NUTRITION AND HEALTH

IN

SOUTH AFRICA

The State of Nutrition and the Development of Nutrition Policy

by

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During 1992 the World Bank approached the Southern Africa Labour and Development Research Unit (SALDRU), School of Economics, University of Cape Town, to coordinate a study in South Africa called the Project on Statistics for Living Standards and Development. This study was carried out during 1993, and consisted of two phases. The first of these was a situation analysis, consisting of a number of regional poverty profiles and cross-cutting studies on a national level. The second phase was a country wide household survey conducted in the latter half of 1993. The Project has been built on the Second Carnegie Inquiry into Poverty, which assessed the situation up to the mid 1980's.

Whilst preparation of these papers for the situation analysis, using common guidelines, involved much discussion and criticism amongst all those involved in the Project, the final paper remains the responsibility of its authors.

In the series of working papers on regional poverty and cross-cutting themes there are 13 papers:

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- Transkei
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**Cross-Cutting Studies:**
- Energy
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- Urbanisation & Housing
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I INTRODUCTION

A potentially new era in South Africa's history is signalled by the establishment of a bill of rights, new constitution and Transitional Executive Council to ensure a shift from the present political dispensation to one that is more democratic. Such changes have given rise to a widely held belief in the ability to create a more just society and distribute the society's resources more equitably.

The period preceding the April 1994 elections offers an opportunity for significant contributions to be made in policy formulation in key areas of social and economic concern. Situational analyses in particular areas such as health and education offer the platform on which to base such policies. It is with these notions in mind that this report concentrates on health and nutrition policy issues in particular, given the widespread efforts to collect data (in the broader study of which this report forms just one component) on the many-faceted nature of poverty in contemporary South Africa. This chapter sets out the aims and objectives of the study as outlined in the preface, and against the preconceptions articulated above.

The report consists of five further sections. Section II provides a framework in which to consider nutritional conditions in South Africa and the necessary policy implications that flow from that situation. The emphasis in the section is on the link between development, health and nutrition, highlighting the need for healthy individuals as a basis for community action and hence development.

Against this backdrop, sections III and IV consider the health and nutritional situation in South Africa. The time constraints of the study preclude an in-depth analysis of health per se and the emphasis in Section III is on setting out the health issues that impact most specifically on nutrition and nutrition policy formulation.

Nutritional deficiency, in its many forms, afflicts as much as one quarter of the world's approximately five and a half billion people. For many of us, such global numbers do little more than bedevil our senses - we are aware that they mask considerable variation - whether this be on a continental basis, by country, within countries, or
disparities by race, age, sex, the socio-political and economic milieu and so on. Yet it is worth pursuing the macro picture in order to conceptualise the magnitude of the problems surrounding unsatisfactory nutrition and how the South African situation relates to this. It also enables one to raise some of the generic issues pertinent to any discussion on nutritional assessment. Section IV therefore includes a perusal of a more global nutritional situation and intervention actions as well as some discussion on key nutritional concepts before setting out the nutritional conditions in the country.

Sections V and VI set out, respectively, the policy aspects of health and nutrition in South Africa at present. In considering health policy, attention is also drawn to the likely issues that future health policy will have to address. The nutrition policy section includes discussion on the present National Nutrition and Social Development Programme because of its importance as an instrument designed to address nutritional issues by the state in the last two years. Future policy considerations in a period of reconstruction can benefit from contemplating the problems, successes and failures of an initiative that has been given significant backing by the state in its first tentative steps to make a concerted effort to address the mushrooming problems of poverty and their immediate health implications.

The data being collected on nutritional conditions around the country as part of the wider poverty study are potentially valuable because of the sampling procedures being adopted. As a result, it may be possible to considerably update our factual knowledge of the present levels of undernutrition and malnourishment. But the question still remains as to how these data will impact on state policy to address the problems made apparent. It is for this reason that the final section of the report, Section VII, focuses on making far-reaching recommendations for the way forward on creating nutrition policy for the future. The history of nutrition policy formulation in the country is one of high expectations and limited success in eradicating malnutrition. The ability to make more significant strides in fighting the evils of malnutrition and the plethora of factors that affect it in future will depend on constructing innovative conceptual and structural frameworks for action. We believe this chapter contributes to such efforts.
II DEVELOPMENT, HEALTH AND NUTRITION

2.1 Development and Health

Ferrinho (1993) contends that community action is conditioned by the levels of energy that people involved are able to invest in it. Following on from this premise, the health of people is considered to be exemplified by their potential to make available energy for work and play. "Thus health is a key factor in development because it conditions the way people interact with themselves, their social organisation and the biotic and abiotic elements of the environment" (Ferrinho 1993, p.35).

Development, or the lack of it, impacts on health in many ways, a fact reflected in the multitude of strategies embarked upon to bring about development and improve health status. For example, economic growth strategies, per se, currently enjoy less widespread support than previously because of the failure of growth to be matched by a concomitant accrual of income to the poorest. In fact the gap between the affluent and the poor in many societies has been shown to increase during periods of growth.

As a result of the flaws in growth strategy models, many development attempts start from a perspective of attacking poverty and attempting to redistribute resources to individuals and groups identified as being in poverty. The emphasis is to improve incomes so that the poor rise above some defined poverty datum line. In assessing this approach, it becomes apparent that the relationship between poverty and ill health is complex and many faceted (Smith 1977, Ferrinho 1993). For example, studies in Bangladesh have identified relationships between income and maternal education of mothers and the nutritional status of their children. Given comparable incomes, educated mothers were able to provide better nutrition for their children. This supposition has since been used in tandem with unemployment rates by the Natal Nutrition Working Group (1993) to identify areas in KwaZulu that could be targeted for the allocation of the limited funds made available by the National Nutrition and Social Development Programme (NNSDP) to help the poor.
Allied with approaches to poverty alleviation are those that address the basic needs of the society in terms of personal consumption needs such as food and shelter (Maslow 1954) and the provision of public services (Lisk 1977). As these needs can be quantified, they make it possible to measure progress in the achievement of particular goals. The provision of safe drinking water, sanitation facilities and shelter are examples of strategies that can have a marked impact on health and nutritional status.

2.2 Bringing in Community Participation

Whatever the development strategy used, either singly or in some combination, the desired effect of a healthy population with the energy to bring about continual improvement in their lot has not always materialised. The poor remain and unacceptably high levels of inequality within societies continue to exist. It is becoming abundantly clear that this state of affairs is in no small measure a result of an insufficient emphasis on the role that affected people must play in their own advancement. Ferrinho (1993, p.36) understands this issue when he states that "development can be defined as a problem of social change that involves not only environmental and economic resources but also the people whose active participation is fundamental to manage the process".

In the following sections of the report, the importance of people-centred policy formulation will be evident. This approach is in line with a belief in the re-orientation of health services in the country to a system that places greater emphasis on primary health care (PHC) as opposed to the traditionally curative bent of the present South African state and private funded health care delivery system. PHC is people centred since health personnel facilitate people's access to solutions to health problems. It thus has much in common with community development which espouses a similar belief in the facilitation role of development personnel. In both cases a key concern is the ability to empower people to influence and control development which affects them and their health.
2.3 Development, Health and Nutrition

The relationship between development and health is important since it underlines the necessity of viewing specific health concerns within a broader framework. In the case of nutrition and malnutrition, too much effort has been placed in the past on measuring and considering these in isolation from the broader concerns of socio-economic and environmental conditions present within affected groups and communities. The result has been vertical nutrition programmes with limited long-term benefits. What is needed therefore is the reintegration of such programmes into a broader PHC framework (Utshudi-Lumbu 1993), with an understanding of the nutrition resources that are available and the broader goals that should drive nutritional programmes.

2.3.1 Resources

Today enough food is being produced to satisfy the world’s population. This is an important improvement from the situation in the early 1970s when there was a significant food shortage. The World Nutrition Conference in Rome in 1974 met at a time when there was a reduction of the world grain reserve to its lowest level in 25 years, coupled with increased food prices and the threat of famine in Africa and India.

Concerned delegates from the international community committed themselves to increasing food production. Improved agricultural technologies and suitable policies resulted in record grain surpluses towards the end of the 1970s.

But what was thought to be a solution had no significant impact on world hunger. Today, both from a superficial and international perspective, the nutrition problem seems to be one of unequal distribution rather than lack of resources.

However, heavy debt burdens as well as lack of accessible markets and unfair trade agreements which disadvantage developing countries may be more crucial obstacles to solving the problem of malnutrition and hunger in the long-term. Interpreting resources in a wider perspective, there is in many countries (including South Africa)
an unequal distribution of land, access to water, housing and health care. Many millions of people are robbed from an early age of the chance to get an education and skills enabling them to secure good nutrition and a decent life for themselves and their families. Failure to solve national and international conflicts peacefully causes nutritional stress to those who are vulnerable.

It does not need to be repeated that poverty and underdevelopment are the primary causes of hunger and undernutrition. There is a clear understanding internationally that nutrition policy can only be effected if linked to other policies that ensure overall economic growth and development. Nutritional concerns must be integrated with national development plans and involve finances, agriculture, water, environmental issues and so on. As important is equal distribution of resources and equal opportunities to acquire skills necessary for a productive life.

2.3.2 Nutrition Goals and Strategies

The International Conference on Nutrition in Rome in December 1992 pledged to eliminate before the end of this decade famine and related deaths, starvation and nutrition deficiencies in disaster-stricken communities, iodine and vitamin A deficiencies. It pledged to substantially reduce starvation and hunger, undernutrition, iron deficiency and diet-related diseases, to encourage optimal breast feeding and to address inadequate sanitation and unsafe drinking water. As malnutrition affects infants and young children most severely, the United Nations Children's Fund (Unicef) has as its highest priority the elimination of malnutrition through the setting of the following nutritional goals for the 1990s:

1. To ensure that moderate-severe protein energy malnutrition in children under five reaches one half of the 1990 levels and to reduce the rate of low birth weight to less than 10 percent.

2. To control micronutritional deficiency disorders including the reduction of iron deficiency among women of child-bearing age by one third of the
1990 levels and the virtual elimination of iodine and vitamin A deficiency disease.

Unicef has also developed a strategy called "Triple A" in an attempt to help developing countries achieve these goals. Under the heading "Assessment" they recommend the establishment of an ongoing community-based nutrition surveillance system to inform decision making in nutrition policies. "Analysis" of facts collected during the assessment should be done by people living in the situation assessed together with outside experts. Assessment and analysis must lead to "Action" relevant to the local situation aimed at improving nutrition. To be sustainable and effective, this Triple A strategy should operate within a local PHC system.

It is important for South Africa to set its own nutrition goals for the 1990s. A first step in this direction would be an assessment of the nutrition situation in the country as a whole. This could be available towards the end of 1993 on completion of the World Bank-supported National Living Standard Survey now being conducted. Systems need to be created whereby national nutritional information is collected on an ongoing basis without duplication and huge costs. The result would need careful analysis to inform decision making in nutrition policy and to ensure policies which would lead to relevant nutrition action.

Many nutrition models and programmes are described in the international literature from which experience can be gained and lessons learned. It seems less useful to try to transfer models and programmes from one country to another and even between regions when problems, needs and resources vary.

There is a degree of international consensus (ref. Unicef, WH, FAO) that adequate nutrition basically requires access to food (household food security), protection from infection, including environmental sanitation and access to health care, and a society where parents have the opportunity to care for their children.

It has been suggested that this framework be used to design effective nutrition policies
in developing countries (Figure 1).

**Household Food Security**

Household food security can be defined as access by all people at all times to the food needed for a healthy life. This is possible either through the production of food or through access to means to buy food. This requires adequate food supplies both at the national and household level. This supply needs to be sustainable during the year and from one year to another - and divided equally between family members.

**Infection**

Protection from infection requires a healthy environment and access to basic health care. The infection-malnutrition complex, with malnutrition leading to frequent and severe infection leading to worse malnutrition, affects children from the lowest levels of society most and is a powerful expression of the consequences of poverty.

Environmental sanitation, safe water, support of breastfeeding and access to PHC including immunisation cover are important factors in controlling infective diseases and influencing nutritional status of children.

The growing child is a vulnerable member of society and time, attention and knowledge is necessary to meet his or her needs.

It is difficult for a woman to care properly for her children in a society in which her workload takes up most of her day and her status within the family deprives her of the right to control resources. Poor education opportunities undermine her ability to make correct nutritional choices for her family.

Care is also the ability to protect a child from dangerous surroundings and to give special care to an ill child. To provide an organised, emotionally stimulating and secure home environment also benefits nutrition status and child development.
People concerned with nutrition in South Africa need to decide on the relevance of this framework in the development of nutrition strategies here.

