IDPAS # 817

1. The dietary profile of Saharawi refugees

2. The health and nutrition profile of Saharawi refugees

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1. The dietary profile of Saharawi refugees

In 1997 CISP, with the help of the Italian Institute for Food and Nutrition Research (INRAN), carried out an evaluation of the nutritional status of the refugee population to determine the adequacy of the diet, identify particularly vulnerable population groups and define the scope of nutritional deficiencies.

Food availability and distribution of food aid

In theory, the basic general ration is sufficient to cover the energy, protein and lipid requirements but, in practice, problems often arise on the side of food supply which makes it hard to estimate what the population actually receives. Food aid is not able to fully cover all nutrient requirements to all population groups. Delivery of food products is often irregular and subject to unpredictable factors. The composition of the food basket is discussed every month and varies according to availability of products and stock situation, thus resulting in a variable and often not well-balanced food basket. Furthermore, the differing flow and reduction of external food aid is a continuous threat for the Saharawi refugees. In order to improve the nutritional adequacy of the food ration, the evaluation survey of 1997 recommended the fortification of one or two items of the general ration, namely flour and dried skimmed milk, and the targeted supplementation of the most vulnerable groups, namely women and children. However, since then the recommendations for fortification of the general food ration are not systematically applied by all food donors mainly due to a problematic co-ordination of food aid.

other foods

The basic basket of food aid consists of wheat flour, rice, lentils, sugar, oil, canned fish, canned meat, dried skimmed milk, tea and yeast. Many families own small livestock, which provide limited complementary quantities of milk and meat to the monotonous diet. Access to additional food items is limited and few families can afford to supplement their rations with fresh produce. The prevailing extreme temperatures, sandy soil and saline water limit the potential for household vegetable cultivation. There are some community gardens in each camp but production is insufficient to cover the needs for the population. Table 1, adapted from data collected during the 1997 survey, provides a description of the percent of households purchasing non-rationed food.

Only half of the households surveyed were able to supplement their food ration with additional purchased food. While the theoretical nutritional value of the food ration covers basic energy requirements, it does not contain adequate quantities of micronutrients, particularly iron, vitamin A, zinc and other nutrients commonly found in fresh meat, vegetables and fruit. A dietary analysis found that the standard diet provided only 49% of required iron, 36% of vitamin A and 8% of vitamin C (Branca, 1997). The primary components of the Saharawi diet are rice, couscous, bread and lentils. The average number of food items consumed per day is three, with only 1% of households varying the diet with six or more foods (Table 2).

3. The health and nutrition profile of Saharawi refugees

The health and nutritional profile of the Saharawi refugees has suffered as a result of their prolonged refugee status. Their situation may be defined as highly nutritionally vulnerable, both in terms of food insecurity (i.e. availability and access to foods) and in physiological terms, i.e. according to the specific requirements of particular age and sex categories of the population.

Water and sanitation

Poor sanitation and contaminated drinking water contribute to high rates of illness, which have exacerbated malnutrition. At the beginning of the settlement in the camps, open wells were dug to supply water. The wells soon became contaminated and have since been sealed off. For a time water to supply the needs of the camps was trucked in by large tankers, more recently new wells of improved design have been constructed.

There are a few existing pit latrines, but the majority of families do not use these facilities. There is also no system of garbage disposal.

Health profile

Acute respiratory infections in the winter, diarrhoeal diseases and dehydration in the summer are the most common illnesses affecting children under five years of age. The diarrhoeal disease problem is directly associated to the poor water and sanitation environment. Parasitic infections are highly prevalent, mostly protozoan (giardiasis and amoebiasis) and only few helminthic infections. Despite the water situation somewhat improved, outbreaks of diarrhoea and other waterborne illnesses still occur. Vaccination campaigns are periodically run in the refugee camps and most infants and children are being immunised against the major childhood diseases. Quantitative data on health statistics are difficult to obtain. The majority of births take place at home with the help of traditional birth attendants. It is estimated that approximately 15% of babies are born Low Birth Weight (birth weight below 2,500 g). Antenatal care services are lacking or poorly delivered; there is a lack of basic medication and hospital facilities are not sufficiently well equipped to provide adequate delivery services.

