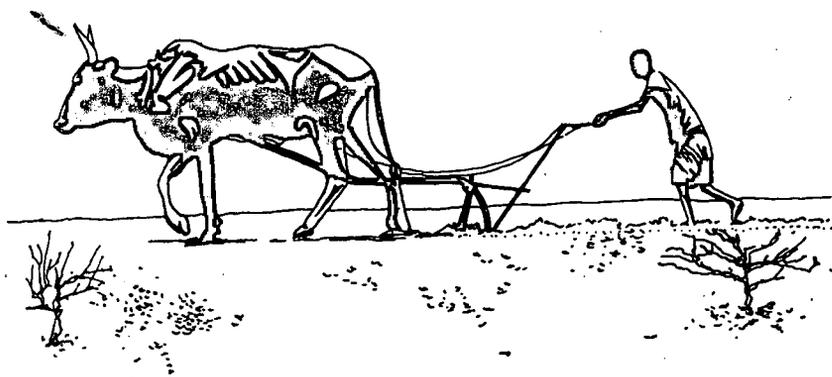


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SECOND CARNEGIE INQUIRY INTO POVERTY AND DEVELOPMENT IN SOUTHERN AFRICA

POST CONFERENCE SERIES NO. 1



Prepared by R.J. Fincham

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SECOND CARNEGIE INQUIRY INTO POVERTY AND DEVELOPMENT
IN SOUTHERN AFRICA

POST CONFERENCE SERIES

These papers form part of the ongoing work of the Carnegie Inquiry into Poverty and Development in Southern Africa.

This series is intended to clarify understanding of the issues raised at the Conference held in April 1984 when 301 preliminary papers were presented.

It will provide a forum to generate recommendations by individuals and working groups for strategies and action both in the long and short term.

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CARNEGIE INQUIRY INTO POVERTY AND DEVELOPMENT IN SOUTH AFRICA.

POST CONFERENCE PAPERS

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FOREWORD

A working group to focus specifically on appropriate policies in the field of Food and Nutrition first met (after a good deal of preliminary spade work had been done) at the University of Cape Town for two days in the middle of September 1982 under the chairmanship of Professor John Reid with Peter Moll as secretary. Of the ten people present, four were economists, three were doctors, one a geographer, one an agricultural economist and one a practising farmer. Their brief was to use the knowledge and experience drawn from their different perspectives in order to think through how best to tackle the problems of malnutrition with which South Africa is faced. It was a lively two days not least because the doctors and the economists found it very difficult to get on to the same wave length in their approach to the problems raised. Despite the frustration the interaction was invaluable for it served to highlight the fact that in order to think adequately about some of the most critical issues facing this society it is necessary to move well beyond the limits of a particular discipline. Indeed many of the most interesting and urgent problems lie in the cracks between academic subjects yet it is precisely here that our training is often weakest. Nevertheless good progress was made in clarifying the questions that needed to be asked, and identifying the papers (and authors) that the working group wished to commission. Looking back it is possible to see that a number of the papers presented at the April 1984 Conference (in the Food and Nutrition section) had their origins in this meeting.

Subsequently, at the beginning of 1983, there were two further meetings. One in Cape Town, focussing on nutrition; the other, in Durban, focussing on food production. The former (led by John Reid) contained three doctors, a nurse turned nutritionist, a geographer and two economists; the latter (convened by Gavin Maasdorp and Tony Ardington) contained one doctor, several practising development officers, a number of agricultural experts, a development orientated anthropologist, and three economists. This was the brainstorming group which generated the ideas for Carnegie Conference Paper No. 224, 'Food Production in the Homelands : Constraints and remedial policies' by Lenta and Maasdorp. Meanwhile back in Cape Town the focus on nutrition and possible strategies of intervention led to further clarification about papers that needed to be commissioned and written in this field. Many of the Carnegie Conference Papers in the range of 205 to 223 followed on from this, a number of them being written by working group members themselves.

Many of those who were active in the debate sparked off by the Food and Nutrition working group were able to attend the Carnegie Conference where further discussion on these issues took place in the wider context of poverty and development as a whole. Rob Fincham who attended all meetings of the working group (except the 'Food Production' one in Durban) was asked to draw together the thinking that emerged over the two years of deliberations. His report which, of course, draws heavily on the papers presented to the Conference is thus very much the product of communal work. Members of the working group to whom special thanks is due include Tony Ardington; John Hansen; Gavin Maasdorp; Peter Moll (secretary); Nomusa Ndaba; John Reid (chairman); Trudi Thomas; and, of course, Rob Fincham. Others whom we should particularly like to thank for their contributions to this report are Martin Bac; Ray Carter; Karel Isselmuiden; Guiseppe Lenta; Stephen O'Keefe and all those who in one way or another participated in the two year debate.

This report is the fruit of much hard work. But we are all very conscious of how much still remains to be done. It is offered as a small contribution from the Carnegie Inquiry to the thinking that needs to be done in this country about appropriate strategies to deal with the scandal of hunger and malnutrition in a land that exports food.

Francis Wilson
Director, Second Carnegie Inquiry into Poverty and Development in Southern Africa.

ACKNOWLEDGEMENTS

I would like to extend my thanks to all members of the Carnegie Food and Nutrition Policies Group who commented on the initial draft of the report. Thanks also go to Dr. Bac, superintendent of the Gelukspan Hospital in Bophuthatswana, and Professor Francis Wilson for their valuable contributions. A final word of thanks must go to Professor J.V.O. Reid who as Chairman of the Food and Nutrition Policies Group, guided our initial deliberations and channelled our efforts to formulate the proposals presented in this report.

