Some aspects of household diet and family income problems in Transkei

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Summary

Apparent levels of household diet, perceptions of diet and food production, rural water supplies, attitudes to birth control, and household incomes and expenditure of families in rural areas in Transkei were studied. The results revealed problems of deficiencies in family energy intake and low incomes, such that at least 40% of rural families were living in a state of poverty. There is urgent need for an integrated development approach aimed at fulfilling basic needs.

Subjects and methods

A random sample stratified according to the number of households in each village was taken from 49 villages (wards). The sample comprised 578 rural households (14%) from administrative areas in the Qamata (irrigation scheme), Nqamakwe (Emgcwe) and Qumbu districts of Transkei. A standardised questionnaire was used to obtain information. An initial dietary survey was conducted from July to December 1979, and a second survey from January to June 1980. Two surveys were carried out because seasonal changes in food supply often occur in rural areas.

Dietary information was obtained by a 24-hour recall of food intake, coupled with observation and recording. During the day of the interview, observations were made on food eaten at the midday and evening meals, and respondents were questioned on the previous day’s meals. Where possible, food was weighed or ingredients measured, using locally used measuring instruments (cups, spoons, etc.). The measures were converted to grams of food using Fox’s tables of food composition and dietary requirements for various age groups. With investigations of this nature it is possible to establish only the consumption of the whole family, a method other researchers have found satisfactory for measuring dietary trends.

Of the de facto heads of households interviewed, 60% were females; 25% of respondents were widowed or divorced. Mean family sizes in the areas studied ranged between 5.7 and 6.7 persons.

Although education levels were extremely low, two-thirds of respondents claimed some degree of literacy.

Results

Apparent household diet

Nutrition is probably the most basic indicator of poverty. Like other dietary surveys in Transkei, this survey showed that mean energy intakes in each were above acceptable standards. This finding can be misleading, as is evidenced by the fact that an analysis of the distribution of apparent household diet levels revealed that between 27% and 38% of families had below minimum energy intakes (Fig. 1).

![Fig. 1. Families with below minimum energy intake according to area and season, 1979 (538 households).](image-url)

Fig. 1 shows significant differences in energy deficiencies between areas and between seasons. On average, serious nutritional deficiencies are mainly experienced during the winter and early rainy season, a time also of high demand for agricultural work. This is a period after harvesting ‘green maize’ and after other food crops have been utilised. The higher apparent dietary deficiency at Qamata can be attributed to lower household incomes (see Table III).

Between 50% and 60% of respondents did not consume meat, milk, eggs or fish. Legumes (beans/peas) were added to only 32% of meals, and vegetables to 23%. One enumerator in Qumbu described a typical daily diet as ‘five cobs cooked mealies and pumpkin porridge’, another as ‘samp without beans’. The gravity of the situation at Qamata irrigation scheme is illustrated by one enumerator’s remark: ‘I could count only 7 people with a really good diet’. The need for nutrition education is emphasised by the observation in the Qamata area that some respondents were found to be selling vegetables to buy bread and maize. The results of the survey and other research evidence suggest that in the majority of cases foods used to supplement maize do not provide a balanced diet.

The survey suggests that approximately one-third of families have below-minimum energy intake; the majority have a diet deficient in quality of protein and intake of certain minerals and...
vitamins, which holds back agricultural and rural development in terms of energy and nutrition.

Householders' perceptions of diet and food production

Respondents' estimates of percentage consumption of home-produced food are shown in Fig. 2. The results reveal that all areas are producing considerably less than their subsistence requirements. At Qamata, however, a greater percentage of food requirements was produced under irrigation.

Respondents were asked: 'Do you feel that your family is getting enough of the right foods?'. The responses in Fig. 3 correspond closely with deficits in apparent household energy intake, an interesting finding, suggesting that rural families are generally aware of their nutritional problems in terms of quantity of food.

Findings in the dietary survey and Fig. 3 suggest that the nutritional problem is significantly worse in Qamata than in Emgcwe and Qumbu. Fifty-six per cent of respondents who considered that they were not getting an adequately balanced diet perceived the need for protein foods such as meat, milk and beans, the remainder perceiving a need for fruit and vegetables. There are...
was a significant difference in perceived dietary needs between areas \((P < 0.01)\), in that Qamata respondents felt a greater need for protein food than those in the other two areas. On average, respondents in all areas perceived greater deficiencies in the diet than the data on household energy intake (Fig. 1), which indicates that qualitative deficiencies in diet pertain to at least 50% of families. Findings as a whole indicated the vital need for nutrition education.

**Rural water supplies**

Another important aspect of rural life is a clean water supply. The major source of village water supplies (74%) is dams, canals and streams (open water). These are often mere pools in winter, and subject to faecal contamination. No precautions are taken against any kind of pollution, and even underground water, stored in open reservoirs, can easily be polluted.

Drinking water is often not boiled, owing to ignorance as well as to shortage of fuel. Although the degree of pollution of household water supplies was not investigated, there is little doubt that present water supplies pose a considerable health hazard. Per capita use of water was well below the hygiene norm of 20 - 50 litres per day.\(^1\)

**Attitudes to birth control**

In considering family diet and household income, the attitude of rural families to population and birth control is of importance. By and large, the majority of respondents (61%) perceived the problem which an imbalance between population and land resources presents. Fortytwo per cent (roughly the same for males and females) were in favour of limiting family size (Table I). The wives of non-migrants had larger families than those of migrants, and also a more negative attitude to birth control. Altogether, findings show that urbanisation has influenced birth control perceptions.

