

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE
FOR THE EASTERN MEDITERRANEAN



ORGANISATION MONDIALE DE LA SANTÉ
BUREAU RÉGIONAL
POUR LA MÉDITERRANÉE ORIENTALE

SEMINAR ON NUTRITIONAL PROBLEMS
IN THE WEANING PERIOD

Addis Ababa, 3-15 March 1969

EM/SEM.NUTR.PROB.WEAN.PRD./7
1 February 1969

ENGLISH ONLY

WEANING FOOD PROGRAMMES AS A PART OF CO-ORDINATED APPLIED
NUTRITION PROGRAMMES

by

Dr A. Raba*

* Medical Officer, Nutrition Unit, WHO, Geneva

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I INTRODUCTION

The present "Co-ordinated Applied Nutrition Programmes" have undergone a number of changes since the first project of this type was implemented in 1958/1959. Until that time, nutrition programmes were mainly centred on nutrition surveys, research activities and feeding programmes directed towards vulnerable groups, and these activities were restricted to selected areas and institutions. During the last ten years these programmes have been adapted in the light of new experiences gained in various countries of the world, and in particular, more emphasis is now given to nutrition education of the communities and the training of local personnel at different levels. It has been recognised that a sound planning and co-ordinating of activities is essential for the success of these programmes. Co-ordinated Applied Nutrition Programmes are also incorporated, when possible, within national plans of development.

Nearly sixty ANPs are at present in operation throughout the world, most of them being sponsored by FAO, WHO and UNICEF. Although the activities within ANPs differ from one country to another, the concept and the scope of this type of programme can be summarized within the following proposed definition:

"Co-ordinated educational activities between agriculture, health and education authorities and other interested agencies with the aim of raising the levels of nutrition of local populations, particularly mothers and children in rural areas"*.

Although the ANPs which are being carried out at present have been directed towards rural activities, there is now a tendency towards giving attention to nutritional problems in urban and peri-urban areas. It is therefore anticipated that in future programmes these activities will be extended to urban areas in several countries of the world.

* Definition endorsed by the Joint WHO/UNICEF Committee on Health Policy and the FAO/UNICEF Joint Policy Committee, February 1967.

Whatever activities are carried out within an ANP, the main ultimate objective is to improve the health of the community through better nutrition. Nutritional problems arise mainly in young children and so the improvement of their health is a major objective of ANPs. As a matter of fact, priority is usually given to making available proteins, and to a certain extent calories, to young children and on a long term basis to set up preventive measures directed towards the struggle against protein-calorie malnutrition.

Although the planning and production side of weaning food programmes is the concern of national authorities and food industries, the educational and consumption sides are mainly the concern of local authorities and communities. Activities and programmes related to weaning foods should, therefore, be tightly linked to those which are components of ANPs.

II COMPONENTS OF APPLIED NUTRITION PROGRAMMES

Nutrition problems being the concern of several disciplines, ANPs form one of the practical approaches to their solution. These co-ordinated programmes are directed towards the main causes of under nutrition and nutritional diseases, namely, inadequate agricultural techniques, shortage and high cost of protective foods, bad conditions of storage and marketing, ignorance of nutritional needs, taboos, parasitic and infectious diseases as related to nutritional status.

As stated above, ANPs are basically educational programmes with the aim of improving and increasing the local production and the consumption of those foods lacking or deficient in the diet, with particular attention being paid to the most vulnerable groups in the community. ANP activities are undertaken through several services, namely, health, agriculture, education, community development, youth and women's clubs, etc.

The selection of the components of the programmes is made after careful study of local needs, facilities and personnel available, practicability of the programme and interest shown by the communities and administrations concerned. Priorities have to be defined.

The general scheme of an ANP should normally comprise the following four stages* :

- Feasibility survey and preliminary planning
- Collection of Base data and detailed planning
- Programme operation in pilot zone
- Expansion to new zones

From the activities which have been included in an ANP, the following could be related to weaning food programme activities.

Health Services

Surveys on health and nutritional status; nutrition education through health and MCH centres, with particular emphasis on breast feeding; cooking demonstrations, with particular attention to the weaning period; establishment of nutrition rehabilitation centres.

Schools

Feeding programmes, lunches, snacks, etc.; school gardens, fish ponds and animal production; nutrition education.

