

Market-Based Sales of Nutritional Products in Low-Income Settings

Acceptability and feasibility from consumer focus groups in Haiti

Adrienne Clermont

Research Associate, Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

Introduction

Lipid-based nutrient supplements (LNS) have grown in popularity in recent years as a promising intervention to improve the nutritional outcomes of children in low-income contexts where the local diet is lacking in key macro- and micronutrients. LNS products provide both energy and micronutrients, and have been shown to improve linear growth when consumed by young children.^{1,2}

Such products are currently distributed primarily through humanitarian assistance programs, whose scope and duration are limited by the availability of donor funding. For LNS manufacturers, the fluctuations and unpredictability of a donor-driven funding stream have led to exploration of other potential revenue sources. In particular, there is growing interest in selling LNS products through market mechanisms, directly to consumers, in a financially sustainable manner – that is, at a minimum, recouping all production and distribution costs through sales revenue. This would also allow for greater reach and penetration than current programs, potentially leading to a more significant nutritional impact at a population level.

This article examines the case of Haiti, a country with intensely high levels of poverty and food insecurity.³ If market-based sales of LNS were to prove viable in Haiti, this would not only provide a new and sustainable revenue stream for local LNS producers such as Meds & Food for Kids (MFK), based in Cap-Haitien, Haiti, but would also provide an affordable source of high-quality nutrition for low-income Haitians and an alternative to existing snack foods of poor nutritional value.

Study methodology

As part of a broader project carried out by Edesia (a US-based LNS producer) and MFK to evaluate the commercial feasibility of selling fortified, peanut-based LNS directly to consumers in Haiti, we conducted focus groups to better understand food purchasing and consumption behaviors among low- and middle-income Haitians. The primary objectives were to understand whether market-based sales of LNS would be affordable, appealing, and culturally appropriate. Formative research of this type is crucially important;^{4,5} if any of these factors are found to be lacking, sales will not be viable.

“There is growing interest in selling LNS products directly to consumers”

Field research was carried out in October 2014, with a total of 19 focus groups conducted, including 11 with women (pregnant women and female caregivers of young children), seven with school-age children, and one with male caregivers. Data collection took place in four cities across Haiti – Port-au-Prince (seven groups), Gonaives (four groups), Cap-Haitien (six groups), and Mirebalais (two groups) – and included urban, peri-urban, and rural settings. Focus groups were led in Creole and translated into English based on audio recordings. Data were uploaded into Saturate (www.saturateapp.com) to code dominant themes from the focus groups and carry out analysis.

The food landscape in Haiti

If there is one consideration that rises above all others in the idealized Haitian diet, it is a veneration for local agricultural products, called “natural foods” in Creole. Focus groups unanimously cited local foods as the best source of vitamins, partic-



© Adrienne Clermont

Foods including sardines, spaghetti, rice, and crackers for sale in Cap-Haitien

ularly natural juices, fruits and vegetables, Haitian fish, Haitian eggs, and Haitian chicken. One participant stated that if she eats one Haitian egg in the morning, she feels full of vitamins and energy, but even three or four imported eggs cannot compare to this. This food category can be contrasted both with imported agricultural products and with processed or packaged foods (made in Haiti and abroad).

Natural and man-made disasters have taken heavy tolls on Haitian agriculture, which, combined with a continuing influx of subsidized agricultural products from the USA and other countries, has made Haiti dependent on imports for more than 50% of its food – including up to 80% of its rice supply, one of the most commonly consumed staples.³ Despite typically being sold at higher prices, Haitian products are clearly preferred (at least in the ideal):

.....
“Even though we are eating imported white rice, it is bad and it does not have any vitamins. Local rice has lots of vitamins, but we still buy the imported kind. There is a big difference when you cook it, you can add vegetables and bean sauce

to the imported rice to make it look pretty and healthy, but one hour after eating it you will feel even worse. But with our rice, if you eat it with vegetables, you will feel strong.”
(Focus Group #16, female, rural Cap-Haitien)

.....
 Packaged foods are mainly imported from abroad and are thought to be highly processed and lacking in nutrients; however, given their low prices and ubiquity among street vendors, they are an important part of many people’s diets. Frequently purchased packaged foods include spaghetti, *bonbon sel* (crackers), *bonbon dous* (cookies), cornflakes, condensed milk, powdered milk, tomato paste, soft processed cheese, sardines, hot dogs, canned corn and beans, and canned fruit. Packaged beverages include artificial juice such as Tampico and soft drinks and energy drinks such as Coca-Cola and Malta. Despite being able to name a variety of packaged products, participants had a high level suspicion of these products. Most participants stated that they are not healthy because they are not “natural,” and that the unknown chemical products and preservatives in them can make people sick. Im-

ported products are looked on with mistrust, particularly those made in the Dominican Republic, but Haitian food processors are not trusted either, due to the lack of regulations in the country.