Nutrition profile

Results from the 1997 nutritional survey found that women and children under the age of 10 were the most nutritionally vulnerable groups. Prevalence of malnutrition among children under the age of 5 years found that 70% were anaemic, 46% were stunted (low weight-for-height, i.e. chronic malnutrition) and 10% were wasted (low weight-for-height, i.e. acute malnutrition). The situation improved slightly for older children: 60% were anaemic, 31% stunted and 7% wasted. Young children living in refugee situations are more likely to be malnourished because of inadequate dietary intakes and higher susceptibility to disease, the two immediate causes of malnutrition. The nutritional status of women in the refugee camps was also poor. Women of childbearing age had a high prevalence of anaemia (60%). Chronic malnutrition (low Body Mass Index) was found in 15% of women and 15% of the elderly. Conversely, 36% of women 18-60 and 46% of women over 60 were obese. Other micronutrient deficiencies were also observed, mainly vitamin C, vitamin A and iodine-independent goiter (Branca, 1997; Pezzino *et al.* 1998). Thus, while there is no apparent acute protein-energy malnutrition, chronic malnutrition in young children appears widespread. Also, gluten intolerance is a

A BRIEF HISTORY

Western Sahara the former Spanish colony is the last African colonised country still waiting for independence. The struggle for control of the territory of Western Sahara which has a large coastline on the Atlantic and is bordered by Morocco, Mauritania and Algeria, has been ongoing. Dispute over the territory escalated in 1975 when the Spanish government relinquished control of the area and portioned it off between Morocco and Mauritania, leaving the nomadic Saharawi tribes without land. The Saharawi created the "Popular Front for the Liberation of the Saguia el Hamra and Rio de Oro" or Polisario Front, which opposed the occupation of Western Sahara by Morocco and Mauritania. Since 1973 the Polisario Front is fighting for independence. Despite resistance, Morocco occupied the northern part of Western Sahara with an offensive known as the "green march". During the Moroccan occupation of the north, more than 150,000 Saharawi fled to south-western Algeria and are now living for over 25 years as refugees in one of the most inhospitable desert regions of the world. Mauritania renounced control of the southern portion of Western Sahara in 1979. Since then most of the territory has been under Moroccan control. In an effort to gain independence from Morocco, the Saharawi established the Saharawi Arab Democratic Republic (SADR), which is recognised by 68 countries, but not by the United Nations (UN). Nine years ago, the UN proposed a peace plan envisaging a referendum on self-determination. The plan was blocked until 1996. Since then, Morocco has recognised the Polisario Front and negotiations on the referendum have resumed. Unfortunately, new obstacles continue to emerge resulting in further delays of a referendum.

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Table 1: Percent of households purchasing a food item in the previous month

Food purchased	% Households
Fresh Meat	49%
Fresh Vegetables	24%
Dates	10%
Milk	0.3%

*Adapted from Branca (1997)

Table 2: Number of different food items consumed by the household the day prior to the interview.

Number of food items	% Households	N
1	2.3	7
2	23.9	74
3	43.9	136
4	25.5	79
5	3.5	11
6	1.0	3

*Adapted from Branca (1997)

Vulnerability is not only linked to food insecurity at the household level but is also specific to some groups of the population with special physiological needs, such as children under five. The age group of 6 months to 1 year is one of particular concern as it corresponds to the transitional weaning period, when a child starts sharing the family diet. There are no appropriate weaning foods available to the Saharawi refugees. Additional factors responsible for the inadequate dietary intakes of young children include the reduced appetite due to the effect of illness and to the poor palatability of the local diet as well as its monotony.

There is also a cultural problem of intra-family food distribution and attitudes towards childcare and particularly towards feeding practices. Traditionally, young children are given only a few meals per day, made from staple food diluted with water. Very low weight-for-height is not present, so that energy is unlikely to be a problem. However, protein quantity and quality are low and micronutrients are insufficient to meet the nutritional and physiological needs of the child. Meeting these needs from supplementary foods appears to be the best solution. The variation in nutritional problems of women is in part due to the monotonous diet high in carbohydrate and a general lack of exercise and physical activity at the camps.

The poor nutrition and health profile of the Saharawi, particularly for young children, prompted the European Community to take action. The following chapters summarise the results of two nutritional intervention programmes undertaken by CISP and INRAN in the refugee camps.

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The difficult living conditions in the Saharawi refugee camps and persistence of the conflict characterise this situation as a permanent emergency. The environmental conditions are particularly hostile, with temperatures ranging between 40 and 60 degrees centigrade in the summer and falling below 0 in the winter. Water and food must be provided by external sources of aid. Thanks to the solid organisation structure and the large feeling of solidarity, characteristic of these people, that the Saharawi refugees were able to build an organised society in this desert. The first organisation to give aid to the camps was the Algerian government, through the Algerian Red Crescent. Individual governments, international agencies and solidarity groups also contribute. The European Union has been active in the camps co-ordinating relief efforts. Since 1993 the European Community Humanitarian Office (ECHO) has taken the lead in supplying food aid. The Comitato Internazionale per lo Sviluppo dei Popoli (CISP), an Italian NGO and ECHO partner, has been responsible for overseeing the distribution of food and monitoring the nutritional situation in the camps.