



Changing Consumption Patterns among Rural & Urban Households in Kenya

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SUMMARY

Debate on food security in Kenya usually revolves around the strategies to ensure that the country produces enough for her citizens. Thus it is important to put a special focus on the food crops and products that are more important for food security to meet the consumption needs of all citizens. In addition, tracking changes in eating habits is important as consumers are expected to be dynamic considering many changing factors. In this study, we analyzed the consumption patterns of the five major staples i.e maize, wheat, rice, potato and plantain in both urban and rural areas of the country to inform the food security debate. The results show a declining importance of maize and wheat in the household food basket with increasing consumption of rice, plantain and irish potatoes. Even though maize still remains the dominant staple, the significant shifts in consumption confirm that Kenyans are embracing food diversification. Conducive policies should be put in place to support the growing and distribution of crops that consumers are diversifying to

BACKGROUND

The government is obliged to ensure adequate food is available to all its citizens. To achieve this objective, there is need to understand both the production trends and the consumption patterns in the country as well as the inherent challenges.

The bill of rights in the constitution states that “every person has the right to be free from hunger and to adequate food of acceptable quality” (GoK, 2010). Additionally, Sustainable Development Goal (SDG) 2 seeks to end all forms of hunger and ensure all people have access to sufficient and nutritious food. These noble objectives put responsibility on the government and all other stakeholders to act in a manner that will ensure food security for all. Agriculture plays a critical role in ensuring continuous supply of food. Recent statistics indicate though that food imports are rising (MoALF, 2015), raising important questions as to whether our production can sustain the rising food demand occasioned by growing population.

On the supply side, food producers, processors, distributors and marketers need a conducive environment to enable them produce and move the food to consumption points. On the demand side, food is a basic need and its demand will continue to grow with a growing population. The determinants of household consumption are therefore relevant in food security agenda and any changes in consumption trends in both urban and rural areas are therefore key for policy.

Objectives

Tegemeo Institute recently undertook a study with the objectives of:

- Determining consumption patterns of the major food staples among the rural and urban households
- Comparing price differences between posho and sifted maize meal
- Determining factors that are driving of consumption patterns among low income urban households

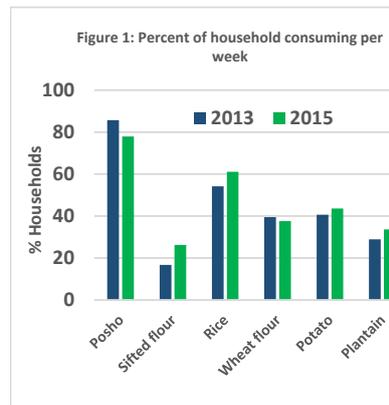
Data and Methods

The study uses two cross-sectional household food consumption datasets collected in 2013 and 2015. These datasets covered 2,365 and 2,447 rural households respectively. Descriptive analysis techniques were applied on the two data sets and compared to show the changing consumption patterns between the two survey years. In order to demonstrate trends and effects of increasing food prices among the low income urban population, a rapid consumption survey was carried out in Kibera and Kawangware areas in Nairobi in September 2016. Data from the survey collected from randomly selected households in the two areas were also analyzed using descriptive techniques.

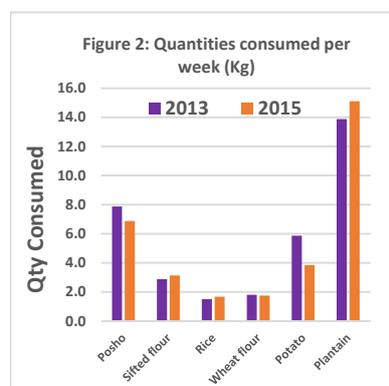
Results and discussion

a) Rural consumption patterns

Results show that the percentage of urban households consuming posho and wheat flour declined from 86 and 40 percent to 78 and 37 percent for Kibera and Kawangware respectively (Figure 1). On the other hand, the percentages of rural households consuming other alternative staples such as rice, potato and plantain rose between the two survey years from 54, 41 and 29 percent to 61, 44 and 34 percent respectively. Rural areas are generally known to consume more posho compared to sifted maize flour and the results indicate that though posho consumption still remains high, the proportion of households consuming sifted maize flour increased from 17 to 26 percent between 2013 and 2015.



