 per cent of the mothers introduce food supplements much early, irrespective of their socio-economic status, due to insufficiency of breastmilk. According to them, the first supplement to infant consisted usually of milk, milk with soft boiled rice, cereals, legumes and vegetables. Supplements were received by most of the infants only after 6 months.

The child moves through a critical passage of survival threat from malnutrition from 6 months to 18 months when weaning has began but the supplementation remains inadequate. Gupta (1980)<sup>25</sup> reports that mothers must be encouraged to breast feed their babies as much as possible and when a mother is incapable of breast feeding, food supplements should be started from the fourth month onwards, otherwise baby's nutrition would suffer. Most infants need additional foods by the age of 6 months. The purpose of these foods is to complement the breast milk and make certain that the young child continues to have enough energy, protein and other nutrients to grow normally, Cameron and Hif Vander (1983)<sup>26</sup>. They also report that it is important that breast feeding is continued for as many months as possible as it provides useful amounts of energy and good quality protein.

Ghosh (1976)<sup>27</sup> reports that weaning is the most vulnerable period in the life of an infant. The facts that it must be done from six months onwards. He has also reported that addition of cows milk and semisolids must be made from the third to the fourth month. Jwani (1978)<sup>28</sup> reports that weaning of an Assian infant is greatly influenced by the religions and cultural customs of parents. According to UNICEF report (1984)<sup>29</sup> an attempt

to feed 130 foundlings with cow's milk and flour porridge for 18 months, as early as in eighteenth century had resulted in the death of 90 per cent of the infants. Ghosh (1976)<sup>27</sup> has reported that prolonged dependency on breast milk along delayed supplementations. According to her due to late introduction of semi-solids to the child's diet, the period between six months and two years is one of the continuous hunger and result is malnutrition. She has also reported that the calorie intake during this period is about half of the actual requirements and the growth curve becomes flat or shows a downward trend. Gopalan (1983)<sup>10</sup> reports that during weaning period, while infections take their toll, chronic hunger progressively undermines the nutritional status of infants. He has also reported that this situation frequently ends in a state of chronic malnutrition, which leaves lasting scars reflected in poor productivity and impaired functional competence in adult life. Haxten (1984)<sup>30</sup> reports that deaths during the period of weaning in developing countries are 15 times higher than in industrialized countries.

Jwani (1978)<sup>28</sup> reports that nutritional problems are very common in infants and young children of Asian migrants, as a result of inadequate weaning. The two

year study conducted by Chavez et al. (1975)<sup>31</sup> reveal that no supplement was given to infants among rural Mexican community until weaning. It has been well documented by many scientists that too early introduction of supplements under conditions of poor environmental sanitation is likely to be associated with increase in infective morbidity (Wyon and Gorden (1971)<sup>32</sup>, (Waterlow and Thomson (1979)<sup>33</sup> and waterlow (1981)<sup>34</sup> . Delay in introducing supplements too long is likely to cause undernutrition.

A review of paediatric text books show that recommendations regarding approximate time of introduction of supplements has undergone considerable change over years. The initial recommendations in the twenties were that supplement should be introduced at 6 months. Investigations among affluent segments of population in many urban areas in India indicate that introduction of supplementary foods from third month onwards due to inadequacy of breast milk, has resulted in negligible increase in morbidity rate (Population reports 1981)<sup>35</sup>.

According to Ramachandran (1984)<sup>17</sup> among the rural women in India, there is a tendency to delay introduction of supplements until the infants are one year

old because of the faulty belief that breast milk is sufficient to support infant growth for one year and this results in marked growth retardation and often refusal of the baby to switch over to the newer varieties of food from breast.

However results of some of the investigations conducted at National Institute of Nutrition, Hyderabad suggest that early introduction of supplements before six months of age is not associated with any beneficial effect on infant growth (Ramachandran 1984)<sup>17</sup>. Campaign on better infant feeding practices is a programme to which UNICEF, the World Health Organisation and many other individual organisations are now committed.

Woodland (1979)<sup>12</sup> reports that the Food and Agricultural Organisations has decided to try to include breastmilk as a basic food to be recorded when planning national nutritional programmes.

In India, WHO and UNICEF have jointly sent letters to all members of parliament and all paediatricians explaining the need for a campaign to promote breast feeding and asking for their support. UNICEF advertisements on breast feeding through popular media, reinforces the fullest moral and material support of this organisation (UNICEF 1982-83)<sup>19</sup>. A six week advertising campaign

to promote breast feeding was launched by the House wives Association of Trinidad and Tobago in 1974 through media like news-papers, television and radio.

The overall impact of the Campaign was assessed using a recognition scoring systems. There was a positive correlation between the avoidance of bottle feeding and maternal familiarity with the campaigns messages (Gueri et al., 1978)<sup>36</sup>. They also report that such campaigns are found to be useful to help to combat the numerous myths that exist regarding infant feeding practices. Helsing and Savageking (1982)<sup>14</sup> reports that the campaign on infant feeding practices must not be conducted in isolation, but must be integrated with other activities, such as the regulation of marketing of baby food, and improved training of health workers. Recent experience of UNICEF suggest that such direct campaigns can bring about significant improvements in the live's of the children in poor communities.

## MATERIALS AND METHODS

As desired by UNICEF a proposal to conduct two model campaigns on the significance of breast feeding and adoption of correct infant feeding practices was conducted in Kayamkulam and Sherthala municipalities by the Department of Home Science, Kerala Agricultural University.

The experimental work in the study involved the following steps:

1. Preliminary arrangements for the conduct of the campaign.
2. Base line survey among the selected families.
3. Conduct of the campaign.
4. Evaluation of the campaign.

1. Preliminary arrangements for the conduct of the Campaign:

The preliminary arrangements included the following:-

(i) A number of meetings of local leaders, Municipal Councillors, Ward members and Political leaders of each ward were arranged at the Municipal Office and they were informed about the Campaign. Their assistance for the conduct of the campaign was also sought.

(ii) Several meetings of Municipal Officials like Commissioner, Project Officer and Project assistants were arranged and their involvement in the organisation and conduct of the campaign were discussed at great length.



These officials conducted primary meetings for the local women's organisations and the Balawady teachers, to inform them about this education programme.

(iii) A meeting of the men/women representatives of voluntary organisations like Lion's Club, Y.W.C.A., Nutrition forums and Mahila Samajams, Jayees Merchants Association etc. was also conducted under the Chairmanship of Municipal Chairman. Detailed discussions were held with these representatives regarding the need for conducting a campaign on the significance of breast feeding and infant feeding practices in the areas.

Involvement of these organisations in the campaign were also discussed. They agreed to give assistance for the conduct of education programmes in the selected centres (in the form of refreshments to the trainees). The women representatives of these organisations, the trend setters of the local community, were requested to participate actively in the discussion forums to be conducted as a programme in the campaign.

(iv) Meetings were also conducted for the Balawadi teachers and members of nutrition forums. Detailed programmes for the campaign were chalked out.

(v) After these preliminary discussions with Municipal officials, representatives of Voluntary organisations and balawady teachers, seven centres in each municipality were

selected to conduct education programmes on different aspects of the significance of breast feeding and infant feeding practices. These seven centres comprised all the wards in the Municipality. In each centre, one action council with balawadi teachers and representatives of nutrition forums as members were formulated and this council was responsible for conducting mother's meetings to carry the message of the campaign.

vi) A meeting of the action council after one month was conducted to find out the reactions of the mothers. The education programmes to be conducted in each centre during the campaign were also discussed in detail. According to the convenience available in each centre education programmes in the form of question-answer session/lecture/discussion/ method demonstration etc. were finalised. Involvement of these organisations in the campaign were also discussed.

vii) A meeting of the action council was organised after two weeks to review the work carried out by balawadi teachers and the members of the action council, this was essentially meant to find out the arrangements so far made at the field level for the conduct of the campaign. Based on the suggestions in this meeting the dates for the campaigns were finalised.

## 2. Base line survey among the selected families

A survey on the infant feeding practices followed by women in the two municipalities was conducted covering a population of 292 families. The families from each ward were selected at random. A suitably structured questionnaire to elicit information on these lines were prepared and it is presented in Appendix I. Interview method was used for collecting information.

b) The data collected were analysed and the problems faced by the women regarding the above practice were identified. On the basis of these findings, the campaign was planned.

## 3. Conduct of the campaign

One day campaign on significance of breast feeding and better infant feeding practices was conducted in the small and medium town development project areas of Sherthala on 14-9-1984 and at Kayamkulam on 16.9.1984.

The one day campaign in each of the project area of Sherthala and Kayamkulam consisted of sessions as detailed below.

a. Talk/discussion classes/ question answer session/ cooking demonstrations/preparation of weaning foods from locally available materials on better infant feeding practices in the selected seven municipal areas in the F.N. from 10.00 A.M. to 1.00 P.M.

- b. Discussion forum on "Healthy child" for the representatives of all the wards of Municipality in the afternoon from 2.00 P.M - 5.00 P.M.
- c. Exhibition on better infant practices opened for the public from 9.00 a.m. to 9.00 p.m.
- d. Public meeting from 5.00 p.m. to 7.00 p.m.
- e. Monitoring the campaign.

a. Forenoon session

The first session consisted of talk/discussion/demonstration/question-answer sessions held at seven different centres of Sherthala and Kayankulam Municipalities from 10.00 a.m. to 12.00 p.m. as detailed below.

<u>Topics</u>	<u>Sessions</u>
(I) Weaning important aspects to be considered while weaning infants	Discussion
(II) Importance of Breast feeding	Question-answer session
(III) Supplementary feeding	Talk
(IV) Hazards of artificial feeding	Discussion
(V) Preparation of weaning foods (Ragikurukku)	Demonstration
(VI) Preparation of weaning foods (Arikuruku)	Demonstration
(VII) Preparation of weaning foods (Vegetable Dhalia)	Demonstration

A detailed programme was printed and distributed during the occasions. It is given in Appendix-2. Appendix -3 furnishes the recipes of weaning foods demonstrated. Women from all the wards in the municipality participated in these sessions conducted in the seven centres.

The Balawadi teachers, helpers, the convenors and members of nutrition forums participated in the morning session at the various centres. On an average 100-150 women were assembled in each of the centres and they actively participated in the forenoon session. The details of the women who participated in each of the sessions have been recorded. The UNICEF, the Kerala Agricultural University and Municipal Officials visited each of the above centres, while the programme was in progress. Important activities of the campaign are given in Appendix-4.

b) Afternoon session

In the afternoon a discussion forum was held at a Central place ( a high school near the municipality office). The session was held from 2.30 to 4.00 p.m. The topic selected for the discussion forum was "Needs of a healthy child". Importance of breast feeding, hazards of artificial feeding, economic, immunological and psychological aspects of breast feeding, introduction of new foods, introduction of low-cost nutritious weaning foods, supplementary feeding

etc. were the main aspects taken up for discussion in the above forum. The aspects that should be borne in mind by a mother necessary for the preservation of the health of her child as stressed by UNICEF namely, maintenance of growth charts, breast feeding, oral rehydration therapy for diarrhoea and need for immunisation were emphasised throughout the session. On an average 1200 women participated in the discussion forums in the two municipalities and there was a good response from the floor, at the time of the discussion.

C. Exhibition:

An exhibition was also arranged along with the campaign and the theme of the exhibition was "Healthy child". The exhibition was organised at the Municipal library hall at Sherthala and in a high school building at Kayamkulam. The exhibition was open to the public from 9.00 a.m. to 9.00 p.m. on the day of the campaign. The exhibition was opened by the Municipal Chairman of the respective municipalities. About 2500 and 1200 persons respectively visited the exhibitions at Sherthala and Kayamkulam. The exhibition threw light on the various aspects of child health, as detailed below:-

- (i) Mother's health and diet as an essential component that determines the birth of a healthy child. Nutrient and dietary needs of the mother

before and after delivery and during pregnancy was emphasised. Low cost foods to meet the above need were also displayed.

