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Migration, Rural-Urban Connectivity and Food Remittances in Kenya

Elizabeth Opiyo Onyango, Queen Elizabeth Post-Doctoral Fellow, Balsillie School of International Affairs, Waterloo, Canada

*Jonathan Crush, University Research Professor, Laurier University, Waterloo, Canada and Professor Extraordinary, University of the Western Cape, Cape Town, South Africa

Samuel Owuor, Professor of Geography, University of Nairobi, Nairobi, Kenya

* Corresponding Author

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Abstract

This paper draws on data from a representative city-wide household food security survey of Nairobi conducted in 2017 to examine the importance of food remitting to households in contemporary Nairobi. The next section of the paper provides an overview of urbanization and the rapid growth of Nairobi which has led to growing socio-economic inequality, precarious livelihoods for the majority, and growing food insecurity, as context for the more detailed empirical analysis of food security and food remittances that follows. It is followed by a description of the survey methodology and sections analyzing the differences between migrant and non-migrant households in Nairobi. Attention then turns to the phenomenon of food remitting, showing that over 50% of surveyed households in the city had received food remittances in the previous year. The paper then uses multivariate logistic regression to identify the relationship between Nairobi household characteristics and the probability of receiving food remittances from rural areas. The findings suggest that there are exceptions to the standard migration and poverty-driven explanatory model of the drivers of rural-urban food remitting and that greater attention should be paid to other motivations for maintaining rural-urban connectivity in Africa.

Key words: Urban household, migration, connectivity, food remittances, food security, Nairobi, Kenya

Introduction

A progressively greater share of the population of sub-Saharan is living permanently or semi-permanently in towns and cities [1]. Some have argued that African urbanization is driven primarily by natural population growth, while others have convincingly demonstrated that migrants make up a large proportion of the population in many urban areas [2-4]. Migrants to cities do not generally or immediately cut their links with rural homes and there is a large literature on the character, types and implications of connections between rural areas and rapidly-urbanizing cities dating back to at least the 1980s new [5-10]. However, recent studies have suggested that rapid urbanization requires a reconceptualization of the dominant linear view of migrants relocating to cities and sending cash remittances to relatives left behind in the countryside. One recent study argues, for example, that the relationship between those in cities and those left behind in rural areas is far from linear and that "complexity and diversity are fundamental characteristics of rural-urban linkages" [11]. They go on to redefine such linkages as "constantly evolving webs of connections between urban and rural spaces and dimensions" [11]. Another goes even further, arguing for the deconstruction of the conventional rural-urban dichotomy entirely since the livelihoods of the majority of geographically-separated 'rural' and 'urban' households are completely intertwined such that "rural and urban, defined in the traditional way, are conceptual lenses that distort our view of the reality of social processes and can only lead to sub-optimal policies and interventions" [12]. Writing from the rural perspective, others have suggested that urban and rural households should not be seen as separate entities but essentially part of the same geographically dispersed or translocal household pursuing multi-

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local livelihood strategies [13-14].

There is a long history of research on the rural drivers of migration to urban areas in Kenya, most notably the influential two-sector Harris-Todaro economic model of household decision-making about migration from the 1960s [15-16]. (Harris and Todaro 1970, Todaro 1969). Simultaneously, Walter Elkan promoted the idea of circular migration in the Kenya context, suggesting that urbanization was an essentially impermanent phenomenon [17]. As he noted, "part of the urban populations in East Africa and elsewhere consists of people who continue to have close connections with their villages of origin, to which they may ultimately return [17, p. 581]. Over forty years later, Oucho et al painted essentially the same picture in their study of rural-urban migration to Kisumu and Nairobi, noting that migrants "maintain strong contacts with their origins, to where they send remittances for relatives left behind. At the end of a migratory life, the vast majority of migrants expect to return to their homes to try and lead better lives than non-migrant folk, and to develop their communities as well as their counties of origin" [18, p. 1]. While there is some evidence of a decline in return migration of the elderly, the persistence of circular migration and the perpetuation of rural-urban connectivity over time remains a distinctive feature of Kenyan urbanization. As many as 80% of older migrants in Nairobi slums maintained contact with their rural origin homes during a full year of recent observation and that "patterns and reasons of linkages are consistent with migrants' positive contributions to the upkeep of rural origin households" [19, p. 275]

One of the most widely-documented forms of rural-urban connectivity in Kenya is the flow of cash remittances from urban-based migrants to their rural relatives [20-22]. The rapid development of the mobile money MPESA system since 2007 has clearly demonstrated both the sizable volume and urban-rural directionality of cash remitting in the country [23-24]. While there is a wealth of research on migrant remittances more generally, the relationship between remittance use and food security has been undervalued [25]. This is consistent with a broader neglect of the connections between international and internal migration and food security [26-28]. More recently, several studies have demonstrated that there is a positive macro-level relationship between food security and the volume of remittances received [29-32].

