

Is there a “complementary feeding cultural core” in rural Kenya? Results from ethnographic research in five counties

Faith M. Thuita¹ | Gretel H. Pelto²  | Enock Musinguzi³ | Margaret Armar-Klemesu⁴

¹School of Public Health, University of Nairobi, Nairobi, Kenya

²Division of Nutritional Sciences, Cornell University, Ithaca, New York

³Global Alliance for Improved Nutrition, Dar es Salam, Tanzania

⁴Noguchi Memorial Institute for Medical Research, College of Health Sciences, University of Ghana, Legon, Ghana

Correspondence

Professor Gretel H. Pelto, Division of Nutritional Sciences, Cornell University, 129 Eastlake Road, Ithaca, NY 14850, USA.
Email: Gp32@cornell.edu

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Abstract

This investigation used data from focused ethnographic studies in five rural counties in Kenya to determine whether the concept of “special foods for infants and young children” exists in the different ethnic groups in these areas as an identifiable component of cultural beliefs and knowledge, as well as in practice, and whether they can be characterized as a “complementary feeding cultural core.” The concept of “cultural core foods” refers to the set of foods that have a central role in diets of a population and, as a consequence, also have significant social and emotional components. We used the ethnographic cognitive mapping technique of “free listing” and a qualitative 24-hr recall of infants and young children (IYC) intake, with probing, to obtain data on caregivers' beliefs and behaviours. The results show that an IYC cultural food core can be identified in all of the counties. A related finding that supports the argument for an “IYC cultural core” with respect to appropriate foods for IYC is the clear cognitive consensus within sites about its content, although in practice, food insecurity and food shortage constrain household abilities to put their beliefs into practice. We conclude that interventions to improve IYC feeding in rural Kenya that build on the concept of “IYC cultural core foods” will be congruent with basic cultural ideas about managing IYC feeding and could take advantage of this cultural feature.

KEYWORDS

application of ethnographic methods, behavior change communication, complementary feeding, core foods, cultural consensus, nutrition interventions

1 | INTRODUCTION

1.1 | Background

The purpose of this investigation was to determine whether the concept of “special foods for infants and young children” exists as an identifiable component of cultural beliefs and knowledge across ethnic groups in rural Kenya and, if it does, whether it is evident in infant and young child feeding (IYCF) feeding practices, specifically during the period of complementary feeding. Complementary feeding refers to

the period between 6 and 23 months of age when breast milk alone is not sufficient to meet children's nutrient requirements and they are not yet developmentally ready to consume all of the foods in the household diet. The foods that are given to infants and young children (IYC) during this period are defined as “complementary” to breast milk (or breast milk substitutes).

One can hypothesize that in nutrition interventions aimed at improving children's diets during the period of complementary feeding, the presence in the intervention communities of a pre-existing, well-defined cultural concept of “special foods for infants” would facilitate the success of the effort. The rationale for this proposition is that when this concept is already an integral part of caregivers' “knowledge structure of complementary feeding” (Monterrosa, Pelto,

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Frongillo, & Rasmussen, 2012), caregivers will be more receptive to an intervention that is directed to improving IYC nutrition through food-based dietary modifications.

In this paper, we examine caregivers' beliefs and knowledge concerning foods for IYC and explore relationships of IYC diets to household diets in five rural counties in Kenya (Vihiga, Kitui, Isiolo, Marsabit, and Turkana) where interventions to reduce stunting during the critical infant–early childhood period are a priority for nutrition and public health (Republic of Kenya, Ministry of Health, 2012; Ministry of Health). In our framing of the research, we draw on the theoretical concept of “core foods” and seek to determine whether there is an identifiable “complementary feeding cultural core” that is distinct from the core foods that comprise household diets.

1.2 | Theoretical considerations

The concept of core foods appears in both food policy and planning discussions and in academic research, where it has been used to describe several parameters of food and nutrition characteristics of populations. The latter include descriptions of food systems, monitoring food system changes over time, analyses to inform policy and programmes, analyses for evaluation of programmes, and as an aid to nutrition education planning (Burns, Sacks, & Gold, 2008; Thompson & Byers, 1994). In anthropology, the concept of core foods has been of theoretical interest for many decades (Linton, 1936; Pause & Bennett, 1943). Moreover, in their explorations of the cultural meanings of foods, anthropologists have often focused on the core foods in people's diets (e.g., Mintz & Schlettwein-Gsell, 2001). They have also employed this concept in applied research, where the objective is to inform policy and planning or education-related activities. For example, in the United States, the Committee on Food Habits, which was chaired by Margaret Mead and commissioned to provide guidance to the federal government during World War II, drew heavily on the concept of core foods (Committee on Food Habits, 1945).