R.J. Fincham

I INTRODUCTION

This report draws together the findings of papers on nutrition and food related issues presented at the Conference. The major themes covered by the papers can be conveniently subdivided for the purpose of the report into three interrelated categories; invariably most papers tended to straddle these subdivisions. Firstly, a major concern of the Food and Nutrition Committee set up under the chairmanship of Professor J.V.O. Reid prior to the Conference to give direction to the groups contribution to the Conference, was to come to an understanding of nutritional status within South Africa so that nutritionally-at-risk communities could be identified. A number of papers therefore draw attention to variation in nutritional status by race and by geographical region. Second, factors which affect nutrition needed to be clearly enunciated. These factors can be designated as those related to the organisation and functioning of institutional structures and those social and economic factors prevalent within particular households and communities. Thirdly, the group proposed, on the basis of experience in a variety of socio-economic situations, the kinds of interventions which could lead to an improvement in the nutritional status of at-risk communities and individuals. These interventions ranged from proposals to remove sales tax on basic household food items - a proposal since vindicated by the action of the then Minister of Finance - to calls for the establishment of more nutrition centres such as those functioning in the South West Cape, and the assessment of food production strategies in the homelands and independent states in South Africa.

The greater part of the report will concentrate on the above three issues but some mention of issues relevant to any discussion of food and nutrition in the South African context, but not covered by the group, will also be made. How effective the analysis and recommended interventions of the group are likely to be in influencing present institutional policy is also considered.

It is also apparent that food and nutrition issues are closely related to other Conference concerns. Measures of the state of health of a group such as the Infant Mortality Rate (IMR) and fertility patterns covered elsewhere are reported here, where necessary, to complete the picture of food and nutrition conditions in South Africa.

Section II of the report considers nutrition in South Africa followed by Section III on factors affecting nutritional status. Section IV, on intervention strategies, sets out the recommendation of the Food and Nutrition Group.

II HEALTH AND NUTRITION IN SOUTH AFRICA

This section discusses the relationship between health and nutrition and outlines the results reported in papers concerning levels of nutrition in the country.

A. Health and Nutrition

Nutritional imbalance or malnutrition in its most serious form manifests itself as kwashiorkor, marasmus and avitaminosis. However sub-clinical malnutrition epitomised by a failure to grow is perhaps a more widespread and insidious phenomenon among the socio-economically disadvantaged. As Thomas¹ states, 'The health consequences of malnutrition go beyond the specific nutritional diseases. Undernutrition lowers the productivity of workers, impairs the psychomotor development of infants and young children and increases the susceptibility of individuals to infectious diseases.' It is the realisation of the widespread nature of undernutrition, as will be discussed below, that Kibel and Moodie² call for the institutional recognition of growth failure rather than the incidence of kwashiorkor and marasmus as the way in which to judge infant and child malnutrition in the country.

Comparisons of trends in white, 'coloured' and urban black infant mortality rates (IMR) show that the white IMR has declined from 89/1000 in 1910 to 15/1000 in 1979, 'coloureds' from 166/1000 in 1937 to 70/1000 in 1979; and blacks from 100/1000 in 1968 to 47/1000 in 1979. Herman³ makes the point that for 'coloureds' and blacks, postneonatal mortality remains the most important component of infant mortality.⁽¹⁾ The major cause of post-neonatal death are gastroenteritis and pneumonia. As with other infectious and parasitic diseases such as measles and tuberculosis, poor nutrition is an important factor in disease mortality. Fisher,⁴ examining the impact

(1) The postneonatal mortality rate

$$= \frac{\text{Deaths of children aged 28 days to 36 days}}{\text{Total Live Births in the year}} \times 1000$$

of the measles epidemic in Port Elizabeth during the period December 1982 to July 1983, shows clearly that malnutrition, overcrowding and the concomitant poverty of households was responsible for the highest incidence of fatalities from the disease. Whereas the case fatality rate for whites was 5,5% (1 death) for example, that for blacks was 15,7% (250 deaths). Since the infant mortality rate is considered one of the most reliable indicators of the general health of a group or population, its standard of living, and the efficiency of its health services,⁵ the strong correlation with malnutrition underlines the need to eradicate malnutrition as a necessary prerequisite for lowering fatalities from infectious and parasitic disease.⁽¹⁾

The preceding discussion implies an association between malnutrition and poverty. The Conference papers which present a geographical picture of nutrition confirm this association between malnutrition and poverty.

B. Nutrition in South Africa

Studies undertaken by researchers prior to the Conference, for example Kotze⁶ and Richardson⁷ showed that on average about 3% of the population under the age of 5 years suffered from acute diseases such as kwashiorkor and pellagra, with the white population group least affected. In terms of undernutrition (the failure of an individual to take in sufficient calories and protein) the percentage of children aged one year or less at risk was found to be 8,5% for blacks, 12,9% for 'coloureds', 4,6% for Indians and 2,0% for whites.⁽²⁾ Such work showed that the problem of malnutrition was most common among groups other than whites. It is not surprising therefore that the focus of attention of the Conference papers on nutrition dealt predominantly with conditions among 'coloured' and black communities.

(1) Another important index of the general health of a group is the 1-4 year mortality rate. Hansen⁸ discussing the issue elsewhere, states that as an index the 1-4 year mortality rate catches the post weaning children better than any other index. For white South Africans in 1980 the index was about 1 compared with 0,4 in highly developed countries. By comparison the index is 17 for homeland and independent state areas such as Transkei. The index can prove useful in monitoring intervention programmes aimed at reducing infant mortality and improving health conditions. Work in the Gelukspan area of Bophuthatswana by Dr. Bac, for example, has seen the reduction in the 1-4 year mortality rate index to 9,5.