- (ii) Importance of breast milk as the primary food for the child under this the nutritional and economic supremacy of breast milk over other milk sources and the benefit of breast feeding to both the mother and the child were emphasised.
- (iii) Needs and mode of introducing-supplementary foods. Type of foods, mode of introduction, time of introduction and frequency of feeding new foods along with breast milk after the sixth month were picturised. The signs of a healthy child, the "GOBI FFF" elements as stressed by UNICEF for the development of a healthy child etc. were explained. The causes, effects and remedies of malnutrition among children were explained in the last section of the exhibition through various aspects like infant mortality rates in different states, hazards of bottle feeding, causes of malnutrition among children, oral rehydration therapy for diarrhoea, preparation of rehydration solution, immunization schedule, worm infestation as cause of malnutrition etc. and how to eliminate worms.

Charts models, specimens, cut-outs, posters, flannel graphs, growth charts etc. were used to convey the message to the common people. ~~the miniature samples of aids used are presented under Appendix-5.~~ Along with the exhibition, a slide show was also arranged. Slides related to the above topics were projected continuously. Three folders namely, "breast milk", "bottle feeding is danagerous" "low cost weaning foods, that can be prepared at home" prepared by the staff of the Department of Home Science, Kerala Agricultural University and published by the Directorate of Extension of Kerala Agricultural University were released and distributed to the public who came to see the exhibition. The folders are also presented in Appendix.5.

d. Public meetings

A public meeting was arranged at the end of the day. Municipal and University official addressed the gathering.

e. Monitoring the programme

The whole programme was monitored by the University. 92 slides on the actual conduct of the campaign in the two municipalities were prepared by the University in this regard.



Evaluation of the Campaign:

Preliminary evaluation of the campaign was conducted (after two weeks) simultaneously at Sherthala and Kayamkulam. The evaluation schedules designed for the above purpose is appended. (Appendix-6). There are three schedules. The first schedule is used to find out the reaction of Municipal Officials and the second one to find out the reaction of the balawadi teachers regarding the programme and the conduct of the campaign and the third one was used to enumerate the reaction of the mothers who have participated in the programme.

Data were collected from the municipal officials (Chairman, Vice-Chairman, Councillors, Commissioners, Project officers, Organisers etc.) and from the Balawadi teachers and from selected mothers from both the Municipalities.

The retention of knowledge by mothers assessed after one month of the conduct of the campaign. An evaluation schedule formulated for this purpose is appended (Appendix-6d).

A number of statements in important areas like importance of breast feeding, infant nutrition, introduction of supplementary foods, weanling diarrhoea and its treatment and Maternal nutrition were circulated among the same participants, who had evaluated the campaign earlier. The percentage of participants who had given correct answers

to the statements were worked out. The capacity of women to retain the knowledge gained by them during campaign was also considered as an index for measuring the impact of the campaign.

## RESULTS AND DISCUSSION

The results of the study on the Campaign on Better Infant Feeding Practices conducted in the Small and Medium Town Development Project Areas of Kayamkulam and Sherthala Municipalities are presented and discussed under two major heads viz.,

1. Base line survey of the selected families in the small and Medium Town Development Project area in Kayamkulam and Sherthala.
  2. Evaluation of the campaign on Better Infant Feeding Practices conducted in these areas.
1. Base line survey of the selected families in the Small and Medium Town Development Project area in Kayamkulam and Sherthala.

Demographic pattern of families

Demographic pattern of families surveyed in Kayamkulam and Sherthala Municipalities are given in Table 1.

Table 1

## DEMOGRAPHIC PATTERN OF FAMILIES

Religion/ caste	Kayamkulam	Sherthala
Christians	5.0	16.0
Muslims	39.0	4.0
Hindus	56.0	80.0
Hindu (Backward)	(45.0	(69.0
Hindu (Scheduled)	7.0	9.0
Hindu (Others)	4.0)	2.0)
	100.0	100.0

As indicated in Table 1, the majority of families in Kayamkulam and Sherthala belong to under privileged communities. This is generally conformity to the demographic pattern for Kayamkulam and Sherthala as given in the Census Report (1981).

Educational status of the Head of the family and the respondent

Educational status of the Head of the family (Male) and the respondent (female) are given in Table 2.

Table 2

EDUCATIONAL STATUS OF THE HEAD OF THE FAMILY (MALE)  
AND RESPONDENT (FEMALE)

(In percentage)

Educational level	Kayamkulam		Sherthala	
	Head of the family (Male)	Respondent (Female)	Head of the family (Male)	Respondent (Female)
Illiterate	9.0	17.0	3.0	4.0
Lower Primary school	16.0	18.0	35.0	36.0
Upper Primary school	34.0	35.0	36.0	37.0
High school	37.0	28.0	24.0	23.0
College	4.0	2.0	2.0	-
	100.0	100.0	100.0	100.0

As revealed in the Table 2, majority of the adults belonging to the families surveyed are moderately educated.

Economic Status of the families

Economic status of the families surveyed in Kayamkulam and Sherthala municipalities are given in Table 3.

Table 3  
ECONOMIC STATUS OF THE FAMILIES  
( In percentage)

Monthly income	Percentage of families	
	Kayamkulam	Sherthala
400 and below	30.0	52.0
401 - 800	57.0	45.0
801 - 1200	10.0	3.0
Above 1200	3.0	
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

As depicted in Table 3, majority of the families in Kayamkulam as well as Sherthala belong to low income and low middle income strata of the community.

Occupational status of the families

The occupational status of the Head of the family (male) and the respondents were collected. The results are presented in Table 4.

Table 4

## OCCUPATION STATUS OF THE FAMILIES

( in percentage)

Occupations	Kayamkulam		Sherthala	
	Head of the family (male)	Respon-dents (female)	Head of the family (male)	Respon-dents (female)
Labourers	59.0	-	55.0	-
Construction workers	-	-	7.0	-
Fishermen	3.0	-	1.0	-
Business	15.0	-	6.0	-
Govt. jobs	11.0	1.0	14.0	5.0
Coir workers	1.0	2.0	11.0	9.0
Other jobs like tailor, painter, agriculturists, welders, goldsmith, dhobies, carpenter etc.	11.0	-	6.0	-
Household duties	-	97.0	-	86.0
Total	100.0	100.0	100.0	100.0

As indicated in Table 4, majority of the women were not economically independent.

Cultural Food habits of families

Details regarding the cultural food habits of the families were collected and the results are presented in Table 5.

Table 5

## CULTURAL FOOD HABITS OF THE FAMILIES

( In percentage)

Food habits	Kayamkulam	Sherthala
Vegetarians	-	2.0
Non-vegetarians	100.0	98.0
Total	100.0	100.0

As indicated in the Table 5 majority of the families were non-vegetarians.

Size of the families surveyed

The details regarding the size of the families were collected and the results are presented in Table 6.



Table 6  
 SIZE OF THE FAMILIES  
 ( In percentage)

Family size	Kayamkulam	Sherthala
6 members and above	29.0	6.0
4 - 5 members	60.0	61.0
3 members and below	11.0	33.0
Total	100.0	100.0

As indicated in the Table 6, majority of the families surveyed in Sherthala were small families. Another interesting finding was that 6 per cent families in Sherthala and 29 per cent families in Kayamkulam were having 6 members and above. It may also be noted that 39 per cent of the population surveyed in Kayamkulam belong to Muslim community and this may be the reason for the large families. The percentage of families with 3 members and below is as high as 33 per cent in Sherthala and it is as low as 11 per cent in Kayamkulam. This is indicative of a higher degree of awareness of family planning at Sherthala.

Marital Status of the respondents

Details regarding the marital status of respondents were collected and the results are presented in Tables 7a, b and c.

Age distribution of mothers are presented in Table -7a.

Table 7a.

AGE DISTRIBUTION OF RESPONDENTS

( In percentage)

Age groups	Kayamkulam	Sherthala
Below 20	1.0	-
21 - 25	37.0	28.0
26 - 30	50.0	46.0
31 - 35	7.0	18.0
36 - 40	4.0	5.0
Above 40	1.0	3.0
	100.0	100.0

As depicted in the table, majority of the women surveyed were young mothers. The higher percentage (37) in the age group of 21-25 at Kayamkulam compared to significantly lower percentage (28) at Sherthala indicates early marriage and motherhood contributed by the Muslim community.

Marital status of the respondents are presented in Table 7b.

Table 7 b

## MARITAL STATUS OF THE RESPONDENTS

( in percentage)

Marital status	Kayamkulam	Sherthala
1 year and below	1.0	2.0
2 - 3 years	15.0	17.0
4 - 5 years	20.0	23.0
5 years and above	63.0	58.0
Total	100.0	100.0

As depicted in the table majority of the women were having a married life of 4 years and above

Duration of the first child born

Delivery of the first child born after marriage is given in table 7c.

Table 7c

## DELIVERY OF THE FIRST CHILD AFTER MARRIAGE

( In percentage)

Delivery of the first child	Kayamkulam	Sherthala
With in 1 year	86.0	70.0
2 - 3 years	10.0	24.0
4 years and above	4.0	6.0
Total	100.0	100.0

About 70-86 per cent of the women surveyed had their first child born within 1 year after marriage. The significantly higher percentage of delivery of first child within one year at Kayamkulam is a pointer for family planning education in the area.

Birth spacing between and among children

Data on birth spacing between and among children in the families surveyed were collected and the results are presented in Table 8.

Table 8

BIRTH SPACING BETWEEN AND AMONG CHILDREN  
( In percentage)

	Details of spacing					
	Kayamkulam			Sharthala		
	1-2 yrs	3-4 yrs	Above 4 years	1-2 yrs	3-4 yrs	Above 4 years
Between 1st child and second child	53.0	26.0	8.0	36.0	37.0	10.0
Between 2nd and third	29.0	22.0	7.0	28.0	10.0	6.0
Between 3rd and fourth	23.0	5.0	1.0	13.0	4.0	-
Four child- ren and above	15.0	6.0	5.0	3.0	3.0	-

The data presented in Tables 7a, 7c and 8 indicate that 70-80 per cent of the young mothers in two areas, had their first child during the first year of married life, 36-53 per cent of the young mothers had their next child birth in two years, without adequate spacing. The same trend was shown in subsequent pregnancies also.

#### Frequency of Pregnancies and abortions

Details regarding the frequency of pregnancies and abortions of the respondents are presented in Table 9.

In Kayamkulam 100 per cent of the respondents below 20 years have borne one or two children.

The occurrence of abortion was more among the age group 26-30 in both the areas. In this age group 74 per cent of the women have had more than 3 pregnancies in Kayamkulam while in Sherthala it is only 25 per cent. The frequency of pregnancies may be the reason for the higher incidence of abortion in this age group.

#### Pregnancy care:

Pregnancy care includes care taken regarding food, exercise, medical check-up and medicines and also care at the time of complications. Out of the 292 women, surveyed in Kayamkulam and Sherthala 61 per cent of women in the former and 45 per cent in the latter have taken adequate care during pregnancy at different periods.

Table 9

FREQUENCY OF PREGNANCIES AND ABORTIONS

( In percentage)

Age group	Kayankulam						Sherthala					
	Frequency of pregnancies			Number of abortions			Frequency of pregnancies			Number of abortions		
	1-2	3-4	5	1	2	3	1-2	3-4	5	1	2	3
Below 20	100	-	-	-	-	-	29	57	14	16	2	3
21 -25	45	55	-	5	2	-	61	37	2	12	4	-
26-30	26	54	20	11	1	1	75	25	-	25	-	-
31 - 35	8	58	36	-	-	-	-	-	-	-	-	-
36 - 40	14	-	86	71	-	-	-	-	-	-	-	-

Certain special foods like milk, eggs, meat, vegetables, fruits, leafy vegetables were consumed by women during pregnancy and the details are presented in Table 10.