The approach to “core” and “secondary core” foods in nutrition has been essentially *etic* in nature. By *etic*, we mean that it is a theoretical concept of the investigators, as contrasted with the concepts of the culture or social group that are the focus of study. *Emic* is a term used in anthropology to describe the cultural or “insider's perspective.” (Bennett & Thais, 1967). *Etic* analysis of core and secondary core food categories is concerned with identifying empirical content in specific populations, which are usually derived from quantitative dietary data or food supply data, without reference to cultural definitions or interpretations. Analytic methods for carrying out these analyses have been developed and tested (Fanelli & Stevenhagen, 1985; Taylor, Keim, & Gilmore, 2005). When investigators' interpretation of the results includes discussion of the social–psychological significance of core foods for the population of concern, this is usually imputed rather than directly investigated with data about the perceptions of members of the culture.

In contrast, an ethnographic investigation would seek to produce an *emic* picture from the perspective of the members of the cultural group (Harris, 2001). Often, the picture of “culture core” is derived from ethnographic interviewing and observation and does not rely on dietary consumption data, except as this is observed in the course

Key messages

- There is clear evidence that “food cultures” in rural Kenya contain a concept of appropriate foods for infants and young children that can be characterized as a “complementary feeding cultural core.”
- The ethnographic cognitive mapping technique referred to as “free listing” is an efficient and adequate technique to elicit evidence about “core foods” from a cultural perspective.
- Within cultural groups in rural Kenya, there is strong consensus about the specific content of their “complementary feeding cultural core.”

of fieldwork. However, as in nutrition studies, the interpretation of the social–psychological meaning of core foods is often imputed by the investigator rather than empirically studied. In some anthropological research, as in the present study, the investigation involves an explicit *emic* component, using techniques to systematically elicit data to obtain the “insiders perspective.”

The concept of core foods, with its various operational definitions, is generally employed to examine diet for one of the following concerns: (a) an entire society or ethnic group; (b) an epidemiologically defined subgroup (e.g., people with diabetes); (c) in households within a given society; and (d), in clinical use, at the level of an individual patient or client. In the latter situation, the aim of the analysis is to improve patient–provider communication of dietary advice in order to encourage dietary change that modifies the individual's core foods and shifts his or her consumption to a healthier diet. To date, there has been little exploration of the utility of core foods with respect to two other concerns: (a) research on determinants of intrahousehold food consumption and dietary patterns and (b) household management of IYC feeding.

Turning to diets of IYC, we begin with the question: “To what extent, in any given society, is there a clear delineation of ‘special foods for IYC’ ” (“weaning foods” in past nutritional discourse). Expanding on the concept of core foods, we can ask: “Is there an IYC cultural core?” Or, from a more nutritional orientation: “Is there a complementary feeding cultural core?” All societies have to deal with the fact that infants are not biologically equipped to consume adult diets, and all societies, from the earliest period of our evolution as a species, have had to develop techniques and strategies to feed their youngest members. These adaptations have included pre-mastication (Pelto, Zhang, & Habicht, 2010) as well as modifications in food preparation techniques, such as removing the child's portion before a dish is seasoned, removing bones before feeding, or mashing the child's food. Historically, beginning with the agricultural revolution, societal responses to meet the challenge of feeding IYC have included the creation of paps and gruels from staple grains (Dewey, 2013). In recent decades, industrially produced purees, strained foods, and instant cereals have become a dominant method to meet IYC feeding challenges especially in developed and increasingly in developing societies.

The concept of an “IYC complementary feeding cultural core” goes beyond behavioural adaptations and specific food products. We are asking: *Is this concept a component of a culture's organization of the beliefs and knowledge that comprise its cognitive models in the domain of food?* At this level, the question has the theoretical status anthropologists would assign to other cultural domain analyses, for example, about specific components of the “explanatory models of illness” (Kleinman, 1978). A fundamental assumption of nutrition professionals working in the area of improving maternal and child nutrition is that beliefs and knowledge affect feeding practices and responses to nutrition interventions. Although there are other factors that affect feeding practices, these beliefs and knowledge from a technical anthropological perspective comprise the content of what can be called “the food domain.” Behaviour change communication activities in nutrition interventions are designed to change some of the specific content (beliefs and knowledge) in this domain.