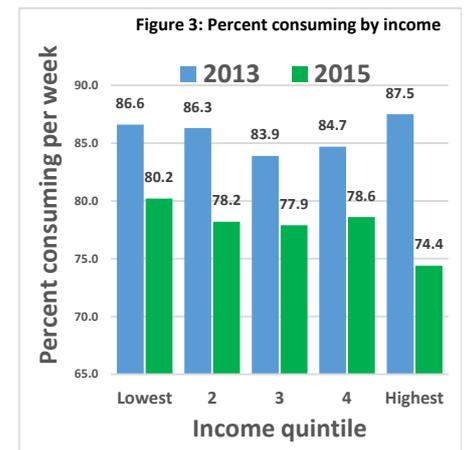
Results from the analysis of mean quantities consumed per household per week are presented in figure 2. The results show a general decline in average quantities of posho, wheat and potatoes consumed between the two survey years from 7.9 kg, 1.8 kg and 5.9 kg to 6.9kg, 1.7kg and 3.9 kg respectively, per household per week. On the contrary, the quantities of sifted maize flour, rice and plantain consumed per household per week rose from 2.9 kg, 1.5 kg and 13.9 kg to 3.1 kg, 1.7 kg and 15.1 kg respectively between the two survey years. Even though the percentage of households consuming potatoes rose, the quantities consumed in the households declined. This could be attributed to production challenges experienced in 2015 (KNBS, 2016).



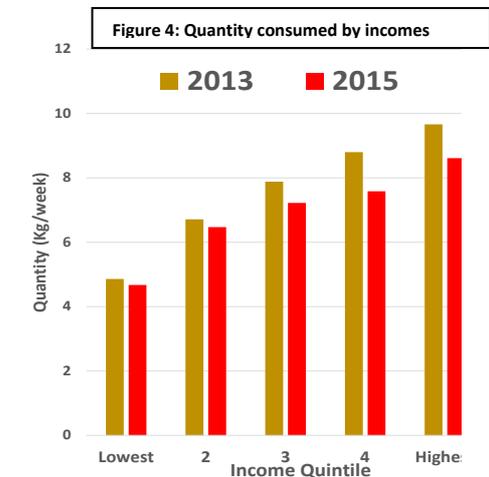
Results presented in figure 3 show the percentage of rural households consuming posho between 2013 and 2015 by income quintiles. Posho consumption declined across all the income categories with the highest decline recorded among high income households from 87.5 percent in 2013 to 74.4 percent in 2015.

The general decline in posho consumption could be an indication of households shifting away from maize

gradually given that most rural households produce the commodity.

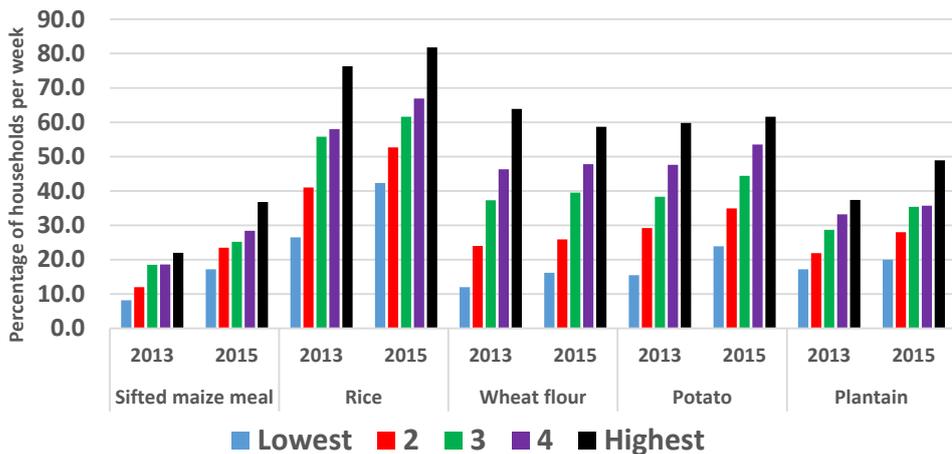


The same trend is also observed if quantities are considered. Figure 4 shows that the mean quantity of posho consumed per household per week declined across all income categories between the two survey years. Although high income households generally consume higher quantities of posho, the biggest decline in quantities of posho consumed per week were also recorded among the high income groups.



