

Receptiveness of Supplementary Feeding Program Beneficiary Mothers | Malawi, Africa

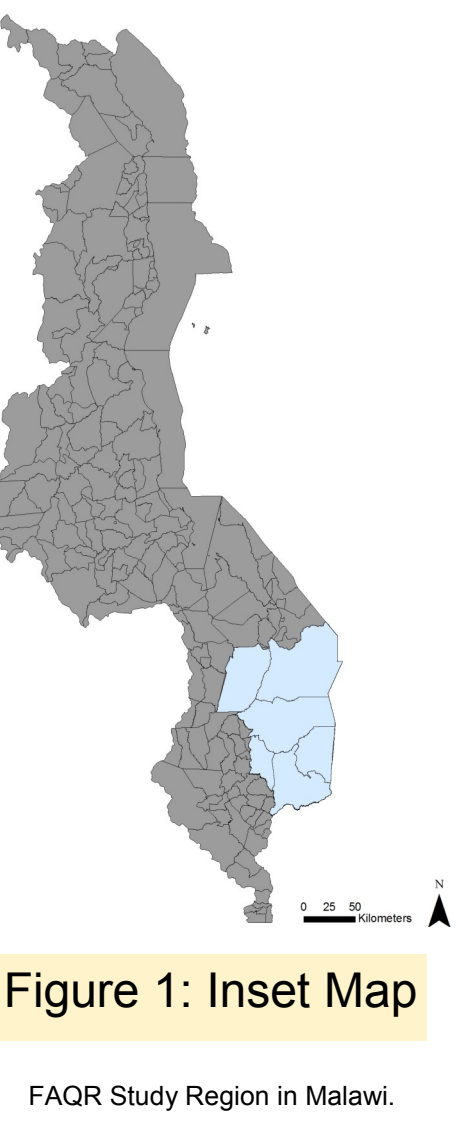


Figure 1: Inset Map
FAQR Study Region in Malawi.