National household survey data from Kenya suggests that low-income households are the greatest beneficiaries of cash remittances. While the remittances literature in Kenya generally focuses on the investment of remittances in agricultural production, there is more general evidence that a primary use of cash remittances in rural areas is actually food purchase [33]. 2019). One study, for example, argues that many rural dwellers in Africa buy more food than they sell and, as net food buyers, are from low-income households who depend on remittances to access purchased food [34]. A survey of migrant-sending households in Southern Africa found that 82% spend remittances on food while only 24% invest remittances in agricultural activity [35]. Only 7% of households received any income from the sale of farm produce. In addition to cash remittances, one-third of migrant sending-households received remittances in the form of goods, including food. In Kenya, increased remittance receipts actually reduce the overall proportion of household income that is spent on food [22].

Food remitting has received relatively little attention in comparison with the large volume of research on the drivers and impacts of cash remittances [36]. So, too, has the impact of cash and

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goods remitting on the food security of remittance senders living in urban areas [28]. This paper addresses another aspect of the relationship between remittances and food security; that is, the informal transfer or remitting of food from rural areas to migrants in the city, a phenomenon argued to be a common accompaniment to rapid urbanization [37-38]. Informal food remittances from rural households are significant in volume and play an important role in the diet of migrants living in low-income areas of the city of Windhoek, Namibia [39-40]. Other studies have confirmed that these "food pathways" are much more common than previously assumed although their importance varies considerably from country to country and city to city [36, 41-43]. A large-scale study of 11 cities in nine countries by the African Food Security Urban Network (AFSUN) found that nearly three in every ten households in low-income neighbourhoods had received food remittances in the previous year but that this varied from 14% in Johannesburg to over 40% in Harare, Lusaka and Windhoek [38]. Another large study of over 3,000 rural households in nine African countries found that one third remitted maize to towns within and outside their district, 23% to the capital city and 17% to other urban centres [13]. In small-town Kenya, urban households with active rural-urban linkages "enjoy significant transfers of food from rural areas that offset hunger and vulnerability in the urban context" [41, p. 119]. However, there have been no studies to date of the phenomenon of rural to urban food remitting in the capital and largest city of Nairobi.

Materials and Methods

This paper draws on data from the Hungry Cities Partnership (HCP) Food Security Household Survey for Nairobi City conducted in 2017 [44]. The survey interviewed a total of 1,434 households across the city. To generate a representative city-wide sample, a three-stage cluster sampling and probability proportion to size sampling was used. The survey was conducted in randomly selected administrative sub-locations spread across all of the administrative districts (or sub-counties) and divisions of Nairobi City County. Nairobi is divided into four administrative districts (or sub-counties): Nairobi West, Nairobi East, Nairobi North and Westlands. These districts are further sub-divided into eight administrative divisions: Dagoretti and Kibera (in Nairobi West); Embakasi and Makadara (in Nairobi East); Central, Kasarani and Pumwani (in Nairobi North); and Westlands division (in Westlands). These divisions are further divided into a total of 49 administrative locations. Lastly, the locations are split into 111 sub-locations, which are the lowest administrative units in Kenya. The survey covered randomly-selected households in 23 of the 111 administrative sub-locations of Nairobi In the selected 23 sub-locations, systematic random sampling method was used to identify the participating households where every n^{th} household was recruited and interviewed. The household head was the target interviewee in this survey. The data was collected in a face-to-face interview with an experienced and trained enumerators.

To identify any observable differences between migrants and non-migrants, households with heads born in rural Kenya and those born in Nairobi were first cross-tabulated with a set of individual and household characteristics. Individual variables included the age, sex, education, and employment status of the household head. Household characteristics included household size, type, main source of income, average monthly income, lived poverty, The two sets of household were also compared in terms of whether they had received a food transfer at any time in the previous year, the proportion of income spent on food, and their level of food security.