When households reduce their consumption of an important food commodity, they are expected to increase or add other alternative commodities to their consumption list. Results show that the percentage of households consuming rice, plantain and potatoes increased across all income categories (Figure 5). Rice is increasingly becoming a very important food commodity among rural households with the percentage of households consuming this commodity rising across all income categories with the lowest and the highest income households recording the highest increase from 26 and 75 to 42 and 82 percent respectively between 2013 and

Figure 5: Percentage consuming staples by income



2015.

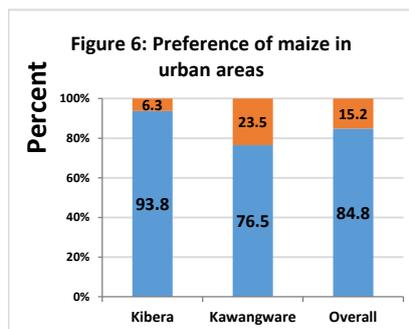
Results also show a consistent rise in the percentage of households consuming potatoes with the highest increase recorded among the low income households. The same trend is observed in plantain consumption. Figure 5 also shows a general increment in the proportions of rural households consuming sifted maize flour across all income categories. On the other hand, the proportions of rural household consuming wheat flour increased among households with the lowest income, remained constant among middle income households and declined among highest income households.

Overall, the results depict changing trends on the consumption patterns among rural households with maize, though still the most dominant staple, declining in importance while rice, potato and plantain increasing in importance.

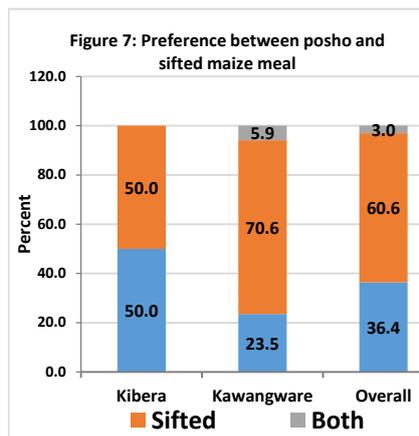
b) Urban consumption patterns

Urban households largely depend on food produced from the rural areas. Affordability of the food items, largely determined by the cost of production is critical for food access in the urban areas. Other than prices, many other factors influence consumption preferences and patterns among urban dwellers. Results from the rapid consumption survey in Kibera and Kawangware areas in Nairobi show that 85 percent of households interviewed rated maize meal as 'very important' while another 15 percent rated it as 'averagely important' in their overall food needs (Figure 6). This underscores the dominance of maize as a staple food among low income urban households. Maize is usually consumed as flour (Posho or Sifted) in meals like *Ugali*, porridge or in whole grain

meals like *githeri*.



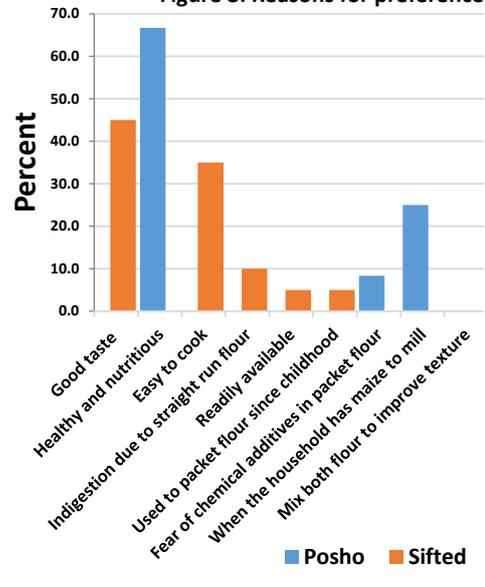
The results also show that on the overall, sifted maize flour is the most preferred form of maize meal for over 60 percent of the households interviewed. This is largely the case in Kawangware with 71 percent indicating preference for sifted maize flour compared to 50 percent in Kibera (Figure 7).



