

Market Access and Dietary Diversity: The Potential Role of Women in Improving Household Nutrition in Kenya

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Introduction

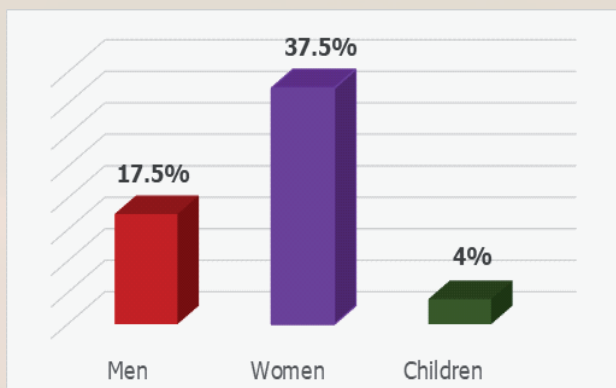
Malnutrition is a serious issue of public health concern in Kenya. Despite the Government support and commitment to ensure that every person has the right to adequate food of acceptable quality and that every child has the right to basic nutrition, about 25% of the country's population suffer from chronic food insecurity and poor nutrition.

Looking at the various forms of malnutrition, in 2015, about 27% of Kenyans were either overweight or obese (Figure 1). The prevalence of obesity/overweight was higher among women (37.5%) compared to men (17.5%). Among children, about 4% of children under 5 years were overweight or obese.

Other forms of malnutrition include micronutrient and macronutrient deficiencies. Deficiencies in macronutrients, such as protein-energy deficiencies, are associated with wasting, stunting, and underweight. Although the Government through the Nutrition Action Plan 2012–2017 had committed

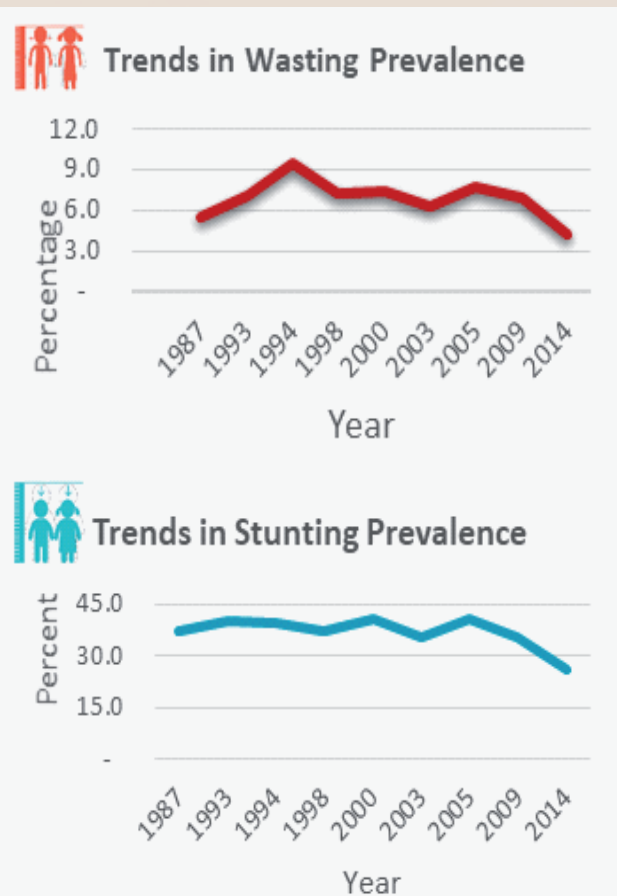
to drastically reduce the stunting, wasting and underweight in children by 14%, 2% and 10% respectively, trends over the years indicate that stunting and wasting are declining too slowly while still negatively affecting the lives of millions of children (Figure 2)

Figure 1: Overweight and obesity in Kenya



Data source: Kenya Demographic and Health Survey, 2014; UNICEF (2017) Situation Analysis of Children and Women in Kenya

Figure 2: Percentage of stunted and wasted children under 5, 1987–2014



Source: UNICEF Data and Analytics: <https://data.unicef.org/resources/JME/>

Table 1: Status of Various Forms of Malnutrition in Kenya			
Overweight or obese	%	%	
National Level	27.0	Men	17.5
Women	37.5	Children	4.0
Micronutrient Deficiencies			
Iron Deficiency		Zinc Deficiency	
Pre-School Children	21.8	Pre-School Children	81.6
School Age Children	9.4	School Age Children	79.0
Pregnant Women	36.1	Pregnant Women	67.9
Non-pregnant Women	21.3	Non-pregnant Women	79.9
Men	3.6	Men	77.4
Vitamin B12 Deficiency		Iodine Deficiency	
Pregnant Women	7.7	School age Children	22.1
Non-pregnant Women	34.7	Non-pregnant Women	25.6
Additional Children Nutritional Status			
Stunted	26.0		
Wasted	4.0		
Underweight	11.0		
<i>Sources: Highlighted from various key report findings: Kenya Demographic and Health Survey, 2014 & UNICEF's Situation Analysis of Children and Women in Kenya 2017; Kenya National Micronutrient Survey of 2011</i>			