The final responsibility in this country to safeguard adequate nutrition, especially for children, rests with the National Department of Health in close co-operation with other sectors such as the departments of Finance, Agriculture, Commerce, Water and Sanitation, Education, Housing, Environmental Affairs and so on. The establishment of a comprehensive PHC system in which nutrition is central could significantly reduce malnutrition.
III THE STATE OF HEALTH

3.1 Introduction

Few other countries in the world show such racial disparity in health status indicators as is evident in South Africa. Infant mortality rates vary ten-fold between whites and blacks and malnutrition occurs primarily among black children. Health and welfare services in South Africa are fragmented by racial and spatial divisions. The fragmentation of health and welfare under apartheid has led to duplication in resource allocation and an expensive bureaucracy. As the new political dispensation unfolds, there is broad agreement on the need for a unitary and non-racial health and welfare system. Buy a more equitable distribution of health services in an unequal society may not be an effective way of improving health status. Factors affecting nutritional status include adequate and clean water supplies, sewerage removal, agricultural development, job creation, housing provision, electricity and education.

3.2 Changing Health Status in South Africa

Widespread poverty, a proneness to infectious and parasitic illness, hunger and undernutrition are common characteristics among blacks in South Africa. Many diseases are socially produced and resource allocation for health needs is equally dependent of political and economic relations. Nowhere is this more evident than in South Africa. Whereas the majority of blacks suffer from malnutrition and poverty-related diseases, the white community die of the degenerative cancers and cardiovascular diseases typical of developed countries (Ross, 1984; Coovadia, 1992; Yach and Edwards, 1992).

Throughout the Third World, poverty remains the primary cause of the prevalence of many diseases and of widespread hunger and malnutrition (Davies and Sanders, 1993; World Development Report, 1993).
Several studies have documented the variability that exists with respect to several indices of mortality and morbidity by race, gender and region in South Africa (Fincham, 1985; Shisana, 1992; Rispel and Behr, 1992; Yach and Edwards, 1992). Although data are hard to come by and often incomplete, evidence suggests that populations at health risk are the rural poor, especially those remote from health and social services, and squatter communities, especially recent arrivals, those with high migration rates and those who are not reached by PHC services.

Voluminous literature has shown that those who need health care in South Africa have least access to it (Marks and Anderson, 1988; Storey, 1990; Rex, 1991; Coovadia, 1992). Whereas the majority of blacks suffer from malnutrition and poverty-related diseases, members of the white community die of the degenerative cancers and cardiovascular diseases typical of developed countries. Moreover, health services are divided, duplicated and inadequately co-ordinated. Priorities favour individual care for the privileged rather than adequate care for the whole population. Socio-economic indicators of health in South Africa have been summarised in Table 1.
Table 1 Socio-economic indicators of health

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<th>INDICATOR</th>
<th>ESTIMATE</th>
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<td>Housing</td>
<td>A housing shortage of between 1.2 and 2 million.</td>
<td>Race Relations Survey, 1993.</td>
</tr>
<tr>
<td>Income</td>
<td>45% were below the minimum subsistence level in 1990.</td>
<td>Race Relations Survey, 1993.</td>
</tr>
<tr>
<td>Literacy</td>
<td>99% for whites 85% for Indians 67% for coloureds 48% for Africans</td>
<td>Rispel &amp; Behr, 1992.</td>
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3.2.1 Infant Mortality Rates (IMRs)

Infant mortality rate (the number of infant deaths below the age of one per year per 1,000 live births in a given year) is an indicator not only of the health status of infants, but also of whole populations, their socio-economic conditions and the availability, utilisation and effectiveness of their health care (Rispel and Behr, 1992).

Micro studies on nutrition status in South Africa during the Second Carnegie Inquiry...
into Poverty and Development in the 1980s suggested that coloured, Indian and black population groups were found to be at risk (Fincham, 1985). The IMR was up to 13 times higher in black and coloured infants than in white.

Variability in the IMR is often attributable to socio-economic factors as opposed to health resources. Literature suggests that there has been a general decline of IMR in all population groups. But this improvement has affected various classes, races, genders and regions. According to one source, IMR for blacks declined from 190 in 1945 to 57.4 in 1988 (Glatthaar, 1992). But another study puts IMR for Africans in 1990 at 80; the rate for white was 40.3 in 1945 and 6.7 in 1990 (Yach and Edwards, 1992).

According to 1990 figures, there is a ten-fold variation between the IMRs of whites and Africans. Within each race group there is a fair amount of variability (Figure 2). In three regions - KwaZulu/Natal, Northern Transvaal and Western Transvaal - 80 out of every 1,000 children die before their first birthday (Yach and Edwards, 1992).

3.2.2 Child Mortality Rates (CMRs)

The child mortality rate measures the number of children dying between the ages of one and four years. CMR excludes IMR and reflects the main environmental factors affecting the health of children such as nutrition, sanitation, communicable diseases of childhood and accidents occurring in and around the home. Whereas less than three percent of all deaths in whites occur under the age of five years, over 17 percent of all deaths in coloureds and Africans occur under five years (Yach and Edwards, 1992).
3.2.3 Life Expectancy and Birth

Life expectancy is a good indicator of socio-economic conditions. For one fifth of the population (mostly whites), life expectancy is equivalent to the best in the developed world, whereas for one third of the population (entirely African) life expectancy remains under 60 years and the IMR is approximately 80 (Yach and Edwards, 1992).

3.2.4 Maternal Mortality Rates (MMRs)

The maternal mortality rate is a reflection of the risk to mothers during pregnancy and childbirth and is influenced by general socio-economic conditions, nutrition and sanitation as well as by maternal health care. MMR is expressed by the number of deaths attributed to complications of pregnancy and childbirth occurring over a year, divided by the total number of live births in the year.

Maternal mortality is a good indicator of women's poverty and social status, as it is influenced by nutrition and sanitation as well as access to health facilities. Health facilities available to women for birth of their children reflect race and class distinctions (Kabeer and Raikes, 1992). In rural areas, many women give birth at home as clinics either too far away or they cannot afford or find transport.

Black women in Bantustans, townships and squatter camps are the most vulnerable. In 1989 the Department of National Health and Population Development reported that the maternal mortality rate for women (in South Africa), excluding the 'independent' homelands, was eight for whites, 58 for coloureds and five for Indians. The World Bank has put maternal mortality in South Africa at 83 per 100,000 live births. The average for sub-Saharan Africa is 561 (Unicef, 1993). Malnutrition affects women's ability to remain healthy during pregnancy and to give birth to healthy babies. One study in Gazankulu suggested that one-third of women receiving ante-natal care were anaemic. About two-thirds of those studied were lacking folate - the Vitamin B complex found in green, leafy vegetables and this also contributed to anaemia. Improving women's nutritional status is central to reducing maternal mortality, the incidence of
low birth weight babies and early childhood malnutrition (Unicef, 1993).

As the children of malnourished women get little ante-natal care, they are likely to be weak and succumb to infection in the first few days of life. At Baragwanath Hospital for example, 3.7 percent of premature babies died within a month of being born. In contrast, at the Johannesburg General Hospital, which serves a largely white urban population, 1.8 percent of premature babies died at or shortly after birth. At Park Lane Clinic, a private fee-paying hospital for the wealthy, 0.8 percent of premature babies died within a month of being born. Research further suggests that mothers who were unemployed and unmarried had babies with the lowest weight. These children were more likely to suffer from diarrhoea and respiratory diseases in the first year of life (Unicef, 1993).
3.3 **Health Services and Personnel**

Nutrition intervention at a primary level in future is likely to be influenced by the distribution of health facilities, health resources and health personnel.

### 3.3.1 Health Facilities

Unequal geographic distribution of health centres results in de facto racial disparities in access. Health facilities vary greatly in number and distribution between rural and urban areas. In Natal for example, the urban areas have considerably better access to mobile and permanent health care facilities than in rural areas. In one study it was found that 30 percent of the rural population in Natal and 22 percent of the rural African population in KwaZulu are more than 5km from mobile points (Hambridge and Krieger, 1991).

### 3.3.2 Per Capita Expenditure on Health

Unequal distribution of health resources according to race contributed to variation in health status. In the 1989/90 fiscal year, South Africa spent 6.4 percent of the Gross Nation Product (GNP) on health. This figure exceeds the World Health Organisation’s target of five percent by the year 2000. But the overall figure of 6.4 percent is misleading as there were major disparities in per capita expenditure by race. In 1989 for example, the government spent R138 for each African on health service and R597 on each white person, i.e. 4.3 times more for whites than for Africans (McIntyre, 1991). In 1988, about 3.2 percent of the GNP was spent in the public sector which serves 80 percent of the population, whereas 2.8 percent was spent in the private sector which only serves 20 percent of the population (Rispel and Behr, 1992).

Other researchers have also documented maldistribution of health care facilities. The hospital beds per 10,000 population in South Africa are inequitably distributed. Whereas there is an abundance of hospitals in some areas, all hospitals are not operating at capacity. Overall, the 1989 bed occupancy rate for South African
provincial hospitals, excluding the Bantustans was 82 percent, lowest in Natal at 68 percent (Shisana, 1992).

3.3.3 Medical Personnel

According to the South African Medical and Dental Council, only five percent of the 24,619 medical doctors registered with the council in 1991 were African (Race Relations Survey, 1993). There is also a maldistribution of medical practitioners between rural and urban areas. In 1990, 82 percent of the medical doctors practised in the 10 largest metropolitan areas of the country while 46 percent of the population lived in these areas (Rispel and Behr, 1992). The non-metropolitan areas accounted for the remaining 18 percent of practitioners. There were nearly 5.5 times as many people per doctor in the non-metropolitan areas compared with the metropolitan areas (Masobe, 1992). The current heavy concentration of practitioners in the affluent metropolitan areas and the critical shortage of staff in the more impoverished outlining areas is thus in part a problem of a private health sector that undermines the public (Masobe, 1992).

There is also a maldistribution of medical practitioners between private and public sectors. Although the number of actively practising doctors has increased between 1979 and 1990, there has nevertheless been a substantial shift towards the private away from the public sector (Rispel and Behr, 1992; Masobe, 1992). The number of providers in the private sector increased by 112 percent, whereas that of the public sector went up only by 31.5 percent in the same period (Masobe, 1992). Other estimates suggest that the percentage of doctors in the public sector declined from 53 percent in 1979 to 41 percent in 1990. The private and public sectors are intimately linked: the one sector expansion was at the expense of the other. In the words of Professor Berger of Natal University, "The private sector is bleeding academic medicine dry of talent while contributing nothing towards the future of our profession" (Berger, 1992, p.12).

There is also a maldistribution of medical personnel at a provincial level. The
proportion of general practitioners per 10,000 population suggests there is a severe maldistribution, with nearly nine general practitioners in Natal for every 10,000 population, seven in the Cape, six in Transvaal and three in the Orange Free State (Shisana, 1992). The maldistribution of nurses by province leads to a bias in favour of Natal, where the ratio of nurse per 10,000 population is 94,3, 72,7 in Cape Town, 63,7 in the Transvaal and 40 percent in the Orange Free State. The nursing staff are also maldistributed by race. In 1990, only 48 percent of nurses were African, 35 percent white, two percent Asian and 15 percent coloured. The implications are that more African nurses need to be trained to serve the needs of the majority (Africans constitute 70 percent of the population), especially since there is also a geographical maldistribution (Shisana, 1992).

3.4 Conclusion

The theme which emerges from this section is that there is maldistribution in health resource allocation according to race, location, class and gender. As the South African society is transformed, so will be the health system. The need to establish effective and appropriate growth monitoring systems and surveillance mechanisms to monitor some health trends is central to restructuring the health system in South Africa (Natal Nutrition Working Group, 1993). However, such monitoring programmes should not exclude the participation and involvement of communities in the planning, execution and evaluating of such progress (see Section Two). Within the context of effective participation in the delivery of health services, patients should be raised from being passive recipients of care to active participants in caring for themselves and for each other.
IV THE STATE OF NUTRITION

4.1 Introduction

Malnutrition is a dietary condition which results from the absence of sufficient foods or essential elements necessary for health. If one considers the population as a whole, energy intake, usually defined in terms of kcals/capita/day, presents a useful measure by which to articulate the absence of sufficient food. Using this criterion, about 20 percent of the world's population is malnourished, that is, consumes dietary energy sufficient for only the lightest activity. (Moderate activity for a male adult with a nominal body weight of 55kg requires about 2,450 kcal/day [Payne 1990]). In the mid 1970s, the comparable percentage was 33, suggesting that there are "fewer people today underfed than at any time in the recent past" (SNC News, 1992). The situation is influenced by considerable improvements in many parts of the world and in China in particular.