**Household income and expenditure**

Household income and expenditure has an important influence on family dietary levels. Household income was calculated on the basis of earnings of all members of the household, plus the cash value of farm produce. As farmers do not keep precise records of costs and home consumption of farm produce and in view of the largely subsistence nature of agriculture, only the 'cash' value of farm produce, less variable costs at standard values, has been calculated. The survey showed that respondents had little difficulty in recalling household expenditure, but had greater difficulty in assessing family income.

Within the parameters mentioned, Table II gives average family income and per capita incomes from the study areas. The average household income corresponds very closely to that recorded in the 1979 household survey,\(^7\) which suggests that data give a reasonable indication of household income. Household income corresponds with household expenditure (Table III).

The high proportion of non-agricultural cash income (± 90%) suggests that the average Transkeian rural family is a consumer of agricultural produce, not a producer. Expenditure on food was five and a half times that of net farming income.\(^7\)

In interpreting the data in Table III allowances should be made for inflation. The important deduction from the distribution in annual family income shown in Table II is that 69% of families appear to be living below the poverty datum line according to the Institute of Planning Research, which in 1979 found the subsistence level for a family of 6 in Umtata to be R1 555 per annum.\(^10\) Lack of purchasing power is therefore a major cause of rural poverty in Transkei. The evidence about family nutrition (Fig. 1) and communal/kinship obligations certainly suggests a cushioning of the effect of poverty, perhaps enough to lower the 69% figure; nevertheless, at least 40% of rural households live in a state of poverty.

Increased family incomes have resulted in improved housing standards, greater use of household appliances and significantly more resources for agricultural production. Higher incomes are

<table>
<thead>
<tr>
<th>Category</th>
<th>Expenditure (%)</th>
<th>Average expenditure (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>25.3</td>
<td>876.00</td>
</tr>
<tr>
<td>Fuel</td>
<td>28.1</td>
<td>105.00</td>
</tr>
<tr>
<td>Clothing</td>
<td>29.4</td>
<td>112.00</td>
</tr>
<tr>
<td>Furniture</td>
<td>20.0</td>
<td>79.00</td>
</tr>
<tr>
<td>Transportation</td>
<td>16.7</td>
<td>65.00</td>
</tr>
<tr>
<td>Medical</td>
<td>10.7</td>
<td>42.00</td>
</tr>
<tr>
<td>School fees</td>
<td>8.6</td>
<td>32.00</td>
</tr>
<tr>
<td>Washing/cleaning</td>
<td>17.9</td>
<td>67.00</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>4.4</td>
<td>16.00</td>
</tr>
<tr>
<td>Sports/recreation</td>
<td>2.2</td>
<td>33.00</td>
</tr>
<tr>
<td>Beverages/alcohol</td>
<td>4.4</td>
<td>33.00</td>
</tr>
<tr>
<td>Tobacco</td>
<td>1.4</td>
<td>5.00</td>
</tr>
<tr>
<td>Others</td>
<td>0.0</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>380.00</td>
</tr>
</tbody>
</table>

\(^{1}\)...
related to greater literacy and smaller families; education and economic status play an important role in birth control.1 Household not possessing arable lands or livestock (17%) are experiencing particular hardship, household income per head being 44% less than that of the average ‘farming’ family.1 Because of lack of records of annual household expenses, estimates were obtained by questioning farmers’ wives about details of household expenditure over varying periods before the interview. However, recall of expenditure over periods longer than 12 months was scanty, and expenditure on food and cash received from outside could invariably be reliably obtained only on a monthly basis.

Table III shows that on average 78% of household expenditure went on the basic necessities of food (57%), clothing (11%) and fuel (10%). These findings show a slight increase in the percentage of expenditure on food compared to that found over 10 years ago, when it was reported as between 40% and 50%.11 Average expenditure on food was 44% less than the total estimated cost of a subsistence level budget, which, even allowing for home-produced foods, confirms that a considerable proportion of families are suffering from malnutrition and undernutrition.

It can be concluded from data on household income and expenditure that on average rural families are poor in absolute terms, without adequate savings or cash resources to provide for farm input and development. Only 12% of families claimed to save money. Further analysis showed that, besides food and fuel, the proportion of respondents incurring expenditure on individual items was, in order of importance: washing and cleaning materials (85%), clothing (81%), school fees/books (70%), transport (65%), and medical fees (48%). A comparatively small percentage spent money on cosmetics (17%), cigarettes and tobacco (31%), beer and spirits (16%), and sport and recreation (10%).

Conclusion

Although the relationship between apparent household diet and income and expenditure was not investigated, it seems likely that the two are closely linked. The underlying cause of malnutrition, as elsewhere in the less developed countries, is that those who need food do not have the money to buy it.12 The situation can only be satisfactorily remedied by agricultural and rural development intervention policies aimed at encouraging the development of clean village water supplies, production of more vegetable and animal protein, fruit and vegetables, as well as adequate maize for the household. Recent findings show that present levels of agricultural production in Transkei and other less developed areas are appallingly low and exploit only a fraction of their potential.1 It is clear that an improvement in diet as well as in farm and non-farm incomes is one of the most important means of improving general living conditions. It is a reasonable hypothesis that conscious action to limit family size will take hold more readily if rural households are actively involved in programmes of economic, social and technical change.

Unless felt and unfelt basic needs in terms of the dimensions of health, nutrition, improved housing, clean water supplies and educational services are fulfilled, rural families are unlikely to be motivated to improve agricultural production and participate in the general process of development.

REFERENCES