

A close-up photograph of a person's hand stirring a large, dark, two-handled pot. The pot is filled with a thick, white liquid, likely milk or a similar dairy product, which is being stirred with a long, thin, light-colored stick. The pot sits over an open fire made of logs and sticks, with bright orange and yellow flames visible. The background is a blurred green field, suggesting an outdoor setting. The overall scene conveys a sense of traditional cooking or food preparation.

POOR AND HUNGRY – Study reveals how little we know about what people eat in SA

Hunger and nutritional issues are recognised as a major hurdle in the development of South African society. Yet, while millions of South Africans are suffering the effects of hunger and malnutrition, a newly published scoping study funded by the Water Research Commission (WRC) reports that we do not know enough about household food intake, which could hamper intervention efforts. Article by Lani van Vuuren.

In South Africa, poor rural households are particularly vulnerable to hunger and malnutrition (including overnutrition and undernutrition). The current economic climate and rising food prices are making it difficult for people to achieve a balanced diet. Healthy food seems to be unaffordable for many South Africans and, even more alarming, it appears that, in general, nutrient rich foods tend to have sharper price rises relative to less nutritious foods.

To cope with these conditions vulnerable communities employ various mechanisms, including decreasing their consumption of non-staple foods, such as meats, dairy, fruit and vegetables. This, in turn, increases their risk for micronutrient malnutrition where the body lacks the required vitamins and minerals it requires to function healthily.

One way of improving household food and nutrition security, particularly among the rural poor, is to promote home production of nutrient-rich foods. While many poor residents living in rural areas have access to land and water resources for productive use indications are that food produced at household level currently makes an insignificant contribution to the diet of rural households. In addition, while information is available on what people should be eating on a nutrient level, little is known about what people are actually eating.

It has been recognised that the home-production of specific foods among rural communities should be based on scientific evidence, taking not only current best practice in agriculture and human nutrition into account, but also the socio-cultural context within which the interventions are to take place. Internationally it is accepted that better understanding of the links between agriculture, nutrition and health is a high priority, explains Dr Gerhard Backeberg, WRC Executive Manager: Water Utilisation in Agriculture. "Before researching

water use and nutritional productivity of crops, it is essential to know what food is consumed by poor people; what the nutrient content is of these food products; and which of these foods can be produced by household members, either in homestead gardens or communal croplands."

These arguments motivated the initiation of a WRC-funded scoping study to investigate what we know about current food intake of rural communities in South Africa and to determine what the knowledge gaps are. The project also investigated the nutritional water productivity of several food crops (for more on this aspect of the project, see 'Research project helping to tackle malnutrition in South Africa' in *The Water Wheel* March/April 2012).

The study was undertaken by a multidisciplinary team from the departments of human nutrition and plant production & soil science at the University of Pretoria (UP), the Nutritional Intervention Research Unit at the Medical Research Council (MRC) and the Human Sciences Research Group.

"If we want to change dietary behaviour we need to understand people's current practices related to food – including the food environment," say project team members Dr Friede Wenhold of UP's Department of Human Nutrition and Dr Mieke Faber of the MRC Nutritional Intervention Research Unit. "People get their food from various sources and for different reasons. We cannot impose foods or food practices on people."

Since malnutrition is the result of many factors, the study took a multidisciplinary approach, including human nutrition, social anthropology and agronomy perspectives. "One plus one is more than two, particularly when each one comes from a different perspective," says Drs Wenhold and Faber. "When we want to study or promote nutritional status and nutrition security, these many factors need

to be addressed: some are directly linked (i.e. immediate causes such as food intake), others are indirect (i.e. underlying causes, such as food insecurity and lack of care), and some are basic causes (e.g. availability of food, access to resources)." This makes a multidisciplinary approach not only advantageous, but necessary.

DEARTH OF INFORMATION

While several food- and nutrition-related studies have been undertaken in South Africa, particularly at a community and provincial level, the project team found that the available information cannot be taken as being representative of the food intake of 'rural poor South Africans'. National studies are rare and did not generally distinguish between rural and urban poor, with food data in smaller studies often not comparable.

According to the final study report, the absence of a national

While it could not be confirmed nationally it seems poor, rural people are buying their staple foods rather than growing them.



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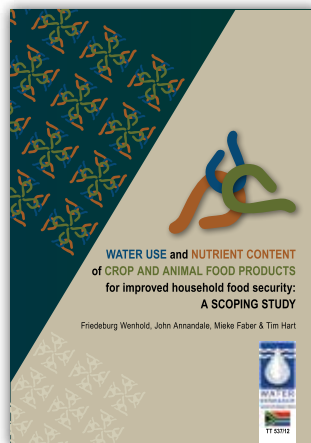
food and nutrition surveillance system makes it difficult to identify periods of food shortages related to factors such as seasonality, periods prior to pay-out of social grants and shocks at household level (such as funeral costs or the migration of an income earner), all of which have been shown to impact on household food security. The vast majority of studies focus on infants and children.