But it is of concern that the African continent depicts a static or deteriorating nutritional trend. Drought and wars have contributed to famine conditions in the horn of Africa and countries such as Mozambique and Liberia. Drought in most of Southern Africa appears not to have lead to widespread famine conditions, with state and outside interventions staving off this horrendous situation, if not the insidious problem of widespread undernutrition. These interventions, whether they be in Zimbabwe, Namibia or South Africa, will be of concern to us as we look to answer the questions of improving unsatisfactory nutritional conditions identified in the report.

As opposed to general population assessments of nutrition, most studies tend to focus on specific groups that are at risk. So, for example, protein energy malnutrition (PEM) in children is an often and readily defined condition. There is a deficiency of protein and/or energy that leads to a failure to grow in its mild and moderate forms, or kwashiorkor and marasmus in its more severe forms.
Growth of children remains a central indicator of health and one that is most widely ascertained through the use of anthropometric measurements. A short digression is perhaps warranted at this point. There are essentially two ways of undertaking nutritional assessment. The first, as used at the start of this section, is to assess a person's "intake" of food and whether it is sufficient to meet the requirements for a healthy existence, usually expressed in kcals/time/day. The alternative is to measure "nutritional status" - "the outcome of previous nutrition, directly in terms of the presence or absence of deficiency signs, or of the failure of growth" (Payne 1990 p.14).

Anthropometric measures such as weight for age (W/A), height for age (H/A) and weight for height (W/H) are the indicators most widely used to identify growth, although mid-upper arm circumference (MUAC) is also used for mass nutritional screening of children (Fincham et al 1992). Stunting, a chronic condition, is regarded as being present when H/A falls below a pre-determined cut-off point according to some reference standard such as that of the National Centre for Health Statistics (NCHS) (WHO 1983). The cut-off points are usually two standard deviations below the median value for the reference population or alternatively, below the third percentile for the reference population. Similarly, wasting, a current or acute condition, is present when W/H falls below the cut-off point. Each of these indicators have different levels of sensitivity, specificity and prediction, but the issues are not covered here.

Globally, young children in their first five years who are at nutritional risk (defined as having a weight for age two standard deviations of reference) and have failed to grow adequately, have increased in absolute numbers from 168 million in the mid-1970s to 184 million at the start of this decade. These figures represent a staggering third of all children at risk.

The nutritional status of women is for the first time being assessed on an international basis and the results are disturbing. As many as 45 percent of all women aged 15 to 49 years are subject to nutritional risk in forms such as stunting (short stature as a consequence of inadequate nutrition during childhood and adolescence [Ebrahim
1981), being underweight or wasted (SCN News 1992). The result of these conditions - besides the obvious threat to their own health - is for such mothers to have small babies, whom, if they survive into adulthood, grow to be themselves small mothers. This malady is on the increase in regions such as sub-Saharan Africa with the attendant problems of increased anaemia prevalence and rising maternal mortality. Here again, strategies to deal proactively with the problems of child malnutrition and maternal malnutrition in a holistic manner will concern us in looking at problem resolution.

What emerges from the macro picture is that there appear to be nutritional improvements in store for many parts of the world, with south and south-eastern Asia working from initial high numbers at nutritional risk, as depicted in Figure 2. Africa may well be that part of the world where the trend is a deteriorating one.

Figure 2: Projections: trends in prevalence of underweight children - year 2000

4.2 At Nutritional Risk: Has Anything Changed?

In 1984 the Second Carnegie Inquiry into Poverty and Development in Southern Africa reached one of its goals as over 300 people gathered in Cape Town to pool their collective wits and knowledge and plot actions which could positively impact on the
twin issues of poverty and development. It is of note that the First Inquiry had taken place way back in the 1930s with a specific focus on the poor white problem. The identification of the need for such fundamental change as urbanisation of the rural poor white and the creation of essentially government-initiated work opportunities in the cities provided the platform for a major upliftment of this group.

A Nutrition Working Group within the Second Inquiry made headway in articulating the nature of nutritional risk in the country at that time and also some not unfounded recommendations to address identified problems. Key aspects of the group's contribution are summarised in one of the post-conference publications (Fincham 1985).

4.2.1 Where is the Nutritional Problem?

The impact of race, geographic location and socio-economic status, all inter-related factors, were shown to be major determinants of nutritional status. For whites, nutritional risk and related infant mortality were not major problems. In the coloured, black and Asian groups up to a third of children were underweight and stunted. Similarly, IMRs were up to 13 times higher among these groups.
Individual studies underscored the savageness of access to resources under apartheid, with the "homelands" in their various guises the scene for much of the then contemporary nutritional malady. Those at nutritional risk, exemplified by studies of the young, could be as high as 50 to 70 percent (underweight and/or stunted). It was here that kwashiorkor could also be readily found, with as much as 10 percent in resettlement areas. A lack of data on workers and their children on commercial farms was acknowledged, but what information was forthcoming suggested a range of conditions, from good to appalling, depending on individual owners' attitudes and policy. More acceptable nutritional conditions were found within formal urban communities, such as those in Cape Town and Soweto.

As Glatthaar (1992) points out in her assessment of the present nutritional situation in the country, studies of nutritional status tend to be few and far between with a strong focus on black peri-urban communities such as those in Khayelitsha, Cape Town and Inanda, Durban.

She goes on to indicate that the Regional Health Organisation for South Africa (RHOSA) has been responsible for the first national study of rural children to assess nutritional conditions. The results suggest:
Nine to 15 percent of black pre-school children in the above areas were underweight for their age.

Twenty-five to 33 percent of children were stunted or chronically undernourished, although much higher figures were prevalent in some areas.

Zero to five percent of children presented with acute malnutrition.

Children in peri-urban informal settlements were particularly at risk, especially those from "new arrival" parents.

Work by the Natal Nutrition Working Group (NNWG, 1993) identifies similar trends for rural areas, highlighting the plight of children in deep rural areas (Figure 4). The problems of the informal settlements is also raised once more.
Figure 4: Percentage of Children below the 3rd, 5th and 10th Centiles

It is possible to quote other studies on nutritional levels, but they all tend to point to similar conclusions. About 15 percent of children under the age of five years are underweight while anywhere between 25 to 40 percent are stunted.

Moving to a broader form of reference, the low birth weight rate is about 20 percent. As stated previously, the trend in low birth weight is a sub-Saharan phenomenon from which South Africa is not exempted. In turn iron deficiency anaemia during pregnancy is high and may be as great as 50 percent in particularly vulnerable groups. These factors in turn impinge on child nutrition in adverse ways.

Finally, it is necessary to note that malnutrition, diarrhoeal diseases and acute respiratory infections are key factors affecting the life chances and survival of children
in South Africa. Increasingly, violence in its many forms is also impinging on vulnerable groups such as children (Fincham et al 1993). Political violence and the results of deep-seated social and economic dislocation is affecting nutritional conditions. For the first time in many years the declining trend among children seen at the Edendale Hospital, Pieternaritzburg, with kwashiorkor and/or marasmus is being reversed.

4.2.2 What Fosters Nutritional Risk?

The policy recommendations to come out of the Working Group were presented on the basis of identifying two interrelated problem areas - institutional determinants to poor nutrition and prevailing socio-economic conditions within at-risk individuals, groups and communities. In the former, the following were identified:

- Lack of access to health care facilities, with limited health funds being earmarked for curative medicine at the expense of preventative and promotive primary health care (1.59 percent of the GNP was spent on health and of that small proportion only 2.09 percent was allocated to primary health care).
- Inability of health personnel to identify the failure of potentially malnourished children to grow, a result of insufficient and inappropriate training, coupled with an inability to promote community involvement in matters affecting the health of the community.
- Non-attendance of children aged two to five years at available health services.
- Failure of individuals who qualify for state support to receive pensions and grants.
- Inadequate state subsidisation of basic foods.
- Constraints on food production in the "homelands".
- Fragmented state administration of health care and state policies, such as influx control, which exacerbate poor nutrition.

Importantly, through the work of researchers such as Jinabhai et al (1984), Pillay
(1984), Zwi (1984) and Ellis et al.'s (1984), the major criticism of the state's role in the problem began to be articulated. Antecedent factors which give rise to nutritional risk must be addressed. State policies which brought about resettlement of people, restricted the freedom of individuals to seek employment anywhere in the country as well as the many other facets of apartheid legislation were a fundamental constraint on improving living standards of the poor and, by implication, nutritional conditions.

Turning to socio-economic conditions, the report (Fincham 1985, p.13) states that there "is little doubt, on the basis of the conference papers, that lack of income whether in cash or in kind is the single most important determinant of nutritional status. Nutritional status is poorest in those communities with the lowest earning capacity". Importantly, the connection between "grinding poverty" and malnutrition is clearly enunciated.

Seven issues were identified as important in addressing the plight of the poor:

* Lack of income and essential household resources.
* Degree of household organisation and cohesion.
* Alcohol abuse and smoking.
* Attitudes to breast feeding.
* Level of education, especially nutrition education.
* Community attitudes and community involvement in health.
* Environmental factors affecting nutrition (potable water and sanitation provision).

4.3 Assessment and Conclusion

It is sobering to review the papers and discussions of the last Carnegie Inquiry and to see that many of the issues raised a decade ago have continued to fester (Glatthaar 1992). For example, the then recent drought seen by some to have had little significant impact on nutrition, while others were of exactly the opposite persuasion. Much the same can be said about the present drought and its impact (NNWG, 1993). A tool for
picking up such variations in impact as occurs with drought are sorely needed as is suggested in Section Six, which deals with nutrition policy. In similar vein, the assessments pay attention to the multi-sectoral nature of the nutritional problem and its attendant amelioration.

A considerable degree of attention in the past has been, perhaps, placed on understanding the dimensions of the nutritional problem, both in terms of the magnitude of nutritional risk and its causes. National, regional and local work sharpened the focus in these arenas. Policy formulation lay very much with a racist government and much of the results of work done could no more than posture as decision making. As to the core of the problem, however, most would have been in strong agreement on the need for strategies to impact on the life chances of the poor and their lifelines into the broader resources of the country - in today's parlance, to look at ways of positively addressing household food security, so that at all times all members have access to sufficient food to lead healthy and productive lives. Such agreement may have been present even if the necessary strategies to address the problem were not set in place.
V HEALTH POLICY IN SOUTH AFRICA

5.1 Introduction

The South African health care system has always been in crisis. As early as 1944, the Gluckman Commission of Inquiry into health service raised criticisms which are still evident today - lack of co-ordination, a shortage of services (particularly for blacks in both rural and urban areas); the problem of private medical practice (private care was provided for people according to their ability to pay, rather than according to their needs); false priorities (emphasis placed on care and not enough on the prevention of diseases); unbalanced medical education (emphasis placed on complicated clinical and surgical procedures and not enough on the problems of women and children).

5.2 The Present Situation

Although raised in the 1940s, the same criticisms are still relevant in the 1990s. The crisis in the public health sector in the 1990s is manifested in several ways: lack of resources in health centres catering for black patients, excessive utilisation of scarce resources by the private sector, fragmentation of health services according to race, and inadequate preventive, promotive, curative, rehabilitative facilities for health care provision at the primary level. Apartheid has over the past four decades ensured that the distribution of resources and services available to the politically disenfranchised black majority are poorer and less developed than those available to the white population (De Beer, 1984; Van der Vyver, 1989; Storey, 1990).

There was a shift in state policy with regard to health in the 1980s. Government announced a programme of privatisation with regard to health and public welfare services. The categorical rejection of the welfare state and a refusal to endorse a primary responsibility of the state for welfare has continued into the 1990s. Two general threads can be teased out here. First, continued racial differentiation in the delivery of health care; and second, some form of privatisation of welfare services. The
government's model for restructuring the health services includes devolving primary health care services to local authorities. The state argues that patients should be responsible for part payment of medicines (McIntyre, 1991).

The National Policy for Health Act (No 116 of 1990) was enacted in 1990 shortly after the Minister of National Health and Population Development announced the desegregation of all hospitals. In terms of this Act, health care is now statutorily regarded as a "privilege" and not ultimately the responsibility of the government, save in exceptional circumstances (McIntyre, 1991). But about 50 percent of the South African population lives below subsistence level and is unable to pay for health services. Among Africans, only six percent have medical aid insurance schemes, while among coloureds the corresponding value is 30 percent, among Asians 34 percent and among whites 68 percent; and overall 20 percent (Masobe, 1992; Race Relations Survey, 1993).

Now the Department of National Health and Population Development is talking of a single central national health department and suggesting a national health insurance (Slabber, 1991). The pronouncements of the Minister of Health and Population Development, and the director-general in the past three years commit the department to the primary health care system. But the much-publicised opening of hospitals to black patients and state claims to be committed to primary health care have not been matched with reality on the ground. The amount budgeted for primary health care was only five percent of the health budget in 1990/91 (although, if all primary health services are taken into consideration, the figure may add up to about 20 percent of the health budget (McIntyre, 1993)).