(2) See Figure 1 on page

B.1 Nutritional Status of Children

Information on the nutritional status of children was available from a number of papers (1, 8, 9, 10, 11,12,13,14, and 15). Hansen⁸ provides a comprehensive picture of child malnutrition in Southern Africa from a review of literature, official statistics and recent anthropometric surveys of preschool and school children in several areas. It is clear from his work and that of others, that location is a vital factor in the level of nutrition one can expect to enjoy. Homeland areas appear to be the worst environments in which to raise children. Community surveys of ambulant preschool children in the Elim Hospital area of Gazankulu and the Driefontein Tribal Trust area near Piet Retief showed one-third to be underweight. In the Gelukspan area of Bophuthatswana half the children were underweight^{8,9}. Buch, Nyathi and Ntlemo¹⁰ emphasise the high incidence of malnutrition in the Mhala area of Gazankulu. They show that even within that area variations in the levels of malnutrition occur. Villages in the central district had on average a 9,0% rate of malnutrition compared with 27,1% in the Southern district and 33,4% in the Eastern district. However, as Brown and Brown¹⁶ state, once a community has more than 15% of its children at risk from malnutrition (i.e. below the 3rd percentile of weight-for-age on the Harvard norm) that community has a serious nutritional problem: all the above areas mentioned have levels of malnutrition or under-nourishment well above 15%. Similar depressing figures of undernutrition were reported from Esithawini Township and Mpukunyoni,¹¹ KwaZulu¹⁵ and Ciskei.¹³

The resettlement camps within the homelands appear to be particularly hazardous areas in which to raise children. Severe malnutrition in the form of kwashiorkor and marasmus is clearly a major problem in these poverty pockets. In Tsweletswele, a closer settlement in Ciskei for example, as many as 10% of the preschool children surveyed had clinically definable signs of kwashiorkor,¹⁴ well above the 3% national average stipulated by Kotze.⁶

Bac,³⁵ in discussions on the preliminary draft of this report, makes two salient comments on the incidence of malnutrition. Firstly, the intervention programmes he has instituted in the Gelukspan area of Bophuthatswana

show that mortality and malnutrition in homeland areas, can be reduced and controlled by effective preventative health services. IMR has dropped to 41/1000, a figure comparable with that of Soweto (see the following paragraph), while malnutrition has been significantly reduced.³⁶ Second, many studies have been done in the homelands and the poor conditions there highlighted. However, little is known of nutritional and health conditions of blacks on white-owned commercial farms. As Bac notes, many adults and children appear to be underweight on these farms. The lack of literature on health conditions of farm workers is certainly noteworthy and indicative of an area where more research is urgently needed. The Carnegie papers co-ordinated by Steyn¹² and that by Westcott³⁷ hint at conditions on the farms, but more widespread reporting is required.

There is evidence that nutritional conditions for blacks and 'coloureds' are improving in the metropolitan areas of the country.^{8,14} Hansen shows that IMR's for 'coloureds' and blacks in Cape Town and blacks in Soweto have dropped dramatically. In Cape Town the 'coloured' IMR is almost at parity with that of whites, while in Soweto the black IMR has fallen from 232 in 1950 to 35 in 1979. These rates parallel improving levels of nutrition in the same communities. In studies conducted in the Eastern Cape, Fincham¹⁴ shows that children from rural areas improve their nutritional conditions when they are relocated to the Port Elizabeth metropolitan area.

Hansen, summarising his findings on the nutritional status of children, concludes there is a significant problem of malnutrition among children. Approximately a third of black, 'coloured' and Asian children below the age of 14 years are underweight and stunted for their age. Geographical variation in nutritional status also occurs so that childrens' location in South Africa is a crucial variable dictating the level of nutrition they are likely to enjoy.

B.2 Nutritional Status of Adults

O'Keefe¹⁷ and Ndaba¹⁸ looked specifically at adult nutrition, while other authors such as Steyn¹² and Ijsselmuiden⁹ included information about adults in their papers.

O'Keefe, using both urban and rural samples in Natal and KwaZulu, makes some important points regarding the nutritional status of black adults. Rural adults tend to be more stunted in growth than their urban counterparts. About a quarter of rural males tend to be more than 20% underweight. By contrast about a fifth of rural females tend to be obese; in urban areas the figure rises to a third of all females surveyed. O'Keefe goes on to make the important link between unemployment and malnutrition. Concentrating on urban black people, he points out that a significantly higher incidence of malnutrition was detected among young unemployed males than among young male factory employees. In addition, alcoholism was high in the unemployed group, highlighting the 'association between poverty, malnutrition and (the) deterioration of social standards'.

Ndaba working in Willowmore found 25% of females and 62% of males over 18 years of age to be underweight. Altogether 27% of the sample were overweight according to the norms employed, and once again it appears that women are the ones who are overweight. O'Keefe suggests that obesity among females is due to consuming large quantities of the staple, putu, and sugar. Protein intake is inadequate and fat build-up is due to the overconsumption of these carbohydrates.

In a thought provoking paper Ijsselmuiden⁹ contends that the nutritional status of the Tsonga in Northern Gazankulu is 'good, the women even being slightly obese'. However, assuming that these people can attain standard height and weight in optimal circumstances, he shows via his anthropometric analysis that socio-economic conditions for these rural people have not improved over the last fifty years: increase in stature following improvement of socio-economic conditions has been demonstrated in many countries, but neither of these phenomena has occurred in Gazankulu.