Deficiencies in micronutrient can reduce the body's capacity to fight diseases, and hamper its use of foods and the absorption of the nutrients that the body requires to grow and function. Children have high levels of Iron, Zinc and Iodine deficiencies (Table 1). Men are affected most by Zinc deficiencies while women are observed to have Iron, Folate, Zinc and Vitamin B12 deficiencies.

Poor nutritional outcomes have particularly devastating consequences on development of children, with lasting impacts on their physical, cognitive and social development. Positive impacts of alleviating malnutrition include improved health, productivity, and in the long-run improved economic performance of the country.

Prevalence of malnutrition in the country is contrary to the citizens rights as stipulated in Kenya's 2010 Constitution. In addition, persistent malnutrition is a threat to the achievement of the Sustainable Development Goals (SDGs), the aspirations in the Kenya Vision 2030, and the "Big Four" agenda and hence the need to eradicate it in any form.

Dietary Diversity Outcomes of Linking Women to Agricultural Markets

Among the key problems identified by the National Food and Nutrition Security Policy Implementation Framework 2017-2022 contributing to malnutrition is inadequate food and nutrition security and inadequate care giving capacity at the household level. As highlighted by the framework, the problem goes beyond the national level. Household nutritional

needs can be achieved either through production of diverse nutrition rich products and/or the agricultural income channel. The income channel is particularly important given that purchases are a key source of food consumption and thus nutrition intake.

Women in Sub-Saharan countries, including Kenya, form an important link in households' access to quality nutritious foods. Relative to men, women are documented in various studies to invest a higher proportion of their incomes within their households and towards consumption of various food groups that are more nutritious to that chosen by men. This observation mainly emerges from the broad division in the responsibilities of men and women and how they use their personal income in the African context.

Given that women generally serve as gatekeepers of household food and nutrition, women's agricultural income in rural areas is key to household's food and nutrition security. Agricultural income is, however, strongly influenced by access to well-functioning markets, among other factors. Literature shows that access to well-functioning markets is likely to expand the market base, thereby improving overall profitability. Increased agricultural income, in turn, may directly or indirectly contribute to improved nutrition. Rising incomes are reported to have a strong positive gradient with household dietary diversity. Increased incomes have a significant positive effect on increased food expenditure, and this is important in diet diversification and sequentially nutrition.

However, women in agriculture experience limitations to desirable market opportunities due to various factors. These include: lack of informed policies and structures that take into consideration the differing needs and potential of women and men; lack of security and mobility; high cost of transportation; lack of adequate financial assets to support businesses; stigmatization of women in male-dominated fields; limited information and access to training; subsistence production orientation, which limits market competitiveness and capacity to comply with international standards; and time constraints.

Limited access to desirable agricultural markets is likely to hinder women's capacity to provide nutritious meals to households. Such markets include organized agricultural markets where farmers are linked with buyers in advance of production. These include linking farmers to processing firms, institutions, cooperatives, or contract farming. We postulate that linking female farmers to organized agricultural markets will enable female farmers to regularly market their produce at stipulated prices. In addition, organized markets are likely to reduce various transactional costs, such as costs related to searching for buyers and could also allow intermediaries to be bypassed. Market assurance coupled with reduced transactional costs are likely to improve agricultural income accruing to women, and thereby promote their contribution to household's nutritional intake.

Analysis of Enhanced Market Access Effects

Towards contributing to evidence-based policies for improved nutrition, an assessment of gendered access to organized agricultural markets on household dietary diversity scores in Kenya was made. On the outcome of interest, research studies illustrate the use of household dietary diversity score (HDDS) as the best indicator to approximate dietary diversity - an indicator of diet quality, which influences nutrition outcomes - at the household level. The analysis carries out three estimations to assess: (a) the effect of women's access to organized agricultural markets on household dietary diversity scores; (b) the effect of men's access to organized agricultural markets and assess how the results differed with that of women; and (c) lastly, we evaluated the effect of access to organized agricultural markets where both the man and woman in a household have access to organized agricultural markets. The analysis is restricted to dual households; that is, households that have both a primary female and male adult.