The entire health care delivery system is still fragmented (into 18 departments), wasteful and mostly outdated (Critical Health, 1991ab; 1993). South Africa is facing major challenges. These include the transformation of a fragmented health care system into a unitary national health system based on the primary health care approach through allocation of resources. The second challenge entails the restructuring and demarcation of South Africa into districts to serve as self-contained...
segments within which primary health care can be provided (Shishana, 1992).

A perusal of both state and opposition health alternatives reveals that full-scale privatisation of health by the state is no longer an option. Neither is a whole-scale nationalisation of health, although some form of a National Health Service is a strong probability. Since February 1990, focus has shifted instead to an appropriate mix of public and private health services, the investigation of the most productive relationship between the public and private sectors, and the formulation of strategies on how the national health authorities can move progressively towards greater equity and efficiency in health (De Beer 1984; 1992).

5.3 Conclusion

The major challenge facing the first non-racial and democratic government will be to develop an effective, efficient health and welfare system which still promotes the important ideals of equity, accessibility and affordability. Qualitative and sustained improvements in health will require not only substantial improvements in the coverage and effectiveness of health sector interventions, but more importantly, improvements in working and living conditions.

Health is an outcome of many complex economic, social and cultural factors. Qualitative and sustained improvements in health will require not only substantial improvements in the coverage and effectiveness of health sector interventions, but more importantly, improvements in working and living conditions. Within the context of an unequal global political economy, it is imperative for the state to intervene to address structures which impede development. Political democratisation of society in all sectors and levels is a necessary condition for enabling the disempowered to influence state policy.

For long-term success and sustainability, democratic participation of communities in the planning, implementation and monitoring of development programmes should be central to the health care delivery system in a democratic South Africa.
An apartheid ideology has been a root cause of the ongoing crisis in health care delivery. Fragmentation and the lack of access to services for the majority of the population have been unsavoury characteristics of the health system. Lessons drawn from Zimbabwe (Davies and Sanders, 1993) and Mexico (Frenk, 1992) suggest that the establishment of comprehensive primary health care will go a long way to alleviating some of the health related problems in the society (Rodhe, Chatterjee and Morley, 1993). Within the concept of primary health care and promotive health philosophies is the inherent assumption that people should be the subjects of their own health improvements rather than merely the objects for interventions by health professionals.
VI SEARCHING FOR A CONCEPTUAL FRAMEWORK FOR NUTRITION

6.1 Intervention and a National Nutrition Policy

That the formulation of nutrition policy has a long tenure in this country is not at question. Harrison (1993) draws an incisive picture of the nature of nutrition policy development for the period 1928 to 1993 and, by implication, underscores the soft belly of such policy dictates. They have invariably lacked a coherent long term trajectory, have been encapsulated within a fragmentary health system and have functioned within a non-existent national development policy framework.

At least five factors have conspired to make the immediate future a potentially critical period for the development of a far-sighted and meaningful national nutrition policy. Such policy must also be part of a wider endeavour to pragmatically and forcefully address poverty in South Africa.

The move into a new and tenuous period of reform and the potential it offers for greater access to the resources of the country for the majority of its inhabitants is the first of these factors. A more "enabling environment" for creative policy formulation is now in place, which was not the case during the "Carnegie" era.

Other factors are the launch and performance of the Department of National Health and Population Development's (DNHPD) National Nutrition and Social Development Programme (NNSDP); the rigours of the persisting drought and the resultant establishment of the National Consultative Forum on Drought; the entry of Unicef into the dilemmas of women and children in South Africa, as well as the concern of the World Bank to identify, among other things, a poverty database for future policy making and capacity building; and the abysmal state of the economy and its ever spreading net of unemployment and poverty. We wish to simply highlight some of the issues which have emerged out of the analysis of the NNSDP and the work of the
Consultative Forum, to pose the issues of which future interventions must take cognizance.

The NNSDP was instituted in September 1991 with an initial annual budget of R220 million. Its goals were, ostensibly, to develop a long-term food and nutritional strategy for the country since even in times of food surplus there remained widespread poverty and malnutrition. Besides the advice and assessment of the programme undertaken at a national level by the Executive Nutrition Advisory Committee to DNHPD (ENAC), on-going evaluation of the programme in Natal/KwaZulu was undertaken by the Natal Nutrition Group (Fincham et al 1992a; 1992b; 1992c) (Natal Nutrition Working Group 1993).

The NNSDP is an essential programme on which to cogitate, since it represents one of the state's first real attempts to address nutrition and poverty on a broad front. The programme has been characterised by a singular lack of widespread success, in spite of a number of dedicated staff who have done all in their power to make it respond to the needs of the poor. The failures stem from a number of issues that have to be acknowledged in the way forward.

* **Brevity of proactive planning** at a national level.

  The roots of the programme were in part political with consequent negative implications at the regional level for both the efficiency and efficacy of the programme and the work and sanity of the too few and largely inadequately trained staff of the NNSDP units.

* **Assessment of the application procedures** (Figures 6 and 4) underscores the considerable bureaucracy which has to be surmounted before funds become available to an applying organisation (for example, World Vision, Santa, Tree) who must in turn still dispense the "bundle of goods" to the individuals, groups and communities they are serving.
The lack of a long-term commitment to funding the programme means that funding is tenuous and places applying organisations in an invidious position with their clients.

Ambiguity about how funds can be used is a serious problem and the distinction between the relief (immediate help through, for example, the dispensing of food parcels) and the social development (a longer term process, in this case, often directed at some form of food production by "the community") objectives of the programme mean that aggressive and positive results in both arenas have been minimal and piecemeal.

A hand-out mentality is developing through the implementation of the programme with attendant weakening or undermining of existing structures to facilitate the more difficult but necessary process of sustained socio-economic development. The availability of free food parcels, for example, does little to support the development of commercial food outlets/stores in rural areas, largely bereft of infrastructure in the first place.

The targeting of relief remains unsatisfactory, because the programme is not demand driven and because of a lack of information on who constitutes the poor and what categories of aid they fall into. Rural areas have, in particular, lost out in the battle for programme resources as they are under-served with welfare and non-government organisations (NGOs).

If anything, the NNSDP has highlighted the plight of those in poverty - food is not their only need and the portents are for a much wider strategy for uplifting the poor and in which the NNSDP is only a part of the total apparatus required. Public works programmes that place cash in the hands of the poor are, in part, the possible way forward.
Nutritional assessment, undertaken as part of the NNWG's brief to evaluate the NNSDP in the Natal region, indicate that the drought has not made a major difference to nutritional status. While severe cases of malnutrition have been recorded in certain areas, the general picture is one of widespread under-nutrition (Figure 5), again, re-enforcing the notion of an urgent need to address the development needs of the poor on a broad front.

The latter point is made, since it provides a lead-in to a brief mention of the work of the Consultative Forum. The team initially assembled to undertake the work of the forum added a theoretical and conceptual framework which gave rise to positive actions around the problems of poverty and the NNSDP. The importance of international experience in addressing nutrition and poverty has become very apparent as a result of the work of the forum. One aspect of the international experience of particular encouragement has been the input from Unicef. The conceptual framework for addressing malnutrition used by Unicef, as indicated in Section Two and Figure 1, is likely to revolutionise the approach to such key issues as maternal and child care, including breast feeding and the focus on the household to ensure food security.

6.2 Discussion and Conclusion

As a specialist field, nutrition has its fair share of uncertainties and controversies. Notwithstanding these, we have tried to sketch in some of the ideas concerning the identification of nutritional risk and of the dimensions of the nutritional problem.

It is evident that nutrition is, at one level, part of the much greater issue of looking at policy directions for improving the lot of those in poverty. The implications are quite clear: a multi-sectoral approach to poverty alleviation is essential.

From a nutrition standpoint, this means that a national nutrition policy must be broad enough to include all relevant state departments - agriculture, finance, health and so on. In turn, the role(s) of each of these departments must be rigorously defined. The
Department of Health, for example, is not equipped to run public works and job creation programmes. Its role is more aptly that of nutational surveillance and, in the case of the NNSDP, running it effectively as a programme for addressing present or short-term relief needs.

Role definition is critical. Equally vital will be the identification of mechanisms for optimising inter-sectoral collaboration. What structures need to be in place to facilitate co-operation rather than competition between departments? What managerial and operational skills are required to sustain co-operation? These and a host of related questions raise their heads.

The underlying principle must be that of housing the national nutrition policy within the overall economic and development framework of the state. The lesson from the NNSDP is straightforward - without adhering to such an over-arching framework (in the case of the NNSDP, it did not have one in which to position itself) efforts to address nutritional issues will continue to be fragmentary and ineffectual.
TOWARDS A NATIONAL NUTRITION POLICY IN SOUTH AFRICA

7.1 Introduction

This concluding chapter develops a framework for nutrition policy in South Africa, proposing specific strategies in some instances, and identifying others which require further evaluation regarding their feasibility.

Nutrition-related activities span most government sectors. It may be argued that constructive policies in each sector will ultimately result in improved nutritional status of the country as a whole. We argue that a national nutritional policy needs to be more pro-active and that nutrition-linked strategies should be developed in a deliberate and co-ordinated manner. This paper proposes a mechanism for that co-ordination and describes the nutrition-linked strategies particular to each sector.

7.2 National Co-ordinating Mechanism

1. Chief Directorate, Department of Health

There are many models for the co-ordination of nutrition-related activities at national level. In our view, locating this function within a Chief Directorate of the central department of health would be most appropriate. Unlike the other sectors, the health sector measures success of nutrition-related strategies directly - in terms of its outcome on nutritional status. This permits an analysis of economic, agricultural and other policies in terms of their impact on nutrition, rather than in terms of their more immediate or direct goals. In other words, the health sector measures the final common pathway of the policies of all sectors. It is thus best placed to observe and respond to changes in nutritional trends. The intersectoral function of the Chief Directorate would be to convene a council comprised of representatives of all sectors.
2. **Nutrition Council**

The Nutrition Council would need to meet the following criteria if it were to have enough teeth to implement its recommendations:

i) It would need to represent at least the following sectors - finance/economics, agriculture, health and welfare, manpower (human resources), education, local government, and commerce and industry.

ii) These representatives would require the authority, or be delegated the authority, to implement recommendations. One of the reasons for the success of the National Nutrition Council of the 1940s was the fact that the Minister of Health, Harry Gluckman, was the chairperson. The council will have greatest success if its members are the directors-general of the various central departments. The structure of such a council may need to be re-evaluated in terms of the regional functions ultimately approved. Nevertheless, some central co-ordination remains imperative.

iii) Meetings should not be convened to discuss "issues of mutual interest related to nutrition". Rather, the agenda should be aimed at developing and evaluating an integrated and comprehensive nutrition strategy for South Africa.

The first task of the national Nutrition Council would be to establish attainable goals for improved nutrition in South Africa. These goals should include the elimination of acute, severe malnutrition; reduction of the prevalence of stunting and wasting (by a specified percentage); and the reduction of the prevalence of other micronutrient deficiencies. Equally important is a stated political commitment to adequate nutrition for all South Africa as a national priority and to the eradication of regional inequities.
3. National Nutrition Institute

In order to ensure a continued national commitment to nutrition, a National Institute should be created. Its functions should be:

i) Relevant nutrition-related research.
ii) Training of health workers and nutrition educators.
iii) Monitoring the implementation of nutrition policy.
iv) Lobbying for appropriate policy implementation.
v) Information dissemination and public awareness.

In order for this institute to be scientifically credible, independent and yet sufficiently powerful and well-placed to effect change, it should probably be located within a university and governed by a board with representivity well beyond the university or any particular sector. Funding should be a combination of government and non-government sources.

7.3 Sectoral Strategies

i. Health Sector

The health sector has at least five functions related to nutrition, namely inter-sectoral co-ordination, direct nutritional support, promotion of sound nutrition, prevention and treatment of illness and nutritional surveillance. Each of these will be considered in turn:
a) Inter-Sectoral Co-ordination

The importance of regional co-ordinating mechanisms will depend on the powers granted to regional authorities within a future federal system. Clearly, the greater the regional power, the greater the need for regional co-ordination. The criteria for success of a co-ordinating mechanism described for national level apply equally to regional level. At local level, a concerted nutrition strategy is just as important, and will be described under the heading of local government.

Clearly, strategies would vary from region to region, and even district to district. This flexibility would be facilitated by decentralisation of authority and budgetary control to the lowest effective level. But all strategies would need to comply with national goals.

b) Direct Nutritional Support

Direct nutritional support remains one of the most contentious areas of nutrition policy. Critics argue that direct feeding is not sustainable, promotes dependency and often discourages breastfeeding. Protagonists argue that adequate nutrition forms the basis of national development, and that the short-term fulfilment of basic needs forms the foundation for long-term, sustainable development. We believe there are several principles which should form the mainstay of a national policy regarding direct nutritional support. First, the management of malnutrition must be part of the essential primary health care package of services available to the entire population. The implication is that clinics or health centres should be the sites for direct food distribution as part of nutritional rehabilitation.

