



The information explosion in the science of nutrition very often creates the impression that available information is contradictory. Consequently, it is no longer easy to distinguish between fact, misinformation and fiction. The Nutrition Information Centre of the University of Stellenbosch (NICUS) was established to act as a reliable and independent source of nutrition information.

The Depreciation of the Rand: Mothers and Children Will Be The Hardest Hit

The Rand has depreciated sharply against major currencies and the decline in the third quarter of 2001 was the most severe yet since the global financial crises in 1998. The depreciation of the Rand will undoubtedly, directly and indirectly increase the cost of food bought by South Africans. The direct effect of the increase in food costs will be primarily for imported foods, such as rice, pasta, oils and flour. The indirect effect on rising food prices will be caused by a rise in the price of the input costs on locally produced food.

The price of maize sold to millers has increased by 107% since the beginning of 2001, whereas wheat prices have also increased by 27%. The increases in grain prices are in turn likely to affect the prices of poultry and meat, at a time consumers have already absorbed increases in the prices of beef, chicken, potatoes and pasta. It is projected that South Africans will be hit hard by sharp rises in the price of basic foodstuffs within the first months of 2002. Furthermore, the recently announced increase in interest rates will undoubtedly further diminish the household available for food.

Hunger is likely to increase:

While analysts try to get to the underlying cause(s) for the depreciated Rand and the negativity surrounding it, the majority of South African households face greater food insecurity and hunger than a year or two ago.

In 2000, The National Food Consumption Survey commissioned by the Department of Health determined the usual food consumption patterns as well as the nutrient intake of children aged 1-9 years in a total of 2894 households.

South African Children were Undernourished in 1999

According to the findings of the Food Consumption Survey just more than 1 in 5 of all children aged 1 – 9 years was stunted and one out of ten was underweight. The great majority of children consumed a diet deficient in energy and of poor nutrient density to meet their micronutrient requirements. For South African children as a whole, the dietary intake of the following nutrients was less than two-thirds of the recommended intake for age: Energy, Iron, Zinc, Selenium, Vitamin A, Vitamin D, Vitamin C, Vitamin E, Riboflavin, Folic acid, Niacin, Vitamin B6 and Calcium.

Poverty and hunger

One out of ten mothers (who were also most often the head of the household) of children of all age groups had no formal education. In almost 1 out of 5 households the head of the household was unemployed. One third of the households in the survey had a monthly income of between R 100,00 – R 500,00. One out of four and one out of five households at the national level spent respectively between R 0,00 – R 50,00 and R 50,00 - R 100,00 on food weekly.

At the national level, 1 out of 2 households experienced hunger, 1 out of 4 were at risk of hunger and only 1 out of 4 households appeared food secure. There was an overall consistent association between the hunger risk classification and the growth of children. A similar association was found with energy intake and the intake of micronutrients.

Households at risk of hunger or experiencing hunger procured a smaller number of food items and had a similarly smaller number of food items in the household inventory. Additionally, households at risk of hunger or experiencing hunger tended to be of the informal dwelling type, had the lowest monthly income and spent the lowest amount of money on food weekly.

Additionally, the survey reported a tendency for mothers to sacrifice the quality of their diets and limit the amount of food eaten by the adults in a household in order to preserve the amount of food available to their children.

Commonly consumed foods

The survey also identified that at the national level, the five most commonly consumed foods included maize, white sugar, tea, whole milk and brown bread. With a few exceptions, this pattern, rather than the actual frequency, appeared to be fairly consistent in all Provinces in the country.

Nutritional Consequences of Currency Depreciation:

The available evidence in the scientific literature indicates that currency depreciation is associated with a significant increase in the prevalence of malnutrition in children. Two nutritional cross-sectional surveys were conducted before and after the devaluation of the CFA (African Financial Community) franc in two districts of Brazzaville, Congo. The survey population comprised of all the children aged 4 - 23 months and included a total of 4206 households.

