CONTRIBUTION OF INTEGRATED CHILD DEVELOPMENT SERVICE SCHEME (ICDS) FOR THE ERADICATION OF MAL NUTRITION AMONG CHILDREN AND PREGNANT MOTHERS AT RAMANATHAPURAM DISTRICT

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INTRODUCTION:
Children are the first call on agenda of resource development – not only because young children are the most vulnerable, but because the foundation for lifelong learning and human development is laid in these crucial early years. It is now globally acknowledged that investment in human resource development is a pre-requisite for economic development of any nation. Early childhood [the first six years] constitutes the most crucial period in life. When the foundations are laid for cognitive, social emotional, physical/motor development and cumulative life long learning, Child survival growth and development, has to be looked at as a holistic approach, as one cannot be achieved without the others. There have to be balanced linkages between education, health and nutrition for proper development of a child.

Launched on 2nd October 1975 in 33 community development Blocks, ICDS today represents one of the world largest programme for early childhood development, ICDS is the foremost symbol of the pre-school education on one hand and breaking the vicious of malnutrition , morbidity , reduced learning capacity and mortality , on the other it is an inter-sector All programme which seeks to directly reach out to children, below six years, especially from vulnerable and remote areas and gives them a head start by providing an integrated programme of early childhood education health and nutrition, No programme on Early childhood care and Education can succeed, unless mothers are also brought within it ambit as it is the lap of the mother that human beings learn the first lessons in life.

Iron
Children and adolescent need the mineral iron to prevent anemia, Those most risk of iron deficiency are infants who are not given extra iron after six months of age and babies who drink low – iron formula ,cow’s milk or goats milk , Good sources or iron includes, meat , fish legumes , and fortified foods, such as breads and cereals.

Calcium
Calcium is another important mineral, and it is necessary for healthy bones and teeth Children who drink milk and eat dairy products, such as yogurt, ice cream and cheese usually get enough calcium from their diet.

Vitamin C
Although many parents exceed the recommended daily requirements of vitamin C to prevent colds and upper respiratory tract infections. if there is little vitamin C it can lead to scurvy.
which is now uncommon but occur in infants under one year of age who are exclusively fed cow’s milk fruits and vegetables which are excellent sources of vitamin C.

**Vitamin D**
Vitamin D is another fat soluble vitamin that can be deficient causing Rickets. In some infants that are exclusively breastfed, especially if they have very dark skin or if they have limited exposure to sunlight, Vitamin D is mostly found in fortified foods, such as milk and infant formulas.

**Vitamin K**
Vitamin K is a fact soluble vitamin that is necessary for proper blood clotting. It can be deficient in some newborn babies.

Statement of the problem:

During the Tenth plan period the State Government announced its objective to make Tamil Nadu a Malnutrition Free State by 2020. The Plan’s major objective had the focus on prevention rather than management of Malnutrition with increased focus health and nutritional status of Adolescent girls. Combating hunger by provision of nutritious meals to vulnerable sections including provision of noon meals to the aged poor and other pensioners, continued as objectives of the plan. During the period, a whole life cycle Nutrition security approach was introduced, integrating existing nutrition schemes, improving the quality and reach of these programmes, through the experience gained over the decades.

These goals were to be achieved through an action plan which included universal coverage of all families, massive campaigns for behaviour all change on health and nutrition issue, food security through strengthened public distribution and food for work scheme and provision of additional food to the malnourished with social marketing of fortified food with micronutrients such as iodized salt, iron and folic acid. The nutrition component of this plan was largely implemented through the integrated ICDS scheme. So the researcher has made an attempt to study about the impact of ICDS scheme for the benefit of poor children.

**Objectives of the study:**

- To study the origin and growth of ICDS scheme in Ramanathapuram District
- To identify the welfare schemes offered for the benefit of children through ICDS.
- To analyze the health status of children after availing the benefit of ICDS scheme
- To analyze the socio-economic status of pregnant mothers.
- To offer suggestion for the improvement of ICDS scheme.