Table 10

SPECIAL FOODS TAKEN DURING PREGNANCY

In percentage

Periods in which special foods introduced	Kayamkulam	Sherthala
First 1- 2 months	-	-
3 - 4 months	19	34
5 - 6 months	6	11
7 - 8 months	13	-
9 months & above	23	-

As indicated in Table 8, special foods were included in the daily dietaries from 3rd months onwards. Compared to Sherthala, women in Kayamkulam were less aware of the importance of inclusion of special foods during pregnancy.

Attitude of women towards special foods during pregnancy

Attitude of women towards inclusion of special foods during pregnancy was measured. A preference and in certain cases a dislike for different foods were shown by these women. Data collected on these lines are presented in Table 11.

Table 11

## FOOD PREFERENCES OF WOMEN DURING PREGNANCY

( in percentage)

	Sherthala		Kayamkulam	
	Foods liked	Foods disliked	Foods liked	Foods disliked
1. Rice	-	37	8	29
2. Pulses	2	3	2	2
3. Roots & tubers	5	3	6	6
4. Vegetables	8	-	3	-
5. Green leafy vegetables	-	-	1	-
6. Nuts	3	-	3	-
7. Fruits	26	-	25	-
8. Egg	3	1	2	1
9. Fish	3	62	1	55
10. Meat	7	5	4	8
11. Milk & Milk products	8	8	4	3
12. Spiced curries (hot foods)	2	7	-	4
13. Sweets	3	1	1	2
14. Beverages	-	2	2	1
15. Cold foods	-	2	-	2
16. Foods with sour taste	20	-	16	-
17. Fried foods	5	-	21	3

Enquiry on the attitude of women towards special foods indicated that one of the most important reasons for excluding special foods was their economic status. Those who took special foods were fully aware of the fact that additional food is



needed during pregnancy for the health of the mother as well as for the baby. Some were forced to take special foods due to doctor's advice. Another reason for including special foods in the diet is that, most of them disliked their routine diets. Probably this may be the reason for disliking rice and fish and for liking fruits by some of the respondents.

#### Foods avoided during pregnancy

A few foods were avoided by these women during pregnancy and the main reason for the avoidance of such foods is that the foods may cause abortion and may affect the health of the women. Details are given in Table 12.

Table 12

#### FOODS AVOIDED DURING PREGNANCY

( In percentage)

Sl.No.	Food stuffs	Kayamkulam	Sherthala
1.	Papeya	16	49
2.	Dates	5	43
3.	Pine apple	5	50
4.	Jack fruit	1	8
5.	Horse gram	3	3
6.	Chillies	13	2
7.	Sesamum	-	3
8.	Fish (Mackerel)	-	1

(contd..)

Table 12 (contd.)

( in percentage)

Sl.No.	Food stuffs	Kayamkulam	Sherthala
9	Sweet potato	2	2
10	Egg	4	2
11	Milk	2	2
12	Tamarind	8	-
13	Dried tapioca	2	-
14	Salt & sweets	5	-
15	Banana	3	-
16	Fried foods	3	-
17	Sugar	3	-
18	Meat	1	-
19	Coffee	1	-
20	Coconut palm bud	1	-

The reason for avoiding these foods were merely on the advice of elders, like grand-mothers, in-laws and neighbours.

#### Exercise during Pregnancy

Women were fully aware of the need of exercise during pregnancy and the details are presented in Table 13.

Table 13

## EXERCISE DURING PREGNANCY

Exercise	(In percentage)	
	Kayamkulam	Sherthala
Walking	41.0	31.0
House work	85.0	54.0

As indicated in Table 13 due importance was given for taking exercise during pregnancy. 54-85 per cent of

women in addition to house hold work, preferred walking also as an exercise during pregnancy.

Medical care during pregnancy

Medical care during pregnancy was taken by all the women surveyed in Kayamkulam as well as in Sherthala. Table 14 shows the details regarding the utilisation of different facilities available for this purpose.

Table 14

UTILISATION OF DIFFERENT FACILITIES AVAILABLE FOR MEDICALCARE

( in percentage)

Facilities	Kayamkulam	Sherthala
Government Hospital	74.0	65.0
Private Hospital	23.0	29.0
Nearest Doctor's house	1.0	-
House visit of ANM	2.0	6.0
Total	100.0	100.0

As depicted in table, medical care during pregnancy was taken by all the women surveyed of which 65-74 per cent women depended on the facilities available in the Government hospitals while 23-29 per cent depended on private hospitals. 3-6 per cent of women depended on the services of Doctors and ANM available nearby.

Medicines taken during pregnancy

Table 15 shows the details of different types of medicines taken by these women during pregnancy.

Table 15

## MEDICINES TAKEN DURING PREGNANCY

( In percentage)

Medicines	Kayamkulam	Sharthala
Injections/medicines as per the prescription of the Doctor	20.0	44.0
Iron & Vitamin tablets	41.0	37.0
Tonics	35.0	33.0
Ayurvedic medicines	3.0	-
Ayurvedic Arishttam	4.0	-

Besides medical care, medicines were also taken by these women during pregnancy. 95-100 per cent women preferred allopathic medicines. The primary reason for taking medicines during pregnancy was that a majority of them suffered from general weakness and anaemia. Some of them took tonics with the view that it may be good for the health of both mother and child.

Complications during pregnancy

Table 16 shows the complications of pregnancy.

Table 16  
COMPLICATIONS OF PREGNANCY

( in percentage)

Complications	Kayamkulam	Sherthala
Anaemia and swelling	42.0	75.0
General weakness and vomiting		
External infections like coughs and fever, skin diseases and pus cells in urine, chickenpox etc.	7.0	5.0
Abdominal pain	12.0	21.0
Back pain	12.0	1.0
Gas trouble	2.0	-
Chest pain and headache	5.0	5.236
Blood pressure	3.0	3.0

Out of 292 women surveyed, only 10 per cent women in Kayamkulam and 7 per cent in Sherthala were healthy and hale without any complications. 42-75 per cent women were reported to have nutritional deficiencies like anaemia, general weakness, 5-7 per cent were affected by external infections during pregnancy. According to the women surveyed reasons for such complications during pregnancy were lack of balanced diet, excess use of spices, physical exertion and occurrence of accidents.

Medical care during delivery

Table 17 furnishes the details regarding the place of delivery, chosen by women.

Table 17

## PLACE OF DELIVERY CHOSEN BY WOMEN

( In percentage)

Place	Kayamkulam	Sherthala
Hospital	90	67.0
At Home	4	28.0
At Health Centre	1	4.0
Supervision of a trained thai	6	3.0

As indicated in Table 17, the women were fully aware of the importance of medical care during delivery.

Care after Delivery

Care after delivery includes care taken regarding food, exercise, medical check up, medicines and care taken for complications after delivery.

Table 18  
DIETARY CARE AFTER DELIVERY

( In percentage)

Period during which special foods taken	Kayamkulam	Sherthala
1. 3rd day onwards	14	42
2. 6-9 days onwards	4	25
3. 12 - 15 days onwards	7	2
4. 18 - 20 days onwards	3	-
5. Upto 15 days	9	-
6. Upto one month	11	35
7. Upto two months	17	4
8. Upto three months	35	29
9. Upto four months	23	-

Out of 292 women surveyed 5 per cent women in Kayamkulam and 33 per cent women in Sherthala did not have any special dietary care after delivery. But 18 per cent women surveyed in Kayamkulam and 67 per cent in Sherthala started taking special foods from the first 10 days onwards. Majority of the women continued to take special foods till the end of three months. Dietary care was taken by very few women upto 4 months. Analysis of the data revealed that the main reason for taking special foods was that the women were aware of the importance of good food for the health of the mother and baby. Further verification revealed that

5 per cent of women in Kayamkulam took special food because of Post part Surgery done after delivery. Another interesting point to be noted in this regard was certain foods, like fish, tapioca, colocasia, meat, salt, pumpkin, eggs, coconut, cold foods etc. were avoided after delivery. This may be due to their cultural habits.

#### Need for physical exercise after delivery

All women in Kayamkulam and Sherthala surveyed were not fully aware of the need for physical exercise after delivery and no definite schedule of exercises were followed by these women during this condition.

#### Medical check-up

Unlike dietary care, due importance was not given by women for periodical medical check-up after delivery. Ten per cent of women in Kayamkulam and 46 per cent of women in Sherthala were seeking advice of medical personnel. Even this medical care was taken only for one month. Traditional ayurvedic preparations were taken by all women during the first fifteen days after delivery and significantly one of the reasons given for taking these ayurvedic preparations was to increase the secretion of milk. Table 19 shows the details on the period in which these medicines were consumed.



Table 19  
MEDICINES TAKEN AFTER DELIVERY

( In percentage)

Period	Kayamkulam	Sherthala
First 15 days onwards	100	12
15-30 days onwards	-	34
Upto 15 days	7	40
Upto 30 days	93	-

As indicated in the Table 19, 100 per cent of women in Kayamkulam and 46 per cent of women in Sherthala were aware of the importance of taking medicines after delivery.

Complications after delivery

Eight per cent women in Kayamkulam and 28 per cent in Sherthala were having certain complications after delivery. These complications were mainly external infections and gastro-intestinal disturbances.

Special care during lactation

Special care during lactation includes, foods, exercise, medical check up, medicines and care taken during complication 10 per cent of women in Kayamkulam and 4 per cent of women in Sherthala were taking special foods during lactation. Details of this are presented in Table 20.

Table 20

## SPECIAL FOODS CONSUMED BY WOMEN DURING LACTATION

( In percentage)

Food stuffs	Kayamkulam	Sherthala
Milk	10	2
Egg	8	1
Fruits	9	1
Vegetables	4	-
Soup	1	-
Leafy vegetables	1	-
Excess amount of rice	-	1

As indicated in table generally, women were not aware of the importance of improving their diet with locally available cheap nutritious foods, during lactation.

Medical check-up during lactation

Routine medical check-up during lactation was conducted by 18 per cent of women in Sherthala and only 1 per cent in Kayamkulam.

Exercise during lactation

All the women surveyed in Kayamkulam as well as in Sherthala considered household work as sufficient exercise during lactation.

### Complications during lactation

The data collected revealed that only 5 per cent of women in Kayamkulam and 20 per cent of women in Sherthala had complications during lactation. This may be due to the fact that women were utilising the medical facilities available locally.

### Foods avoided during lactation

Foods like colocasia, tamarind, fish, chillies, tapioca, groundnut, pumpkin, meat, papya and jack fruit seeds were avoided during lactation by 1-2 per cent women in Kayamkulam. Similar fallacies were not reported by women of Sherthala.

### Care of new born baby

Table 21 shows the different types of foods given to the new born baby.

The data presented in Table 21 reveal that 4 per cent of women in Kayamkulam and 20 per cent of women in Sherthala were in the habit of feeding their babies from the first day of delivery onwards along with other avoidable foods prepared under hygienic conditions.

Table 22 gives the frequency of breast feeding schedule for a day adopted by women in Kayamkulam and Sherthala.

Table 21  
THE FIRST FOODS GIVEN TO THE BABY  
(Data in per cent respondents)

	Just after delivery		1st day of delivery		IIInd day of delivery		IIIrd day of delivery	
	Kayam-kulam	Sherthala	Kayam-kulam	Sherthala	Kayam-kulam	Sherthala	Kayam-kulam	Sherthala
1. Water	22	22	2	19	1	12	1	6
2. Water with sugar	12	19	-	35	1	10	2	4
3. Water with honey	8	3	10	8	-	1	-	2
4. Breast milk	-	8	4	20	17	24	3	8
5. Rice water	-	-	-	-	-	-	-	-
6. Cow's milk diluted	-	-	-	-	1	1	-	-
7. Water with Kalkand	1	4	-	1	-	2	-	-
8. Gold, Wayampu etc.	40	38	-	8	-	1	-	1
9. Glucose water	-	3	-	8	-	1	-	3

Table 22  
FREQUENCY OF BREAST FEEDING

( In percentage)

Months	5 to 6 times		7-8 times		9-10 times		Above 10 times		Completely with- drawn	
	Kayam kulam	Sher thala	Kayam kulam	Sher thala	Kayam kulam	Sher thala	Kayam kulam	Sher thala	Kayam kulam	Sher thala
1-3	31	12	21	21	33	17	15	50	-	-
4-6	47	18	18	25	25	18	4	36	6	1
7-9	39	37	31	26	18	6	-	20	12	11
10 and above	69	44	5	20	8	10	-	15	22	11

Table 22 gives the details regarding the frequency of breast feeding during the first year.