We can diagram the relationship of an IYC complementary feeding cultural core to a “societal cultural core” (which is observable at the household level as a “household core”) as a Venn diagram (Figure 1). The overlap can vary from highly overlapping circles to two, quite independent domains. In “nonoverlapping societies,” IYC diets in the first year of life are comprised primarily of special foods that are not shared with the family. This is the situation in some countries, such as the United States, where commercially produced “baby foods” predominate in IYC diets. At the other extreme are societies in which there are very few special foods or preparations for infants.

To address the broad question—“Is there a complementary feeding cultural core in rural Kenya?”—we identified four specific questions:

1. Is there consensus about what foods are fed to infants and young children?
2. Do infants and young children receive foods that are specially purchased and/or prepared for them?
3. Are specially prepared foods shared with other members of the household?
4. Are there any foods prepared for household consumption that are not shared with IYC?

In addition to these questions, the closely related topics of what proportion of IYC diets are composed of complementary feeding cultural core foods (if any), as distinct from household foods, and the process

of integration of IYC into household diet, lie outside the scope of this paper and are not addressed here. To examine the four questions, we draw from the database of ethnographic and dietary information that was generated in a multisite study in Kenya, which was part of a multidisciplinary research effort to produce a landscape analysis that could be used to inform the development of interventions to improve nutrition of children and women (Pelto & Thuita, 2016; Tumilowicz, McClafferty, Neufeld, Hotz, & Pelto, 2015).

2 | METHODS

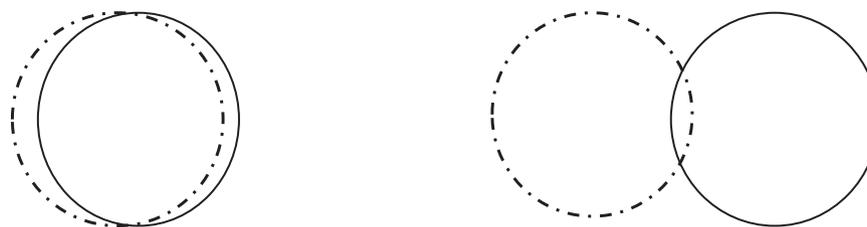
2.1 | Study locations, design, and samples

Between 2012 and 2014, studies were conducted in five counties in Kenya: Vihiga and Kitui, and in the arid and semi-arid areas in the North and North Eastern regions of the country: Isiolo, Marsabit, and Turkana. In each county, the fieldwork was conducted in two different rural areas, which were selected to represent different ecological conditions.

The studies in the five counties used a common framework and a common set of research protocols from the Focused Ethnography Studies Manual on Infant and Young Child Feeding: (hereafter referred to as FES; Pelto & Armar-Klemesu, 2014). The FES manual was developed under the auspices of the Global Alliance for Improved Nutrition (GAIN) to support a range of implementation research topics for nutrition interventions (Pelto, Armar-Klemesu, Siekmann, & Schofield, 2012).

Following the FES manual, the study design entailed a two-phase study in which key informants were interviewed in Phase I to obtain basic information on IYCF. Phase II was conducted with caregiver-respondents with children 6–23 months to verify and expand the information obtained in Phase I.

Prior to selecting the samples of key informants and caregiver-respondents, a community census was conducted in each of the research locations. This census was conducted by the research teams with the help of local community health care workers. The purpose of the census was to identify households with children aged 6–23 months. Key informants for Phase I and caregiver-respondents for Phase II were selected randomly from these local census reports. The procedure entailed identifying households in predetermined age subcategories of IYC aged 6–23 months (6–8, 9–11, 12–17, and



Solid line = Household Cultural Food Core

Dashed line = Complementary Feeding Cultural Core

FIGURE 1 Relationship of household cultural food core to complementary feeding cultural core

18–23 months) and then a second iteration within each category by household living standard indicators so that the samples would include representation of social economic status, ranging from very poor to moderately poor. During recruiting of households, as each age/socio-economic status (SES) cell was filled, using a random numbers table within categories to select households to visit, that cell was “closed” to further recruitment. In Phase I, the key informants, who were all mothers of children 6–23 months, were selected in the first round of recruitment. Before beginning Phase II, the larger sample of caregiver-respondents is recruited, using the same census database.