In places such as Ciskei, Thomas and Fincham¹⁴ show a concern for the nutritional status of the elderly. While many of their studies have concentrated on the young, the malnourishment of adults is present in the same communities and manifests itself in many forms, including wasting and rickets.

The information on adult nutrition, as for children, once again suggests differences in nutritional status between urban and rural communities. Furthermore, just as the very young (dependants) are at great nutritional risk, so too are the elderly of many communities.

C. Overview of Nutrition in South Africa

1. The picture to emerge from the Conference papers shows black, 'coloured' and Asian population to be at the greatest risk to malnutrition; malnutrition is a relatively unimportant health hazard among the white group. While severe forms of malnutrition such as kwashiorkor are to be found in the nutritionally worst off areas such as the homelands, under-nutrition is the gravest nutritional problem.
2. Nutritional conditions vary geographically. The worst exist in the homelands and independent states where the most tragic nutritional conditions in the country are found in resettlement camps. Urban communities, especially those in well established townships, show the most acceptable levels of nutrition among the 'non-white' groups. Blacks on white commercial farms have levels of nutrition less satisfactory than urban blacks, but better than most homeland communities. However, the very limited health services available to blacks on white farms and the variety of housing and social conditions under which they live, point to the need for further research into their nutritional and general health situation.
3. Obesity, through diets high in carbohydrates and lacking sufficient protein, is a problem among some adult groups, especially women and urban women in particular.
4. There is evidence to suggest that levels of nutrition of people in rural areas have been static over time or have declined. Major improvements in rural nutrition seem to be limited to areas where particular programmes have been implemented. When people move to the cities in the common area of South Africa their nutritional status invariably improves.

III FACTORS AFFECTING NUTRITIONAL STATUS

Although the factors associated with the level of nutrition of individuals and communities are numerous, they can be considered within a twofold classification, as suggested in the Introduction. Institutional factors which affect nutrition are dealt with before considering those broadly related to socio-economic circumstances prevailing in the community and within specific households.

A. Institutional Conditions and Nutritional Status

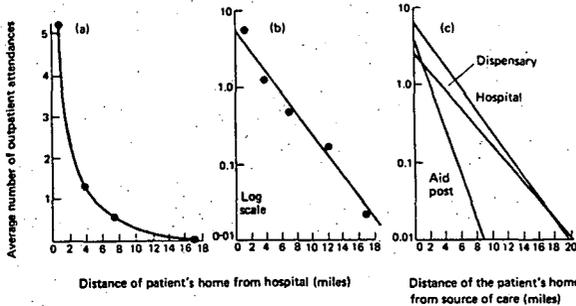
The following discussion highlights nine issues, which although not an exhaustive inventory of institutional problems affecting nutrition, pinpoint some of the key issues. These issues are:

- (a) The lack of access to health care facilities;
- (b) The inability of health personnel to identify lack of growth in potentially malnourished children;
- (c) The failure to regard malnutrition as a notifiable illness;
- (d) The failure of family planning to meet its stated goals;
- (e) The non-attendance of 2-5 year olds at available health facilities;
- (f) Failure of individuals who qualify for state support to receive pensions and grants;
- (g) Failure of bread subsidisation to benefit the poor in any substantial way;
- (h) Constraints on food production in the homelands; and
- (i) State policies which exacerbate poor nutritional conditions.

The inadequacy of health and related infrastructures in nutritionally disadvantaged communities was an important theme to emerge from the Conference papers. The association between the high incidence of malnutrition and the paucity of an adequate health care system appears to be strong.

Ijsselmuiden⁹ shows that the number of children admitted for malnutrition to the Elim Hospital in Gazankulu declines with distance from the hospital. This classical distance-decay function as shown in Figure 1 underlines a major problem for many poor communities in South Africa. Access to facilities is limited so that the possibility for health, education, supervision and early consultation simply does not exist.

Figure 1
The Relationship Between Utilisation and Distance from
Health Care Facilities in Uganda



Source: Jolly and King (1966, Figs. 4,5 and 6) (38).

The problem of access to facilities is exacerbated in many rural areas by the poor transport network and lack of transport facilities for potential patients.⁹

Besides the opportunity for treatment, a number of nutritionally related problems stem from non-access. O'Keefe,¹⁷ for example, concludes that education alone could improve the diet of malnourished adults by increasing the use of beans, eggs and fresh vegetables and reducing total carbohydrate intake, presupposing that sufficient income is available to purchase such items. Such education can be conducted at health facilities such as clinics. Ndlovu¹¹ also considers ignorance to be a factor in malnutrition and the availability of expertise and information from health personnel is seen as a possible answer to eradicating nutritional ignorance. While dealing not specifically with malnutrition but rather with related health problems, Fisher⁴ and Rip and Tibbit⁵ also point out that lack of access to facilities is a major problem.

For those people who do gain access to public health services another set of constraints affect nutritional rehabilitation and care. The inability of many clinic staff to identify lack of growth in potentially malnourished children at an early stage suggests that staff are often inadequately trained in certain aspects of preventative care.^{8, 14}

The monitoring of growth of pre-school and school children is invariably inadequate, possibly because malnutrition is no longer a notifiable disease and identifying it at an early stage is not emphasised in the training programme of nurses.^{9,14} Ijsselmuiden⁹ also notes that the problem of poor staff training and the shortage of staff, is further compounded by the fact that homelands such as Gazankulu have no nutrition policy, no food supplementation schemes and no nutrition rehabilitation units. The result is that even in a case of positive identification, the child concerned can only be referred to the nearest hospital where the treatment of malnutrition is itself inadequate. The training of staff is therefore analogous to a catch 22 situation: even if training is improved it is within a situation which does not allow those trained to improve the lot of the malnourished. Ijsselmuiden therefore feels that training of health staff must be combined with the development of a comprehensive nutrition programme which can enable staff to do something with their training.