The following findings arose from these surveys:

- ~~///~~ The nutritional status of children and their mothers clearly and significantly deteriorated.
- ~~///~~ The prevalence of stunting and wasting increased significantly among children and “thinness” among the mothers also increased markedly.
- ~~///~~ The incidence of low birth weight increased.
- ~~///~~ The study showed that the quality of complementary foods used for infants deteriorated. Infants tended to receive inappropriate family foods more frequently than special transitional (weaning) foods, which could better meet their requirements.
- ~~///~~ Increased food prices appeared to be the direct cause of the poorer quality of complementary feeding, but factors other than the devaluation (deterioration in hygiene,

decrease in the health-monitoring index, inappropriate health-seeking behaviors from the mothers) have also had an effect on the overall welfare of the household.

On the basis of this experience, it may, therefore, not be unreasonable to anticipate that the global nutritional situation in South Africa will be further compromised, if the deterioration of the Rand has a similar effect on the nutritional status of children in South Africa.

Recommendations

The prevention or attenuation of the likely further deterioration in the growth and development of children in the country will demand a joint, decisive and integrated effort on the part of the government, communities and the individual.

The Government should consider to:

- ~~///~~ Accelerate and expand its current policies and programmes on job creation.
- ~~///~~ Strengthen the current structures within the department of Welfare to implement immediate steps for increasing the income of low-income households in the country, especially in the rural areas and particularly on commercial farms.
- ~~///~~ Develop social security programmes aimed at female headed households.
- ~~///~~ Accelerate the implementation of the fortification of staple foods.
- ~~///~~ Strengthen the implementation of exclusive breastfeeding for 6 months by non-HIV infected mothers.
- ~~///~~ Strengthen the current supplementary feeding programmes such as the PEM scheme.
- ~~///~~ Encourage, where appropriate/possible, the creation of community vegetable gardens and rearing own livestock.

On the other hand, communities and individuals should:

- ~~///~~ Give their food budget the greatest priority within the household and spend their diminishing financial resources prudently by making correct choices for an adequate diet.
- ~~///~~ Buy South African products.
- ~~///~~ Reduce the frequency of eating out of the home.
- ~~///~~ Plan the family's meals in advance. For instance, a shopping list limits unnecessary buying. Items bought on the spur of the moment are usually expensive or unnecessary. Non-perishable products such as maize meal, samp, sugar, tea/coffee can be bought

from large supermarkets in bulk, if possible. The food price per unit and per brand name should be compared. In general, larger packs are cheaper, but not always - check!

- ✍ Save money on the kind of milk, rather than on the amount of milk, if you consume milk. Skim milk powder is the cheapest form of milk (avoid milk blends and non-dairy creamers). Save money by mixing 1 liter of whole milk with a 100g of skim-milk powder and add 1 liter of water.
- ✍ Save money when buying meat, fish and chicken, since the biggest saving on the food budget is possibly on these food items. Save money by using meat and meat products less frequently and by “stretching” such products by using other ingredients without compromising the nutrient content of the meal. Combine a small quantity of meat with dry beans, lentils or other pulses or potatoes and vegetables in a stew. Make use of textured soya protein products to stretch mince. Make use of substitutes such as eggs, legumes, and cheese and remember fish (especially canned pilchards) is generally cheaper than meat. Be prepared to try cheaper cuts such as beef neck, chunk and organ meats. Frozen chicken livers, stewed with onions and vegetables for instance is an economical and very nutritious dish.
- ✍ Save money by buying more vegetables since fruit is generally more expensive. Buy more vegetables that can be eaten raw when fruit is very expensive. Buy fruit and vegetables in season and cook them in different ways for variety.
- ✍ Supplement purchased foods with vegetables that can be grown as appropriate/possible.
- ✍ Non-HIV infected mothers should try to breastfeed their infants exclusively (give the child breastmilk only) for the first 6 months of life. From the age of 6 months of age the infant needs additional food to satisfy hunger and to prevent iron and vitamin A deficiencies. Breastfeeding though should be continued for up to 2 years of life. Breastmilk is free!. Choose foods that are easily digestible and have a semi-liquid texture.
- ✍ Common, cheaper starter foods are cooked strained porridge or *pap*, fruits (pureed) and bland or yellow vegetables. Use expressed breastmilk or boiled water to mix with food. Start with 1 - 2 teaspoons, increasing gradually to portions of 2 - 4 tablespoons per feeding.
- ✍ From the age of 7 - 9 months, infants learn to chew better and the food the rest of the family is eating can be mashed with a fork and used to feed the child. Mash staple foods such as porridge (*pap*), fermented or soured porridge or potatoes and add foods that are rich in nutrients such as mashed dark green vegetables, mashed orange vegetables, mashed fruit or fruit juice to ensure that the baby gets enough vitamins A and C. Also add mashed dried beans, dried peas, dried lentils, eggs, well-cooked meat, chicken, liver or other organ meats and fish to ensure adequate protein and iron intake. Check that the child's weight is increasing and visit the clinic immediately if the baby's rate of weight gain begins to falter.