In each county, a total of eight to 12 key informants and 32 to 36 caregiver respondents were recruited, except in Isiolo County where greater ethnic diversity required a larger sample of 48 caregiver-respondents.

Local community health workers facilitated introduction to households but were not present for the interviews. Apart from households in which the primary caregiver was absent on a long-term basis, and thus not available to be interviewed, all of the women we approached agreed to participate in the study. Following common procedure in contemporary discourse, we refer to all of them as caregivers rather than mothers. In fact, however, all of the participants were the mothers of the IYC in the sample households.

In each county, the interviewers were educated women, who were extensively trained in qualitative interviewing techniques prior to undertaking the interviews. They were usually individuals who had previously worked with the senior research staff. All interviews were conducted in the local language, and written consent was obtained from all respondents. Electronic tablets and digital recorders were used to capture information, which was stored in the Open Data Software Kit. After transcribing, the data were uploaded onto a web-based platform by a team of recorders who were specially trained by the study team in use of the tablets and the ODK software.

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2.2 | Data collection

2.2.1 | Methods for obtaining emic perspectives on etic concepts

A major challenge in ethnography is collecting data to address etic questions and concepts without imposing investigators' perspectives. Care in the phrasing of questions and the use of techniques that minimize imposing investigators' implicit perspectives on answers are essential to obtain respondents' emic views. To capture emic views, we used the cognitive mapping technique of free listing and a 24-hr qualitative dietary recall, accompanied by deep probing.

To examine Question 1, we interviewed key informants, using the “free listing technique” to derive an inventory of the foods they thought are given to IYC in their community. This technique is a cognitive mapping procedure that is employed to explore cultural domains (Romney & Weller, 1988) as well as to assess the degree of cultural consensus (Borgatti & Halgin, 2013). We opened the free listing exercise with a neutral question: “I would like to know about the

kinds of foods that families normally give to their babies when they are about 6–8 months old and are starting to eat something in addition to breastmilk.” This was followed by questions concerning foods people give for children 9–11, 12–18, and 18–24 months. The free listing exercise was administered only to key informants.

To address the emic aspects of Questions 2–4, we used the narrative transcripts from the Phase II interviews with caregiver-respondents, particularly the comments they spontaneously offered in connection with providing 24-hour dietary recalls for their IYC and 7-day household food recalls.

2.2.2 | Method for obtaining data on what children and their households are consuming

To obtain data on what IYC are fed, we asked respondents to describe everything that had been fed to their child in the previous day. This was a qualitative 24-hr dietary recall, which could be used to construct a composite picture of IYC dietary patterns. We then shifted to household diet, asking respondents to list the foods (often dishes composed of a number of food items) the family had eaten in the last week. This was followed by a query about whether there were any foods in the family list they had not fed to their IYC.

2.3 | Data analysis procedures

2.3.1 | Analysis of the free listing data to assess IYC cultural core

Various approaches have been used to analyse a corpus of free listing responses (Weller, 2007). As the number of key informants in each site is relatively small and each site was analysed separately, it was not appropriate to use the statistical methods that are commonly employed to derive a measure of “cultural consensus”—the amount of agreement among the respondents about what items constitute the “domain” of concern (Borgatti & Halgin, 2013). Consequently, we decided, a priori, that an individual food item could be regarded as a member of the domain if it was salient enough to be mentioned by at least one third of the key informants. We used a simple tabulation procedure to establish the cut-off points for “salience.” In two of the counties (Kitui and Vihiga), where the key informant samples were smaller, we raised the requirement to 50% of the sample.

2.3.2 | Analysis of narrative text

All of the interviews were digitally recorded, then transcribed and translated into English, and subsequently uploaded onto a web-based platform (Form Hub). Field managers and investigators routinely reviewed translations. Coding for thematic content was conducted following usual procedures for qualitative narrative data (Bernard, 2011; Strauss, 1987), including revising and expanding codes as the process proceeded. After coding, detailed content analysis proceeded using Atlati software. Double coding was performed initially to identify areas of disagreement in coding and thereafter on subsamples to check for coder reliability. Inter-coder reliability was so high that no statistical tests were necessary.