All women were in the habit of breast feeding babies even during night. Six per cent of women surveyed in Kayamkulam and 1 per cent in Sharthala had stopped breast feeding as early as 4 months to 6 months. Thirty three per cent of women had stopped breast feeding by the end of one year. The reasons given by them were due to lack of milk, on set of next pregnancy, advancing age of the baby, difficulties due to eruption of teeth in the infant etc. Some other factors were also reported as difficulties. The details are furnished in Tables 23 and 24.

Table 23 gives the details of difficulties faced by women during breast feeding.

Table 23  
DIFFICULTIES OF THE MOTHER DURING LACTATION  
( In percentage)

Difficulty	Kayamkulam	Sharthala
Next pregnancy	20	20
Cracking & swelling of nipple	21	14
Lack of breast milk	31	25
Infections	2	3
Pain &	15	1
Employment	5	1
Ill-health of the mother	12	-

As revealed in the table majority of the women face physical factors as difficulties during feeding the baby. Important factors in this aspect were lack of milk and cracking/swelling of nipples. Lack of milk may be very often to psychological reasons.

Table 24 gives the details of difficulties of babies during breast feeding.

Table 24  
DIFFICULTIES OF THE BABY DURING BREAST FEEDING  
( In percentage)

Difficulties	Kayamkulam	Cherthala
Indigestion	9	33
Worm trouble	10	10
Infection	90	50
Scabies	80	25
Asthma	61	17
Vomitting & diarrhoea	92	37
Measles	16	4
Allergy	2	3
Disability	-	1

As revealed in Table 24, infections scabies, diarrhoea, etc. were very common difficulties faced by babies during breast feeding period. This may be due to poor environmental sanitation and improper feeding.

In the circumstances explained under Tables 23 and 24 breast feeding was stopped and other foods were introduced as substitutes for breastmilk.

Table 25 provides the details regarding the foods thus introduced after withdrawing breast milk.

Table 25  
INTRODUCTION OF FOODS OTHER THAN BREAST MILK  
( In percentage)

Foods	Kayamkulam	Sherthala
1. Commercial infant foods	25	47
2. Biscuit/bread	9	18
3. Cow's milk	21	32
4. Banana powder	23	12
5. Ragi	12	35
6. Rice/rum wheat	23	32
7. Tapioca	4	8
8. Leafy vegetables	2	-
9. Fish	1	1
10. Egg	6	
11. Fruits	13	26
12. Pulses	-	3

As revealed in Table 25, 25 per cent of women in Kayamkulam and 47 per cent of women in Sherthala have accepted commercial infant foods as substitutes for breast milk. Further verification reveals that the quantity of the foods thus introduced were not sufficient to meet the 'infants' requirements and were prepared in unhygienic conditions.



Introduction of supplementary foods

Table 26 gives the details regarding the month in which the supplementary foods were introduced in the infants' diet.

The data given in the Table 26 reveal that the introduction of supplementary foods were not in the proper sequence of liquid foods, semi-solids and then solids. Instead of introducing liquid foods women have introduced semi-solid and solid foods directly skipping the stage of liquid supplements in Kayamkulam while in Sherthala, solid foods were not introduced during the first year. Moreover, women in the two areas have introduced too many supplementary foods, before 6 months, which is not desirable. Compared to women in Sherthala, women in Kayamkulam were totally ignorant of the importance of introducing supplementary foods.

The base line information reveals that an education programme on better infant feeding practice, comprising the nutritional significance of breast milk, general schedule of feeding, advantages of breast feeding to the infant and the mother, introduction of supplementary foods and hazards of artificial feeding are to be conducted essentially in these areas. Hence a campaign of one day duration on better infant feeding practices was conducted

Table 26  
INTRODUCTION OF SUPPLEMENTARY FOODS

( In percentage)

Various forms of supple- mentary foos	Period of introduction							
	Kayamkulam				Sherthala			
	3-6 months	7-9 months	11-12 months	Not intro duced	3-6 months	7-9 months	11-12 months	Not intro duced
1. Liquid foods (juice thin gruel)	31.0	5.0	6.0	58.0	96.0	2.0	2.0	-
2. Semisolid foods	20.0	8.0	2.0	70.0	64.0	36.0	-	-
3. Solid foods	6.0	7.0	85.0	2.0	-	-	-	-

in this area.

## II. Evaluation of the campaign

Evaluation of the campaign on better infant feeding practices in Kayamkulam and Sherthala was conducted at three levels. They are:

1. At the level of officials of the Municipality responsible for organising the campaign at the field level.
  2. At the level of teachers of balwadies/Anganwadis, who are actively involved in organising and conducting the campaign and
  3. At the level of mothers who were the participants of the campaign
1. Evaluation conducted at the level of officials of the municipality responsible for organising the campaign at the field level.

The data were collected using a suitably structured schedule and by interviewing fifteen officials of the municipality, who were actively involved in the programme. Table 27 presents the views of these officials.

Table 27  
 VIEWS OF THE OFFICIALS ON MUNICIPALITY ACTIVELY  
 INVOLVED IN THE IMPLEMENTATION OF THE CAMPAIGN

( In percentage)

Statements	Kayankulam	Sherthala
1. Campaign consisted of too many education programme for a day	100	33
2. Education programme conducted were very simple	57	100
3. Education programmes were too long to retain the attention of women	19	100
4. Since the education programmes were conducted in 7 centres simultaneously it was impossible to participate in all the programme simultaneously.	100	100
5. Education programmes and exhibition were very satisfactory	86	67
6. Subject matter included for the education programme was very little	86	100
7. Subject matter included in the education programme was very useful	100	100
8. Public meeting conducted at the end of campaign was not necessary	29	100

The officials of the municipality were enquired whether they have participated in similar programmes earlier and all the officials in the two municipalities informed that unlike the extension education programmes

conducted earlier, in their area, the campaign was highly informative and beneficial to the public. Few suggestions listed below are also given by these officials, for improving such education programmes to be conducted in future.

- a. Active participation of local leaders needed.
  - b. More time needed for organising such education programmes
  - c. Campaign should be conducted on two days instead of one day.
  - d. Evaluation is to be conducted at all centres.
  - e. More subject matter is to be added for campaigns
2. Evaluation conducted at the level of teachers of balawadi/ Anganwadi who were actively involved in organising and conducting the campaign.

In Kayamkulam municipality 32 balawadi teachers and in Sherthala municipality 24 balawadi teachers were involved actively in organising and conducting the campaign. The campaign was evaluated mainly on its utility value. The data on these lines were collected, using a suitably structured schedule, by interviewing these teachers.

Table 28 presents the views of these teachers.

Table 28

VIEWS OF THE BALAWADI TEACHERS OF TWO MUNICIPALITIES INVOLVED IN THE IMPLEMENTATION OF THE CAMPAIGN

Statements	Kayamkulam	Sherthala
1. The campaign was successful in creating an awareness about the infant nutrition problems	100	100
2. Participation of women in the education programmes were satisfactory	50	58
3. Discussion classes conducted was very interesting, easy to understand and informative	100	100
4. Education programmes were very useful for the day to day life	100	100

The Balawadi teachers were requested to list the topics discussed in the various education programmes, according to their order of preference. The views expressed by these teachers are presented in Table 29.

Table 29  
ORDER OF PREFERENCE ON VARIOUS TOPICS DISCUSSED  
DURING THE CAMPAIGN

Topics	Kayankulam		Sherthala	
	Ranking order	Percentage of teachers	Ranking order	Percentage of teachers
1. Cheap home made infant foods	1	100	5	29
2. Importance of breast feeding	2	94	1	71
3. Advantage of breast feeding	3	69	-	-
4. Hazards of bottle feeding	4	50	2	57
5. Importance of supplementary foods in infants' diet	5	38	3	43
6. Defects in the conventional infant feeding practices	7	30	-	-
7. Hazards of tinned foods	9	6	-	-
8. First aid for diarrhoea control	9	6	-	-
9. Importance of colostrum	8	18	-	-
10. Factors to be considered during weaning period	6	37	4	38

A number of method demonstrations on the preparation of weaning foods were conducted during the campaign. The teachers were requested to list the method demonstrations conducted, according to their order of preference. The views expressed by these teachers are given in Table 30.

Table 30  
ORDER OF PREFERENCE OF VARIOUS DEMONSTRATIONS  
HELD DURING THE CAMPAIGN

Demonstrations	Kayamkulam		Sherthala	
	Ranking order	Percent age	Ranking	Percentage
1. Rice gruel	1	31	1	40
2. Ragi pudding	1	31	1	40
3. Vegetable Dalia	1	31	2	20

As revealed, all the three method demonstrations were equally preferred by the teachers at Kayamkulam while Rice gruel and Ragi pudding were preferred at Sherthala.

The teachers were requested to give their views regarding the exhibition conducted and they are presented in Table 31.



Table 31  
 VIEWS OF TEACHERS REGARDING EXHIBITION  
 ( In percentage)

Statements	Kayamkulam	Sherthala
1. Exhibition was attractive	100	100
2. Exhibition was informative	100	100
3. Exhibition was useful for daily life	100	100

The teachers were requested to list the benefits of the campaign and the data collected are presented in Table 32.

Table 32  
 BENEFITS OF CAMPAIGN  
 ( In percentage)

Statements	Kayamkulam	Sherthala
1. Beneficial to the daily life	93	100
2. Beneficial for the official work	88	100
3. Inspiration for higher studies	100	100
4. Improving knowledge	100	100
5. To lead a good family life	100	100

As depicted in the table, the campaign was useful to the majority of the teachers in their official life as well as in their personal life.

3. Evaluation conducted at the level of participants of the campaign.

From among the women who participated in the campaign 58 from Kayamkulm and 32 from Sherthala were interviewed to evaluate the campaign effectiveness at end users level.

The women were requested to give their views regarding the campaign and the data thus collected are presented in Table 33.

Table 33

VIEWS OF THE PARTICIPANTS REGARDING THE CAMPAIGN  
( In percentage)

Statements	Kayamkulam	Sherthala
1. The campaign was very useful	100	100
2. Got opportunity to participate actively in the campaign	52	53
3. Discussion classes were informative	100	100
4. Topics discussed were useful to the daily life	100	100
5. Discussion classes were easy to understand and	100	100
6. The teaching aids used made it easy to remember the information imparted	100	100

As revealed in the table, the campaign was very useful to the majority of the participants.

The participants were asked about their order of preference of various topics handled in the education programmes and their views are expressed in Table 34.

Table 34

ORDER OF PREFERENCE OF VARIOUS TOPICS DISCUSSED BY  
THE PARTICIPANTS

(In percentage)

Statements	Kayamkulam		Sherthala	
	Ranking order	Percentage	Ranking order	Percentage
1. Importance of breast feeding	1	100	1	100
2. Home made weaning foods	1	100	1	100
3. Ways of introducing supplementary foods	3	41	2	81
4. Hazards of bottle feeding	2	76	2	81

Majority of the participants were of the view that sufficient time was not given for expressing their views during the discussions.

Among the participants surveyed 48 per cent of the women in Kayamkulam as well as in Sherthala had participated in demonstrations and according to their order of preference, demonstration on home made weaning foods was much appreciated by the participants.

The participants were requested to give their views regarding the exhibition and they were of the opinion that

the exhibition was very useful, attractive and informative. They also felt that they did not get adequate time to grasp fully the matter displayed in the exhibition and note them down for future use. They were also of the opinion that there was an inadequacy of staff to explain the exhibits. Certain topics like epidemic diseases, prevention of vomiting were suggested as additional topics to be included in the exhibition.