Agriculture

Increasing production of animal and vegetable protein at national, community and home level; increasing production of vegetables and fruits - community and home gardens, back-yard urban gardens, etc.; improvement of food storage, transport, food protection and pest control; and setting up co-operatives for food producers and retail co-operatives.

Community Development - Youth and Mothers' clubs

Nutrition education for the public through mass media; demonstrations, literacy programmes.

* Report on the Joint FAO/WHO Technical Meeting on Methods of Planning and Evaluation in ANPs - WHO Tech. Rep. Ser. No. 340

Training of Personnel

Training activities are considered as one of the essential components of ANPs. However, the personnel involved in AN activities work in different ministries and they may have different conceptions on nutrition problems. Therefore, besides the development of nutrition teaching in existing training programmes, several types of courses are organized in order to enable workers to make an effective contribution to the planning and implementation of ANPs.

Nutrition Committee

Although all the activities which compose an ANP are undertaken through various ministries and bodies, the personnel involved have to work harmoniously together towards a common objective, and in many countries a National Committee is set up for this purpose.

III COLLECTION OF DATA THROUGH ANPs FOR IMPLEMENTING A WEANING FOOD PROGRAMME

The collection of baseline data is an important component of ANPs. It is essential for the justification of the programme, adequate planning, selection of priorities, evaluation, and training of personnel.

It is not possible to establish a standard list of data to be collected for planning and implementing ANPs, as local conditions have to be taken into consideration when deciding upon data which need to be specifically collected in the field at regional and national level. Several lists have been suggested during Seminars on Applied Nutrition Programmes, in Latin America (2), Asia and the Far East (3) and the Near East (4). A detailed list of data proposed at the Latin American Seminar is presented in Annex I. From the main types of detailed information which may be needed, the following have been retained by the Joint FAO/WHO Technical Meeting on Methods of Planning and Evaluation of ANPs (1).

1. Agricultural data of various kinds, including local cropping patterns etc.
2. Data from food balance sheets

3. Information about food consumption patterns and trends
4. Data from dietary surveys
5. Socio-economic data including information on marketing, distribution, processing and storage of foods, circulation of money, etc.
6. Cultural, anthropological and sociological data, including material on food habits and food preferences, power structure in local communities, the decision-making process and leadership patterns, role of women, use of time, etc.
7. Results of any special studies on local foods
8. Vital and health statistics
9. Data from clinical nutrition surveys and biochemical studies
10. Findings of anthropometrical studies, etc.

When the development of a weaning food programme is envisaged, in a country where an ANP has been implemented, most of the data to be specifically collected for this purpose should be available. Nevertheless, it may be necessary to complement this information or to obtain more recent and accurate data in special fields.

In particular, the following information should be collected for the planning and implementing of a weaning food programme.

General data

- Information on age distributions (in particular from 4 - 6 months to 3 - 4 years of age), urban and rural distribution, information on births space.

- Food consumption, seasonal variations, food habits and taboos, with particular attention to lactating mothers, infants and young children, and distribution of foods among family members.

- Socio-cultural patterns and trends.
- Economic levels including family budgets.
- Power structure in local communities; decision making process.

Health data

-Vital statistics - childhood mortality, death rate due to specific causes related to malnutrition.

- Health and nutritional status of infants and preschool children (clinical and biochemical data on a random sample). Relationship between nutritional and infectious diseases (particularly diarrhoeal diseases).

- Anthropometric data (at least weight and height of infants and preschool children).

- Weaning: accurate information on breast feeding, mixed feeding, age and duration of weaning, taboos, foods used, frequency of meals and their preparation, differences between rural and urban areas, trends in weaning practices.

- Environmental sanitation.

Agricultural data

- Food production, seasonal variations, importation, exportation, food balance sheets, with particular attention to protein rich foods, marketing and distribution procedures.

- Inventory of vegetable and animal foods, the protein and vitamin content of which make them suitable for weaning; biochemical analysis may be required for certain foods.

- Availability; prices of foods during the year.

- Possibilities of developing or strengthening food industries (milk, meat, fish, vegetables, protein-rich foods).

Other data

In addition to the above, it is also essential to collect data on the resources available. For example:

- Financial resources at national ministry level, from private industry, and from international and bilateral assistance.