2.3.3 | Analysis of dietary data

Data from the 24-hr recalls and 7-day food records were tabulated from spreadsheets. These data were used to determine whether the cultural perspectives elicited from key informants and caregiver-respondents are reflected in feeding behaviours. One would not expect complete symmetry between cultural expectations and behaviour because other factors, including resources to acquire foods, play a central role in decisions about what to feed. On the other hand, if there is no relationship between the elicited concepts concerning what IYC are fed and actual behaviours, the validity of the former would be seriously called into question.

3 | RESULTS

1. Is there consensus about what foods are fed to infants and young children?

To answer this question, we examined key informants' responses to our opening questions on what foods are given to IYC. In all five counties, all of the key informants readily answered the questions; no one voiced hesitation or asked for clarification. The results in Table 1 are not broken out by age subgroups because the responses for each age group were essentially the same. Table 2 provides definitions of these foods. The columns in Table 1 show the number of foods that met our consensus criterion, which ranged from 11 or 12 (Vihiga, Isiolo, and Kitui) to seven or eight (Marsabit and Turkana). In all of the counties, five foods (porridge, milk, Irish potatoes, rice, and ugali)

TABLE 1 Foods given to infants and young children according to key informants

Food	County				
	Vihiga	Kitui	Marsabit	Turkana	Isiolo
Porridge	X	X	X	X	X
Milk	X	X	X	X	X
Irish potatoes	X	X	X	X	X
Rice	X	X	X	X	X
Ugali	X	X	X	X	X
Tea	X	-	X	X	X
Green bananas	X	X	-	-	X
Eggs		X			X
Anjera				X	X
Avocado		X			X
Beans	X	X			
Pasta			X		
Sweet potatoes	X				
Green grams	X				
Cassava	X				
Bananas					X
Tomato		X			
Pawpaw		X			
Orange		X			
Cabbage			X		

Note. X indicates that the criterion for consensus was met.

TABLE 2 Definition/description of foods commonly listed by key informants

Food	Definition/description
Animal milk	Milk from cows, camel, and/or goats, usually fresh but also powdered. Source varies between counties.
Tea/milk tea	Always includes some tea leaves, but content varies from tea prepared only with water to milk flavoured with boiled tea leaves, often includes sugar, regardless of amount of milk.
Porridge	Includes single and multigrain, branded infant cereals, locally milled, purchased flours, "uji" (traditional porridge made from unrefined maize flour)
Ugali	A stiff maize porridge made by mixing maize meal (maize flour) with boiling water.
Rice	Refined white rice, boiled.
Irish potato	White potatoes, which are usually boiled in salted water and then mashed. They might be combined with other foods, including rice or green banana. For older IYC, they may be fried with tomato and/or onion.
Green banana	Prepared in the same forms as Irish potato.
Anjera	A pancake-like bread made from a fermented dough

reached consensus as foods for IYC. Tea is listed in four of the five and green bananas in three of the five. Four foods met the consensus criterion in two counties (eggs, *anjera*, avocado, and beans), whereas the last nine foods in the table are consensus foods in only one county.

2. Do infants and young children in the five counties receive foods that are specially purchased and/or prepared for them?

The answer to this question comes from the caregiver respondent data, the 24-hr recalls, and questions about how each of the foods in the recalls were acquired and prepared. In all five counties, the caregiver responses indicate that some foods, particularly milk and porridge flours, are specially purchased and prepared. In every county, a few caregivers identified the porridge in their 24-hr recalls by their commercial brand names. Some used the generic name "*wimbi*," the Swahili word for bulrush (pearl) millet. Invariably, these porridge flours are purchased. Many caregivers prepare their IYC porridge from mixed grain flours. These mixed porridges may contain some home-produced grain but are typically composed primarily of purchased ingredients, including soy. The ingredients may be purchased either as whole grains or as preground flours. If they are purchased as whole grains, they are taken to local mills to be ground. Apart from milk and porridge, the extent to which other family members consume IYC core foods is heavily influenced by financial factors. In periods when families have more money to purchase these foods, they do not have to limit purchases to the small amounts required to feed their IYC. However, during the more difficult periods of the year, when cash to buy food is extremely scarce, these foods are only given to IYC as explained by a caregiver in Vihiga: "Lately the cost of food is very high. Some foods such as millet and rice are expensive yet we need to give them to children. It is important for one to sacrifice and give children the best." As the seasonal cash crisis deepens, one of the most troubling problems for caregivers, with respect to feeding their IYC, is their inability to give them the foods that comprise the IYC cultural core (Pelto & Armar-Klemesu, 2014).