Steyn¹² contends that institutionally based family planning programmes are not achieving their goals and many families continue to have unwanted children. In the Eastern Cape, Fincham and Thomas¹⁴ regard illegitimacy and unwanted children as key problems leading to infant and child malnutrition and call for the consideration of state approved abortion. Institutional care of kwashiorkor and marasmic patients is expensive, with many cases of recurring admissions. Once a child has been rehabilitated - the average stay in hospital being 18 days in Gazankulu⁹ - he or she returns to an often impoverished environment and mortality from malnutrition is high.

Thomas¹ indicates another area of concern with regard to institutional care. In the Cape Town area baby clinics have excellent attendance records for children aged zero to two years of age. However, between the age of two and first going to school, children in this age category from poorer socio-economic communities are simply not seen at clinics. The result is that their growth and health status is not monitored during this period for both physical and mental development. Malnutrition during this period can seriously stunt their long term development with negative consequences for their own future wellbeing and their potential contribution to their communities.

In homeland environments young children are often cared for by the elderly, since parents have to migrate in search of work opportunities. While remittances from parents contribute to household income, old age pensions and disability grants are other vital sources of total household income. Thomas in particular¹⁴ has lamented the bureaucratic red tape which delays payments, or simply fails to pay those who are eligible. The result is that the young as well as the elderly of many rural households fail to benefit from potential income which could obviate the malnutrition so often encountered in such situations.

Another problem to emerge from the papers is that malnutrition is often one of the end results of poorly organised institutional structures. Pillay¹⁹ says that the primary cause of malnutrition is an inadequate diet, although many experts would point out that infectious disease is equally as important. Lenta and Maasdorp²⁰ maintain that food shortages, and by implication poor diets for homeland people, are related to inadequate marketing infrastructure and agricultural extension services. Ijsselmuiden⁹ also notes that in Gazankulu poor co-operation between different state departments prevents a comprehensive approach to tackling malnutrition. The issue of food production is only mentioned very briefly here since other sections of the Carnegie Inquiry will be dealing with it more comprehensively.

Moll^{33,34} compared the South African bread and maize subsidy schemes with food demand schemes in other countries. His conclusions included the observation that the subsidy system failed to benefit the poor significantly and he advocated a food stamp system. Moll was able to show that, for example in Sri Lanka, inhabitants were above the world norm on such social indicators as IMR and life expectancy, partly because of a massive food stamp scheme.

More wide ranging criticism of institutional involvement which prevent better levels of health and nutrition came from Pillay,¹⁹ Zwi,²² Jinabhai *et al.*,²³ Fincham and Thomas,¹⁴ Ellis *et al.*,¹³ and many others. A major thrust of such criticism is that one needs to look at the antecedent factors which give rise to malnutrition. State policies which bring about the resettlement of substantial numbers of people, restrict the freedom of individuals to seek job employment wherever they want to within South Africa, and numerous other facets of apartheid legislation

were viewed as restraints on better standards of living and nutrition of the poor. Such arguments and discussion show a concern with the longer-term factors which in the end are crucial to the improvement of health and nutritional levels of poor communities in South Africa. The concern of the Conference in general with the impact of influx control legislation and various other laws affecting the wellbeing of the poor,^{24,25} also emerged as a critical issue for those assessing factors affecting nutritional status.

Finally, the maldistribution of health resources appears to mirror the discrimination against blacks, 'coloureds' and Asians in the country and the probability that they will be the ones most affected by infectious diseases and malnutrition. Numerous researchers have shown that the white population is prone to the diseases of affluence while the other population groups suffer more from those of an infectious and parasitic nature.²⁷ While the percentage of the GNP spent on health is a meagre 1,59%, only 2,09% of that is allocated to Primary Health Care^{23,26} and therefore preventative medicine, the essential ingredient in combating infections, parasitic disorders and malnutrition. The questionable allocation of resources is further spotlighted by the fact that Soweto, better off in terms of nutrition than most other black areas in the country, as shown in Section I, has a doctor population ratio of 1:1 715 compared with 1:600 for whites in South Africa.¹⁸

B. Socio-Economic Conditions and Nutritional Status

In reality the distinction between institutionally related factors affecting nutrition and those operating at the community or household level is minimal. The lack of access to facilities for example compounds the problems of low income and lack of resources within individual households. The discussion in this section will revolve around 7 issues which are central to understanding the factors which affect nutrition in disadvantaged communities or groups. These issues are:

- (a) Lack of income and essential household resources;
- (b) the degree of family organisation and cohesion;
- (c) alcohol abuse and smoking;
- (d) attitudes to breast-feeding;

- (e) level of education, especially nutritional education;
- (f) community attitudes and involvement in the provision of health care;
and
- (g) environmental factors affecting nutrition.

There is little doubt, on the basis of the Conference papers, that lack of income whether in cash or kind is the single most important determinant of nutritional status.⁸ Nutritional status is poorest in those communities with the lowest earning capacity. Ellis et al¹³ aptly talk of the 'grinding poverty' in resettlement camps in the Ciskei where the inhabitants talk of hunger as their major concern and problem. For many in such circumstances, pensions of about R40 per month are the sole source of household income, and incomes of R100 per month are rare. These household incomes need to be viewed against that of R108 and R343 per capita per month for urban blacks and whites respectively.