- Human resources: it is necessary to review the existing personnel likely to be involved in the weaning food programme and to estimate the additional personnel required. It is also advisable to evaluate approximately the amount of time such staff can devote to the programme.

- Material resources: a review should be made of all facilities available in institutions through which the programme can be implemented, i.e., food industries, research centres, hospitals, day-care, MCH. social and health centres, mothers' clubs, etc.

IV USING AN ANP FOR PLANNING AND IMPLEMENTATION OF A WEANING FOOD PROGRAMME

Weaning food activities are usually a component of ANPs. The extent of these activities depends upon the importance in the country concerned of the extent of nutritional diseases (PCM in particular), and facilities and personnel available, particularly within the health administrations. One of the main handicaps in developing this type of programme is the lack of fully trained health workers. Only some ANPs include special feeding programmes for infants and preschool children, and as a rule, nutrition programmes related to weaning problems mainly consist of the distribution of milk and nutrition education, with these activities being restricted to selected centres and areas. For several years, however, there has been a general tendency towards the development of food technology with the aim of increasing the availability of protein rich foods which can be used for weaning purposes.

When the setting up of a special weaning food programme is envisaged in a country where an applied nutrition programme is in operation, it could be advisable to integrate all (or most) activities in a single programme, as the same personnel and institutions are likely to be involved in the two projects. In addition, nutrition is so intimately related to agricultural production, economic situations, health, disease control environmental

sanitation, food hygiene, etc., that an isolated approach to the weaning problem could be considered as unsound and may be ineffective.

When a national food and nutrition committee has been established, the planning and co-ordination of activities related to a weaning food programme could be assessed by this committee.

The collection of data especially required for the implementation of this specific programme could be done by the personnel already involved in the ANP. A special questionnaire appropriate for the survey should be worked out, taking into account all local conditions, and special training for the health personnel on weaning problems may also be required for this purpose. Weaning practices may differ considerably in rural and urban areas (duration of breast feeding, importance of diarrhoeal diseases, foods used, etc.) and all these considerations have to be taken into account when deciding upon the choice of formulas and processing of weaning foods.

When the usual tests (efficacy, tolerance, acceptability) have been carried out on selected weaning foods in appropriate nutrition reference centres, a pilot programme could be implemented within the framework of the existing applied nutrition programme. The first trials at community level should be made through the health services. The health personnel should be especially well trained not only in the preparation of the weaning foods concerned, but also on the usefulness of breast feeding, the time for introducing weaning foods (between 4 - 6 months of age), the foods which are acceptable and complement the weaning foods, (with vitamins A and D in particular) and the relationship between malnutrition and infectious diseases. They should be fully aware of food habits, preferences and taboos, prices of foods, etc.

Weaning foods can be used in several ways within the activities of ANPs:

- Nutrition education of mothers based on practical demonstrations in various centres (health, MCH, dispensaries, social day-care, etc.).

- Nutrition rehabilitation of moderate forms of malnutrition (nutrition rehabilitation centres).

- As a part of treatment of severe cases of malnutrition in hospitals.

- In certain cases it could also be envisaged to use weaning foods in school feeding projects and other institutional feeding programmes.

However, ANPs are at present mainly directed towards rural communities, living mostly at subsistence level. The introduction of new processed weaning foods should not interfere with foods of similar nutritional value which are locally produced and prepared and consumed at home. On the other hand, a programme of free distribution to malnourished young children could be envisaged in health centres. In areas where the purchasing power is very low, the price of weaning foods should be reduced to the minimum permissible. As an example, it has been noted in Latin America that middle class children are consuming more Incaparina than children from lower economic classes.

Finally, ANPs can be used for the evaluation of a weaning food programme. The criteria selected for the assessment of the programme should be defined during the planning stage in order to facilitate co-operative surveys. In particular, the commercial, health, nutrition and educational sides of the project should be taken into consideration.

REFERENCES:

- (1) Joint FAO/WHO Technical Meeting on Methods of Planning and Evaluation in Applied Nutrition Programmes.
- (2) Report of the Latin American Seminar on the Planning and Evaluation of Applied Nutrition Programmes, Popayan, Colombia, 10-17 November 1966.
- (3) Report of a Joint FAO/WHO Seminar on the Planning and Evaluation of Applied Nutrition Programmes in Asia and the Far East.
- (4) Regional Seminar on Applied Nutrition for the Near East, Cairo
15.9.1963 - 12.10.1963.