3. Are specially prepared foods shared with other members of the household?

This question is partially answered in the previous paragraph but can be further examined with data on household food consumption. We used data from the 7-day household food recalls, in which we asked for a list of foods the household had consumed in the past 7 days, including foods that were fed to IYC. Some respondents listed all of the foods, often noting which foods were specifically for IYC. However, other caregivers excluded the special IYC foods from their weekly household food list, in spite of our request to include them and in spite of the fact that these foods had actually appeared in the IYC 24-hr recall and thus would have qualified for inclusion in the household list. The latter response can be interpreted as further evidence that the specially prepared and purchased foods are often not shared and presumably are not thought of as household foods. Taken together, these two different aspects of caregivers' responses to the household food list request (either spontaneously pointing out foods that are not shared or leaving them off the household food record) suggest that the foods caregivers make specially for their IYC are not usually shared with the family.

4. Are there any foods prepared for household consumption that are not shared with IYC?

It is necessary to make a distinction between sharing IYC foods with the family and sharing family foods with an IYC. When we elicited the 7-day household food record, we did not ask respondents which foods, if any, on their household food list were not given to their IYC. However, as the household record covers the previous 7 days before the interview and the IYC record is for the last 24 hours, a comparison of the two records provides data to help answer this question, even though some of the household reports were self-censored by the respondents, as explained above. Table 3 shows the results, summarized for each county.

TABLE 3 Household foods that do not appear in IYC food records

Vihiga	Kitui	Marsabit	Isiolo	Turkana
Githeri	Githeri	Black tea	Githeri	Sorghum with beans
Chapatti	Chapatti	Fermented Goat milk	Kale + tomatoes	Rice with beans
Sweet potatoes	Sweet potatoes	Chappati	Rice + beans	Ugali with meat + kunde
Mangoes	Mangoes	Ashir	Bread	Ugali + cabbage and meat
Arrowroot	Mandazi	Qita	Kunde	Ugali + cabbage + meat + potatoes
Cassava	Cassava	Rice + meat + potatoes	Cabbage stew	Ugali + cabbage and potatoes
Guava	Muswa	Rice + meat stew	Beans + tomatoes	Ugali + kales
Pawpaw	Pancakes	Sorghum	Chapatti	Ugali + yellow peas
Chicken	Goat, mutton		Sorghum tomatoes	Ugali + green grams
	Chicken		Kale stew	Ugali + mrenda (leafy green)
	Bread		Fermented milk	Chappati + meat
	Oranges		Mwithazi	Chapatti + beans
	Pineapple		Spaghetti + meat	"Meat"
			Ugali with meat	
			Chapatti with meat	
			Doughnuts	

The recorded interview narratives often contain additional information about nonsharing because some caregivers spontaneously mentioned and described their reasons for nonsharing when they listed the foods. This occurred in all of the counties. To illustrate: in Vihiga County caregivers who prepared roasted maize and *Githeri* (made with whole maize and a legume, mainly beans) often said they did not give this dish to their IYC ("When the child eats *Githeri* he diarrheas"; "she doesn't like it, and I see it bad for her"). Similarly, cassava and guava were not shared with the IYC by any of the caregivers who prepared them and are not viewed as appropriate foods for IYC. ("I do not give the baby cassava because he is still small and whenever he eats it chokes him.") Half of the mothers in Vihiga who prepared maize porridge for the family explicitly stated that they did not give it to their IYC. Similar statements occurred in the narratives in the other counties.

4 | DISCUSSION

There is solid evidence for consensus on the existence of a complementary feeding cultural core in the five counties, as well as consensus on the content of several of the foods in this core. At the same time, we see that the full composition of the IYC core, and the number of foods they contain, varies between counties. These latter findings could be expected given the differences in ethnic composition, in diversity of cultural traditions, and in differences in food systems in the different areas. These differences underscore the fact that in planning nutrition interventions, especially those targeted to improving IYCF practices, it is important to obtain sufficient information from the areas in which the projects will be located to ensure that they are appropriate for local cultural, social, and environmental conditions.