**Methodology:**

This study is based on primary and secondary data. Interview schedule has been constructed to gather information from pregnant mother and mother having small children up to 10 years old. Secondary data has been collected from books, related journals, magazines, newspapers, and through internet.

**Scope of the study:**

The research is related to the health promotion of small children. Training and capacity development of pregnant mothers can eradicate severe malnutrition among children. The
study has helped the researcher to gain an in-depth knowledge about the nourished food for children and pregnant mothers.

**Description of area**

Ramanathapuram District is a geographical area with flourishing agricultural and business activities. People of different tastes and trades live here. It is situated in the south east corner of Tamil Nadu which is most backward area in development. The water available is not suitable for drinking and irrigation purposes. Fishing is the main occupation of the people in this district. It has 11 community blocks and families below poverty line are covered under ICDS scheme.

**Sampling design**

Convenience sampling technique is adopted for the purpose of this study. The sample size consisted of 100 respondents, 50 respondents are pregnant mothers and the remaining 50 respondents are parents of children, who have availed benefits from ICDS.

**Frame work of analysis:**

A specially designed rating scale was administered to the sample to collect their responses. To get more information from the sample an interview schedule was used. Statistical tools such as percentage analysis, chi-square test, Spearman’s rank correlation and weighted average method were used to find out the difference in the health status of children after the implementation of ICDS scheme by the Government for the welfare of rural poor.

**Services**

The objectives are sought to be achieved through a package of services comprising:

1. Supplementary nutrition
2. Immunization
3. Health checkup
4. Referral services
5. Per-school-non-formal education and
6. Nutrition health education

**Immunization**

Immunization of pregnant women and infants protects children from six vaccine preventable diseases – poliomyelitis, diphtheria, pertussis, fetanus, tuberculosis and measles. These are major preventable causes of child mortality, disability, morbidity and related malnutrition. Immunization of pregnant women against fetanus also reduces maternal and neonatal mortality.

**Health check – up**

This includes health care of children less than six years of age antenatal care of expectant mothers and anganwadi workers and primary health centre (PHC) staff, include regular health check – up, recording of weight immunization management of malnutrition, treatment of diarrhea, de-worming and distribution of simple medicines etc.

**Referral services**

During health check-up and growth monitoring, of malnourished children in need of prompt medical attention, are referred to the primary health centre or its sub-centre. The anganwadi
worker has also been oriented to detect disabilities in young children. She enlists all such primary health centre/sub-centre.

Non-formal pre–school education (PSE)

The non-formal pre-school education (PSE) component of the ICDS may well be considered the backbone of the ICDS programme. Since its services essentialing converge at the anganwadi a village courtyard, anganwadi centre (AWC). A village courtyard is the main platform for delivering of these services. These AWCs have been setup in every village in the country in pursuance of its commitment to the cause of India’s children, present Government has decided to set upon AWC in every human habitation/settlements. As a result, total number of AWC would go up to almost million. This is also the most joy full play-way daily activity, visibly sustained for three hours a day. It brings and keeps young children at the anganwadi centre an activity that motivates parents and communities, PSE, as envisaged in the ICDS, focuses on total development of the child in the age up to six years. Mainly from the underprivileged groups. Its programme is three to six years old children in the anganwadi is directed towards providing and ensuring natural, joy full and stimulating environment, with emphasis on necessary inputs, for optimal growth and development. The early learning component of the ICDS is a significant input for providing a sound foundation for commutative lifelong learning and development.

Nutrition and health education

Nutrition health and education (NHED) is a key element of the work of the anganwadi worker. This forms part BCC (Behavior change communication) Strategy. This has the long term goal of capacity-building of women especially in the age group of 15-45 years, so that they can look after their own health, nutrition and development needs as well as that of their children and families.

Funding Pattern

From the financial year 2009-10 Government of India has modified the funding pattern of ICDS between centre and states. The sharing pattern of supplementary nutrition in respect of north-eastern states between centre and states has been changed from 50:50 to 90:10 ratio.