“I do not buy any packaged or processed food to give my child because I visited a doctor, and he told me that a banana has more vitamins than a yogurt. A lot of those things that you see in the supermarket, you don’t even know what’s in them. Some of the foods are meant to make a child fat and some are meant to make a child skinny. You don’t know which are good for your child.”

(Focus Group #4, female, peri-urban Port-au-Prince)

Because of the extreme poverty of many Haitian consumers, there is a constant tension between the ideal of (more expensive) “natural foods” and the reality of (cheaper) imported and packaged foods. The need to fill one’s belly or provide a quick snack for hungry children can often trump what is known to be the healthiest option. Participants acknowledged this tradeoff,

with one saying: “Those types of [processed/imported] food will fill you up, but they are not rich in nutrition.”

Facing competitors in the snack food market

Due to its small size (participants were shown sachets ranging from 20 g to 75 g), the LNS product was perceived to fall into the category of snack foods, which has important implications for understanding the most relevant competitor products and establishing a viable price point. In particular, it is impossible not to compare LNS to *mamba*, the locally made peanut butter that is ubiquitous among street vendors and sold along with bread for just five to 10 gourdes (US\$0.11–0.21).

The concept of eating LNS directly from the sachet is not comparable to other snack foods on the Haitian market, but it did not seem to present a significant problem during the focus groups. Most participants said they would be willing to eat directly from the sachet, and that this would be particularly appealing to children (“that’s the fun part for the kids – it’s like a lollipop”). But the majority of participants said they would be more likely to squeeze the contents of the sachet onto bread,



© Adrienne Clermont

A food vendor’s stand outside a health clinic in a slum area of Gonaives; snack foods for sale include cookies, crackers, assorted candies, popcorn, fried dough, cornflakes, bananas, bread, peanut butter, and gum

casav (manioc flour bread), or *bonbon sel*, the way that Haitian peanut butter is traditionally consumed.

Product acceptability

The focus groups included a taste test component of a prototype LNS product (made in the USA by Edesia). The vast majority of reactions to the product were positive. Participants immediately recognized that the product was not Haitian-made peanut butter, both by taste (“it’s weaker”) and by color (“it’s too pale”) – but they said that this was not a problem, particularly once they were told that the product contained milk, soy, vitamins, and other ingredients along with peanuts. Many participants said the taste was “delicious,” and that children especially would love it because of its sweetness. Virtually all participating children and about half of adults finished the entire sachet of product, rather than just taking one taste.

Participants raised concerns that small children should not consume too much of the product because it could make them sick or give them diarrhea. There was some confusion about the product due to its similarity to Plumpy’Nut®, which is specifically intended for children with acute malnutrition (and which participants in 10 out of 19 focus groups said they had seen before, either in clinics or for resale in markets); caregivers were concerned that healthy children should not be eating the product as a result.

Product pricing

There was a general consensus that the product must be sold for a low price that is competitive with other snack foods on the market. Participants stated that if the product were priced at five gourdes, “people would rush to buy it” and “kids will always ask you for five gourdes to buy it,” but at a significantly higher price sales would be slow and people would be reluctant to try the product. Over and over, participants displayed extreme price sensitivity as consumers:

.....
“If you say to someone, this costs five gourdes, and it’s good for all these things, at least they will try it once, because it’s only five gourdes. Now when you say it costs two dollars [10 gourdes], they will look at this little thing in your hand and they will say, ‘I could buy bread and peanut butter for only five gourdes and still buy something else with the rest.’”
(Focus Group #13, female, urban Cap-Haitien)

Multiple groups mentioned that the sachets of peanut butter they had seen on sale in the market (presumed to be Plumpy’Nut®, which is 92 g in size) were typically sold at a price of two for 15 gourdes – so it would be difficult to sell the new product for significantly more. In addition, one can typically buy a full meal (such as a bowl of spaghetti) for 25 gourdes, so a

small sachet needs to fall within the “snack” price category rather than the “meal” price category in order for consumers to feel it is a worthwhile purchase.

.....
“The presence of vitamins and minerals in the product was highly valued by all focus group participants”

Conclusion

The findings outlined above have several important implications for assessing the viability of market-based LNS sales in Haiti. First, consumers’ preference for Haitian-grown “natural” foods is extremely strong and can command a price premium. As a local LNS producer, MFK can capitalize on this by incorporating Haitian-grown peanuts into their production (something that is already underway at MFK⁶) and making this a prominent part of marketing campaigns. Second, the presence of vitamins and minerals in the product was highly valued by all focus group participants, and would set LNS apart from other packaged snack foods in Haiti that are largely devoid of nutrition.