Secondly, NGOs have played an important part in direct nutritional support. Their efforts should be encouraged and where possible co-ordinated with state activities. This co-ordination is particularly feasible with organisations undertaking rehabilitative programmes, where referral from clinics to community-based rehabilitation centres may occur. Again, this co-ordination would be facilitated by district-based health systems. The co-ordinating authority would be the district health office.
Thirdly, direct food aid forms an important part of crisis relief in times of drought, violence and social disruption.

c) Nutrition and the Preschoolers

Local health centres should be responsible for the nutrition status of children within the area served. The aim should be that of totally eliminating child malnutrition. Nutrition care as part of a PHC system must include the following:

1. Pre- and post-natal services for mothers, including health and nutrition education, promotion of breastfeeding and direct nutrition support of pregnant and lactating mothers at nutritional risk. All expecting mothers should be given folate and iron supplementation.

2. Growth monitoring of children from birth to school-going age. The monitoring of pupils should take place at school as part of extended PHC services.

3. Tracing of marginalised families not attending the health services and defaulters. These are often the people most at risk. Special care and follow up should be given to these families.

4. Children under the 10th entitle, those with a flattening or declining growth curve as well as children from destitute families should receive supplementary feeding administered by the health centre. Active rehabilitation of malnourished children should take place following a special protocol.

5. Promotion of environmental and personal hygiene as well as breastfeeding and the correct introduction of supplementary feeding must be actively pursued at health centres.
6. Basic curative services will be available for control of infectious diseases and TB, RTI diah.

For nutrition care to be effective it must be administered by well-trained staff members with acceptable/positive attitudes towards patients. It is important for the state health structure to identify NGOs active in the area to co-ordinate activities.

All nutrition-related activities at a health centre must aim to identify and support coping mechanisms which the community has developed. These mechanisms should not be undermined by well-meaning, but in the end, destructive interventions.

Primary care centre coverage needs to be extended and services at existing centres strengthened to enable them to take on the challenge of eliminating child malnutrition in South Africa by the end of this decade. Milk supplementation is a possible way forward as suggested by the example of Chile, as set out in Appendix 2.

d) Promotion of Sound Nutrition

The value of traditional nutrition education and dietetics is questionable in a developing country such as South Africa. The dogma of the "three food groups" should be replaced with pragmatic and specific nutritional advice, which takes into account the limited range of foodstuffs available to poor people.

The cornerstone of nutrition education should be the promotion of breastfeeding. This should be a multi-faceted strategy targeted at the public, health personnel and manufacturers of infant formulae. Opportunities exist to harness the activities of NGOs active in the field of health promotion. At the same time, it should be recognised that factors such as poor maternal nutrition, social disruption, work-seeking and stress may constrain the ability of women to breastfeed.

An important area for nutrition education is the promotion of appropriate weaning foods. Health workers and the public should be encouraged to use everyday foods such as...
porridge, carrots and beans instead of processed supplementary foods, which often consume a disproportionate amount of the family budget.

In some areas, health services may also have a role to play in promoting social cohesion, and providing support for dysfunctional family groups. Women's care groups have been established in rural areas such as Venda, which have proved to be effective support structures.

School nutrition education programmes could play a significant part in promoting sound nutrition and should constitute part of the PHC responsibilities of the district health office or local health centre.

e) Prevention and Treatment of Illness

The three most important health care strategies in reducing the significance of recurrent illness as a factor in malnutrition are adequate immunization coverage, control of tuberculosis, acute respiratory tract infection and prevention of diarrhoeal disease and its complications. In addition, adequate and appropriate treatment for common infectious diseases should form part of the essential package of PHC services. Routine deworming of all children older than six months and younger than six years of age should be instituted at all PHC facilities.

Unrealistic standards of hygiene by local authorities have been cited as a factor contributing to higher food prices and food wastage. The Department of Health has an important role in establishing standards of hygiene which protect the public, and yet take cognizance of the realities of a developing country.

The promotion of personal and environmental hygiene are critical in the prevention of illness.
f) Nutritional Surveillance

The establishment of a national nutrition surveillance system (NNSS) should begin with the introduction of "master-cards" at all PHC care facilities. This would involve the routine plotting of the weights of all (or a sample, depending on clinic attendance) children less than 12 years of age. Clinic-based assessment is now being implemented at a number of facilities and should be instituted nationally.

Once this routine surveillance is in place, attention should be given to appropriate community surveillance, probably using sentinel sites. This system of nutritional surveillance should form part of a national health information system (HIS), with rapid data transfer from local to central levels.

At the same time, individual growth monitoring should take the form of accurate weighing and plotting on the pre-school child's Road-to-Health chart at least twice a year, and at every attendance at a health facility.

All health services should have a management protocol for malnourished people or those identified as being at risk.

The future position of the National Nutrition and Social Development Programme remains to be addressed. We believe that equivalent funding should be retained for the following purposes:

i) Direct nutritional support in accordance with the criteria set out above.

ii) Promotion of sound nutrition.

iii) Evaluation of the use of this funding, both in terms of process and outcome.

The specific needs in terms of surveillance are therefore to:

* Review existing nutrition information strategies at national, regional and local levels.
Institute a NNSS. 
Plan appropriate personnel at all levels so that surveillance systems can be developed and used.

ii. Welfare and Pensions

a) Safety Nets

Old age and disability pensions are often the only source of family income in areas such as Natal/KwaZulu. An area requiring urgent attention is the administrative procedures involved in obtaining pensions. Swifter assessment and far greater financial control should be exercised.

b) Relief Aid

The Department of Welfare, regardless of its degree of integration into the Health Department, should be responsible for relief aid in times of emergencies. Part of this function will be to muster adequate food aid.
iii. Agriculture and Land Use

a) Land Allocation Practices

The confiscation of land in South Africa has played no small part in shaping the profile of malnutrition in South Africa, and land reform will be crucial to the rehabilitation of the country’s nutritional status. Support and protection for subsistence farmers and small producers is fundamental. Strategies already embarked upon include technical assistance, subsidised inputs and loans to small-scale commercial timber farmers in Natal/KwaZulu.

The allocation of land by tribal authorities should be reviewed. In many areas, this practice has served the interests of one power faction to the detriment of others.

b) Fortification of Foods

The fortification of staple foods with iron, folate and Vitamin A has proved successful in several countries.

The introduction of these three micro-nutrients into maize meal should be considered. The success of this intervention rests on its public acceptability, and requires great sensitivity, careful marketing and wide consultation.

c) Surplus Disposal

The precedents of the 1940s clearly show that surplus food products can be distributed without undermining the market, provided the food is directed to people who constitute a small proportion of consumers. There seems to be little justification for selling vast quantities of surplus agricultural produce at a loss on international markets when there is a very real shortage of those products in large sectors of the population.

A fundamental principle should be that all marketing and production policies should aim
to ensure adequate nutrition for the entire South African population first.

d) Agricultural Production Programme

Projects which promote nutritious food production and soil improvement should be strengthened. The involvement of local agricultural extension officers in district nutrition co-ordination would permit a convergence of the nutritional needs and agricultural activities of a community.

iv. Finance and Economics

a) Food Subsidisation

There are sound economic arguments against the subsidisation of even essential foodstuffs. The primary argument is that this strategy is non-targeted and benefits the well-off as well. The logical extension of that argument is that targeted interventions are more likely to reach the people for which they were intended. The experience of the National Nutrition and Social Development Programme suggests that targeted interventions may be as limited in their success at reaching the poorest of the poor as subsidisation and other non-targeted interventions. We argue that subsidisation of carefully selected foodstuffs may be an important strategy in providing for people's minimum needs. This subsidisation should include exemption from Value-Added Tax.

b) Price Control

On the other hand, price regulation and control in South Africa, through control boards, have contributed to the creation and perpetuation of monopolies, and often favoured large producers to the detriment of smaller ones. Prices of milk, for example, have been fixed at levels which assume market inflexibility to supply and demand, and often with inadequate consideration for the extension of markets beyond traditional consumers.

This situation will only be rectified by a shift in emphasis from policies which protect the
producer to those which support the consumer.

v. Education

a) Basic Literacy

An improvement in the rate of literacy is fundamental to better nutrition in South Africa. If a significant increase in literacy is to be achieved over the next decade, education will have to target both young adults as well as existing students.

b) School Feeding

It is debatable whether school feeding is a priority in a national nutrition strategy. Some argue that pupils relatively privileged compared to their counterparts not at school, and that preschool children should constitute a priority for the state. Protagonists point out that most black children, particularly in rural schools, are from families living below the minimum subsistence line; that adequate nutrition is a prerequisite to successful education; that entry through schools constitutes a pragmatic approach to nutritional support for otherwise inaccessible communities; and that school feeding programmes may even generate some money for further development and improvement of school buildings.

Our view is that the state has neither the infrastructure nor the resources to implement a national school feeding scheme, but the merits of existing non-government programmes are such that they should be supported by the state. This support may include financial aid, particularly in geographical areas of high priority.
vi. **Manpower/Human Resources**

a) **Public Works Programmes**

Public works programmes can bring about significant infrastructural development, as well as providing direct benefit to workers through financial remuneration. Some NGOs have found work-for-food programmes to be a useful way of identifying and assisting the most destitute.

As South Africa moves into a period of reconstruction, such programmes will play an important part in the country's development, provided that certain criteria are accepted:

i) The product of the programme must be tangible, and be seen to be of immediate benefit to the relevant communities. Employing workers to slash weeds in wealthier suburbs contributes little to the development of the poorest communities, and may be regarded as demeaning for the workers. Mexico City provides a constructive illustration of the direct benefits of public works programmes, through road construction and installation of sewerage.

ii) Workers must be adequately remunerated. While it may not be feasible to pay market-related wages, such projects should not lead to the exploitation of desperate people.

iii) There should be community involvement in project selection and management.

iv) Programmes should result in skills training. This may entail allocating one or more trainers to each public works programme, so that workers are not just regarded as labour, but imparted with additional skills.
b) Employment Generation

Adequate income underpins household food security, particularly in urban and peri-urban settlements. Concerted strategies by the state and non-government sector are necessary for supporting both the formal and informal business sectors. The informal sector will continue to play a significant role in job creation, particularly among women in peri-urban informal and formal settlements. Skills training to allow for diversification of businesses, advice on basic financial management, and legal support are essential strategies in developing the informal business sector in South Africa.

vii. Local Government

a) Local Development Plan

A formal nutrition strategy should be integrated into the local development strategy. Clearly, the adequacy of basic service provisions is a major determinant of health and nutrition. Access to clean water, adequate sanitation and refuse disposal, housing and recreational facilities and adequate nutrition are goals which should be adopted by every local authority.

b) Local Co-ordination of Nutrition Strategy

Assuming the development of a district health system throughout the country, the convenor of the local nutrition task force should be the District Health Authority (DHA). Intersectoral co-ordination would be facilitated by a political arrangement in which the DHA formed part of the local authority. But there are disadvantages to this configuration. The most significant of these is the possible recalcitrance of local authorities to implement national strategies.
7.4 Conclusion

A national nutrition policy is a crucial part of the process of reconstruction in South Africa. The process has been outlined above. In summary, there must first be a stated political commitment to a set of goals aimed at improving the nutritional status of the population of South Africa. This commitment must occur at ministerial level.

Secondly, a National Nutrition Council should be established to co-ordinate sectoral nutrition-related policies and to develop a directed and pro-active approach to nutrition.

Thirdly, each sector should identify goals and principles with regard to its role in nutrition.

Fourth, these goals should be translated into concrete and attainable strategies.

Fifth, the success of these strategies should be evaluated - in terms of outcome by nutritional surveillance; in terms of the success of the specific sectoral activities; and in terms of the fulfilment of the national goals. Sixth, it is recognised that reconstruction strategies take time. However, administrative and structural changes suggested above should be implemented without delay.
APPENDIX 1

NUTRITION POLICY IN SOUTH AFRICA 1928 - 1993

David Harrison

1. First Carnegie Inquiry

In 1928, the research Grant Board of the Union Department of Mines and Industries, acting in co-operation with the Dutch Reformed Church, appointed a Board of Control over an investigation into the Poor White Question in South Africa. Financial support was received from the Carnegie Corporation, New York.

Data was obtained from 49,434 white families with children at schools in 1929/30 - prior to the worst effects of the Great Depression. At that time, 17.5 percent of all families with children at school were described as "very poor".