The women surveyed were of the opinion that the campaign would be very useful for day to day life.

#### 4. Evaluation of the campaign after one month

The results of the evaluation conducted after one month of the campaign among the same participants in Kayamkulam and Sherthala, reveal that the women have retained much information imparted to them during the campaign.

The results are presented in Table 35.

Table 35

RETENSION OF KNOWLEDGE GAINED DURING THE CAMPAIGN BY  
THE PARTICIPANTS

Areas	Kayamkulam		Sherthala	
	Ranking order	Percent age	Ranking order	Percent age
Importance of breast feeding	3	98	4	96
Infant nutrition	2	99	5	87
Introduction of supplementary foods	3	98	2	93
weaning diarrhoea and its treatment	3	98	3	91
Maternal nutrition	1	100	1	100

The data presented in Table 35 reveal that the participants have retained the knowledge gained through the campaign even after one month. Compared to the participants in Sherthala, the participants of Kayamkulam retain the knowledge gained in a better way.

The results of the base line information and an evaluation of the effectiveness of the model campaign conducted for one day each in the two municipalities of the coastal region viz. Kayamkulam and Sherthala has brought out some salient findings for future conduct of similar campaigns either as model campaigns or repeat campaigns by field level change agents.

One of the significant points which has emerged from the base line survey in the degree of divergence in the demographic status of the two municipalities which are situated about 60 Kms apart.

The Kayamkulam municipality areas has a predominantly muslim population, while the Sherthala area has a predominantly Hindu- backward and scheduled caste population. One of the revealing findings, is the fact that in Kayamkulam area, the percentage with women more than one child in the age group below 20 is                      per cent. To add to this is the lack of adequate spacing between the deliveries. These two aspects alone emphasises the need for combined education on family planning and nutrition, to take care of the health of the both the mother and the child.

The health care facilities available even in small municipality areas is adequately brought out by the study. In both Kayamkulam and Sherthala, more than                      per cent of deliveries irrespective of whether it is the first or not, takes place under proper medical supervision. The contribution of governmental medical support is the largest.

While hospitals especially, governmental hospitals are preferred for medical care at the time of delivery, post natal medical support is mostly ayurvedic. This is mostly due to a greater belief in the Indigenous system of medicines.

One of the wrong habits practiced in the first two or three days of feeding a new born is the uses of glucose water, sugar solution, candy solution etc. This is a factor which inhibits the young mother from initiating the child to the breast. This leads often to the loss of an opportunity to feed colostrum.

Though supplementary feeding by introduction of liquids, semisolid and solid supplements are attempted, due to improper sequence of introduction and training the child and attaining its digestive system to each introduced new food for some time before gradually increasing its quantity very often stomach disorder to the infant is caused.

Artificial feeding with milk substitutes is becoming popular and there is a need to conduct a large number of campaigns against commercial milk foods. The illeffects of commercial milk foods compared to breast feeding has to be emphasised in as many ways as possible. The evaluation of campaign conducted has shown that since the theme of better infant practices have been discussed for more than a day to a large segment of the beneficiary population, in the forms of classes, discussion forums, exhibition, public meetings, pamphlets etc. there is a crying need to conduct similar repeat campaigns by the field level change agents. This is however, the responsibility of the municipalities.

The evaluation has further revealed certain lacunae in the conduct of the model campaign, especially in the duration, adequacy of subject matter content, lack of technical personnel in explaining the exhibition etc.

The campaigns were conducted by the Department of Home Science with the support of the Post-graduate diploma students and the meagre staff of the Department. The duration of the campaign can be extended to two days in the light of the experience that has been gained. However enough technical material has been conveyed to the mothers to encourage breast feeding and discourage artificial milk substitutes. Too much technical material may confuse issues. Technical information of high quality for maximum readoption of breast feeding as a practice has been conveyed to the mothers.



## SUMMARY AND CONCLUSION

A campaign on better infant feeding practices was conducted at Kayamkulam and Sherthala with the main objectives;

to encourage the women who are already breast feeding, by imparting scientific information on the practice to discourage artificial feeding;

to impart knowledge about the introduction of complementary foods at the correct time even when breast feeding is continued and

to train the personnel of the SMTD Project, school teachers etc. so that the trained personnel in turn may continue to disseminate knowledge on better infant feeding practices including breast feeding, to others who have not had the benefit of attending such programmes.

A base line survey was conducted in selected families of Kayamkulam and Sherthala to find out the existing practices.

This study helped to identify the various factors, which contributed to infant morbidity and malnutrition in these areas, based on the infant feeding practices and socio-economic & cultural parameters. The campaign helped women to change their attitude and to make them

conscious of the faulty feeding practices followed by them.

The base line survey conducted prior to the campaign indicated that majority of the families in the two municipalities, belong to socially and economically under privileged communities. The women were moderately educated but economically not independent.

The survey further revealed higher incidence of abortion, anaemia and general weakness among the women residing in these two areas. The women were fully aware of the importance of medical care during pregnancy and were making use of governmental facilities locally available. A preference to allopathic treatments was shown by these women only during pregnancy. Due importance was given for ayurvedic treatment during after delivery care because of their belief that the ayurvedic preparations might increase milk secretion.

Many of the women surveyed were taking some special foods immediately after delivery, even though certain nutritious foods were avoided during this period due to their cultural habits. The result of the survey also indicated sporadic occurrence of certain complications

like external infections and gastro intestinal disturbances in very few women, after delivery.

Data collected on the breast feeding practices revealed positive response in starting breast feeding, and duration of feeding. However, infections scabies and diarrhoea were very common among infants, probably due to poor environmental sanitation. Data collected on these lines further revealed that the women were interested to include commercial infant foods as substitutes for breast milk, even though the method of preparation and quantity used for each feed as reported by them were not very satisfactory.

From the survey, it was clear that, unlike Sherthala, women in Kayamkulam municipality need education on the advantages of small family, disadvantages of early marriage, importance of dietary care and exercise, during pregnancy and lactation, harmful effects of fads and fallacies on lactation etc.

On the basis of the nutritional problems located a campaign on better infant feeding practices was conducted in these two municipalities. Intensive education programmes in the form of lecture, question answer sessions, demonstrations slide shows and exhibition and

distribution of folders on better infant feeding practices was conducted during the campaign. Evaluation of the campaign was conducted at different levels, at the level of municipal officials, balwadi teachers and among women who participated in the campaign. The results of the evaluative study indicated that the campaign on better infant feeding practices was very useful. After one month, evaluation was conducted against to study the retention of information, imparted to these women during the campaign. The results obtained from this survey were encouraging.

**APPENDIX-1**

**KERALA AGRICULTURAL UNIVERSITY  
DEPARTMENT OF HOME SCIENCE  
VELLAYANI**

**A survey on infant feeding practices prevalent in small and medium  
Town Development Project areas in Kayamkulam and  
Sherthala Municipalities**

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- |                    |                    |
|--------------------|--------------------|
| 1. Serial No.      | 2. Date            |
| 3. Mother's name   | 4. Place           |
| 5. Religion        | 6. Caste/Sub Caste |
| 7. Address         |                    |
| 8. Family pattern: |                    |

Sl.No.	Relationship to the Head of the Family	Sex	Age	Educational qualification	Occupation	Income			Vegetarian or Non-vegetarian
						Daily	Weekly	Monthly	

**9.A. Additional informations from the mother.**

- |   |                      |
|---|----------------------|
| 1. How long have you been married?                | . . . . . Years      |
| 2. When was the first child born?                 | After . . . . . year |
| 3. Details regarding the frequency of conception. | .....                |
| 4. Details regarding the frequency of abortion    | . . . . .            |
| 5. Details regarding normal delivery              | . . . . .            |
| 6. At present how many children are alive?        | . . . . .            |

7. Reason for the death of the children write in the table given below:

Details of the child, Age/ Birth order.	Reason Details of the illness

10. Parental case

	Yes	No	From which month	To which month	Reason
a) <u>Special foods</u> 1. 2. 3. 4. 5. 6.					
b) <u>Medical check-up</u> 1. In a Govt. Hospital 2. In a Private Hospital 3. In a nearest Doctor's house. 4. ANM's by House visit.					
c) <u>Exercise</u> 1. Walking 2. 3.					
d) <u>Medicines</u> 1. 2. 3. 4.					
e) <u>Complications during pregnancy</u> (Specify the Complication) 1. 2. 3. 4. 5.					

	Yes	No	From which month	To which month	Reason
f) <u>Foods disliked during pregnancy.</u>					
1.					
2.					
3.					
4.					
g) <u>Foods which are liked most during pregnancy</u>					
1.					
2.					
3.					
4.					
h) <u>Foods avoided during pregnancy</u>					From where did you get this advice

1) Place at which the delivery took place? (mark in the space provided)

(1) Hospital ( )

(2) Health Centre ( )

(3) In the house under the supervision of a trained thal. ( )

(4) In the house under the supervision of elder women ( )

(5) With the help of untrained helper ( )

j) Whether you had normal delivery?

Yes / No

11. Care after delivery

	Yes	No	Which day		Reasons if any
			From	To	
1. Special foods. 2. Medical Check-up 3. Exercise 4. Complications 5. Medicines 6. Foods which are to be avoided.					

12. Special care during lactation

	Yes	No.	From which month	To which month	Reason
1. Special foods a) b) c) d) 2. Medical check-up a) b) c) d) 3. Exercise a) b) c) d) 4. Complications a) b) c) d)					



	Yes	No	From which month	To which month	Reason
5) Medicines					
a)					
b)					
c)					
d)					
6) Foods which are to be avoided					
a)					
b)					
c)					
d)					

13. Care of the new born baby:

Foods first introduced to the child (Mark against the method you adopted)

	(How many times/ day)					
	After delivery	Ist day of delivery.	IIInd day of delivery	IIIrd day of delivery.	First week	First ten days
1. Water						
2. Water with sugar						
3. Water with honey						
4. Breast milk						
5. Rice water						
6. Cow's milk (diluted)						
7. Water with powdered Kalkandom						
8. Gold, Vayampu etc.						
9. Any other						
10						
11						
12						

14. If the child is breast fed give the following details:

	Daily how many times breast fed.	Breast fed during night		Month in which you stopped breast feeding	Reason for stopping breast feeding
		yes	No		
Ist month					
IInd month					
IIird "					
IVth "					
V th "					
VI th "					
VIIth "					
VIIIth "					
IXth "					
Xth "					
XIth "					
XIIth "					

15. Difficulties during breast feeding the child. Do you have the following difficulties (Mark against the correct statement)

Difficulties faced by the mother

1. Lack of breast milk
2. Premature baby
3. Next pregnancy
4. Illhealth of the mother
5. Swelling and cracking of the nipple
6. Disease of the mother
7. Pain
8. Lazyness
9. Shyness
10. Figure conscious
11. Lack of milk.
12. Working mother

Difficulties faced by the Infant


1. Illness of the infant
2. Premature baby
3. Heirlip and other physical deformities.
4. Allergy of the infant
5. Indigestion
6. Retarded growth




APPENDIX 2

കേരള കാർഷിക  
സർവ്വകലാശാലയുടെയും  
ചേർത്തല നഗര സഭയുടെയും  
സംയുക്താഭിമുഖ്യത്തിൽ

**ററ്റകദിനകാബൈൻ**

 **എക്സിബിഷൻ**

 **ചർച്ചാവേദി**

 **പൊതുയോഗം**

1984 സെപ്റ്റംബർ 14-ാം തീയതി

വെള്ളിയാഴ്ച

സ്ഥലം: ചേർത്തല ഗവ:

ഗേൾസ് ഹൈസ്കൂൾ

മാന്യരെ,

യൂണിസെഫ് ധനസഹായത്തോടെ നഗരവികസന പ്രവർത്തനങ്ങൾക്കും കുട്ടികളുടേയും അമ്മമാരുടേയും ക്ഷേമത്തിനുവേണ്ടിയും തെരഞ്ഞെടുക്കപ്പെട്ട മൂന്നു പട്ടണങ്ങളിൽ ഒന്നാണ് ചേർത്തല. പോഷകാഹാര വിജ്ഞാനം, രോഗ പ്രതിരോധം തുടങ്ങി വൈവിധ്യമാർന്ന സേവനങ്ങൾ യൂണിസെഫ് ധനസഹായത്തോടെ നടത്തിവരുന്നു.