The households cited good taste, cooking quality and availability as reasons for

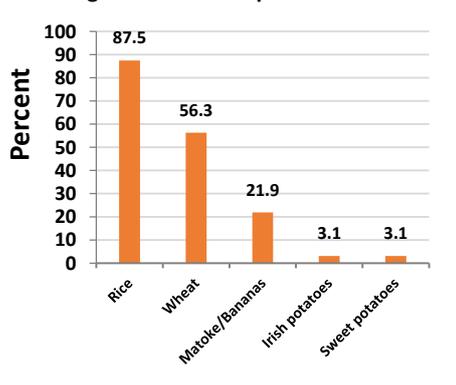
their preference of sifted maize meal while preference for posho is largely because it is perceived to be more nutritious and free from chemical additives (Figure 8). The other factor driving preference for posho is its availability in the household. This means that households with maize grain stocks prefer to consume posho maize flour, most likely until they exhaust available stocks.

Figure 8: Reasons for preferences



Even though preference for maize meal is still high among the low income urban households, they are increasingly diversifying to other food staples such as rice, wheat, plantain and potato. These staples are consumed by 88, 56, 22 and 3 percent of household interviewed respectively (Figure 9). This underscores the increasing importance of rice to urban households, similar to what was observed with rural households.

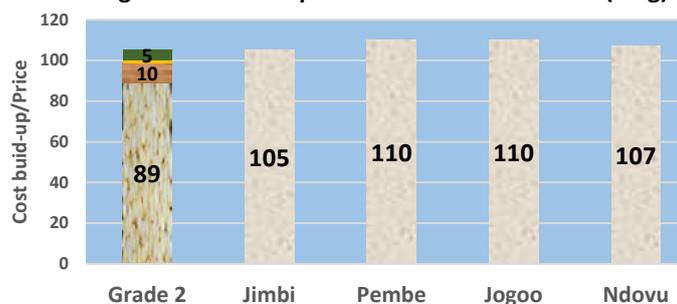
Figure 9: Other staples consumed



It is notable that none of the households mentioned price to be a determinant of their preference for either posho or sifted maize flour. This is explained in the cost build up presented on figure 10. The results show that the average

price of sifted maize flour was KES106 while that for 2kg of grade 2 posho is KES 104 (sh 89 for grain, KES10 for milling, KES 5 for time and the general effort that a household goes through to have the posho ready). This indicates that there is no significant difference between the prices of sifted and posho meal. Price then becomes a secondary consideration in the decision to choose the form of maize meal for consumption among low income urban households.

Figure 10: Cost of posho vs sifted maize meal (2 Kg)



Key findings & Conclusions

- Maize is still the dominant staple consumed by over 80% of households though declining in importance in the household food consumption basket. This can be observed in both the rural and urban households
- There is a general increase in the consumption of Rice, Wheat, Plantain and Potatoes. This is an indication of food substitution where these staples could be slowly taking up the position initially occupied by maize. It could also be an indicator of food diversification among households in the face

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of increasing need for household food security.

- Price is not a major factor in determining choice between posho and sifted maize meal consumption among low income urban households since the prices are not significantly different. Decisions on choice between the two forms of maize meal are thus based on other attributes. Good taste, ease of cooking and availability are the major drivers of preference for sifted maize flour while nutrition quality, health consciousness and 'experience' drive preference for posho
- Consumption of wheat, the second most important staple crop in the country is declining among rural households more so among the high income households. This could be attributed to increasing health awareness among high income household with high gluten content in wheat associated with certain health risks.

Policy implications

This study find that household consumption patterns are changing among both rural and urban households and this has important implications for policy given the direct bearing this has on food security. With devolution of key agriculture functions to counties, it is now the role of county governments to promote production of food crops. The increasing consumption of rice, potato and plantain creates demand for these staples. Conscious and deliberate efforts should be put on developing, reviewing and promotion of strategies that will enhance production, productivity and supply of these alternative staples. There is also need to for the national government to capture the changing food consumption patterns in policies that are currently under development or review.

There is need to include staples such as rice and potatoes in the national and county food security programmes to ease the pressure on maize as a staple crop. Inclusion of these staples in programmes such as the national strategic food reserves is likely to provide alternatives when maize availability and access is constrained.

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