According to Drs Wenhold and Faber, nutritional studies were also found to be limited in many cases. "Questionnaires often focus on the main source of food (which is usually purchased) without going into greater detail on supplementary sources."

The reasons for food intake are determined by a range of factors. These include individual, household, cultural and ethnic group preferences, location, season, income and affordability, historical factors, knowledge and education, and social networks. An understanding of the reasons for food choices is important as these factors influence the food and nutrition security of households and individuals.

The project team found that the reasons for food intake were not considered in many studies. None of the national food surveys reviewed

To order the report, *Water use and nutrient content of crop and animal food products for improved household security: A scoping study* (Report No. TT 537/12) contact Publications at Tel: (012) 330-0340; Fax: (012) 331-2565; Email: orders@wrc.org.za or Visit: www.wrc.org.za to download a free copy.



considered seasonal difference in food availability and accessibility and how this may impact on food choices. In addition, despite the importance of basic services factors such as access to basic water, sanitation and healthcare, these were not generally considered in any detail in the studies reviewed.

While general trends have become apparent, there seems to be insufficient available evidence to compile a basket of contemporary food intake of poor households in rural areas of South Africa. "The major finding of this scoping study is that we do not know what poor people are eating and where they are sourcing their food," notes Dr Backeberg. "The problem is therefore that informed advice and intervention on a balanced diet with a variety or diversity of foods cannot be undertaken. This means that much more attention must be given to the type of food consumed (which is the source for e.g. carbohydrates, protein and vitamin) and what the best available, most affordable and acceptable source of that food is."

WHAT DO WE KNOW?

From the findings it does appear that poor, rural households – like many other poor households in South Africa – lack dietary variety. This is the greatest challenge to improving food security and nutrition in South Africa. Diets have generally been found to be monotonous and cereal based, with a low intake of fruit, vegetables and food of animal origin.

Although not conclusive, it seems that most poor people are buying and not growing the food that they are eating. At the same time it is of major concern that available natural resources (water, soil, plants, etc.) are under-utilised. This despite the fact that at least 40% of the population (i.e. 20 million people of which approximately 70% live in rural villages) are hungry and under-nourished.

"More research is required to obtain knowledge, in other words, information that is useful for decisions and actions, on how incentives can be improved and capabilities strengthened. It is absolutely essential that poor people gain secure access to available resources and have practical skills for beneficial food production," says Dr Backeberg.

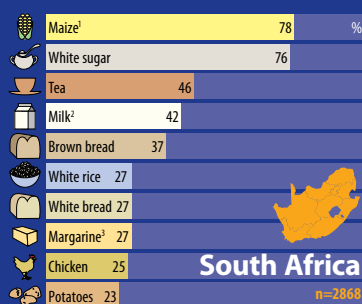
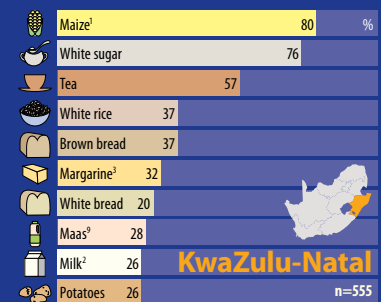
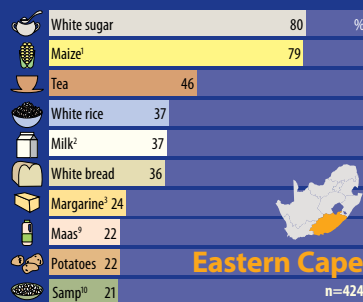
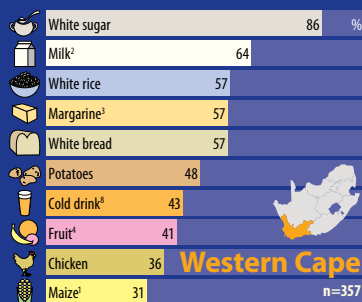
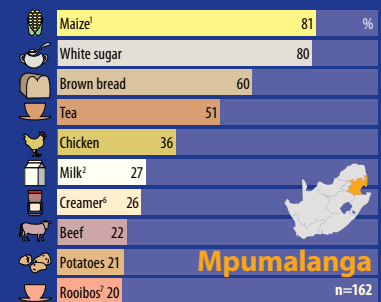
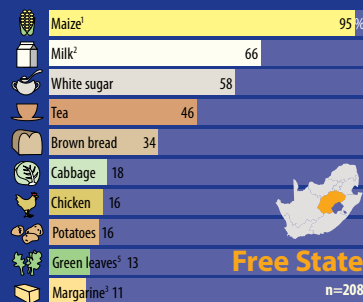
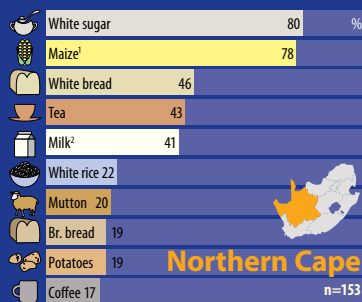
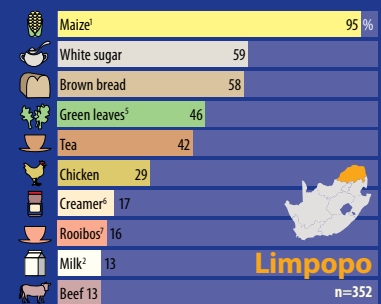
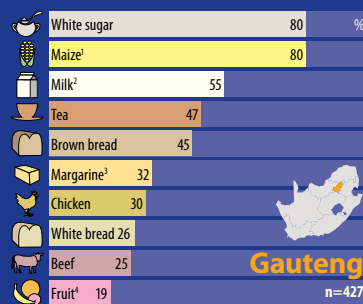
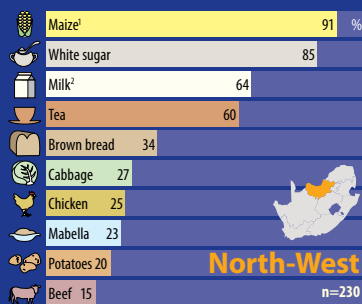
Many rural consumers are heavily reliant on informal markets for their food.