In the final analysis, whereas it is a fact that no food can be bought without money, an equally important fact is that one can stretch what little money there is more prudently by making appropriate food choices. In this regard, a number of measures are known to help. Some possible options for making more informed choices on selecting foods for the household has been drawn as an example (Table 1).

For further, personalized and more detailed information, please contact NICUS or a dietitian registered with the Health Professions Council of South Africa (previously known as the South African Medical and Dental Council).

For further details on the findings of the Food Consumption Survey, visit the Department of Human Nutrition, University of Stellenbosch's website at www.sun.ac.za/nutrition/ to find the executive summary.

References from the scientific literature used to compile this document are available on request.

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Table 1: Selected examples of food purchasing options

Example: a family or household of four adults with a total of R20 to spend on food per day
[portion sizes indicated per person; the prices are for the whole family – 4 persons (cost per portion times 4)]

FOOD CHOICES	Buying in a hurry:	Better value for money:	Even better choices:	Comments:
Breakfast:	No food	Matabella 30g dry R 1.48 Milk (fresh) 250ml R 3.59 Sugar 12g R 0.20	Mealie meal 25g dry R 0.22 Skim Milk (powder) - 2 cups each 50g dry R 5.70 Sugar 12g R 0.20	/// Mealie meal is the cheapest porridge available in South Africa. /// Milk powder is cheaper than fresh milk and with proper meal planning 2 cups of milk can be included.
Lunch:	No food	White bread 2 slices R 1.24 Margarine (tub) 10g R 0.48	Brown bread 4 slices R 2.20 Margarine (brick) 20g R 0.40 Baked beans 137g R 1.99 Banana 70g R 1.20	/// Brown bread is cheaper than white bread and with proper meal planning an extra 2 slices can be included daily. /// Brick margarine is also cheaper than tub margarine. /// More food and a wider variety can be provided with proper planning of your budget.
Supper:	4 x steak and kidney pies _____ TOTAL COST R20.00	Stewing lamb 100g R 8.39 Potato 60g cooked R 0.83 Rice 70g cooked R 0.66 Broccoli 65g boiled R 2.68 Sunflower oil 10ml R 0.17 TOTAL COST R 19.72	Soya mince 30g dry R 2.61 Onion 20g cooked R 0.23 Potato 60g cooked R 0.83 Samp 30g dry R 0.31 Cabbage 65g cooked R 0.61 Butternut 65g cooked R 1.12 Tomato 60g raw R 1.68 Sunflower oil 10ml R 0.17 TOTAL COST R 19.47	More food and a wider variety can be provided with proper planning of your budget.
Nutritional analysis:	/// <67% of RDA for almost all micronutrients. /// % energy provided by total-, mono-unsaturated and saturated-fat is too high.	/// Provides only 38% of RDA of energy. /// Low in fibre. /// <67% of the RDA for most micronutrients. /// % energy provided by total-, poly-unsaturated- and saturated fat is too high.	Energy provided is still insufficient, but the energy distribution is preferable; most micronutrients are provided in sufficient amounts; fibre intake is adequate.	By buying selectively, one can afford a greater variety of foods and consume a diet adequate in most nutrients.

The cost of cooking is not included in the above prices. For more information on cooking methods, contact NICUS at the number below.