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Food security was measured using indicators developed by the Food and Nutrition Technical Assistant (FANTA) project. Household food insecurity was measured as a score ranging from 0-27 (HFIAS Scale) and transformed via the FANTA algorithm into a categorical variable (the HFIAP typology). Each household was assigned to one of four categories (a) food secure; (b) mildly food insecure; (c) moderately food insecure and (d) severely food insecure. Because household food insecurity is related to the proportion of household income spent on food, this predictor variable was also divided into four categories of progressively greater proportion from <20% to >50%.

There is a suggestion in the literature that food remitting is part of a broader social economy of reciprocity in which cash remittances flow from city to countryside and food remittances flow in the reverse direction [37]. To test this hypothesis, households were divided into remitters and non-remitters (based on whether they had sent cash remittances to the rural area in the previous year). A distinction was also made between migrant and non-migrant households in relation to the receipt and frequency of receiving food transfers, again using the one year recall period. The analysis also looked at whether or not households had experienced any recent shocks on the assumption that food transfers could be a mitigating response. Seventeen separate shocks were pre-identified and categorized into three groups: (a) economic (which included sudden food price increases, loss of income, loss of employment); (b) sociopolitical (including political violence) and (c) biophysical (including disease and epidemics).

To determine the likelihood of a household receiving food remittances, the second part of the analysis uses multiple logistic regression to identify the variables most strongly associated with the receipt of food remittances. Model 1 tested the strength of the association between the dependent variable of food remittance receipt and individual predictor variables including the sex, age, education, and employment status of the household head. Model 2 introduced a second set of predictor variables relating to household characteristics. For household type, each household was classified into one of four groups: (a) female-centred (female head with no partner or spouse present); (b) male-centred (male head with no partner or spouse present); (c) nuclear (two parents and children); and (d) extended (two parents and children plus other relatives and non-relatives). Similarly, four main types of household income were identified in the city: (a) formal wage work; (b) informal wage work; (c) informal self-employment and (d) formal self-employment. Household income was divided into quintiles and household poverty was based on the Lived Poverty Index, a subjective measure of household status based on frequency-of-occurrence of doing without five basic needs (averaged to give a single household score). Model 3 tested the relationship between rural-urban food transfers and household shocks after binning all responses into whether or not a household had experienced any one of the three different types of shock in the previous six months.

The study data and results do have several limitations. First, income, poverty and expenditure on food were self-reported and not verified independently. Second, the study did not investigate the migrant status of individual household members and it used age as a surrogate for the length of time the migrant heads had lived in Nairobi. Third, although data was collected on the types of food transferred, quantity and quality was not and hence the nutritional value and impact of food transfers to the household was not verifiable. Finally, the recall period for food remitting and household shocks was not identical so a strictly causal relationship could not be asserted if

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shocks were strongly associated with food remitting. Finally, throughout the analysis we refer to migrant and non-migrant households on the basis of whether or not the head was born in a rural area or in Nairobi. In practice, many migrant households, particularly those with children, are more likely than their non-migrant counterparts to consist of a mix of migrant adults and Nairobi-born children.

Results & Discussion

Kenya is undergoing an accelerating shift of population from countryside to city.Currently, about 25% of Kenya's population is urban, with an annual growth rate of 4.4%. The metro area population of the City of Nairobi was estimated at 4,735,000 in 2020, a 3.9% increase from the 2019 population. By 2025, the population is projected to reach 6.2 million and to cross the 10 million mark by 2038. Although natural increase is a key contributor to Nairobi's population growth, in-migration is equally important in the city's population growth. Nairobi attracts migrants from all regions of Kenya in search of better economic opportunity. A significant proportion of the city's population are rural-urban migrants, particularly in the lower-income areas. A survey in the informal settlements of Korogocho and Viwandani, for example, found that 86% of the residents were migrants [45]. Social and economic inequality and high levels of poverty accompanying rapid urbanization are particularly evident in Nairobi. Poverty rates in the informal slum settlements of Kibera, Korogocho, and Mathare are over 60%. By contrast, higher-income areas of the city such as Kileleshwa, Runda, and Karen have poverty rates under 5% [46].

In our city-wide household survey, 70% of household heads in Nairobi were born in rural areas of the country with only about two in every ten household heads born in Nairobi. A further 5% were born in other Kenyan cities and the remainder were foreign-born. In this paper, we focus on the differences between the first two categories of migrant (rural-born) and non-migrant (Nairobi-born) household heads. The ratio of male to female household heads was almost identical in both groups (at 4:1) (Table 1). Given the emphasis in the migration literature on youth migration, the similarities in the age structure of migrant and non-migrant household heads is noteworthy [47-49]. In total, 40% of migrant household heads and 45% of non-migrant household heads were under the age of 35. The relative proportion of heads in each successive age band over 35 was very similar. The argument that all migrants inevitably return to the rural areas as they age was not fully born out with 13% of migrant household heads and 9% of non-migrant household heads being over the age of 55 [18].