Recommendations pertinent to nutrition were that:

1. The state should not "bale out" unproductive and failing farmers each time distress became pressing. There was a recognition that wide-scale relief measures might be necessary to prevent economic ruin, but that alleviation of momentary distress should not be considered without attention to measures for future improvement. One such measure was the "extension service" of the Department of Agriculture, which offered training in farming and financial management.
2. Mothers and daughters should be educated in the proper choice and preparation of foods, as well as encouraged to grow vegetables on their plots where possible.

3. Job reservation for whites should be viewed as "merely a measure of transition for a period during which the poor white is given the opportunity to adapt himself to the new conditions in South Africa". During this phase, there should be intensive skills training for poor whites. Where job reservation was applied, wages should either be paid on a piece-work basis or steps taken to ensure competition between whites so that productivity could be maintained. Where job competition between unskilled or semi-skilled white and black workers did occur, minimum wages should be fixed on the basis of a "reasonable white wage".

4. Legislation and incentives should be introduced which would stem urbanisation by providing landless young white men with the opportunity to attain economic independence on farms in rural areas.

5. Temporary relief works should be initiated with great circumspection. They often resulted in the poor leaving farms in search of work, and being unable to return once the relief programme was completed.

6. Direct material assistance to poor whites without an equivalent service should be reduced to a minimum. The commission was convinced that a social policy based on "hand-outs" would cause "loss of independence and may imbue them with a sense of inferiority, (it) impairs their industry, weakens their sense of personal responsibility, and
helps to make them dishonest".

7. Social assistance should only be provided after thorough assessment of the needs of the applicant, and should include evaluation of the potential for self-help within family infrastructure.

8. A greater proportion of funds from charitable bodies should be used to ensure effective rendering of services, as opposed to direct material relief of distress.

9. Much greater co-operation should exist between the activities of organisations involved in social development. The commission recommended the establishment of a state bureau of social welfare to co-ordinate all social welfare activities of the Union and provinces, as well as non-government charitable organisations and the churches.

2. League of Nations Committee on Nutrition

The mixed Committee on Nutrition appointed by the League of Nations issued an interim report in 1936 which attracted attention in both the South African lay and professional press. Its principal recommendation was the establishment of national nutrition councils in all countries for a co-ordinated approach to all aspects of nutrition.
3. Nutritional Surveillance in South Africa

3.1 Annual school surveillance

An investigation for the First Carnegie Inquiry in 1929/30 revealed that few studies regarding nutritional evaluation had been undertaken. The two main records dealing with malnutrition were the annual reports of the School Medical Officers for the Transvaal and Cape Province. An annual assessment of between 12,000 and 19,000 schoolchildren was undertaken in the Transvaal between 1922 and 1929. In the Cape Province, an average of about 9,000 pupils were assessed annually. These studies consisted purely of clinical observation and included no anthropometric measurement. Based on clinical criteria, the incidence of malnutrition among white schoolchildren in the Transvaal and the Cape was roughly five percent.

3.2 Survey of white schoolchildren in 1939

In 1938, as a consequence of a motion by Mrs K. Malherbe in the House of Assembly, a year earlier, the government commissioned a preliminary survey of the nutritional status of white school-going children in all four provinces. A smattering of coloured and Indian children were included in the 1939 survey, which was conducted by school medical officers of the provincial education departments. The sample size of up to one-third of the study population revealed a high incidence of malnutrition among white pupils on both anthropometric and clinical assessment. The researchers appeared to place greater store on the latter and generally presented their findings in terms of the "Dunfermline Scale": Of the 140,928 children assessed, only 8,4 percent were placed in nutritional class 1 (general condition excellent). Just over half (51,3 percent) were regarded as having a good general condition, while a third (33,8 percent) were classed as having an unsatisfactory physical condition. A total of 6,5 percent of children were assessed as having a physical status warranting treatment.

3.3 Survey of African schoolchildren in 1939
Subsequently, nine sentinel sites were selected for assessing the incidence of malnutrition among African children. Clinical, anthropometric and biochemical assessment of 7,000 schoolchildren was made.

The percentage of children with obvious signs of ill-health and/or malnutrition varied from 43 percent in Pietermaritzburg to 90 percent in the Bochem and Letaba districts. Kark remarked that "the thin, round-shouldered, pot-bellied child with spindly legs was such a common sight that it can only be concluded that many were on the borders of starvation". The main specific nutritional signs noted were related to the Vitamin A and B groups. Rickets and endemic goitre were less frequently seen. Kark concluded that: "Diet deficiency diseases, syphilis, malaria, bilharzia, tuberculosis, scabies and impetigo, preventable crippling and many other less severe or less common diseases form no small array of factors which are contrary to the maintenance of good health and nutrition. No amount of juggling can succeed in separating the influence of one as opposed to the others where they so commonly occur together. The outstanding fact is that they are all preventable."

Following the recommendations of the League of Nations' Committee of Nutrition, the Department of Public Health extended the nutritional research programme to explore causative socio-economic and agricultural factor for malnutrition, as well as detailed biochemical and physiological findings. These additional studies were conducted in conjunction with the universities of Cape Town and the Witwatersrand, the South African Institute for Medical Research and the Witwatersrand Technical Institute. They included the analysis of data to determine the incidence and causation of malnutrition among Indians in Durban, socio-economic and agricultural causative factors among urban and rural whites, and medical and social factors involved in deficiency conditions among coloureds in Cape Town.

In this latter study the researchers, led by Professor J.F. Brock of the University of Cape Town, found that "fewer than 43 percent of coloured children in the Peninsula were in normal health and nutrition".
In a socio-economic survey of the Witwatersrand, Professor J.L. Gray found "a regular and formidable increase in malnutrition ... with decreasing family income". At constant incomes, no correlation was found between malnutrition and fecundity. As a consequence of this research, the council "considered that it had abundant evidence of the existence of a very disturbing amount of malnutrition and enough evidence about its causes to justify immediate action and expenditure without limit to achieve satisfactory nutrition".

3.4 Subsequent surveys

Two large surveys of the nutritional status of schoolchildren were conducted in 1981 and 1982 by the Department of Health, Welfare and Pensions. A total of 25,000 and 30,000 children were examined respectively. These surveys excluded the "independent" states of Transkei, Ciskei, Bophutatswana and Venda.

The results demonstrate dubiously high incidences of wasting amongst all four classified race groups: 6.2 percent of whites were less than the third percentile weight-for-age, while the figures for coloureds, Indians and Africans were 38.1 percent, 38.7 percent and 30.7 percent respectively.

No national nutrition surveys have been conducted since 1940. The Regional Health Organisation of Southern Africa (RHOSA) undertook a large survey in homeland territories in South Africa during the late 1980s. There is now renewed interest in the establishment of a national surveillance system for nutritional status.
3.5 Notification of kwashiorkor

The efforts of several opposition members of parliament, notably Mrs Helen Suzman, ensured that the issue of malnutrition remained on the agenda of the Ministry of Health throughout the 1960s. On 14 September 1962, kwashiorkor was made a notifiable disease in terms of a special government notice. In 1964, there were 14,130 notifications for malnutrition, which declined to 10,826 notified cases in 1967. Of these, 90 percent were among Africans and a further 9.7 percent among coloureds.

Government notice no. 527 of 5 April 1968 rescinded the earlier decision to make kwashiorkor a notifiable disease. Health Minister Albert Hertzog explained to Parliament that notifications were no longer necessary as "we know what the picture is. Mrs Helen is now completely under control and there is therefore no reason why kwashiorkor should remain a notifiable disease".

4. Identifying Causative Factors

Even prior to the publication of the findings of the detailed surveys described above, there was general recognition that poverty was the principal cause of malnutrition, and that food security could only be strengthened by increasing the income of the poor, either in cash or kind. While scorning much of the report of the League of Nations' Nutrition Committee as unscientific, an editorial in the South African Medical Journal in 1936 quoted from it in support of its emphasis on increasing income: "Malnutrition can never be overcome when poverty is its principal cause except by increasing the income of the poor. The income of the poor may be increased indirectly by an increase in national production, whether that results from the application of sound economic policy, or from increased knowledge of the art of production. It may be increased indirectly by public assistance where that can be afforded in cash or kind, or in such a combination of these two as is constituted by rendering essential foodstuffs available to the poor at specially low prices. When public assistance is afforded in kind or by means of price privileges it is of the greatest importance that it should be guided by sound nutritional precepts, and that those foodstuffs should be selected of which the lack is the most
The Medical Officer of Health for Pietermaritzburg, Dr M. Maister, addressed the causes of malnutrition at a medical congress in 1940. He argued that while a certain amount of malnutrition could be attributed to ignorance, the major cause was economic. Quoting from the 1937 annual report of the Department of Public Health, Maister identified many issues still central to the debate over half a century later.

"Increasing the food-buying power of the economically lower levels of the population is a measure at least as essential for the public health as direct campaigns against infectious diseases. The greatest single cause of defective nutrition in a community and its resulting ill-health is undoubtedly poverty. An improvement in nutrition has invariably been associated with an improvement in the general level of income. But even without changing the distribution of level of national income, improvement in the standard of nutrition is possible organisation. An economic policy directed towards improved nutrition must reject all restrictions on the supply of foodstuffs to people of the country. That in our present economic system the interests of the producer and the middlemen receive far greater attention than those of the consumer has been frequently pointed out. It is in regard to the protective foodstuffs that this system is particularly harmful to public health. The amounts, for instance, of milk and dairy products produced in this country at present are entirely inadequate to maintain a high level of health for the entire population. Yet during the year which ended last June, 8,727,303 pounds of butter were exported as merchandise from the Union. One has no hesitation in saying that these eight million pounds of butter were exported at the direct expense of the public health. Farmers should in the interest of the health of the union population be encouraged to produce vastly greater quantities of milk and dairy produce for disposal in the Union. Any financial assistance given by the state should have the direct effect of making dairy products cheaper for those consumers belonging to the economically lower strata of the community. The same applies, though in somewhat lesser degree, to other protective foods such as eggs, vegetables, fruit and meat, including fish. It must again, however, be emphasised that the principal cause of general malnutrition among the population is poverty, and the most effective public health measure is
elimination of poverty."

Dr William Fox of the South African Institute for Medical Research adopted a slightly different stance, focusing on the role of agricultural production in attaining satisfactory goals for national nutrition. Fox noted that the amount of milk available for consumption by the urban population was low when compared to other countries, but concluded that the only way to achieve a substantial increase in consumption was a significant reduction in price. He sounded a warning that such a price reduction should not be at the expense of the dairy farmer, but by different and less expensive methods of farming.

In a paper presented at the South African Medical Congress in 1938, Dr E.H. Cluver outlined four strategies which he regarded as fundamental to the alleviation of malnutrition:

i) Raising of wages

At low wage levels, only "starch foods" were affordable. This problem was exacerbated by the "purification" of foods by extracting the small amounts of protein, vitamins and minerals which the foods originally contained.
ii) Dietetic education

Cluver argued that the small amount of a family's income available for food was often inefficiently used. The introduction of co-operative bulk buying schemes could reduce the costs of purchases.

In addition, over-zealous preparation often destroyed the nutritional value of foods through overcooking and discarding of vegetable leaves.

iii) Subsidised or free food

Cluver questioned the validity of the argument that free food would undermine the independence and self-respect of the recipient. He regarded the arguments of many antagonists as inconsistent, particularly those who favoured the extension of other free social services such as education and health. For Cluver, adequate daily nutrition for all children was the basis of the success of any other social service.

He observed that a guaranteed local market for protective foods (such as milk) would stimulate agricultural production and benefit the economy considerably.

Cluver considered the free-milk-in-schools scheme, subsidised by the Union government in white schools, a laudable move in this direction, but pointed out that any scheme which excluded African children was inadequate and unlikely to affect national production significantly.

In addition, subsidisation of "protective foods" would
encourage their consumption and hence production. In order to stimulate consumption, it was imperative that such subsidies be applied at the consumer end of the commercial chain.

iv) Improvement in farming methods

The organisation of the farming industry provided little stimulus for the production of dairy products, eggs, vegetables and meat. Cluver urged that the farming industry be encouraged in every way to expand its production of "protective foods", provided that the additional production was for local production and not export.

5. The Development of a Nutrition Strategy

5.1 The National Nutrition Council

The Public Health Amendment Act No. 14 of 1940 provided for the establishment of a national Nutrition Council, which, although it had no executive powers, conducted investigations and research into the nutrition of the people and reported to the Minister of Public Health. It was regarded as an integral part of the Department of Public Health.

Four sub-committees were appointed to execute the functions of the council:
i) War Emergency Sub-Committee

This committee advised the Department of Defence on matters pertaining to nutrition of the Union Defence Force.

ii) Research Committee

The function of the Research Committee was to consider the reports of the nutrition surveys and the manner in which a nutrition research programme could best be pursued.

iii) Agriculture and Economics Committee

This committee sought to "examine the food resources and industry of the country and the present food policy with a view to adapting these to health needs".

iv) Education and Propaganda Committee

The function of this committee was to oversee the propagation of nutritional information through broadcast and other educational media.