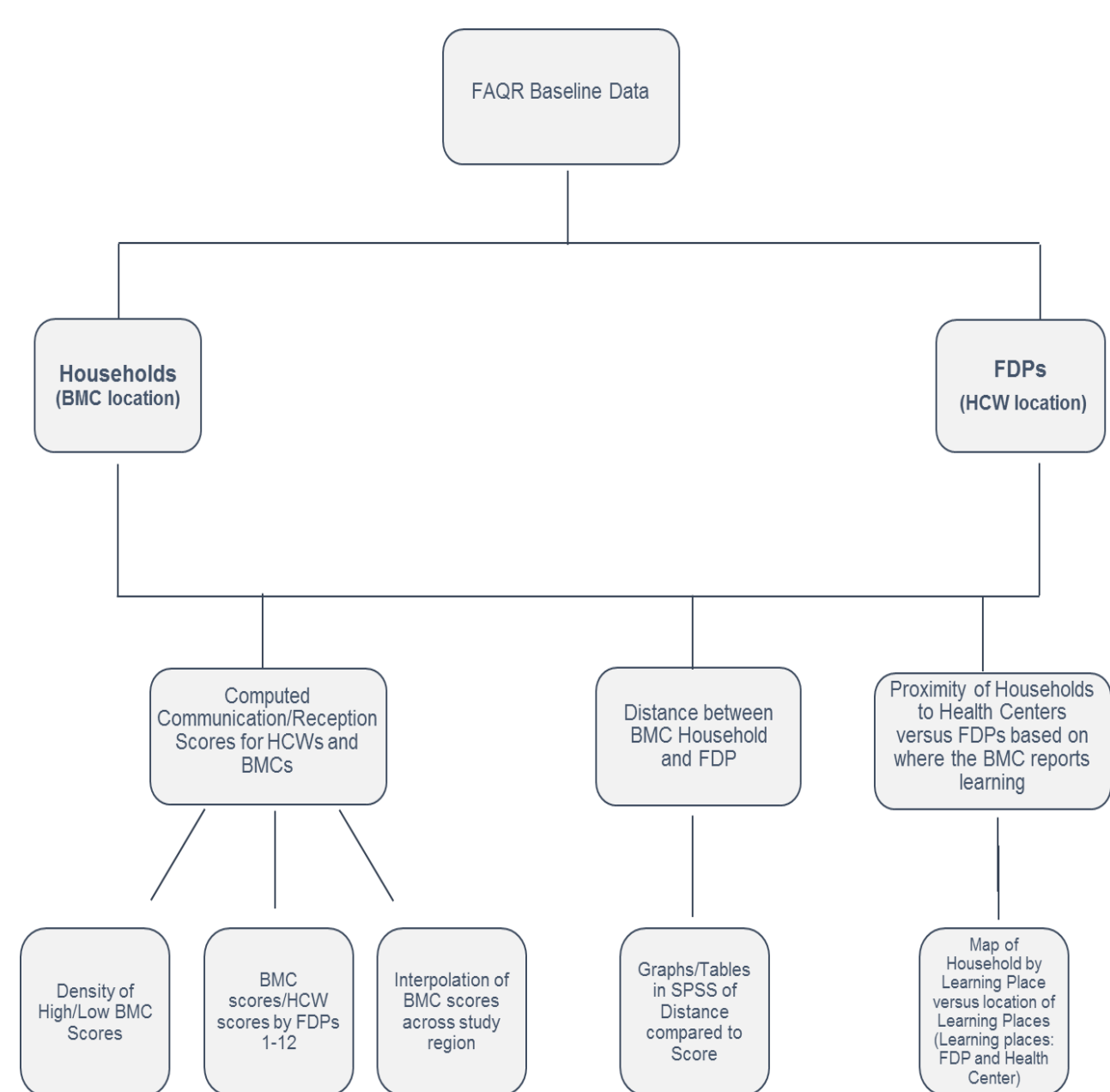
Introduction

The Food Aid Quality Review (FAQR) at the Friedman School of Nutrition at Tufts University “examines the nutritional needs of beneficiary populations across the developing world and the nutrition quality of commodities currently available to meet those needs.”¹ This project focuses on FAQR research in Malawi. FAQR in Malawi is conducting an evaluation of (1) the feasibility and acceptability of Corn-Soy Blend (CSB) and oil food rations for beneficiary children ages 6 – 59 months, (2) the impact of smaller packaging with explicit messaging indicating who the ration is meant to feed, and (3) the marginal cost of any changes to current programming.

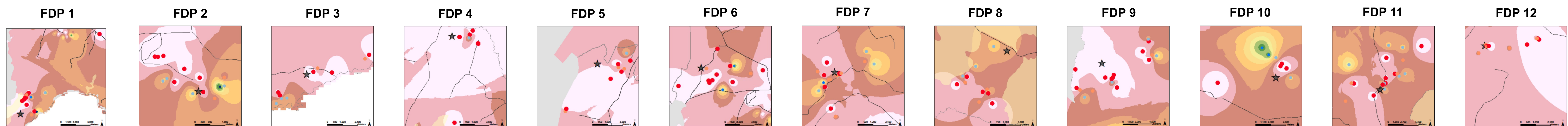
Using baseline data from FAQR Phase II in Malawi, this project evaluates the exchange of information that currently exists regarding this SFP, between Health Care Workers (HCWs) and Beneficiary Mothers/Caretakers (BMCs), and the factors that may affect this exchange of knowledge. This project explores factors that may affect this exchange of knowledge.