Financial norms

The Government of India has recently revised the cost of supplementary nutrition for different category of beneficiaries.
Table-1

Details of Rates

<table>
<thead>
<tr>
<th>S. No</th>
<th>Category</th>
<th>Pre-revised rates</th>
<th>Revised rates (per beneficiary per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Children (6-72 month)</td>
<td>Rs.2.00</td>
<td>Rs.4.00</td>
</tr>
<tr>
<td>2</td>
<td>Severely malnourished children (6-72 month)</td>
<td>Rs.2.70</td>
<td>Rs.6.00</td>
</tr>
<tr>
<td>3</td>
<td>Pregnant women and nursing mothers</td>
<td>Rs.2.30</td>
<td>Rs.5.00</td>
</tr>
</tbody>
</table>

Source-primary data

Thrust Areas
The thrust areas during the Eleventh Plan is as follows:
- Eradicating severe malnutrition among 0-6 years old and making a significant impact on moderate malnutrition.
- Achieving universalisation of nutrition services with quality – targeting the unreached both in terms of areas and population groups.
- Strengthening the basic infrastructure and service delivery at the nutrition centers to improve the quality of service.
- Restructuring programme management to have better convergence with allied departments and improved monitoring and evaluation.
- Strengthening training and capacity development.
- Strengthening advocacy, communication and social mobilization.

Micronutrient Supplementation:
- At present, Vitamin premix is being added to the “laddus” to provide minerals and vitamins. In order to address all forms of Micronutrient deficiency, a minimum of 50% daily requirement of micronutrients as recommended by Indian Council for Medical Research (ICMR) will be provided by ICDS through special strategies viz., nutria-candies, nutria-biscuits etc. Iron Folic Acid Syrup and Multi-Vitamin Syrup will be tried out to improve the nutrition status for the holistic development of child. Childhood Nutritional anaemia which is quite common all over Tamil Nadu, is targeted by using the Double fortified salt which is fortified with both iron and in the Noon Meal Programme. The Vitamin ‘A’ supplementation programme will be monitored for 100% coverage.
• **ESTIMATED DEATH OF INFANT & CHILD**

There are various reasons for death of the infants such as diarrhoea, Immunizable diseases like pneumonia, lower respiratory infection, low birth weight, malnutrition etc. But after the implementation of ICDS scheme there is vast improvement in the health status of children and decrease in the death rate.

**DETAILS OF VACCINATION**

Different type of vaccines such as polio, B.C.G and hepatitis is given for children and D.P.T is given for pregnant mothers. The details are given below.

**Table-2  Details of vaccination**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Vaccination</th>
<th>Children</th>
<th>Conceived mother</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No (%)</td>
<td>No (%)</td>
</tr>
<tr>
<td>1</td>
<td>D.P.T</td>
<td>-</td>
<td>50 (100)</td>
</tr>
<tr>
<td>2</td>
<td>Polio</td>
<td>19 (38%)</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>B.C.G</td>
<td>17 (34%)</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Hepatitis</td>
<td>14 (28%)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>50 (100%)</td>
<td>50 (100)</td>
</tr>
</tbody>
</table>

Source : Primary data

From table 2 it is inferred that all the pregnant mothers have vaccinated D.P.T and majority of the children are given polio. Thus we can conclude that polio has been eradicated nowadays to a larger extent.

**Table-3  Details of place of check-up**

<table>
<thead>
<tr>
<th>S.I.No</th>
<th>Place</th>
<th>Children</th>
<th>Pregnant Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No (%)</td>
<td>No (%)</td>
</tr>
<tr>
<td>1</td>
<td>Primary health centre</td>
<td>-</td>
<td>18 (36)</td>
</tr>
<tr>
<td>2</td>
<td>Government Hospital</td>
<td>20 (40)</td>
<td>15 (30)</td>
</tr>
<tr>
<td>3</td>
<td>Sub centers</td>
<td>18 (36)</td>
<td>17 (22)</td>
</tr>
<tr>
<td>4</td>
<td>Private Hospitals</td>
<td>12 (24)</td>
<td>6 (12)</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>50 (100)</td>
<td>50 (100)</td>
</tr>
</tbody>
</table>

Source - primary data
From table 3 it is inferred that majority of pregnant mothers have received benefit in primary health centre and majority of children have received in Government hospital. From this it is clear that Government is doing its best to overcome malnutrition.