Abstract from the report of the Latin American Seminar on The Planning and Evaluation of Applied Nutrition Programs, Popayan, Colombia, 10.17 November 1966: "Basic Information for the Planning of Applied Nutrition Programs at the Local Level".

Chapter III. Basic Information for the Planning of Applied Nutrition Programmes at the Local Level

Type of Data	Basic	Additional	Type of Data	Basic	Additional
1. GENERAL DATA					
<u>Geography and history</u>			b) Environmental sanitation	x	
a) Brief historical description	x		c) Weight and height of infants, preschool and school-age children	x	
b) Brief description of locale	x		d) Weight of adults		x
c) Water resources	x		e) Clinical-nutritional data		x
d) Altitude	x		2.2. Resources		
<u>Climatic conditions</u>	x		a) Human	x	
<u>Area sketch</u>	x		b) Institutional	x	
<u>Area plan</u>		x	c) Financial	x	
<u>Population data</u>			d) Material	x	
a) Sex and age distribution	x		2.3. Activities data		
b) Migration and immigration	x		a) Nutrition education of the community	x	
<u>Sociocultural data</u>			b) Supplementary foods	x	
a) Occupation and family income	x		c) Medical care in health institutions, including: Nutrition recuperation centers	x	
b) Literacy level and average years of school attendance	x		Health centers	x	
c) Leadership patterns	x		hospitals	x	
d) Means of social communication	x		d) Environmental sanitation (food control, safe water supply, waste and excreta disposal)	x	
e) Food consumption practices	x		e) Educational material prepared and distributed	x	
<u>Land tenure</u>	x		f) Training	x	
<u>Plans for regional development</u>	x		g) Immunization programmes	x	
2. PUBLIC HEALTH DATA			3. AGRICULTURAL DATA		
2.1. Health status			3.1. Agricultural situation		
a) Vital statistics			a) Land use and development	x	
Birth rate	x		b) Food production, animal husbandry and fish culture, and the factors determining production, marketing, and distribution	x	
Death rate (general)	x				
Death rate (less than 1 year of age)	x				
Death rate (1-4 years of age)	x				
Death rate due to specific causes related to malnutrition		x			

Type of Data	Basic	Additional	Type of Data	Basic	Additional
c) Food technology		x	4.2. <u>Resources</u>		
d) Handicrafts and distribution procedures		x	a) Human	x	
e) Development of commercial food and handicraft industry	x		b) Institutional	x	
3.2. <u>Resources</u>			c) Financial	x	
a) Human	x		d) Material	x	
b) Institutional	x		4.3. <u>Activities</u>		
c) Financial	x		a) Plans and programs of study	x	
d) Material	x		b) Education in nutrition and food, agricultural production, and home economics for pupils and community groups		x
3.3. <u>Activities</u>			c) Food supplementation	x	
a) Investigation	x		d) Food and nutrition training for teachers and pupils		x
b) Agricultural extension	x		5. <u>COMMUNITY DEVELOPMENT</u>		
Home industries	x		5.1. <u>Studies and research available, economic and cultural</u>	x	
Cultivation of home gardens, orchards, etc.	x		5.2 <u>Resources</u>		
Home economics	x		a) Human	x	
Farmers' organizations	x		b) Institutional	x	
Training	x		c) Financial	x	
c) Credit	x		d) Formal and informal community organization	x	
d) Educational material prepared and distributed	x		e) Material	x	
e) Products and services supplied by farms, mills, and/or agencies.	x		5.3. <u>Activities</u>		
4. <u>EDUCATION</u>			a) Community education, especially related to food and nutrition	x	
4.1. <u>School statistics</u>			b) Selection, training, and use of leaders	x	
a) School population	x		c) Community organization	x	
b) Total registration	x		d) Construction of schools, health centers, roads, water supply, and other community works		x
c) Average attendance	x				
d) Absences and causes identified	x				
e) "Drop-outs" and causes identified	x				
f) School promotion	x				
g) Schedule and school programs	x				