In theory, Nairobi-born household heads should have greater access to educational opportunities and labour market opportunities [50]. However, the survey again found considerable similarities between the two groups. The proportion of household heads in full-time employment was similar for both groups (41% migrant and 43% non-migrant) (Table 1). Slightly more migrant heads were in part-time or casual work (15% versus 10%) and fewer (although still a significant proportion) were self-employed (38% versus 42%). The major difference between the two groups was in level of educational attainment with Nairobi-born household heads tending to have slightly higher levels of education overall (90% versus 81% secondary or above). However, the nigh proportion of relatively well-educated migrant heads is testimony to the widespread access to secondary schooling in Kenya's rural areas [51].

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Table 1: Characteristics of Migrant and Non-Migrant Households

	Migrant-Headed (Rural born)		Non-Migrant-Headed (Nairobi-born)	
Characteristics of Household Heads	**Frequency**	**%**	**Frequency**	**%**
Total	874	76.7	266	23.3
Sex of Household Head				
Male	717	82.9	217	82.2
Female	148	17.1	47	17.8
Age of Household Head				
16-24	64	7.4	32	12.1
25-34	284	32.7	87	33.0
35-44	285	32.8	88	33.3
45-54	123	14.2	33	12.5
55-64	50	5.8	13	4.9
65+	63	7.3	11	4.2
Education Level of Household Head				
None	6	0.7	3	1.1
Primary school	151	17.8	20	7.7
Secondary school	348	41.0	82	31.4
Higher	343	40.4	156	59.8
Employment Status of Household Head				
Self-employed	329	38.2	111	42.0
Employed full-time	353	41.0	113	42.8
Employed part-time (inc casual)	128	14.8	27	10.2
Unemployed	34	3.9	6	2.3
Other	18	2.1	7	2.7
Household Characteristics				
Food security				
Food secure	220	25.3	91	34.6
Food insecure	651	74.7	172	65.4
Household size				
1 person	151	17.3	48	18.1
2-3 persons	313	35.9	94	35.5
4-5 persons	299	34.3	84	31.7
6+ persons	108	12.4	39	14.7
Household Type				
Female-centred	140	16.1	48	18.0
Male-centred	172	19.8	58	21.8
Nuclear	491	56.5	139	52.3

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Extended	63	7.2	18	6.8
Other	3	0.3	3	1.1
Main Source of HH Income				
Formal wage work	401	46.4	137	52.3
Informal wage work	265	30.6	53	20.2
Self-employment (Informal)	101	11.7	40	15.3
Self-employment (formal)	96	11.1	30	11.5
Total HH Income				
KES<= 10,000	136	26.0	29	18.4
KES 10,001-20,000	137	26.2	22	13.9
KES 20,001-30,000	66	12.6	24	15.2
KES 30,001-40,000	36	6.9	6	3.8
KES 40,001-50,000	27	5.2	3	1.8
>KES 50,000	121	23.1	74	46.8
LPI Score				
0-0.5	560	65.8	204	77.6
0.51-1.00	176	20.7	39	14.8
1.01-1.50	73	8.6	17	6.5
>1.5	42	4.9	3	1.1
% of HH Income on Food				
<20%	220	43.4	75	49.3
21-35%	105	20.7	30	19.7
36-50%	90	17.8	26	17.1
>50%	91	17.9	21	13.8
Experienced Shocks				
No	300	34.7	117	45.2
Yes	564	64.3	142	54.8
Economic shocks				
No	354	40.9	138	51.4
Yes	512	59.1	126	48.6
Sociopolitical shocks				
No	712	82.2	221	85.3
Yes	154	17.8	38	14.7
Biophysical shocks				
No	782	90.3	235	90.4
Yes	84	9.7	24	9.6
Sent Remittances				
Yes	395	46.3	107	41.0
No	458	53.4	154	59.0
Received Food Transfers from Rural Areas				
Yes	452	52.4	122	54.1