Lani van Vuuren

Commonly consumed foods

SOUTH AFRICA



Each bar represents the % of children who ate the food on the surveyed day



- | | |
|--|---|
| ¹ Maize: Maize meal – eaten as porridge | ² Milk: Whole |
| ³ Margarine: Hard (brick) margarine | ⁴ Fruit: Excludes vitamin C- or A-rich fruit |
| ⁵ Green leaves: Green leafy vegetables | ⁶ Creamer: Non-dairy whitener used in tea/coffee |
| ⁷ Rooibos: Tea | ⁸ Cold drink: Cordial made with water |
| ⁹ Maas: Fermented milk | ¹⁰ Samp: Samp & beans |

Source: National Food Consumption Survey | Date: 1999 | Target group: A representative sample of 1-9 year old children



As a result of the high percentages of food purchasing in poor, rural areas, food intake is mainly related to cost and availability. Food prices were found to be higher in rural than in urban areas while wages were lower in rural areas. As a result the regularity of which food products are purchased largely depends on income quantity and frequency. For example, studies of inland villages in the Eastern Cape found children only consumed meat once a month at the time of the monthly pension pay-out.

In addition, variety is generally less in rural areas, even within super-market chains, and many rural consumers are heavily reliant on general dealers, spaza shops and what they can purchase from local informal markets, hawkers and producers. Access to electricity and refrigerators is also a factor when it comes to storing food.

At the national level, South Africans' main food-related purchases are maize, wheat, bread, and salt. Key micronutrients generally lacking in the diet of rural poor people are Vitamin A, iron and zinc. The study confirmed that the onset of HIV/AIDS in southern Africa is exacerbating food insecurity and malnutrition. This is because HIV/AIDS mostly affects the

economically active and able-bodied members of the population, reducing household resilience and ability to recover from shocks and stressors.

Only in some studies was it found that food sources are sourced from the wild. In Limpopo, intakes from green leafy vegetables appear to be higher than the other provinces. In addition, while many households owned livestock, it was not a major source of food for household consumption.

Consumption of non-home prepared foods seems to be on the rise in line with international trends. Away-from-home consumptions include school tuck shops, formal or informal street vendors and fast food establishments as well as food eaten at community gatherings, for example at funerals. Feeding schemes may also be a source of food. Overall, these outside foods seem to be less nutritious (i.e. high in sugar and/or fat) thereby contributing to levels of overnutrition.

FOLLOW-UP STUDY

While the study has identified many challenges to food security and nutrition in South Africa, it has also identified opportunities. The WRC is already funding a follow-up study focusing on

rain-fed and irrigated production of food crops and their potential to meet the all-year nutritional requirements of rural poor people in South Africa. The provinces of North West, Limpopo, KwaZulu-Natal and the Eastern Cape have been prioritised as this is where the majority of rural poor people live and produce crops under rain-fed and irrigated conditions.

This action research project is aimed at, among others, identifying and strengthening water productivity strategies for home-grown crops in order to improve the supplementation of food for rural poor households from homestead gardens.

Drs Wenhold and Faber point out that close collaboration between nutritional and agricultural specialists is required at all levels to develop sustainable and acceptable strategies to improve production of foods in rural areas. "This will contribute to solving the major nutritional problems encountered, and making sure that communities have the technical support to sustain these. At the same time, it is important to ensure that these interventions are socially, culturally, and economically appropriate."

According to Dr Backeberg the WRC will continue to make food security and improved nutrition a priority as it has done for the past 12 years. "I am absolutely convinced that with current realities of 50% of the population experiencing hunger and 40% to 60% of households being food insecure, priority attention must be given to eradication of hunger and improving household food security.

"Based on the generally accepted definition of food security, this means that all people at all times must have access to nutritious and safe food for a healthy and active life. Only under these circumstances can each individual who is a member of a household and a group in a rural village be economically active and contribute to a caring and prosperous society." □

The WRC study found that food prices are higher in rural areas while wages are lower than in urban areas.



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