Ambulance facilities are high after implementation of ICDS scheme. This shows that the benefit of ICDS scheme has reached all the poor children and pregnant mothers. Phone call is also free for the respondents for ambulance facilities.

**TYPE OF KITS:**

Medicine kits and pre-school kits are provided for the pregnant mothers. This is shown in table

**Table-4  Type of kits**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Type of kits</th>
<th>Children</th>
<th></th>
<th>Pregnant mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No (%)</td>
<td>No (%)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Medicine kits</td>
<td>50 (100)</td>
<td>50 (100)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pre-school kits</td>
<td>- (0)</td>
<td>- (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50 (100)</td>
<td>50 (100)</td>
<td></td>
</tr>
</tbody>
</table>

Source : Primary data

From table 4 all the children have availed the benefit of getting pre-school kits through ICDS scheme and all the pregnant mothers have availed the benefit of getting medicine kits through this scheme.

**Details of Food:**

Through ICDS scheme different type of food such as Boiled Bengal gram, Boiled Potatoes, eggs, sweet pongal and nutritious atta is given to eradicate malnutrition. The details of food is given in table 8

**Table-5  Details of food**

<table>
<thead>
<tr>
<th>S.I.No</th>
<th>Details of food</th>
<th>Children</th>
<th></th>
<th>Pregnant mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No (%)</td>
<td>No (%)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Boiled Bengal gram</td>
<td>13 (26)</td>
<td>- (0)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Boiled potatoes</td>
<td>11 (22)</td>
<td>- (0)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Eggs</td>
<td>15 (30)</td>
<td>- (0)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sweet Pongal</td>
<td>6 (12)</td>
<td>27 (54)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Nutritious Atta</td>
<td>5 (10)</td>
<td>23 (46)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50 (100)</td>
<td>50 (100)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data

From table it is clear that all the children have enjoyed the benefit and majority of 30 percent have received eggs followed by 26 percent who have received Bengal gram and 22 percent
have received boiled potatoes respectively and pregnant mothers have received sweet pongal and 46 percent have received nutritious atta.

**Weighted Average Method**

Weighted average Method is used to find out the order of preference regarding various factors.

Table - 6 Order of preference

<table>
<thead>
<tr>
<th>Factors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Weighted score</th>
<th>Average %</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg</td>
<td>20</td>
<td>30</td>
<td>5</td>
<td>25</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>140</td>
<td>17.57</td>
<td>62.75</td>
</tr>
<tr>
<td>Milk</td>
<td>7</td>
<td>19</td>
<td>20</td>
<td>10</td>
<td>4</td>
<td>25</td>
<td>15</td>
<td>49</td>
<td>13.57</td>
<td>48.46</td>
</tr>
<tr>
<td>Dal</td>
<td>25</td>
<td>4</td>
<td>7</td>
<td>20</td>
<td>10</td>
<td>15</td>
<td>19</td>
<td>175</td>
<td>14.04</td>
<td>50.14</td>
</tr>
<tr>
<td>Seasonal fruits</td>
<td>21</td>
<td>10</td>
<td>15</td>
<td>9</td>
<td>5</td>
<td>15</td>
<td>25</td>
<td>147</td>
<td>13.86</td>
<td>49.5</td>
</tr>
<tr>
<td>Nutritious atta</td>
<td>5</td>
<td>7</td>
<td>30</td>
<td>20</td>
<td>25</td>
<td>10</td>
<td>3</td>
<td>35</td>
<td>14.46</td>
<td>51.64</td>
</tr>
<tr>
<td>Potatoes</td>
<td>2</td>
<td>14</td>
<td>32</td>
<td>2</td>
<td>20</td>
<td>5</td>
<td>25</td>
<td>14</td>
<td>12.89</td>
<td>46.04</td>
</tr>
<tr>
<td>Micronutrient</td>
<td>19</td>
<td>7</td>
<td>25</td>
<td>15</td>
<td>4</td>
<td>10</td>
<td>20</td>
<td>133</td>
<td>14.71</td>
<td>52.53</td>
</tr>
</tbody>
</table>