1984 സെപ്റ്റംബർ 14-ാം തീയതി വെള്ളിയാഴ്ച 'കണ്ണുങ്ങളുടെ ആഹാരക്രമം' എന്ന വിഷയത്തെ അധികരിച്ച് ഒരു ഏകദിന കാമ്പയിൻ നടത്തുവാൻ നിശ്ചയിച്ചിരിക്കുന്നു.

14-ാം തീയതി രാവിലെ 9 മണിക്ക് മുനിസിപ്പൽ ലൈബ്രറി ഹാളിൽ ഉത്ഘാടനം ചെയ്യുന്ന എക്സിബിഷൻ, ചേർത്തല ഭഗവത് ഹൈസ്കൂളിൽവെച്ചു നടത്തുന്ന ചർച്ചായോഗം, പൊതുസമ്മേളനം എന്നിവയിൽ താങ്കൾ സജീവമായി പങ്കെടുത്തു വിജയിപ്പിക്കണമെന്ന് അഭ്യർത്ഥിക്കുന്നു.

വിധേയർ,

മുനിസിപ്പൽ ചെയർമാൻ  
ചേർത്തല

മുനിസിപ്പൽ കമ്മീഷണർ  
ചേർത്തല

ഡയറക്ടർ ഓഫ് എക്സ്ട്രാററൻഷൻ  
കേരള കാർഷിക സർവ്വകലാശാല  
തൃശ്ശൂർ

പ്രൊജക്ട് ഓഫീസർ  
I. U. D. P. ചേർത്തല

18 ചുവപ്പാലിന്ദ്രപ  
 റമേ ദൈവയന്ത്ര  
 വരെ കണ്ണുങ്ങ  
 രക്ഷ കൊടുക്കേ  
 ന്നു മുറ്റു ആഹ്ലാ  
 രപദാർത്ഥങ്ങൾ

**ശ്രീമതി വി. ഉഷ**

23 വീട്ടിൽത്തയ്യാറാ  
 ക്കാവുന്ന ശിശു  
 ക്ഷേണങ്ങൾ

**ശ്രീമതി ജെസി  
 ശ്രീമതി രാശിജോൺ**

പാലകക്ലാസ്സ്

21 ..

**ശ്രീമതി  
 ലിസിബഹനാൾ**

9 ..

**ശ്രീമതി  
 ജയ് കുന്ദിപ്പുഴി**

ഉച്ചക്ക് 2 മണിമുതൽ **ചർച്ചാവേദി**  
**സംഗമം:**

**ഗവ: ഗേൾസ് ഹൈസ്കൂൾ ഹാൾ**  
**വിഷയം: ആരോഗ്യമുള്ള കുഞ്ഞു**

ചർച്ച നയിക്കുന്നവർ:-

- 1 ഡോ: L. പ്രേമ
- 2 ശ്രീമതി N K. വിമലകുമാരി
- 3 ഡോ: ലോഹിദാസ്
- 4 ശ്രീമതി A. വിശാലാക്ഷി
- 5 ശ്രീമതി ഹോണോറാച്ചിയ
- 6 ശ്രീമതി രാശി ജോൺ
- 7 ഡോ: D. രാധമ്മ
- 8 ശ്രീമതി K. രത്നവല്ലി

ചർച്ചയിൽ പങ്കെടുക്കുന്നവർ:-

- 1 വിവിധ വാർഡുകളിൽനിന്നും വരുന്ന  
 വനിതാ പ്രതിനിധികൾ
- 2 ബാലവാടി അദ്യാപികമാർ
- 3 സൂട്രീഷൻമാരും പ്രതിനിധികൾ

വൈകിട്ട് 6 മണിമുതൽ

# പൊതുസമ്മേളനം

സ്ഥലം:

ഗവ: ഗേൾസ് ഹൈസ്കൂൾ ഗ്രൗണ്ട്

സ്വാഗതം: ശ്രീ. പി. രവീന്ദ്രൻ  
(പ്രോജക്ട് ഓഫീസർ)

അദ്ധ്യക്ഷൻ: ശ്രീ V. V. ജയറാം  
(മുനിസിപ്പൽ ചെയർമാൻ, ചേർത്തല)

പ്രസംഗം:

- 1) ശ്രീ. ഏ. ജി. ജി. മേനോൻ  
(ഡയറക്ടർ ഓഫ് എക്സിറൻഷൻ  
കേരളാ കാർഷിക സർവ്വകലാശാല)
- 2) ശ്രീ. വി. ഏ. വർഗീസു  
(മുനിസിപ്പൽ അഡ്മിനിസ്ട്രേഷൻ  
ഡയറക്ടർ)
- 3) ശ്രീമതി ഏ. വിശ്വാലക്ഷ്മി  
(യൂണിസെഫ് സോൺ  
പ്രെസിഡൻ്റ്)
- 4) ശ്രീമതി ഹോണോ നാച്ചിയ  
(യൂണിസെഫ് മദ്രാസ്)
- 5) ശ്രീ എം. ഐ. ഐപ്പ്  
(മുനിസിപ്പൽ കമ്മീഷണർ ചേർത്തല)
- 6) ശ്രീ. കെ. സി. വിജയൻ  
(മുനിസിപ്പൽ കൗൺസിലർ)

7) ശ്രീ. സി. കെ. മണിയൻ  
(മുനിസിപ്പൽ കൗൺസിലർ)

8) M. G. ശങ്കരനാരായണപ്പണിക്കർ  
(മവെസ് ചെയർമാൻ മുനിസിപ്പൽ  
കൗൺസിൽ ചേർത്തല)

ഉപന്യാസമൽസര വിജയികൾക്കു  
സമ്മാനദാനം

ഉപസംഹാരം-അദ്ധ്യക്ഷൻ

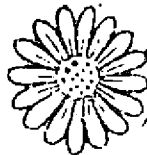
കൃതജ്ഞത: ശ്രീ. പി. സുരേന്ദ്രൻ  
(കമ്മ്യൂണിറ്റി ഓർഗനൈസർ)

9 മണിയൂതൽ സിനിമാപ്രദർശനവും  
ബാലവാടി കുട്ടികളുടെ വിവിധ  
കലാപരിപാടികളും

9-45 മുതൽ ലഘുനാടകം

★ 'യമപുരി' ★

നിർണ്ണയം കലാ സാംസ്കാരിക  
സമിതി ചാർജിക്കുളം





കേരള കാർഷിക സർവ്വകലാശാലയുടേയും  
കായംകുളം നഗര സഭയുടേയും  
സംയുക്താഭിമുഖ്യത്തിൽ

# S. M. T. D. പ്രോഗ്രാം ഏകദിന കാമ്പയിൻ

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"കുഞ്ഞുങ്ങളുടെ ആഹാരക്രമം"



☒ എക്സിബിഷൻ

☒☒ ചർച്ചാവേദി.

☒☒☒ പൊതുസമ്മേളനം



1984 സെപ്തംബർ 16-ാം തീയതി  
കായംകുളം ഗവ: ഗേൾസ് ഹൈസ്കൂൾ  
ആഡിറോറിയം

പ്രിയസുഹൃത്തേ,

യൂണിസെഫിന്റെ സഹായത്തോടെ കായംകുളം മൂനി സിപ്പാലിററിയിൽ നടപ്പാക്കിക്കൊണ്ടിരിക്കുന്ന ചെറുകിട ഇടത്തരം പട്ടണങ്ങളുടെ വികസനപരിപാടിയോടനുബന്ധിച്ച് "കുഞ്ഞുങ്ങളുടെ ആഹാരക്രമം" എന്ന വീഷയത്തിൽ ഒരു ഏകദിന ക്യാമ്പയിൻ 1984 സെപ്തം: 16-ാം ന- (ഞായറാഴ്ച) കാർഷിക സർവകലാശാലയുടെയും കായംകുളം മൂനിസിപ്പൽ കൗൺസിലിന്റേയും സംയുക്താഭിമുഖ്യത്തിൽ നടത്തുവാൻ തീരുമാനിച്ചിരിക്കുന്നു.

ക്യാമ്പയിൻ പരിപാടികളിലും പർച്ചേഴ്സിലും ചൊതു സാമഗ്രനപരിപാടികളിലും താങ്കൾ പങ്കെടുത്ത് വിജയിപ്പിക്കുവാൻ അഭ്യർത്ഥിക്കുന്നു.

വിശ്വസ്തം,

K. ശ്രീധരൻപിള്ള  
മൂനി: ചെയർമാൻ

Dr. A.G.G. മേനോൻ  
ഡയറക്ടർ ഓഫ് ഏക്സറ്റൻഷൻ

Dr. N. സദാനന്ദൻ  
ഡീൻ

കായംകുളം  
10-9-1984

കേരള കാർഷികസർവ്വകലാശാല

## കാര്യപരിപാടി

എക്സിബിഷൻ:—1984 സെ: 16 രാവിലെ 9-30 A. M.

ഗവ: ഗേൾസ് ഹൈസ്കൂൾ, കായംകുളം  
ഉദ്ഘാടനം:—ശ്രീ. കെ. ശ്രീധരൻപിള്ള മൂനീ; ചെയർമാൻ

വനിതാപരിശീലനകാമ്പയിൻ-വിവിധവാർഡുകളിൽ

രാവിലെ 10 A M മുതൽ 12 A M വരെ  
വാർഡുന്നമ്പർ വിഷയം കാമ്പയിൻ നയിക്കുന്നവർ

(കാർഷിക സർവ്വകലാശാല ഹോംസയൻസ് അദ്ധ്യാപികമാർ)  
മൂലകൃഷി മാറ്റൽ അമ്മമേർ ശ്രദ്ധിപ്പേണകാച്ചുങ്ങൾ  
(പർച്ചാക്ടാസ്)

8 ശ്രീമതി മേരി ഉണ്ണു  
കുഞ്ഞുങ്ങൾക്ക് മൂലയൂട്ടലിന്റെ പ്രാധാന്യം  
Dr: എൻ. പ്രേമ  
(ചോദ്യോത്തര പരിപാടി)  
ശ്രീമതി നിർമ്മല

11. ഒരുവയസ്സുവരെ മുലപ്പാലി  
നൂല്പുറമെ കുഞ്ഞുങ്ങൾക്ക്  
നശീകരണ മറ്റു ആഹാരപദാർ  
ത്ഥങ്ങൾ (പ്രഭാഷണം)  
ശ്രീമതി വി. ഉഷ

16 വീട്ടിൽ തയ്യാറാക്കാവുന്ന ശിശുഭക്ഷണങ്ങൾ  
(പാപകളാസ്)  
ശ്രീമതി ലിസി ബഹനാർ

22 കുപ്പിപ്പാലുടലിന്റെ ദോഷവശങ്ങൾ  
(പർച്ചാക്ടാസ്)  
ശ്രീമതി എൻ. വിമലകുമാരി

28 വീട്ടിൽ തയ്യാറാക്കാവുന്ന ശിശുഭക്ഷണങ്ങൾ  
(പാപകളാസ്സ്)  
ശ്രീമതി ജസ്സി

31 വീട്ടിൽ തയ്യാറാക്കാവുന്ന ശിശുഭക്ഷണങ്ങൾ  
(പാപകളാക്ടാസ്സ്)  
ശ്രീമതി മേരി ജോൺ  
ശ്രീമതി ജയിഫുനിസ്സ

ചർച്ചാവേദി കായംകുളം ഗവ: ഗേൾസ് ഹൈസ്കൂൾ  
ആധിപതിനിന്നും

വിഷയം: 1984 സെപ്തംബർ 16 2PM to 4 PM.  
'ആരോഗ്യമുള്ള കുഞ്ഞു'  
ഉദ്ഘാടനം: Dr പുഷ്പിതാജോൺ, കേരളാ ശാസ്ത്ര  
സാഹിത്യപരിഷത്ത്.