Lack of income is all the more serious because of the large dependency burdens placed on the limited numbers of money earners. In many cases migration on the part of the breadwinner, while the rest of the family remains in the rural homeland environment, is the only answer to boosting household income. Migrancy, in turn, creates a whole new set of problems which will not be covered in detail in this report. What is crucial from the nutritional point of view, is that family cohesion and organisation is often impaired as the family unit is broken up in the effort to solicit more income.¹⁴ A causal relationship appears to exist between family disorganisation and the increased incidence of malnutrition in the household. Invariably it is the young and the aged who are most seriously affected by malnutrition, essentially because of their dependency position in the household unit. The break up of the family unit also spawns other social maladies, including the breakdown of family discipline and promiscuity among young adults which invariably leads to illegitimate pregnancies: the resulting illegitimate, and often unwanted, children are the ones who become the malnourished in a community.

Alcohol abuse and its related drain on household resources also emerged as an important problem in households with malnourished children. As Ndaba¹⁸ notes in her study of adult blacks and 'coloureds' in Willowmore, 'Plain poverty and adverse social circumstances have a lot to do with this high

incidence of alcoholism, for alcohol has a numbing and care-diminishing effect which makes life more tolerable for those who have to struggle daily for the bare necessities of living'. Steyn,¹² working in the Stellenbosch area notes that malnutrition is related to low income and poverty, especially among labourers on the local farms. He also is able to establish that while malnutrition is a general malady, it is most acute in the group which consumes alcohol and cigarettes. Ndaba, Steyn and others³ portray malnutrition as rife in often poorly organised households, where incomes are low, alcohol and cigarette consumption is high and overcrowding is the norm.

The need for clean water supplies also emerged as a major problem in most rural communities. Stone²¹ shows that in the Hamburg/Chulumna area of the Ciskei, 90% of drinking water for human consumption comes from sources shared with domestic animals. Ellis *et al*¹³ and numerous other writers raise the spectre of diseases related to unclean water and its effects on nutrition.

Two papers dealt specifically with breast-feeding and its rôle in child nutrition. Thornton²⁸ indicates that the trend among the economically disadvantaged is away from breast-feeding. Advertising, the imitation of the wealthy trend-setting elite and hospital policies which could interfere with the mother/child relationship at the start, are some of the causal factors in establishing this trend. Hoffman²⁹ outlined a programme for promoting breast-feeding in a sub-economic area in Cape Town. Both papers indicate various strategies to promote breast-feeding. While the need for basic formal education was taken as a necessary prerequisite for all, more specific nutrition-based educational strategies were advocated. Breast-feeding is often regarded as an indication of poverty by the socio-economically disadvantaged and so scarce resources are spent on expensive supplements from an early age in the life of many infants. Early supplementation destroys the value of the protection provided by mothers' milk against infection and disease. Early supplementation also appears to be tied to a bias for fat babies and Thornton indicates the long-term health hazards which are likely to result from such a trend. Steyn¹² also notes that in the Stellenbosch area malnourished children are those who have low birth weights and are fed very much less on the breast than normal babies, emphasising the need to educate mothers to breast-feed their infants for longer periods.

Education can do little to improve conditions where resources are simply not available to feed families: Fincham and Thomas¹⁴ for example maintain that mothers know that breast-feeding is a sound practice, but the need to earn money forces them to leave the children in the care of others which precludes such a practice. However as Thornton notes education can promote a better understanding of the value of breast-feeding. Likewise, Ndlovu,¹¹ widening the debate beyond the breast-feeding issue, points out that ignorance is prevalent among those in poverty and health education could alleviate problems. As stated by O'Keefe¹⁷ in the previous section, obesity is a problem which can respond to education, bringing about changes in rudimentary dietary practices. Robertson and Rip³⁰ show in their paper that women with low education have large families and also want more children - a factor especially evident in resettlement camps. Since malnutrition has been shown to be related to the size of households, it is important to see this relationship between education and family size as having direct consequences for the nutritional status of the children in such families. Educating mothers to have smaller families will have to be tied to understanding the socio-economic conditions which exist within their communities.

Lenta and Maasdorp²⁰ pay particular attention in their paper to the role that traditional customs, conservatism and resistance to change play in inhibiting the local inhabitants' use of available resources for food production. The authors raise an important consideration often overlooked by researchers intent on isolating the institutional constraints to improving health conditions among the poor, namely the lack of community participation in improving their own lot. Given the often numbing effect of political strictures imposed upon the poor, their lack of participation in community health activity is nevertheless a cause for serious concern. The problem may well lie in the lack of suitable interaction between health personnel and other public officials, as in the case of food production discussed above. Ijsselmuiden⁹ seems to echo such sentiment: 'Signs of community activity in health, which should be initiated and supported by clinic staff, are completely lacking. Few vegetable gardens are kept and most villages appreciate "having" a clinic, but few show responsibility for the clinic'. The lack of community participation in health care must in the long-term impinge upon the nutritional status of the community. Vegetable gardens, if widely utilised, could provide the necessary food for a better diet and a higher food intake for those at nutritional risk.

Unfortunately the lack of vegetable gardens, especially in rural areas, may reflect a fuller understanding on the part of the local inhabitants of the environmental conditions under which they live than planners from outside give them credit for. Drought is an ever present hazard in most of South Africa, and to expend scarce money on food production which is in all probability not likely to materialise may not make sense to the poor. A number of papers remark on the fact that the recent severe drought has had a very limited impact on nutritional status.^{8,9} The reason may well be that in rural areas people depend on remittances and other sources of income to buy food. As Ijsselmuiden⁹ states, the failure of the drought to affect nutrition negatively suggests that subsistence farming as a source of food and income for the majority of homeland inhabitants has become insignificant, so that drought does not affect food supply to a great extent.