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No	411	47.6	144	45.9

There are also similarities between households headed by migrants and those headed by non-migrants, especially in household size and household typology. Both have similar proportions of 1 person households (17% and 18%), 2-5 person households (70% and 68%) and larger households (12% and 15%). In terms of household type, 16% of migrant households were female-centred, compared with 18% of non-migrant headed households. The difference in all other categories was 4% or less. The primary differences between migrant and non-migran households are economic in nature. With regard to the primary source of household income, for example, significantly more migrant households have informal wage work as their main source of income (31% and 20%). The income source and employment profile translates into marked variations in household income, lived poverty and food insecurity. For example, 52% of migrant households are in the lowest two income quintiles compared with 33% of non-migrant households. Or again, 78% of non-migrant households have a (better) LPI of between 0.0 and 0.5, compared with 66% of migrant households. When it comes to levels of food security, only 25% of migrant households classified as completely food secure on the HFIAP scale, compared to 35% of non-migrant households. Migrant households also tend to spend a greater proportion of their income on food (a surrogate measure of food insecurity). More migrant households had experienced economic shocks (at 59%) although non-migrant households were far from immune from shocks (48%).

The most significant finding from the descriptive comparison of migrant and non-migrant households relates to variables more commonly associated with migration and migrant behaviour. For example, 46% of migrant households sent cash remittances to the rural areas in the previous year, but so did 41% of non-migrant households. Contrary to expectations, non-migrant households were marginally more likely to have received food remittances from rural areas in the previous year (54% versus 52%). The frequency of receiving food remittances was very similar for both groups. These findings suggest that the whole idea that it is only migrants who engage in sending cash remittances and receiving food remittances need to be completely rethought in the Nairobi context. Despite being born in Nairobi, the data seems to confirm that non-migrant households continue to maintain strong connections with rural homes. In other words, migration status does not appear to be a good predictor of rural-urban food transfers in the Nairobi case.

To confirm this observation and to assess whether there are better predictors of the propensity of Nairobi households to be involved in food remitting, the results of three multiple logistic regression models are presented for all migrant and non-migrant households that had received food remittances in the previous year. Half of all surveyed households in Nairobi rely to varying degrees on an informal, non-marketed supply of food from their relatives and friends in urban and rural areas. While the food transfers come from both urban and rural areas, the importance of rural food sources is particularly evident, especially from relatives. Eight out of every ten households receiving food transfers obtain them from relatives in the rural areas (Table 2). Figure 1 shows that food transfers from the rural areas include cereals (primarily maize); roots and tubers (primarily potatoes); vegetables (primarily traditional vegetables); fruits; meat products (primarily chicken); and beans, peas, lentils and nuts.

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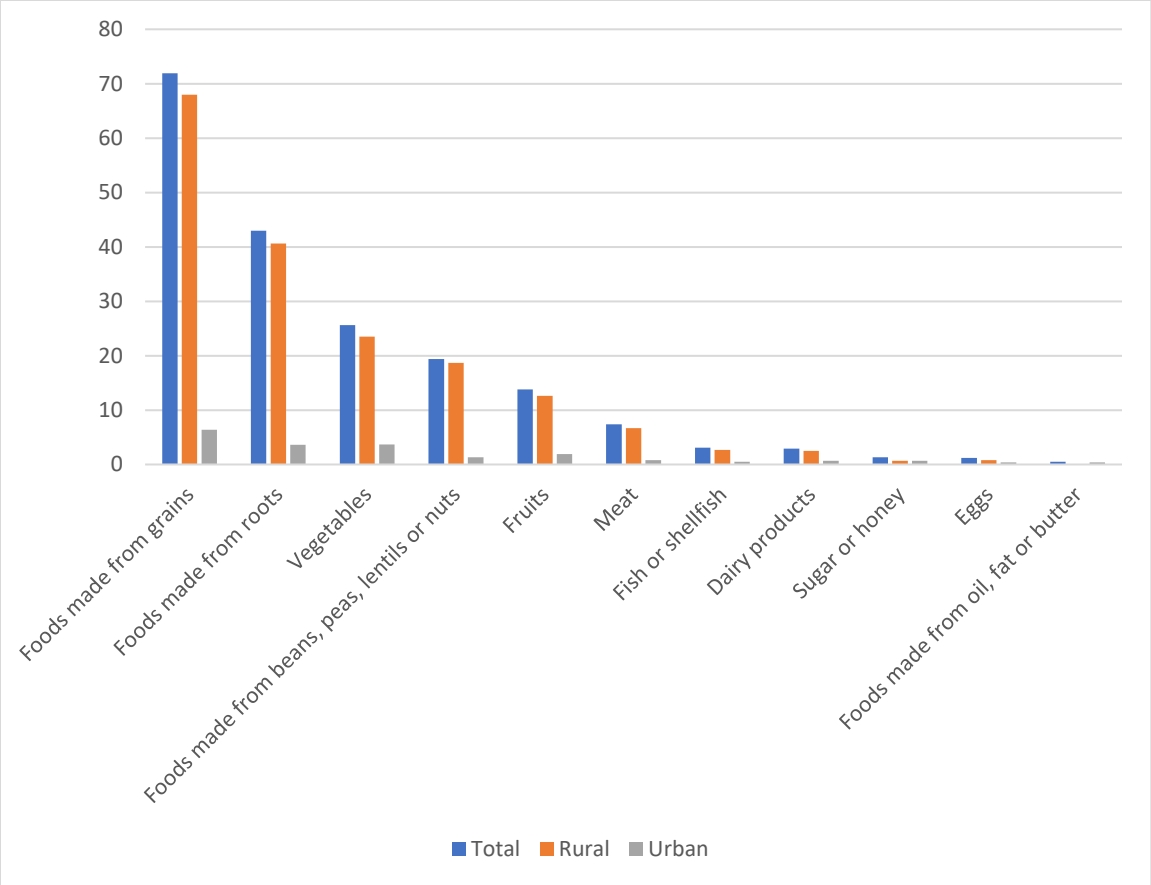
Table 2: Geographical Origin of Household Food Remittances