ചർച്ചനയിക്കുന്നവർ 1 ഡോ: എൽ. പ്രേമ  
 അസോസിയേറ്റു പ്രഫ്

- 2 ഡോ: ലോഹിദാസ്,
- 3 ഡോ: ശശികല ലേഡി മെഡിക്കൽ ഓഫീസർ,  
കായംകുളം നഗരസഭ.
- 4 ശ്രീമതി എൽ. കെ. വിമലകുമാരി,  
അസിസ്റ്റന്റു പ്രഫർ; ഹോംസയൻസ് ഡിപ്പാർട്ടുമെന്റു,  
കാർഷിക കോളേജ്, വെള്ളായണി.
- 5 ശ്രീമതി വിശാലകൃഷി,  
തെക്കൻ മേഖലാ പ്രതിനിധി, യൂണിസഫ്, മദ്രാസ്
- 6 ഡോ: റമോലതോമസ്
- 7 ശ്രീമതി പുഷ്പകുമാരി
- 8 Y W C A. ജേയിസിസ്, ലയൺസ്  
ക്ലബ്, വൈസ്ചെർസ് ക്ലബ് എന്നീ സംഘടനകളുടെ  
വനിതാ പ്രതിനിധികൾ

ചർച്ചയിൽ പങ്കെടുക്കുന്നവർ :

- 1 സാമൂഹ്യ സാംസ്കാരിക സംഘടനാ  
വനിതാ പ്രതിനിധികൾ
- 2 വിവിധ വാർഡുകളിൽ നിന്നു വരുന്ന  
വനിതാ പ്രതിനിധികൾ
- 3 ബാലവാടി അദ്ധ്യപികമാർ
- 4 ന്യൂട്രീഷൻ ഫോറം പ്രതിനിധികൾ

- പൊതുസമ്മേളനം : 4.30 PM ഗവൺമെന്റ് ഗേൾസ് ഹൈ  
സ്കൂൾ ആഡിറ്റോറിയം
- സ്വാഗതം : ശ്രീ. മുഹമ്മദ്ബഷീർ, വൈസ്ചെയർമാൻ
- അദ്ധ്യക്ഷൻ : ശ്രീ. കെ. ശ്രീധരൻപിള്ള, വൈസ്ചെയർമാൻ
- റിപ്പോർട്ട് : ശ്രീ. കെ. കുഷ്ണൻ നായർ
- ഉദ്ഘാടനം : ശ്രീ. പി. എ. വർഗ്ഗീസ്  
മുനിസിപ്പൽ അഡ്മിനി:യറക്ടർ
- ആശംസാപ്രസംഗം : ശ്രീ. രാജി പ്രഭാകരൻ MIA  
ഡോ: എൻ. സദാനന്ദൻ,  
ശ്രീമതി. വിശാലാക്ഷി  
മിസ്റ്റർ ഫിലിപ്പ്വാൻ  
ശ്രീ ടി. എ. ജാഫർകുട്ടി മുൻ: മുനി: ചെയർമാൻ  
ശ്രീ എ. എസ്. ഹമീദ് മുൻ: മുനി: ചെയർമാൻ  
ശ്രീ. എം. ആർ ഗോപാലകൃഷ്ണൻ
- കൃതജ്ഞത : ശ്രീ. അബ്ദുൾ ഖാദർ മുനി:കൗൺസിലർ  
ശ്രീ. കെ. യൂസഫ് കുഞ്ഞു  
ശ്രീ. ആർ. കുഷ്ണൻ മുനി:കമ്മീഷണർ

### APPENDIX-3

#### Home made weaning foods

##### 1. Rice Kurukku

###### Ingredients

1. Rice - 2 table spoons
2. Roasted and powdered groundnuts ) - 1 table spoon
3. Roasted and powdered green gram dhal or bengal gram dhal ) - 3/4 table spoon
4. Sugar/Jaggery - 2 table spoons
5. Chopped leafy vegetables - 5 table spoons

###### Method

1. Cooked the rice and mashed.
2. Added powdered groundnut and greengram dhal.
3. Cooked the leafy vegetable in little water and strained the juice
4. Mixed all the ingredients and cooked for 10 minutes (Instead of rice any cereals can be used)

##### 2. Ragi pudding

###### Ingredients

1. Roasted and powdered Ragi - 1 table spoon
2. Roasted and powdered bengal gram dhal ) - 2 tea spoons
3. Roasted and powdered groundnuts ) - 2 tea spoons
4. Jaggery powdered - 1 1/2 table spoon
5. Ghee or dalda - 1 tea spoon.

###### Method

1. Mixed all the ingredients with sufficient water to form a paste.
2. Grease a plate and pour this paste in this and steamed for 15 minutes.  
(Instead of Ragi other cereals can also be used)

### 3. Vegetable dhalia

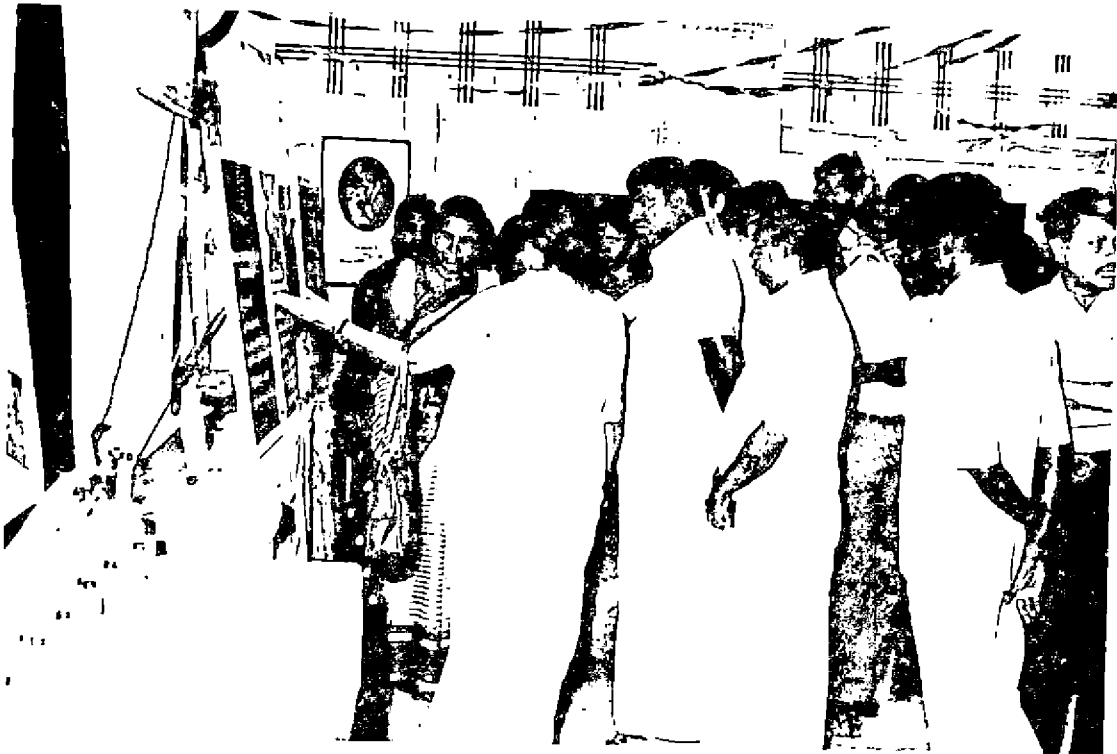
#### Ingredients

- |                     |                 |
|---------------------|-----------------|
| 1. Broken wheat     | - 1 table spoon |
| 2. Shredded cabbage | - 2 tea spoon   |
| 3. Blackgram        | - 1 table spoon |
| 4. Tomato           | - 1 small       |
| 5. Ghee/ dalda      | - 1 tea spoon   |

#### Method

1. Soaked and germinated blackgram.
2. Soaked broken wheat for one hour.
3. Heated oil and fried the chopped tomato, cabbage, germinated blackgram and soaked broken wheat.
4. Cooked with sufficient water and mashed.  
(Instead of cabbage other leafy vegetables and instead of blackgram any other pulses can also be used)