In addition to the key informants' responses about the foods that are fed to IYC, other experiences in conducting the study provide further support for the conclusion that there is an IYC cultural core

in all of the counties. None of the key informants expressed discomfort about the opening question; they answered readily and easily, indicating that the question “made sense” from their various cultures and emic perspectives. It tapped into a legitimate cultural concept. Even the response, “I’ve already told you,” when we repeated our question for older subgroups of the 6- to 23-month complementary feeding period reinforces the conclusion that this cultural feature is so clear and so obvious for the key informants they felt it did not need to be repeated. These expressions of impatience also indicate that the core does not apply only to younger infants but extends to children in the full age range of complementary feeding.

With respect to the question of whether the IYC core foods are specially purchased and/or specially prepared, the answer is also generally affirmative. With the exceptions of *ugali* in households that grow crops to meet a portion of their food needs, and milk production in pastoralist households, in normal circumstances, the majority of foods that make up the IYC cultural core is purchased. This pattern changes in the dry season when all IYC foods, including milk and the ingredients for making *ugali*, are purchased.

As noted above, it is important to make a distinction between sharing IYC foods with the family and sharing family foods with IYC. The diets of children in the five counties are not composed exclusively of specially purchased and prepared foods. Caregivers value these foods, but their children’s diets are, for the most part, not restricted to the core foods. The 24-hr recall data for IYC unambiguously show that IYC diets are not limited to specially purchased and prepared foods. Some children begin to receive some household foods at the time complementary feeding begins. Their introduction to household diets appears to be a gradual process. Children generally do not receive household foods that are judged to be inappropriate for them, except in situations of severe food shortage. Moreover, household economic circumstances and fluctuations in those circumstances play a role in the degree to which caregivers are able to feed core IYC foods.

The Venn diagrams depicted in Figure 1 illustrate two extremes in the relationship of an IYC cultural core to the societal core, which is manifest in the diets that households consume. On the left side of the figure is the extreme case in which IYC are consuming only special complementary foods. On the right side, the Venn diagram depicts a society in which there are no special complementary foods and feeding of IYC during this period is achieved by minor modifications to household foods that make them easier for IYC to eat. Although these two diagrams illustrate theoretical conditions, the diagram on the left approximately characterizes the situation in some wealthy countries today. As noted in Section 1, the diagram on the right characterizes the historical situation in preagricultural cultures but can also be found, we expect, in some isolated and poor communities today.

Returning to the Venn diagrams in Figure 1, the results in the five counties suggest that their position, relative to the two extremes, is somewhere in the middle. The evidence to support the conclusion that there is cultural recognition of a complementary feeding cultural core, distinct from the household core, is strong. At the same time, we find that children begin the process of integration into household food from an early age.

With respect to Figure 1, the relative position of any given community is of more than academic interest. If the presence in a culture of the concept of “complementary foods” or “special foods and food preparations for IYC” influences people’s responses to IYC-directed nutrition interventions, for purposes of planning complementary feeding interventions, it would be helpful to know generally where they fall on the spectrum.

In conclusion, in rural Kenya, IYC nutrition interventions that are designed to build on the concept of a complementary feeding cultural core will not conflict with basic cultural ideas about managing feeding in infancy. However, programme planners working in these areas in Kenya cannot assume that this recognition is sufficient to ensure acceptance of specific interventions and specific advice. All of the principles of good intervention planning still apply. At the same time, the findings also suggest that behaviour change communication activities that have the goal of introducing the basic concept of “special needs of infants and young children” are probably not necessary in these regions of Kenya. The extent to which this is true in other low- and middle-income countries requires further examination.

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CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

CONTRIBUTIONS

GP and FT participated in all aspects of preparation of the manuscript, from research design and field research management, through data analysis to drafting the paper. EN participated in research design, management of the field research, and data analysis. MA-K was responsible for setting up and managing field research in two of the counties. She conducted data analysis of data from these counties and drafted the reports from which the analysis and discussion in this paper were drawn.

ORCID

Gretel H. Pelto  <http://orcid.org/0000-0001-9271-8041>

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