	No. of households receiving transfers	% of total sample	% of households receiving food transfers
Relatives in rural areas	645	45.6	80.6
Friends in rural areas	40	2.8	5.0
Relatives in other urban areas	64	4.5	8.0
Friends in other urban areas	51	3.6	6.4

Figure 1: Food Remittances by Type and Geographical Origin



The frequency of food transfers from rural areas varies between once per week to once per year (Figure 2). However, most recipient households in Nairobi receive regular food transfers "at least 3-6 times in a year". Frequency depends on such factors as cropping seasons, how often an urban dweller travels to the rural areas and vice-versa, and the availability and convenience of food transfers through other means. The frequency profile for the different food types is relatively consistent, although vegetables tend to be sent more frequently. The importance of food transfers to the household was measured subjectively by how much the transferred food matters to the households involved. Most of the households receiving food transfers indicated

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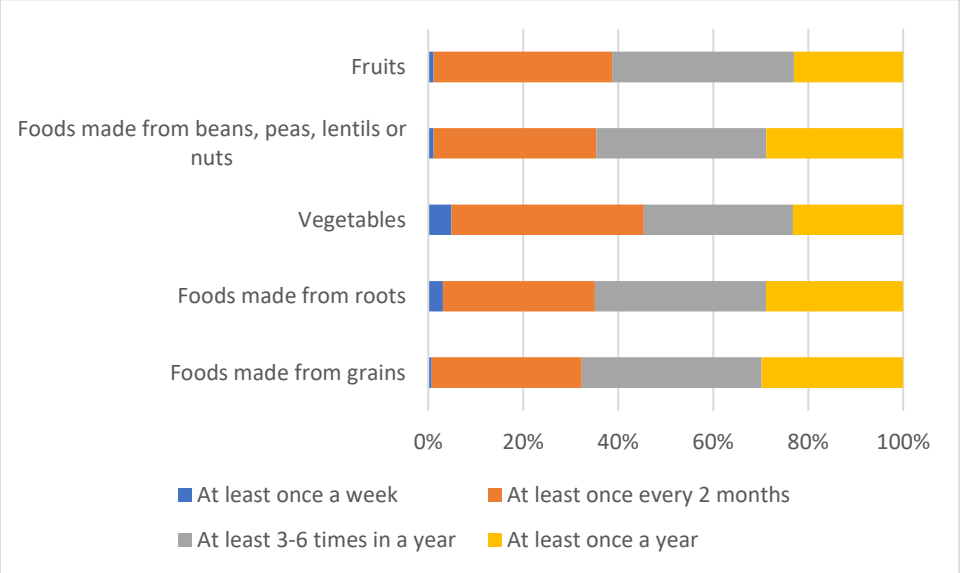
that the food source is either very important (46%) or important (40%) to their survival. The need for additional food is the most important motive for food transfers. Over three-quarters (80%) of the households receiving food transfers said that they engaged in the practice to help the household feed itself. For about one-quarter of the households, the food was sent as gifts.