5.2 Nutrition education

The Education and Propaganda Committee of the National Nutrition Council regarded its target as persons of "all races and.. ages, but especially to prospective and pregnant mothers, to children through the schools, to teachers through the training colleges, to doctors and all other varieties of medical and health workers through their education institutions". It proposed conducting nutritional education through a variety of media, but also its formal adoption as part of the school curriculum. In rural areas, the committee recommended the appointment of additional home economics officers, agricultural club officers and district extension officers.
Close liaison was established between the Nutrition Council and the Dietary Committee of the Food Control Organisation, which submitted a schedule of family diets to the council for use by dieticians and teachers. The Department of Health laid great emphasis on nutrition education during the 1970s and early 1980s, with far less attention being accorded to other nutritional interventions.

5.3 Food subsidisation

The Research Committee of the Nutrition Council expressed itself adamantly opposed to the "unnecessarily high price of protective foods", as evidenced by the following resolutions adopted by the council:

1. This committee, being convinced that the nation is not making provision for ensuring an adequate supply of protective foods at sufficiently low prices in relation to the needs of the community is, therefore, seriously concerned at the prospect of increased malnutrition in the future.

2. One of the important causes of defective diet among South African children is the unnecessarily high price of many protective foodstuffs.

3. The direction, therefore, in which immediate action can be taken is the following:

   i) Lowering the price of essential protective foodstuffs.
   ii) Arranging wherever possible for the supply of perishable protective foods at current market prices in districts where they cannot be grown or produced.

The council recommended that certain essential foodstuffs should be subsidised, but that each subsidy should be confined to the producer of an approved list of essential protective foodstuffs such as milk, cheese, fruit and vegetables. The council paid particular regard to the question of increased production, better marketing and greater consumption of dairy produce. It recommended that the provision of milk to white and
coloured pupils under the state-aided Milk and Butter Scheme should continue irrespective of a proposed scheme for the supply of free meals in schools, and that an adequate sum of the funds allocated for National Feeding should be dedicated to the supply of dairy products.

In order to stimulate food production in Native Trust areas, the Department of Native Affairs subsidised the purchase of seed, implements and fertilizer in these areas. The purchase of well-bred cattle was also subsidised up to 50 percent to improve the quality of livestock farming in Native Trust areas.

In 1950, the government decided against further subsidisation of foodstuffs. Subsequently, subsidies on basic foodstuffs such as bread have been introduced and withdrawn. The government is presently considering the status of the basic foodstuffs which are currently exempt from VAT.

5.4 Fortification of food

The Agriculture and Economics Committee of the National Nutrition Council strongly favoured the fortification of certain foodstuffs with a variety of protein and vitamin sources. It argued for the compulsory admixture of soya-bean flour in mealie meal. The subject of fortification was again raised in 1947 in connection with food yeast, and in 1948 the council considered that, in spite of "practical difficulties and economic complexities the principle of enrichment of maize meal with food yeast and calcium should be accepted and that, in addition, the meal should be enriched by the incorporation of a high class protein in a suitable form such as skimmed milk powder, peanut flour, soya bean flour or some other suitable preparation." This proposal was rejected by the Directorate of Food Supplies and Distribution in 1950, despite support for the proposal from the Ministry of Health.

A 1964 parliamentary request by Mrs Suzman for the fortification of maize meal with milk powder met with no response. In 1975, it was announced that there was no longer a need for state involvement in fortification of maize meal, as a product enriched with
nicotinamide and riboflavine had become commercially available.

5.5 Direct nutritional support

5.5.1 School feeding

Despite some dissension from, among others, the editor of the South African Medical Journal, a free-milk-in-schools scheme was introduced in 1938 and gradually extended to most white and some coloured primary schools. African children were entirely excluded from this scheme.

In 1943, the Minister of Finance announced the government’s intention to contribute 2d for every 1d provided by the provinces for feeding primary schoolchildren of all races. Consolidation of the various school feeding programmes was proposed to achieve universal feeding of all primary schoolchildren in the Union. This scheme, which provided one free meal a day to primary school pupils of all races, came into operation on 1 April 1944. Initially, financial and executive responsibility rested with the Department of Social Welfare, but a year later this authority was transferred to the provincial administrations for all children in Natal, and for whites, coloureds and Indians in the other three provinces. The Union Education Department was willing to accept financial responsibility for feeding African children in all four provinces, and executive responsibility in those provinces which had refused to be accountable for African children. Expenditure on school feeding for African children accounted for roughly 45 percent of the total expenditure from 1944 to 1947.

In October 1949, the Minister of Education, Arts and Science appointed a Commission to inquire into the National School Feeding Scheme. In its submission to the commission, the National Nutrition Council argued for its continuance, stating that “school feeding is recognised in all civilised countries as a useful and economic method of combating malnutrition. This council recommends that it be accepted as an important and practical measure applicable to South Africa.”
The government's response to this commission signalled waning interest in feeding African schoolchildren. In 1952, the government subsidy to the Native School Feeding Scheme was cut by 40 percent. Feeding was restricted to children between the ages of six and 14 years, and no further grants were made for equipment or buildings.

The Bantu Education Act no. 47 of 1953 placed all responsibility for African education with the Department of Native Affairs. Theoretically, this meant that the department assumed responsibility for school feeding. In practice, it meant the scheme disintegrated.

School feeding of white, coloured and Indian children by provincial authorities continued for roughly a decade more. In Natal, the grant for school feeding was reduced by one-third on 1 April 1957. This resulted in the termination of all school feeding to white schoolchildren, with the exception of a daily milk ration. All government school feeding in Natal was terminated in 1966. Government school feeding in the Cape, Orange Free State and Transvaal ground to a halt in the early 1960s. In the Transvaal and Orange Free State, all school feeding was abolished in 1962 except in special schools.

Interestingly, school feeding has formed a prominent part of the current national Nutrition and Social Development Programme of the Department of National Health and Population Development.

5.5.2 Public nutrition schemes

Preceding and during World War II, several nutritional support programmes were introduced by the Union government. Underpinning many of these was a basic philosophy that excess "protective foods" such as milk and butter should be channelled to malnourished South Africans and not exported. In addition, the magnitude of any national feeding programme would ensure that agricultural production was stimulated, with spin-off benefits for the entire economy. While the underlying principle may have been morally and economically sound, the practice was flawed: the exclusion of Africans from the benefits of many of these schemes undermined the economic viability.
of the programmes and ignored the most needy sector of the South African population. This deficiency was well recognised by luminaries such as Cluver and Gale, who sought to obtain the co-operation of the Department of Native Affairs in the development of nutritional schemes in African areas.

Two parallel government schemes were responsible for direct nutritional aid during the war years:

i) The Food Control Organisation, established within the Department of Agriculture under the War Measures Act to provide emergency aid.

ii) A feeding service under the auspices of the Department of Social Welfare.

In 1945 it was decided to amalgamate the two services and to use the machinery created by the Food Control Organisation. Food was distributed through depots, both fixed and mobile. Lower income groups, identified by a means test, were entitled to buy subsidised "protective" foods at sub-economic prices from these depots. Other members of the public in sub-economic areas were free to buy food at slightly more than cost, but below retail prices. A total of 185 depots were established in Cape Town, Pretoria, Durban, East London, Port Elizabeth, Kimberley and Pietermaritzburg.

A year later, following the recommendations of the Permanent Secretary of the British Ministry of Food, the post of Controller of Food was abolished in favour of the creation of a post of Director of Food Supplies and Distribution. The government accepted the recommendation that this post was not to be filled by a civil servant, and preferably by no-one with connections to commerce or agriculture.

The post-war shortage of cereals led to public agitation for the introduction of individual coupon rationing. The government accepted the introduction of a limited scheme of consumer rationing confined to nine large cities and towns, and limited to wheat and maize products. Although an entire machinery for the printing, distribution and use of ration books was put in place, the scheme was abandoned in March 1947 as a result of a dramatic improvement in the supply of cereals.
The following food distribution schemes were initiated by the Department of Social Welfare:

i) State-Aided Citrus Fruit Scheme

Between 1941 and 1945, the Department of Social Welfare underwrote the transport and distribution costs of unmarketable and surplus oranges to poor whites through schools, poor relief agencies, butter distributing committees, departmental depots, factories, hospitals and other agencies. Oranges were also sold to Africans in the "Native reserves" through farmers and private traders.
ii) State-Aided Deciduous Fruit Scheme

In this scheme, producers made available deciduous fruit to be sold to families of lower-income groups and welfare institutions at cost price. The Department of Social Welfare defrayed all transport costs.

iii) State-aided Milk Scheme

This scheme provided for milk to be distributed to white and coloured preschool children for consumption at an approved distribution point, and was supplementary to the School Feeding Schemes administered by the provinces and the Union Education Department.

iv) State-aided Butter Scheme

This scheme made provision for the supply of butter to approved beneficiaries at subsidised prices. Only whites and coloureds in the lower-income group were eligible for participation. Over 400 butter-distributing committees served between 50,000 and 60,000 families.

v) Distribution of margarine

The National Nutrition Council strongly recommended that vitaminised margarine be manufactured in the Union for distribution to lower-income groups, and perhaps even replace butter in the state-aided distribution scheme. Distribution of subsidised margarine started in June 1947.
vi) Communal restaurants

The Union Treasury approved the subsidisation of four experimental communal restaurants in industrial areas (of which one served the African population). This experiment arose from a model community feeding centre established by Mrs Bertha Solomon M.P. at Jeppe with a view to providing cheap, nutritious meals for workers.

vii) Industrial canteens

Although the Department of Social Welfare did not provide grants or subsidies to industries, it was instrumental in the establishment of 82 industrial canteens during 1945.

viii) Pauper rations

The Department administered poor relief among whites, coloureds and Indians in the Cape, Transvaal and Orange Free State. The object of poor relief was to tide families over a period of "embarrassment" by providing for minimum subsistence needs. All substantial nutritional support to Africans was administered by the Department of Native Affairs, with the exception of pauper relief in Natal, for which the Provincial Administration took responsibility.

The main activities of the Department of Native Affairs were:

i) Preschool feeding scheme

As a result of the severe drought in the Ciskei in 1945/6, the department introduced a feeding scheme in seven districts of the Ciskei. But unlike the equivalent scheme for non-African children, distribution of food was restricted to severely malnourished children.
ii) Pauper rations

Approximately the same amount was budgeted annually for pauper relief for whites, coloureds and Indians as for Africans.

iii) Work-creation schemes

In times of drought, job-creation schemes were established in affected areas. Roadworks, dam construction and eradication of noxious weeds were undertaken in exchange for food rations and a small wage.

iv) Department milk depots

Fresh milk was supplied free to a number of hospitals, schools and clinics in Native Trust areas. Dairy herds were established in these areas specifically to provide milk to institutions and for sale to African people.

Several local authorities, notably those of Springs and Germiston, took the lead in establishing nutrition schemes in African urban settlements. Milk was sold at sub-economic prices to residents, while free milk was provided to people suffering from malnutrition and tuberculosis. The powdered milk scheme of the Cape Town Municipality and Divisional Council of the Cape, based on a card system for milk powder, was acknowledged to have caused a dramatic decline in the prevalence of malnutrition. In Krugersdorp, for example, 10 percent of African children were treated for kwashiorkor in 1966. Two years later, and after the introduction of a milk distribution scheme, only 70 children were found to require nutritional support. Throughout the 1960s, the government continued to provide a subsidy to the 66 local authorities for the distribution of milk and milk powder, but failed to make financial provision for the expansion of the scheme. The total vote for milk subsidies to local and black authorities during the 1968/9 financial year amounted to R90,000.

In 1975, the Department of Health introduced the PVM scheme in clinics: powdered
milk enriched with vitamins and minerals made available for malnourished children aged between one and six years. The scheme floundered from the outset for several reasons: Firstly, at the time of its introduction, it was poorly palatable. Secondly, the local authorities were resistant to placing additional responsibility on their clinic staff. Thirdly, it is not clear that there was a sustained commitment by the Department of Health to ensure that the PVM scheme was promoted and expanded.

5.6 The role of NGOs

Several NGOs collaborated in state-aided nutrition support programmes. The South African Red Cross Society held firmly to the view that nutritional support for malnourished people was primarily a state responsibility, but provided emergency aid in situations such as the East Coast drought of 1946 and in instances of severe deprivation, such as the situation in several urban settlements in the 1940s.

The Suid-Afrikaanse Noodhulpliga was largely concerned with nutrition education and dietetics, while the Suid-Afrikaanse Vrouefederasie had instituted feeding schemes in certain schools in country districts long before the inauguration of the National Feeding Scheme in 1943.