# EXHIBITION



...AUDIENCE VIEWING EXHIBITION



# EXHIBITION

## IMPORTANCE OF BREAST FEEDING



## LOW COST WEANING FOODS





# EXHIBITION

BALANCED DIET FOR A LACTATING WOMAN



LOW COST NUTRITIOUS FOODS

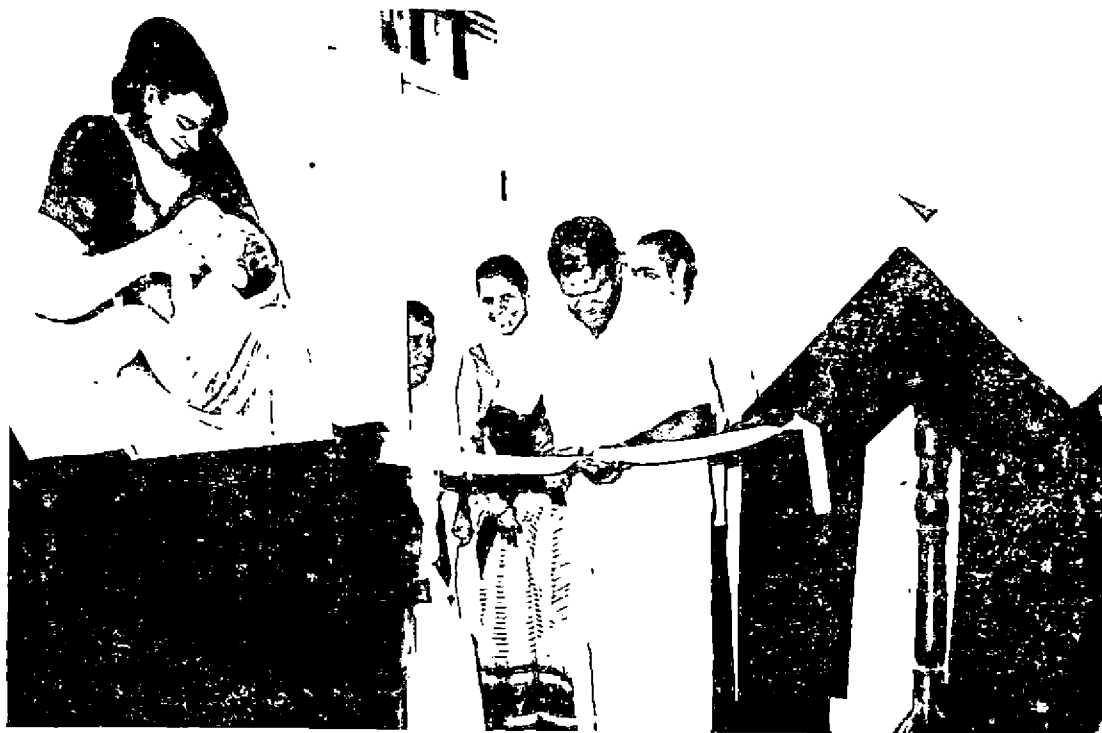


# EXHIBITION

IMPORTANCE OF BREAST FEEDING



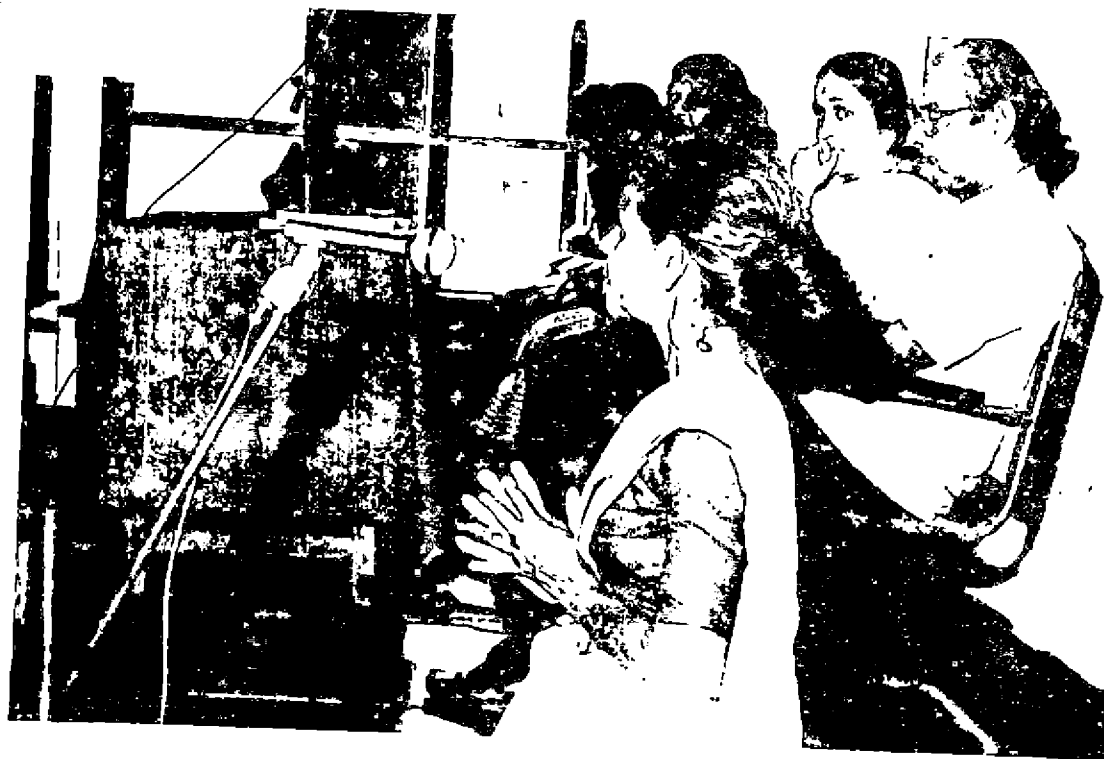
LOW COST WEANING FOODS

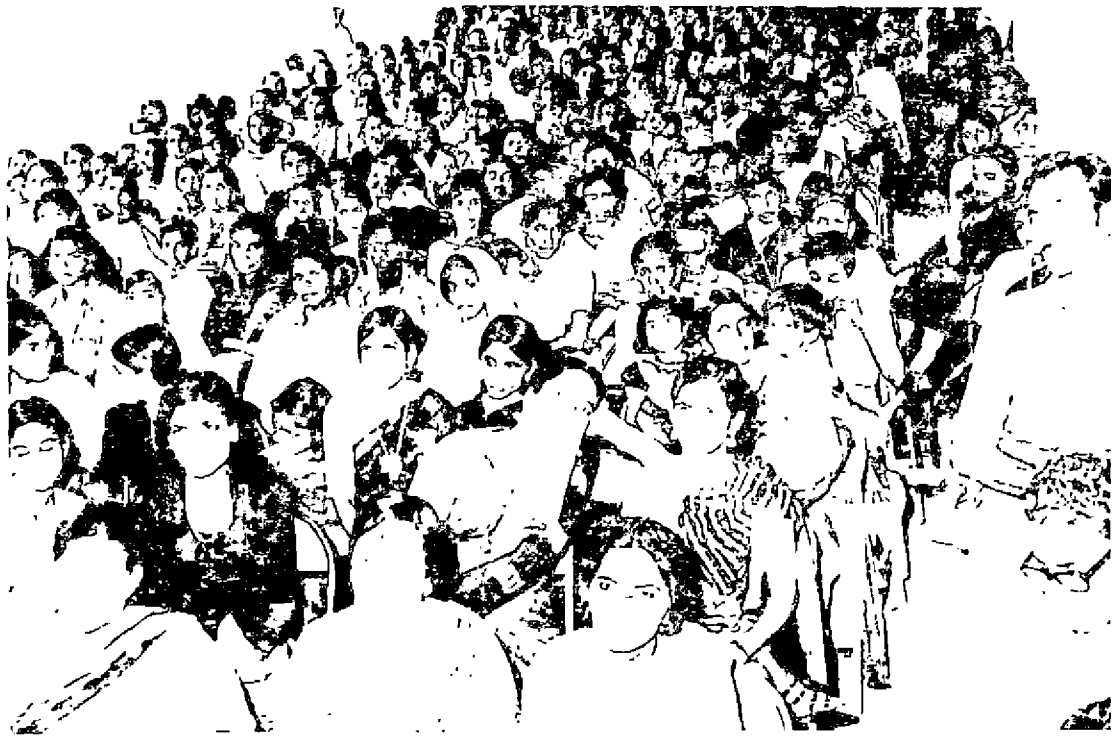


# DISCUSSION FORUM



PARTICIPANTS EXPRESSING THEIR VIEWS





# DISCUSSION FORUM

PARTICIPANTS





# PUBLIC MEETING....





കുഞ്ഞിനു  
അമ്മിഞ്ഞപ്പാൽ  
അമൃതം



കേരള കാർഷിക സർവകലാശാല



മുലപ്പാലിനു  
പകരം  
കുപ്പിപ്പാൽ  
നൽകരുത്

കേരള കാർഷിക സർവകലാശാല



# വീട്ടിൽ തയ്യാറാക്കാവുന്ന ശിശുഭക്ഷണങ്ങൾ



കേരള കാർഷിക സർവകലാശാല



APPENDIX-6(a)

KERALA AGRICULTURAL UNIVERSITY  
DEPARTMENT OF HOME SCIENCE  
VELLAYANI CAMPUS

A questionnaire to elicit information on the impact of Campaign on Better Infant Feeding Practices among Municipal Officials in Kayamkulam and Sherthala Municipalities.

1. Serial No.    2. Municipality
2. Name of the Official
3. Designation.
4. Your involvement in the Campaign

A series of statements are listed below to collect your views regarding the Campaign on Better Infant feeding practices conducted in your Municipality. You are requested to mark your views as 'Yes' or 'No' against each statement.

	<u>Yes</u>	<u>No</u>
1. Education programmes included under campaign were too long.		
2. Education programmes included under campaign were very simple.		
3. Too many education programmes were included for one day.		
4. It was difficult to participate in all the education programmes since they were conducted simultaneously.		
5. All education programmes included were very informative.		
6. Subject matter included for the programme were insufficient.		
7. Subject matter included for the programme was not necessary. (If 'Yes' specify).		
8a. Have you ever participated in a campaign earlier.		
b. What are the differences between this campaign and the other campaign that you have participated earlier.		
1)		

ii)

iii)

iv)

v)

9. What are your suggestion for improvement of similar education programmes?

a)

b)

c)

d)

e)

APPENDIX-6 (b)

KERALA AGRICULTURAL UNIVERSITY  
DEPARTMENT OF HOME SCIENCE  
VELLAYANI CAMPUS

A questionnaire to elicit information on the impact of campaign on Better Infant feeding practices among Balawadi teachers in Kayamkulam and Sherthala Municipalities.

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1. Serial No.
- 2) Name of Municipality
3. Name of the teacher.
4. Ward number.
5. Type of education programme under campaign conducted in your centre.
6. Your involvement in the campaign.

A series of statements/questions are listed below to collect your views regarding the campaign on Better Infant feeding practices conducted in your ward. You are requested to make your views as 'Yes' or 'No' against each statement and question.

- 1) The Campaign on Better Infant feeding practices conducted by the Municipality and Kerala Agricultural University was useful. Yes / No
- 2 a) I have actively participated in the discussion/ demonstration classes conducted in this ward was informative Yes / No / No opinion  
b) The classes were very easy to understand.  
c) The classes were beneficial for the daily life.
3. List out the topics of your interest included in the above discussion/demonstration classes.  
(Write in the order of preference)  
a)  
b)  
c)
4. Was there any flaw in the discussion classes conducted? Yes/ No  
If 'Yes' specify.  
1.

5) Did you see the exhibition included as an item under campaign?

If yes, please mark your views for the following statements.

- a) The exhibition was very attractive.
- b) The exhibition was very informative
- c) The exhibition was easy to understand
- d) The exhibition was beneficial for daily life.

	Yes / No	
<u>Yes</u>	<u>No</u>	<u>No opinion</u>

6. Was there any flaw in the exhibition?

If yes please specify

7. What are the benefits you have acquired by participating in such a campaign (Please mark your views as 'Yes' or 'No')

- a) It was beneficial for daily life.
- b) It was beneficial for the official duties.
- c) It has given inspiration for higher studies on Better nutrition of infants.
- d) To improve knowledge.

Yes/ No

Yes/	No

APPENDIX-6 (c)

KERALA AGRICULTURAL UNIVERSITY  
DEPARTMENT OF HOME SCIENCE  
VELLAYANI CAMPUS

A questionnaire to elicit information on the impact of Campaign on Better Infant Feeding practices among participants in Kayamkulam and Sherthala Municipalities. -----

1. Serial No.	2. Municipality		
3. Name of the participant.			
4. Wards			
5. Did you attend the education programme conducted in your ward?		Yes	No
6. Did you attend the discussion forum conducted in your Municipality?			
7. Did you attend the exhibition?			
8. Did you attend the public meeting?			
9. A few statements on the campaign on Better infant feeding practices conducted are listed below. You are requested to mark your views as 'Yes' or 'No' against each statement.			
a) The programmes were useful		Yes	No
b) The programmes were informative		Yes	No
c) Demonstrations were very interesting		Yes	No
10. List out the topics of your interest included in the demonstration/discussion classes.			
a)			
b)			
c)			

APPENDIX-6 (d)

KERALA AGRICULTURAL UNIVERSITY  
DEPARTMENT OF HOME SCIENCE  
VELLAYANI CAMPUS

A questionnaire to elicit information on the impact of Campaign on Better Infant feeding practices among participants in Kayamkulam and Sherthala Municipalities.

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1. Serial No.
2. Name of Municipality:
3. Name of the participant.
4. Wards
5. A series of statements on the various topics included in the discussion/demonstration classes are listed below. You are requested to mark your views as 'Yes' or 'No' against each statement.

	<u>Yes</u>	<u>No</u>
a) Breast milk is the ideal food for infants		
b) Breast feed the baby soon after delivery.		
c) Colostrum should not be given to infants.		
d) Since rapid growth takes place below one year, the need for proteins is very high.		
e) Upto 2 years breast milk alone is sufficient for the growth of children.		
f) Introducing solid foods first, is ideal for infants.		
g) Introduce semi-solid foods at 2 months.		
h) At the age of one the baby should be able to eat all adult foods.		
i) Introduce leaf juices, vegetable soups, fruit juices etc. from 3 months onwards.		
j) The infant foods prepared from cereals, pulses, jaggery and milk will provide all the required nutrients.		
k) Colostrum is easily digestible and increase the child's resistance to infections.		
l) Don't give water to child when he is having diarrhoea.		

(contd..)

- m) When the child is suffering from diarrhoea, give him plenty of water mixed with salt and sugar.
- n) Breast feeding cannot be continued when the child is having diarrhoea.
- o) Malnutrition of mothers have an influence on the volume of breast milk.
- p) Repeated pregnancies increases infant mortality rate.
- q) Immunization is to be taken at proper times.
- r) Unsanitary conditions leads to worm trouble in children.
- s) Breast milk is cheaper than other milks.
- t) Nutritious infant foods cannot be prepared at home level.
- u) Including green leafy vegetables in the daily diet may cause diarrhoea.
- v) Vegetables, fruits and green leafy vegetables are highly nutritious.
- w) Cereals provide Vitamins.
- x) Ragi is rich in calcium.
- y) Lactating mothers should take more nutritious foods than ordinary women.
- z) Breast feeding increases the bondage between the mother and child.

Yes

No

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