Source: Primary data

The respondents are asked to rank the food products preferred by them for computing total score certain weights have been assigned to the various degrees of opinion (like 1st rank 7, 2nd rank 6, 3rd rank 5, 4th rank 4, 5th rank 3, 6th rank 2 and 7th rank 1). By multiplying these weights with the corresponding number of respondents to get individual scores which on summation of the Individual scores gives a total score for concerned order of
Preference. This is the representation of different respondents' opinions. The above gives a clear picture about the order of preference of food products preferred by the respondents. The respondent has preferred egg first followed by Micronutrient fortified food nutritiousatta, dal, seasonal fruits and milk.

PROBLEMS AND SUGGESTIONS:-

- It was observed that certain guidelines were followed, but since most of the Anganwadi Workers (AWWs) get married, they migrate to the husband’s village. The migration of the Anganwadi Workers (AWWs) due to the marriage resulted in the displacement of the Anganwadi Workers (AWWs).

SPACE :-
According to ICDS guidelines, the space for the AWCs was to be donated by the community at a central location, preferably near a primary school. The AWCs should provide sufficient space for indoor and outdoor activities and also separate space for kitchen, dining and storage.

SANITATION AND HYGIENE :-
- An AWC should ideally have a toilet/urinal and its surroundings should be clean and it should have proper sanitation.
- AWWs mentioned that the owners of the buildings, where the flush toilets were available, discouraged the children to use these toilets compelling children to urinate/defecate in open spaces. Besides, wherever there were pit toilets almost all of them were found to be unhygienic. Another problem related to the space was the ventilation and lighting.

DRINKING WATER :-
Each and every AWC should use safe drinking water.

LOCATION :-
- As per the guidelines, the AWCs should be located at a central place and most preferably close to a primary school.

GROWTH MONITORING AND PROMOTION :-
- Growth monitoring and nutrition status surveillance were two important activities which were required to be under ICDS. Both are important for assessing the impact of health and nutrition related services and enabling communities to improve the same. As per guidelines the children below the age of three years should be weighed once in a month and children 3-6 years of age are weighed quarterly. Weight-for-age growth cards should be maintained for all children below six years. This helps to detect both growth faltering and also in assessing nutritional status.

RECOMMENDATIONS:

TRAINING THE STAFF OF THE TNCDW, SOCIAL WELFARE DEPARTMENT AND INTEGRATED CHILD DEVELOPMENT SCHEME (ICDS) :-

The orientation to the staff of Tamilnadu corporation for development of women is equally important in implementing the project. Since the majority of the staff is on deputation from other departments, they are to be given regular induction training right, from the beginning of the programme in monitoring, computer training and exposure to other projects and for making evaluations and assessment. They should also be taken for field visits.
Staff starting from the Anganwadi worker, supervisor, Community Nutrition Instructor, District Communication officer and the district Project Nutrition officers Integrating and converging the social welfare and nutrition Department in the self - Help Programme have been the single important factor in changing it from a mere Programme to a movement. Two important consequences of this integration has been that the majority of the members of the existing Mather sanghams (Mahila Mandals) have joined the self – help movement either by joining the existing groups or by forming new groups. The second major achievement has been the empowerment of the Anganwadi worker. In spite of all this Knowledge of Health and nutrition the Anganwadi worker has been economically weak being paid a small honorarium. Presently they are being encouraged to join the self-help groups both to empower themselves and the group.

CONCLUSION :-

Thus ICDS scheme contributes a major factor for the eradication of malnutrition among children. The entry of Anganwadi worker in the group will lead to another silent revolution on the front of nutrition and health of Children, adolescents and women.

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