Figure 2: Frequency of Food Transfers from Rural Areas



Model 1 of the multiple logistical regression includes only individual characteristics of household heads in the logistic regression to test whether the odds of receiving remittances varies with the characteristics of household heads (Table 3). Model 2 includes household characteristics to assess whether certain types of household are more likely to receive remittances. Finally, Model 3 adds household shocks to the analysis to determine if these sudden shocks to the household are likely to lead to food remittances in response. Model 1 confirms that there is no significant statistical difference between households headed by migrants and those headed by non-migrants in the likelihood of receiving food remittances (OR = 1.170 95% CI 0.875-1.565). Female-headed households are marginally more likely than male-headed households to receive transfers but, again, the difference is insignificant (OR = 1.181 95% CI 0.853-1.634). The likelihood of receiving transfers does not consistently decline with the age of the household head which confirms that length of residence in Nairobi does not have a significant impact on the likelihood of receiving food transfers. Model 1 does show that better educated heads are more likely to receive food remittances, as are those in full-time wage employment when compared with the self-employed and part-time employment (OR 1.449 95% CI 1.109-1.894). Unemployed household heads are least likely to receive transfers (OR: 0.815 95% CI 0.453-1.597).

Model 2 includes household characteristics and suggests that larger households and female-centred households are marginally more likely to be receiving food transfers than smaller

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households and other types of households. However, female-centred households and nuclear households (most of which are male -headed) have very similar odds ratios which suggests that type of household is not a significant predictor of food remittances. Households whose main source of income is formal wage employment have increased odds of receiving food remittances compared with all other types. Confirming the household head findings from Model 1, households whose main source of income is self-employment are least likely to receive food remittances (OR: 0.406 95% CI 0.156-1.056). In addition, households with higher total income are more likely to receive food remittances than those with lower incomes. A comparison of households in the highest and lowest income quintiles, for example, suggests that the latter are significantly less likely to receive food remittances (OR: 0.471 95% CI 0.234-0.948). Finally, there was no significant difference in the likelihood of receiving food remittances between households that did and did not send cash remittances to rural relatives.

Model 3 tests the hypothesis that households experiencing one or more sudden shocks would be more likely to experience sudden hardship and turn to the rural areas for support in the form of increased food transfers. However, for each of the three categories of shock – economic, sociopolitical and biophysical – Model 3 shows no significant difference in the likelihood of receiving food between those households experiencing and not experiencing a shock.

Table 3: Multivariate Analysis of Food Remittances to Urban Households

	Adjusted Models	**Adjusted Models**	**Adjusted Mo**
	OR (95% CI)	**OR (95% CI)**	**OR (95% CI)**
	Model 1	**Model 2**	**Model 3**
Household Head Demographics			
Migrant status of household head (ref =migrant)			
Non-migrant	1.170 (0.875-1.565)	1.008 (0.668-1.520)	0.991 (0.652-1.5
Sex of household head (ref=Male)			
Female	1.181 (0.853-1.634)	1.064 (0.386-2.932)	1.102 (0.399-3.0
Age of household head (ref = 16-24)			
25-34	1.148 (0.717-1.837)	1.037 (0.548-1.963)	1.064 (0.558-2.0
35-44	**1.561 (0.970-2.513) ***	1.604 (0.813-3.164)	1.648 (0.829-3.2
45-54	1.275 (0.749-2.171)	1.198 (0.559-2.566)	1.30 (0.601-2.81
55-64	0.939 (0.467-1.888)	**1.544 (0.569-4.188)**	**1.531 (0.552-4.2**
65+	1.338 (0.691-2.589)	2.622 (0.762-9.018)	2.893 (0.807-10.
Education level of household head (ref = no education)			
Primary school	0.666 (0.185-2.392)	2.116 (0.197-22.753)	2.389 (0.211-27.
Secondary school	0.946 (0.268-3.333)	3.731 (0.355-39.261)	3.962 (0.359-43.
Higher	1.441 (0.409-5.077)	4.585 (0.433-48.596)	4.915 (0.443-54.
Employment status of household head (ref =self-employed)			
Employed full-time	**1.449 (1.109-1.894) *****	1.214 (0.767-1.921)	1.157 (0.727-1.8
Employed part-time	**1.470 (1.011-2.138) ** **	1.188 (0.680-2.075)	1.159 (0.661-2.0
Unemployed	0.815 (0.453-1.597)	**0.406 (0.156-1.056) ***	**0.417 (0.160-1.0**
Household Characteristics			
Household size (ref = 1 person)			
2-3 persons		0.950 (0.582-1.553)	0.964 (0.587-1.5
4-5 persons		1.239 (0.752-2.043)	1.230 (0.740-2.0
6+ persons		1.477 (0.849-2.569)	1.457 (0.834-2.5
Household type (ref =female-centred)			
Male-centred		0.752 (0.260-2,177)	0.753 (0.259-2.1