5.7 Agricultural production

The Marketing Act of 1937 made provision for the establishment of food control boards to regulate the production and marketing of agricultural products. A National Marketing Council was established to oversee the introduction of control boards and other regulatory schemes. The regulation and deregulation of control boards, and an analysis of their activities, are beyond the scope of this paper.

The National Nutrition Council recognised the restrictive and impoverishing nature of African land settlement policies, by which families were permitted only sufficient land to produce 15 bags of grain and grazing for five cattle. The consequence of these policies was forced urbanisation.
The council proposed the development of communal agricultural holdings 15- to 20 miles from the larger cities, on which African families could grow crops to supplement any cash income. Above all, families would have security of tenure. This recommendation was never implemented.

Agriculture in Native Trust lands fell under the control of the Department of Native Affairs, and not that of Agriculture. Several major projects were undertaken by this department in the late 1940s, including irrigation schemes and improved agricultural methods and general land reclamation. Five large irrigation projects were established at Taungs in the Cape Province, Tugela and Mooi River in Natal, and Olifants River in the eastern Transvaal. Many intermediate schemes ranging from 200 to 500 acres were also established. In addition, the department promoted vegetable gardens in private homes and at schools.

5.8 Ministry of Food

Following the war-time creation of a Ministry of Food in Great Britain, a similar department was proposed for the Union of South Africa. Owing to the multi-sectoral nature of nutrition, the war cabinet found the proposal impracticable. The far less ambitious suggestion was accepted that the National Nutrition Council should convene a joint committee of representatives of the departments of Public Health, Agriculture and Social Welfare.

The National Health Services Commission (1942-1944) also adhered to the view that amalgamation of all nutrition-related activities under a single ministry was not feasible, but called for a Division of Nutrition and Health Education within the Department of Public Health. In the monthly periodical of the Wits medical students, Gluckman elaborated on proposed machinery for nutritional surveillance and support:

"The commission's scheme provides for the establishment in this country of some 24 regional organisations, each in charge of a Regional Medical Officer. All records dealing with malnutrition from all health centres will be submitted to the regional level. Thus
there would be obtained a picture of their regional defects in the nutritional sphere. In each region provision has been made for the institution of a regional health conference, composed of the technical personnel employed by the National Health Service in the particular region, and a Regional Health Council - a democratically-elected body representing public authorities, voluntary agencies and all other interests in the region. The Regional Medical Officer will discuss the regional nutritional problems with these regional bodies, with a view to stimulating remedial action on a regional basis; for example, the establishment of suitable machinery for food distribution within the region. The regional officers will in tum furnish the statistical division at the national headquarters, to which reference has been made earlier, the nutritional findings in the various regions. These will be analysed and interpreted in national terms. The findings will be referred to and considered by the National Technical Committee for Nutrition" (equivalent to our present National Nutrition Council).

Arising out of these recommendations, a Division of Nutrition and Health Education was established in 1943 as part of the Department of Public Health. This division became the executive authority of the National Nutrition Council.

The establishment of the National Health Council in 1946 as a result of the recommendations of the Gluckman Commission led to a call for the National Nutrition Council to be incorporated as a sub-committee of the Health Council. This move was resisted by members of the Nutrition Council at a meeting in 1950. They argued that the re-organisation should only occur once the Health Council had proved itself as an effective and viable body. This incorporation never took place, and the Nutrition Council outlived the already moribund Health Council by eight years.

In 1951, after consultation with the council, Minister of Health Karl Bremer established a Department of Nutrition separate from Public Health but within his portfolio. This new department rapidly embarked on a variety of schemes to improve food production and quality of diet. The fate of the Department of Nutrition is best summed up in the words of the president of the Nutrition Society in 1975: "In retrospect, many of these schemes were ill-advised. Other departments felt that this new department was encroaching on
their terrain and this antipathy and criticism, and other factors, unhappily led to the
demise of the department in 1960. It is a great pity that this department, which could
have been a mighty instrument in improving nutrition in South Africa, came to such an
inglorious end."

At the same time as the disbandment of the Department of Nutrition, it was decided to
allow the National Nutrition Council to die a natural death. Its decline in activities
coincided with the first 12 years of Nationalist rule, and partly reflected the diminishing
significance of malnutrition as a political concern in the face of the rapid economic
advancement of whites.

During the lifetime of the National Nutrition Council, there appeared to be an
assumption that nutrition and nutritional support were primarily the responsibility of
central government. But comments by Health Minister Albert Hertzog in Parliament in
1960 signified that the government had shifted responsibility for nutritional support to
the local and Bantu authorities. Hertzog reiterated this standpoint throughout his term
of office, arguing that "the supply of milk is a preventive health measure and so falls
within the statutory obligation of the local authorities". In his opinion, malnutrition could
not be addressed adequately until the three main causes of kwashiorkor were tackled
by Africans themselves, namely, illegitimate births, too many children and customs
which favoured adult men and disadvantaged children.

6. Recent Developments

An emergency Food Scheme was initiated in 1985 to provide relief to areas at
nutritional risk. During the financial year 1987/8, the Department of National Health
and Population Development granted a sum of R2,5 million for relief schemes for 95,000
Africans in the Republic of South Africa (excluding the TBVC countries). In 1989, the
Committee for the Development of a Food and Nutrition Strategy for Southern Africa
was established. Its recommendations formed the basis of the Food Aid Programme
of the Department of National Health and Population Development. An allocation of
R220 million from the Treasury was made to the department for targeted food aid to
identified vulnerable groups.

The existing PVM scheme was expanded to include milk powder, stale foods and other energy-rich foods to malnourished young children, and pregnant and lactating mothers.

This programme has been expanded, and surveillance and intervention strategies of the Food Aid Programme, renamed the National Nutrition and Social Development Programme (NNSDP), are currently under discussion. One of the greatest difficulties identified has been that of targeting nutritional aid to the most vulnerable groups.

The development of a comprehensive and relatively integrated nutrition strategy in the 1940s, and its subsequent collapse, demonstrates several lessons pertinent to today:

i) The successful implementation of nutrition policy is dependent on adequate political commitment. The implication is that a strategy should be developed which maximises sustainable implementation of appropriate policies, even in the face of government apathy.

ii) Despite the collapse of a system which was obviously of benefit to people, there appears to have been little public protest or objection. A future strategy should build in public monitoring or watchdog mechanisms. The components of this strategy are twofold. Firstly, democratisation of government and health services, and secondly, enhanced public awareness specifically related to nutrition policies.

iii) While intersectoral co-ordination related to nutrition is ideal, constraints often hamper effective implementation of intersectoral strategies. Intersectoral committees are often rendered ineffectual by inadequate executive powers and nebulous agendas. The National Nutrition Council worked because it had sub-committees given the task of addressing specific policy options.
iv) From 1950 to 1990, there was a move away from nutrition-relevant action to nutrition education as the central function of the Department of Health. In practice, this meant inefficacious nutrition policy.
Appendix 2

NUTRITION INTERVENTION - THE CHILEAN EXAMPLE

The Chilean government has shown a serious concern for nutrition issues since the mid-1920s. This gives Chile a unique experience in nutrition intervention programmes. It has resulted in considerable improvement in, among other things, infant mortality rates within an economy that has not shown significant economic growth.

A strong health profession took the leading role in calling for resources to combat malnutrition. This forceful action of the health community, worked through mass media and political connections, was a decisive factor in the sustained attention given to nutrition in Chile through a range of different political policies in power. The nutrition situation was investigated through numerous surveys and the milk programme was justified on the basis of the result. The milk distribution programme started in 1924 when 1/2 litre of milk was distributed to children of working mothers as compensation for the mothers' inability to breastfeed due to their being employed.

In 1928, local school authorities received government grants to serve breakfast and lunch to children from low-income families.

In 1937, milk distribution was extended to all mothers (on social welfare) with children. This was further extended to children under six in 1952 and the social welfare clause then fell away. In 1970, Allende's government ensured that all pregnant and lactating mothers and children under five were entitled to milk quotas and 70 percent of legal beneficiaries used the programme. The milk was not regarded as free or a hand-out but paid for by the beneficiary and was a right for all children.

The milk programme was initially under the Maternal and Child Health Care Division but from 1971 it has been managed by the Nutrition Division in the Department of Health. The education section has, however, been responsible for school feeding efforts.
which are regarded as less well managed. Nutrition education and the introduction of new protein foods have been associated with the supplementary feeding programmes but have had less impact. The education programmes have taken the form of intensive pilot projects within single communities or large-scale mass media campaigns. They have been of short duration, difficult to sustain and criticism has been raised about their appropriateness.

The success of any milk intervention programme depends on the extent to which government institutions penetrate all regions of a country and all levels of society. In most developing countries, government penetration is limited or non-existent among the poor. Squatters, recent migrants, the marginal and most vulnerable groups are often out of reach of public services and benefits. The nutrition intervention programme in Chile, developed as part of the country's health care system, grew with the establishment of 1,300 clinics across the country and a school system which enrolled 85 percent of all children aged between seven and 15 years. Families outside these systems could not participate regularly. But the clinics did provide a place to distribute food and made possible other nutrition supportive services, health education, sanitation and immunisation, re-enforcing the impact of the nutrition intervention programme.

Management

The operation of a supplementary feeding programme is a complex enterprise consisting of purchasing of domestic food, importation of food, packaging, transport, storage and delivery, evaluation and so on. The impact will depend on how well these tasks are done. The Chilean government has been responsible for these operations and the consensus is that the milk programme operates efficiently.

A National Health Service was established in 1952 in Chile with a Department of Nutrition and a Mother and Child Care Division. A nationally-owned milk processing plant was built at the same time.
In 1972, at the maximum coverage of the intervention programme, it cost less than one percent of total government spending and nine percent of Chile's total expenditure on public health: 90 percent of this was milk costs, 10 percent was administrative costs. This was financed from social security revenues.

Evaluation

These are enormous difficulties in correctly assessing the usefulness of Chile's nutrition intervention programmes and their effectiveness in raising the country's nutrition status.

The infant mortality rate in Chile dropped from 200/1,000 (1937) to 114/1,000 (1960) to 64/1,000 (1973) and 17/1,000 (1991).

The mortality rate for children under five years dropped from 142 (1960) to 44 (1980) to 21 (1991). Moderate to severe malnutrition is noted as three percent in the period 1980 to 1991 and severe malnutrition has been eliminated. Many factors have influenced nutrition status, morbidity and mortality rates. It is of interest to note that the GNP per capita in Chile (1990) was $1,940 with a per capita average annual growth rate from 1965 to 1980 of 10 percent and from 1980 to 1990 of 1.1 percent. Sixty percent of central government expenditure was allocated to health (1986 to 1991), 10 percent to education and 8 percent to defence.

There is little hard evidence to support objections to the milk programme as well as arguments for its continuation. Looking at the improvement in IMRs, as well as decreases in the incidence of malnutrition, it seems reasonable to conclude that Chile's nutrition intervention programme has made a significant difference in child nutrition status and survival.

Investigations showed that the milk distributed was highly prized. In 58 percent of the families the milk was shared among all family members. Fifty percent mixed the milk correctly and selling off "free" milk was not a common problem. There are no figures available to prove that breastfeeding decreased.
There have been suggestions that the nutrition intervention programme should be directed only to specially needy families. Critics imply that the nutrition intervention reached mainly the organised working class and public servants, and that many peripheral and marginal groups in rural areas and among the urban poor did not participate. With this kind of programme in a situation where many factors influences child health and nutrition, it is difficult to say with any degree of confidence whether or not the programme benefits were worth the (moderate) cost or whether resources might have been better used in other ways. What is clear is that the milk programme operates efficiently and has a number of important consequences. The fact that the programme has existed for so long and that no government has been able or willing to change or abandon it bears witness to its popular acceptances.
REFERENCES


Frenk, J., 1992: The Public/Private and Human Resources for Health, Director-General, National Institute of Public Health, Morelos, Mexico.


Kachondham, Y; Wnichagood, P; Tontisirin, K: Nutrition and Health in Thailand: Trends and Actions; Institute of Nutrition, Mahidol University; December 1992; A UN ACC/SCN country case study.
Khosa, M: Extension and Support Services for Small-scale Timbers Growers in KwaZulu; Geography Dept, University of Natal; 13 August 1993.


Masobe, P., 1992: Trends in the Private/Public Sectoral Mix of Health Care Providers, Centre for Health Policy, No. 26, University of the Witwatersrand, Johannesburg.


Rispel, L and Behr, G., 1992: Health Indicators: Policy Implications, Centre for Health Policy, No. 27, University of the Witwatersrand, Johannesburg.


Ross, S.M., 1984: Health for All by the Year 2000: Possibility or Pipe Dream?, Inaugural Lecture, University of Natal Press, Pietermaritzburg.