The findings highlight significant differences between households where the subject of interest (a. primary female in a household, b. primary male in a household, c. both primary female and male in the household) has access to organized markets (treated group) and households where the subject of interest

Figure 3: Distribution of dietary diversity by access to organized markets versus no access

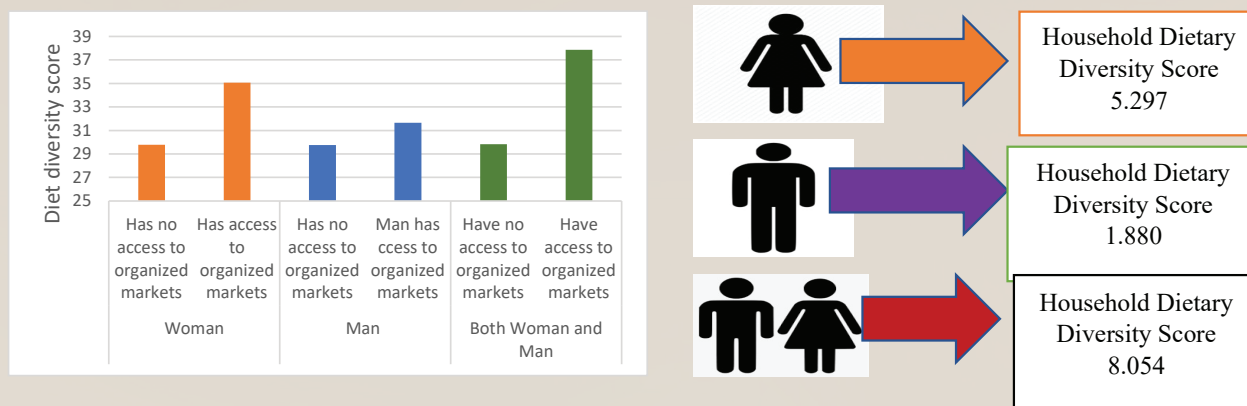


has no access to organized markets (control group) (Figure 3).

On the actual effect of organized market access on household dietary diversity, access to well organized agricultural markets among the three groups has a positive effect on household dietary diversity scores (Figure 4). The findings suggest that enhanced marketed sales of agricultural produce in organized markets, through its effects on agricultural income, is a key pathway to improved household dietary diversity scores. The identified pathway is as follows: Agriculture—Marketed sales of agricultural produce—Income—food expenditure—household dietary diversity scores. However, the improvement associated with women's access is greater; more than double that of men. On average, when a woman in a household has access to organized agricultural markets, the household dietary diversity score improves by 5.297 points compared to 1.880 points associated with men. Thus, enhancement of women's income, through marketed sale of agricultural produce in organized markets, and subsequently its control, is recognized as an important pathway to improved household dietary diversity scores in Kenya. The identified pathway is as follows: Agriculture—Women's marketed sales of agricultural produce—Income—food expenditure—household dietary diversity scores. The highlighted pathway is especially important in the Kenyan household setting where majority of household heads are male, where they play a more dominant role in household decision-making.

Even so, the effect on household dietary diversity is largest when both the women and men in the same household have access to organized agricultural markets (improvement by 8.054 points). This effect indicates that while it is important to improve women's access to agricultural markets towards greater dietary diversity scores within households, efforts geared towards gender equity in agricultural markets

Figure 4: Impact of access to organized agricultural markets on household dietary diversity score across gender



access are likely to provide better results. In addition, policies that aim at improving both women’s and men’s access in a household are likely to eliminate the predominant zero-sum power conceptions in households that undermine the effectiveness of development initiatives. The identified pathway from these results is as follows: Agriculture—Equitable access to agricultural markets— Income —food expenditure— household dietary diversity scores.

Policy Implications and Recommendations

To achieve food and nutrition security as envisioned in the Kenya Vision 2030, the “Big Four” agenda and Kenya’s 2010 Constitution and to attain the SDG No. 2, there is need for policy to enhance equitable access to functional agricultural markets to both men and women. As such, barriers to effective participation of men and women in agricultural markets, should explicitly be examined, recognized in policy and addressed. The path to achieving improved nutrition at the household level must address the unique constraints and opportunities to enhance women participation in organized and other enhanced markets by incorporating tailored solutions.

Further, to gain and maintain access to developed markets, there is need to equip and support women

and men in agriculture to produce quality products in compliance to safety standards and regulations. With agriculture being a devolved function, County governments need to implement measures that enhance households capacities in relation to production and post-harvest handling to expand their markets.

Due to the complexity of diet and nutrition-related matters, there is need for cross-sector coordination to enhance market access and thereby household’s capacity to tackle dietary and nutritional issues. For instance, while the Ministry of Health covers the issues of diet and nutrition, the mandate to enhance women’s access to desirable agricultural markets does not fall within the Ministry. Different sectors play a critical role in ensuring men and women gain access to developed agri-food markets. There is thus need for synergy among different sectors of the economy to enhance access to functional agricultural markets.

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KIPPR Policy Briefs are aimed at a wide dissemination of the Institute’s policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

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