The failure to see the rural environment as a source of food is raised by Cunningham.³¹ He points out that planners often designate important multiple-use areas which supply a range of one crop. Cunningham's paper stresses the importance of using indigenous plants, found in coastal environments, to meet the basic needs of rural people. If these plant resources are carefully husbanded and not destroyed in favour of a monocultural system, they can provide a buffer against drought, seasonal famine and unemployment. The wise use of marginally productive environments is an issue which clearly impinges upon nutrition and which needs to be more fully explored.

The lack of significant food production from rural homeland environments is disquieting. The Food and Nutrition group, other than Lenta and Maasdorp, did not concentrate on the issue, as stated previously, but agricultural and economic policies which can change the situation are sorely needed. Greater productivity from the land will in many cases obviate the need for hurriedly applied nutritional programmes and large sums of state money being funnelled into hospital-based curative programmes to rehabilitate victims of malnutrition. Although Ijsselmuiden

maintains that the drought did not result in a significant increase in malnutrition in Gazankulu, others such as Bac³⁹ question this finding. Certainly in the Ciskei, Thomas¹⁴ observed a significant increase in malnutrition in Potsdam, a resettlement area. The unemployed and those dependent on crops from the land are the most likely ones to be affected by malnutrition during droughts years. Agricultural policy, and development planning in general, needs to be geared to raising productivity to reduce widespread malnutrition amongst all age groups in rural homeland areas.

C. Overview of Factors Affecting Nutritional Status

1. Nutrition of individuals and communities is affected by socio-economic and political conditions over which they have little control, as well as conditions prevailing within individual or community households over which they exert a measure of control.
2. Lack of access to health care is a major institutional constraint to improved nutritional conditions for many living in poverty. For those who do have access, services provided are often inadequate because of staff and facility shortages, insufficient training of staff and the inability to promote change in unsatisfactory community attitudes, for example in family planning.
3. Institutional funds, allocated to preventative health care, are limited and point to a bias in favour of curative medicine. Since malnutrition is a preventable illness, the limited allocation of public funds for preventative medicine clearly hampers efforts to introduce and expand services including those of an educational nature.

4. At the household level, lack of income is the most important factor determining nutritional status. Those in grinding poverty, such as is found in homeland environments, especially the resettlement camps, are most prone to malnourishment.
5. In rural areas, migration of the economically active is resulting in the break up of the traditional family unit with dire consequences for the nutritional status of the dependents left to eke out an existence in the rural home. Malnutrition is causally linked to those households where drinking, smoking, illegitimacy, overcrowding and unsanitary conditions prevail.
6. Malnutrition is linked to a move away from breast-feeding. The immunity provided by breast-feeding is lost to many non-breast-fed infants with a resultant rise in the impact of infectious and parasitic illnesses on their general health status.
7. Ignorance, some traditional customs, conservatism and resistance to change all play a part in affecting nutrition. These factors are exacerbated by the inability of institutional services to involve the local communities in fostering better health related conditions for themselves.
8. The relationship between man and his environment needs to be more fully understood. Drought probably leads rural people to underutilise the land for food production. A complex of institutional factors, such as land tenure, also govern land utilisation, an issue only touched on in this report, but dealt with more fully in other Conference papers.
9. Indigenous plant resources offer a source of food supply which can act as a buffer against periods of drought and unemployment in rural communities.

IV NUTRITION INTERVENTION : RECOMMENDED STRATEGIES FROM THE FOOD AND NUTRITION GROUP

The foregoing analysis suggests that improvements in the nutritional status of those in poverty depends on both long- and short-term changes. Long-term or structural changes are imperative although the results from such changes may take time to become evident. To improve the marketing infrastructure in homeland environments as advocated by Lenta and Maasdorp²⁰ for example, will not immediately result in food production increasing dramatically. Short-term changes on the other hand are both feasible and necessary and can be implemented without radical social, political and economic restructuring. Greater attention in the training of nurses to recognise the lack of growth of children at risk to malnutrition is an example of such a change.

It is also evident in compiling these recommendations on the basis of the papers delivered, and the discussions at the Conference that some policy recommendations have both long- and short-term components and that these are inevitably interrelated. For example, some problems of unwanted children are linked to the failure of family planning strategies to induce mothers to have fewer children and changes in family planning strategy, such as increasing the educational component of family planning, can be introduced in the short term. Unwanted children are, however, also a result of the breakdown of family cohesion, especially in rural homeland environments. Fathers have to migrate in search of work opportunities, but cannot take their families with them because of influx control legislation. Changes in such legislation is obviously a long term change that is needed to improve the standard of life and by implication the nutritional status, of those left to cope in the rural home.

A. Recommendations for Long-Term Changes

Sufficient evidence exists to support the contention that influx legislation together with policies of homeland consolidation and the forced removal of people negate or seriously hamper all efforts to improve the level of living of the poor. The policies banish people to, and maintain people in, socio-economically peripheral parts of the country and are largely instrumental in causing the breakdown of family cohesion in poor groups.

While not underestimating the complexity of the issues involved, it is therefore recommended that the abolition of the severe restrictions on the process of urbanisation of the poor, paralleled by significant rural development (in particular the food production capabilities of these areas) and the curtailment of the repatriation of people to 'homelands' - resource scarce areas unable to support the large numbers of people imposed upon them - are the most important long term policy changes that could provide for improvement in nutritional standards.

