

SOME SOCIOLOGICAL AND AGRO-ECONOMIC CAUSES OF DEFICIENCY DISEASES IN SOUTH AFRICA AND MEASURES TAKEN AGAINST THEM*

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South Africa produces enough food to supply an average of 2,700 cal. and 32 G of animal protein per day for every man, woman and child of all its races. These figures place South Africa, according to the FAO¹ standards, in a very favourable category, but there is nevertheless evidence of both malnutrition and, to a lesser extent, undernutrition in the Republic.

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Kwashiorkor, marasmus, rickets, pellagra, gastroenteritis, bronchopneumonia and tuberculosis occur much more frequently among non-Whites than among Whites. The table indicates that kwashiorkor occurs predominantly among Bantu children. The incidence of kwashiorkor runs parallel with the mortality rate of children of 0-4 years, and it can be seen that the incidence is lower in Coloured

TABLE I. INCIDENCE OF KWASHIORKOR IN SOUTH AFRICA (1962/63) AND MORTALITY RATE PER 1,000 CHILDREN OF 1-4 YEARS

	White	Bantu	Coloured	Asiatic	Total
Number of children 1-5 years	345,905	1,698,652	268,903	72,760	2,386,220
Number of kwashiorkor cases	12	16,784	598	22	17,416
Incidence per 1,000 children	0.03	9.88	2.22	0.30	7.30
Mortality rate per 1,000 children 1-4 years	<2	50	23	9	

and Asiatic than in Bantu children (Table I). Since the socio-economic status of Coloureds and Asiatics does not differ greatly from that of the Bantu, the higher incidence of kwashiorkor in the latter racial group does not suggest a purely socio-economic origin.

FACTORS GOVERNING THE INCIDENCE OF DEFICIENCY DISEASES

1. Problems regarding the Even Distribution of Agricultural Products

Owing to the heterogeneity of the South African population and its uneven distribution in relation to available food supplies, the figures for *per caput* availability give very little indication of the actual food consumption of any particular section of the population and do not take into account possible seasonal variations in the supply of milk and other protective foods. Moreover, the nutrient value of foodstuffs is affected as a result of long distances which have to be covered and unscientific methods of transport. These disadvantages apply mainly to the more sparsely populated areas.

2. Rapid Urbanization of Population Groups

Comparison of the 1951 with the 1960 census figures shows that in the last 9 years there has been an influx from rural to urban areas on the part of all racial groups. This phenomenon is ascribed to increased industrialization. The increase in the urban Bantu population is particularly noteworthy, and this rapid urbanization of the Bantu has led to the adoption, for the time being at any rate, of modes of life which are alien to established tribal customs and institutions and to the disruption of home life. The repercussions on the children, especially in regard to their nutrition, have been serious.

English² states that 'improved socio-economic conditions help to combat kwashiorkor in so far as they make possible a more settled family life. The need to encourage higher moral standards should not, however, be overlooked.'

3. Hygiene

The high death rate among babies and pre-school children cannot be ascribed only to malnutrition. Aykroyd³ states that the predominant cause of high infant mortality is *dirt* (the term being used to denote insanitary conditions generally) rather than a faulty and insufficient diet.

4. Ignorance, Improvidence and Lack of Self-reliance

At certain times of the year, particularly in spring, before the first rains have fallen, many rural Bantu families have inadequate food supplies, even if harvests have been good in the preceding months. This is usually the result of improvidence and want of foresight.

Walker⁴ states that although various measures for the betterment of these people are being undertaken by the State and the community, 'all our efforts to ameliorate the unsatisfactory aspects of the Bantu health picture will fail to achieve maximum results until we are able to educate the Bantu in nutrition and hygiene matters, and until we are able to get them to be more self-reliant and provident.'

5. Taboos and Tribal Customs

It is a matter for concern that most of the dietary customs and taboos of the South African Bantu drastically affect the food consumption of the mother, the infant and the pre-school child. For the Bantu, this is very much a 'man's world'.

A few examples of taboos and traditions are quoted to illustrate this point:

- (i) For the first 5 days after birth a baby may not drink mother's milk;
- (ii) a woman may not eat the flesh of a fowl, because it will cause her to crow;
- (iii) pregnant women may not eat liver or kidneys, since this may cause baldness in the child.

MEASURES TAKEN IN SOUTH AFRICA TO COMBAT NUTRITIONAL DEFICIENCIES

1. Food Subsidization

The State contributes annually R30 million (£15 million) towards the subsidization of staple foods. This represents 3½% of the national income.

2. Health and Welfare Services

About R120 million (£60 million) is made available by public bodies for health and welfare services. About two-thirds of this amount is used for non-White services (Quass⁵).

3. Development of Agriculture

The authorities have for many decades directed intensive efforts towards the improvement and extension of agriculture and towards afforestation. Nutritionists are encouraging the production of milk and meat in and for low producing areas.

4. Milk-Powder Distribution Scheme

A state-supported, milk-powder distribution scheme has been brought into operation to assist in the prevention of protein malnutrition. Skimmed milk powder has for the past 4 years been available at 5c (6d) per pound, or even free of charge, to the mothers of infants and young children.

5. Kwashiorkor as Notifiable Disease

The compulsory notification of kwashiorkor by medical practitioners has already served to focus attention on areas where the disease occurs.

6. Research in Food Technology

Techniques are developed by state-aided institutions, in particular the National Nutrition Research Institute of the CSIR, for the production of cheap and nutritious foods. Special attention is given to the use of fish flour, skimmed milk powder, soya beans and other legumes as possible supplements to cereal staples.

7. Clinical Research on Deficiency Diseases

Clinical research on deficiency diseases is carried out by the National Nutrition Research Institute and various CSIR-sponsored groups and units in different parts of the country.

8. Nutrition Status Surveys

The nutrition status of the different population groups in South Africa is determined by the NNRI, so that the State can be advised on food and nutrition policies.

9. Education Programmes

It is intended to expand the present education programme in regard to nutrition and hygiene on a very large scale, and to approach all groups in their own languages, particularly by means of the radio.

At present 55 hours a day are devoted to broadcasts in Bantu languages, and this will be added to as may be required. The 59,000 letters and cards received weekly from these listeners testify to their interest and testify of the popularity of the programmes.

In conclusion, it can be stated that the measures enumerated above have already borne considerable fruit, and should assist South Africa to eradicate malnutrition and undernutrition from all population groups within the foreseeable future.

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