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Nuclear		1.062 (0.380-2.968)	1.081 (0.385-3.0
Extended		0.705 (0.214-2.319)	0.640 (0.193-2.1
Main source of household income (ref = formal wage work)			
Informal wage work		0.967 (0.594-1.575)	1.002 (0.613-1.6
Self-employment (informal)		**0.586 (0.318-1.083) ***	0.591 (0.320-1.0
Self-employment (formal)		0.907 (0.477-1.722)	0.871 (0.456-1.6
Total household income (>KES50,000)			
KES<= 10,000		**0.471 (0.234-0.948) ****	**0.477 (0.236-0.9**
KES 10,001-20,000		0.726 (0.405-1.300)	0.731 (0.406-1.3
KES 20,001-30,000		0.693 (0.381-1.260)	0.687 (0.376-1.2
KES 30,001-40,000		1.005 (0.474-2.133)	0.991 (0.463-2.1
KES 40,001-50,000		0.802 (0.352-1.828)	0.782 (0.335-1.8
Sends remittances (ref = no)			
Yes		1.161 (0.832-1.620)	1.140 (0.814-1.5
Household Shocks/Emergencies			
Experienced shock (ref = no)			
Yes			0.942 (0.405-2.1
Economic shocks (ref = no)			
Yes			1.192 (0.550-2.5
Social shocks (ref = no)			
Yes			1.014 (0.633-1.6
Biophysical shock (ref = no)			
Yes			0.668 (0.383-1.1

Legend: HH – Household; LPI – Lived Poverty Index; Net monthly income in Kenyan Shillings;
Significance level: **** P≤ 0.001.; *** P≤ 0.01.; **P≤ 0.05.; *P≤ 0.1.

Conclusions

The current literature suggests that informal food remitting from countryside to city in urbanizing Africa has several common characteristics. First, this phenomenon is an essentially transitional phase in the longer-term urbanization of the continent. As more and more people, especially the young, move out of the drudgery and limited opportunities of rural life and settle in urban areas, so their links with those left behind – especially the elderly – will eventually weaken and dissolve. Second, the phenomenon of food remitting is tied to and a direct consequence of rural to urban migration and needs to be understood as a strategy by divided or multi-nodal households to bolster migrant survival in the city. As one study argues, "migrants survive in the urban areas in part because of the food they receive from the rural areas" [40, p. 104]. Third, food remitting calls into question the traditional linear conception of rural-urban linkages as a one-way flow of migrants to the city and a one-way return flow of remittances. Instead, food remittances should be seen as part of an integrated system of urban-rural reciprocity in which food flows to the city to support the migrant and cash flows to the countryside once the migrant has a steady and reliable source of income. Finally, there is an assumption that (predominantly migrant) urban households experiencing high levels of poverty, precarious employment and food insecurity are more likely to need and to receive food remittances in order to meet their basic needs.

All four arguments are challenged by the survey findings reported for Nairobi in this study. In Kenya, far from being a transitory phenomenon on the road to full urbanization, linkages with the rural areas remain strong and resilient. One indication is that migrants of all ages (and

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therefore all lengths of urban residence) continue to receive food remittances from the countryside. Insofar as this is an indicator of resilient links between rural and urban areas and divided households, the findings provide additional support for the argument of previous Kenyan researchers that urban residents who have migrated to Nairobi maintain very strong rural links throughout their life. Second, food remittances in Kenya are not purelyy a migration-related phenomenon as conventional wisdom might suggest. As many as 54% of households with Nairobi-born heads of households had received food remittances in the previous year (compared with 52% of households with migrant heads). Third, the survey found no strong evidence for the phenomenon of urban-rural remittances reciprocity in that there was no significant relationship between a household's propensity to remit cash and its receipt of food remittances from rural areas. Finally, while food remitting has hitherto been associated with urban poverty, precarity and the struggle for survival, the Nairobi evidence suggests that better-off, higher-income households with household members in wage employment that are more likely to be receiving food remittances. Since these households generally have lower levels of food insecurity and spend a smaller portion of household income on food, food remittances in this context may be seen more as a way of supplementing and diversifying the household diet with fresh produce and also be more of an indicator of ongoing social ties with relatives in the countryside.

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