B. Recommendations for Short-Term Policy Changes and Innovations

Eight short-term recommendations are put forward in this section. Reference to the papers which raise the recommendations are included at the end of each recommendation.

B.1 Increase the Earning Capacity of the Poor

The key strategy for sustained improvement in the nutrition of the poor is to increase their earning capacity (11, 5, 13, 32, 12, 30, 14, 18, 1, 8, 23 and 19). At least four points need to be stressed:

- (a) The access to resources by rural and homeland peoples must be improved through meaningful rural development as previously stipulated.
- (b) Pensions and other grants must be increased to meet the cost of living of those dependent on them for survival.
- (c) The real earning of farm labourers, an often neglected group, must be improved; and
- (d) Improved education in simple technical fields, for example, building, water conservation and home industries, is required.

B.2 Provide Appropriate Health Education and the Greater Utilisation of Personnel Working in Health Services

The World Health Organisation (WHO) mnemonic GOBI FFF sums up the areas of concern in this suggested recommendation:⁸

- G - Growth monitoring to be rigorously undertaken;^{8,9,14}
- O - Oral rehydration of those with gastro-enteritis, who are often malnourished as well;
- B - Breast-feeding promotion;^{28,29,12,14}
- I - Immunisation promotion;^{9,14}
- F - Female education (female 'technology' for mother and child);^{28,29,11,18,30}
- F - Food supplementation for mother and child where necessary;^{12,2} and
- F - Family spacing encouragement; three years between children means improved access to food and care for individual infants and children in the family. Better access to clinics and to primary health care or community health care workers is important in promoting family planning.^{8,12}

B.3 Improved Social Support System

The general direction of change to improve nutritional conditions should be towards greater community involvement in health-related issues. 'Top down' types of development for any proposed health programme which impose services on communities are less likely in the longer-term to be as successful as those which actively involve the community at the grass roots. Such community development must be paralleled by the introduction of a broader based social support system. Three specific recommendations are made:

- (a) Access to the Social Support System for the poor is inadequate and totally lacking in some areas. In the case of working mothers, maternity leave needs to be increased from 1 month before the birth of the child and two thereafter, to 1 before and three thereafter.⁸

(b) Creches must become widely available at work sites and in the residential areas. These must cater for children from the age of 3 months onwards.⁸ Homeland environments are included in this recommendation, since many rural children have parents working in 'white' South Africa and grandparents are often over-extended in providing care for the young children left in the rural home.

(c) Child minding must become an integral part of the social organisation of poor groups.¹⁴

B.4 The Introduction of a Food Scheme

Bread subsidisation is an inferior way of redistributing benefits to the poor and a National Food Stamp System could replace it. Food Stamps are advocated because they are more target specific and through a means test for eligibility can be allocated on a sliding scale to the needy. Seven groups who should benefit include:

- (a) selected pregnant mothers;
- (b) pre-school children 0-5 years of age and who are underweight;
- (c) the medically certified (those below 60% of expected weight for age on the NCHS norms) (See 7a below);
- (d) the aged;
- (e) the unemployed;
- (f) TB patients and their immediate families; and
- (g) people who live on disability grants (cripples, psychiatric patients etc.).³⁴

B.5 The Provision of Clean Drinking Water

Since the availability of clean water and adequate sanitation can significantly affect the health and nutrition of the poor, there must be a conscious effort to ensure access to clean drinking water for all.³

(Note: These measures may in themselves be sufficient to prevent diarrhoea, for example, and the use of bottle feeding in poor communities should be severely restricted, since much infection comes from this source).

B.6 Dietary Supplementation

Dietary supplementation has been shown to affect the nutritional status of children positively and to be a sound preventative measure against malnutrition. Pre-school, school and antenatal supplementation must be made available to the poor. Food supplements must be introduced into homeland health services for distribution to those at nutritional risk.² Schools identified as having significant numbers of underweight children should receive particular attention (See 7a below).

B.7 Compulsory Notification of Nutritionally at Risk Individuals

- (a) All primary school children should have their growth monitored. Both weight and height for age must be taken for all school children on a continuing basis. Failure to grow, as indicated by weight and height for age, indicates the need for nutritional intervention.
- (b) Notification of all individuals not attaining 60% of expected weight for age without specific disease causes must be made by doctors.^{8,9,14} Such notification will give notice of the severity of malnutrition in the particular community concerned and what action is needed to combat the problem. The notification of underweight persons must be made according to age, notably those children under 6 years of age, other children, adults between 16 and 65 years of age and the elderly.

B.8 Food Fortification

The benefits and effectiveness of such an intervention are uncertain, but the possibility of cheap cost-effective formulated foods such as a maize and soya mixture (maiso), and those which increase the fat content and provide certain deficient vitamins, can positively affect nutritional status.

V CONCLUSION

A set of recommendations, both long- and short-term, have been put forward on the basis of Conference papers dealing with food and nutrition issues in South Africa. The recommendations follow from the careful analysis by researchers, working both in the field and through the literature, of nutritional conditions prevailing in South Africa and the factors which appear to influence nutritional status. The issues covered can by no means be considered to exhaust those issues which impinge upon the nutrition of the country's inhabitants. Other important areas, such as the role of diet and exercise in the range of chronic diseases were simply not touched upon.

The intrinsic value of the Conference papers lies in their thorough analysis of the food and nutrition situation in South Africa and the information and new insights they have brought to the nutrition debate. At another level, the value of the papers and the Conference deliberations will depend on the establishment of dialogue between researchers and those implementing policy. It is hoped that this report has outlined in sufficient detail the dimensions of the nutrition problems facing the country and that it will facilitate dialogue between academics, community workers and decision makers.

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