Third, although this peanut-based product appears to be highly acceptable among Haitian consumers (particularly children), price would be a very significant limiting factor. The extreme price sensitivity observed among Haitian consumers is typical of low-income consumers, particularly for preventive health and nutrition products.⁷ Existing snack foods such as cookies, crackers, and chips retail for between five and 10 gourdes, and although these lack the nutritional benefits of LNS, they are clearly perceived as the competitor products that consumers will compare it to. In addition, *pain mamba* (traditional Haitian peanut butter with bread) is already available everywhere and as a single purchase (whereas LNS and bread would have to be bought separately). Haitian consumers are unlikely to be willing to pay a price premium over other snacks, unless a very compelling case can be made for the superior nutritional value of LNS through intensive marketing communications.^{7,8}

Limitations

There are several limitations to the data gathered through the focus groups and presented here. First, focus group participants were recruited through a convenience sampling method; as a result, the focus groups do not represent a random sample of the Haitian population as a whole. However, all participants were part of the “popular class” (low- to middle-income) of Haiti. Second, there is some evidence that social desirability bias played a role in some participants’ responses. The desire to please the



© Adrienne Clermont

Shelling and sorting peanuts for LNS production at MFK's facility in Cap-Haitien

research team (particularly given the presence of a foreigner observing the focus groups) may have resulted in overly positive reactions to the prototype product. Finally, the focus group findings rely on self-reported information about behaviors; we were unable to observe actual food purchasing or feeding behaviors in order to corroborate this information.

The way forward

This study comes at an important time, as both local producers such as MFK and “offshore” producers such as Edesia seek to diversify their product offerings and customer base in order to increase operational sustainability. At first glance, the results of this study are discouraging. The price point effectively set by Haitian consumers is very unlikely to be financially feasible. Even if a small quantity of LNS (e.g., 20–30 g) can be manufactured for a cost of less than 10 gourdes, it would be extremely difficult to remain at this price point when markups along the distribution chain are taken into account. Although the manufacturer may be a non-profit organization and thus simply seeking to break even on production costs, Haitian distributors and vendors – the latter often low-income women themselves – would need to be making a profit to be willing to take part in sales.

However, other aspects of the findings are more encouraging. The focus groups indicate that although price will be a significant constraining factor in consumers’ purchasing decisions, peanut-based LNS products are highly acceptable and could fill an important gap for “healthy snack foods” on the Haitian market. This is a promising finding for local and international LNS manufacturers, and for all actors in the humanitarian sector as they seek new ways to increase the scale and sustainability of nutritional interventions.

“Peanut-based LNS products are highly acceptable and could fill an important gap for ‘healthy snack foods’ on the Haitian market”

Acknowledgements

The author would like to thank Nicole Henretty, Parul Christian, Patricia Wolff, Lauren Plummer, Robert Johnson, Almathe Jean, and Timothy Schwartz for their contributions to this project. The partner organizations involved were Edesia Inc., American Peanut Council, Meds & Food for Kids, Acceso Peanut Enterprise Corporation, and the Socio-Digital Research Group. Funding was provided by the US Department of Agriculture. A longer version of the focus group report on which this article is based is available from the author upon request.

.....
Correspondence: Adrienne Clermont,
GDEC Program, 615 N. Wolfe St., Room W5508,
Baltimore, MD 21205 **Email:** *aclermo2@jhu.edu*

References

01. Adu-Afarwuah S, Lartey A, Brown KH et al. Randomized comparison of 3 types of micronutrient supplements for home fortification of complementary foods in Ghana: effects on growth and motor development. *Am J Clin Nutr* 2007;86(2):412–20.
02. Phuka JC, Maleta K, Thakwalakwa C et al. Postintervention growth of Malawian children who received 12-mo dietary complementation with a lipid-based nutrient supplement or maize-soy flour. *Am J Clin Nutr* 2009;89(1):382–90.
03. World Food Programme. Haiti 2010–2013: Working Toward Sustainable Solutions [Internet]. Internet: www.wfp.org/sites/default/files/Haiti%202010-2013%20Report_English.pdf (accessed March 4, 2017).
04. Kodish S, Monterrosa E. Formative Research at the Forefront: Understanding Context and Behavior to Design Culturally Appropriate Nutrition Interventions. *Sight and Life Magazine* 2013;27(2):18–22.
05. Pelto GH, Armar-Klemesu M, Siekmann J et al. The focused ethnographic study “assessing the behavioral and local market environment for improving the diets of infants and young children 6 to 23 months old” and its use in three countries. *Matern Child Nutr* 2013;9(1):35–46.
06. Meds & Food for Kids. 2013 Annual Report. Internet: <https://mfkhaiti.org/wp-content/uploads/2015/02/Annual-Report-2013.pdf> (accessed March 4, 2017).
07. Bahl K, Toro E, Qureshi C et al. Nutrition for a Better Tomorrow: Scaling Up Delivery of Micronutrient Powders for Infants and Young Children. Internet: <http://r4d.org/sites/resultsfordevelopment.org/files/resources/Nutrition-for-a-Better-Tomorrow-Full-Report.pdf> (accessed March 4, 2017).
08. Kayser O, Klarsfeld L, Brossard S. Marketing Nutrition for the Base of the Pyramid. Internet: www.hystra.com/s/Hystra_Access-to-Nutrition-4pp-Web-99vf.pdf (accessed March 4, 2017).