Methodology

Figure 3: Methodology Flow-chart

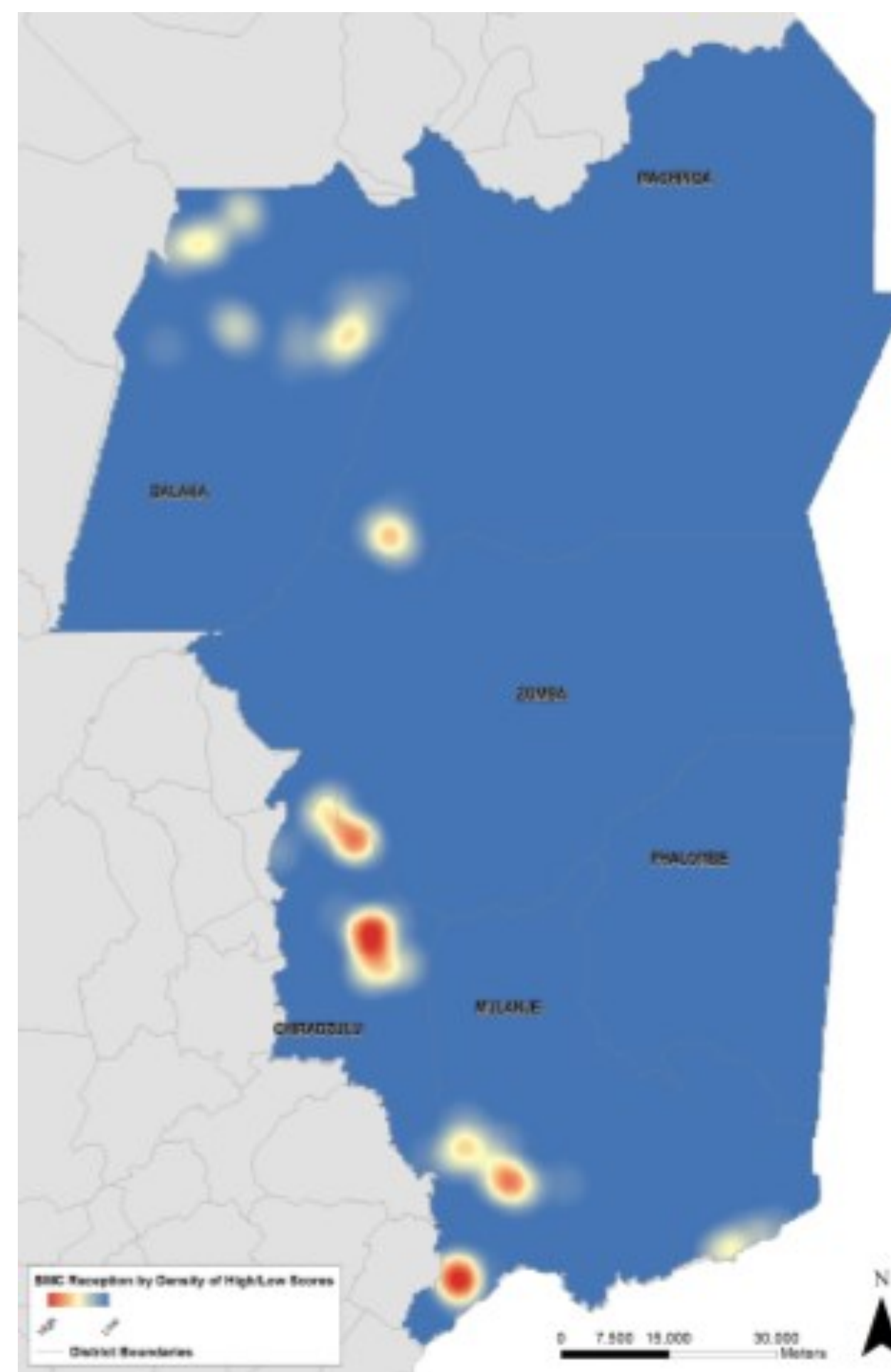


Data from the Food Aid Quality Review Study was analyzed for this project. Households in this dataset are clustered by Food Distribution Points (FDP), where a group of households receives food rations from assigned FDP's numbered 1 – 12. Communication and Reception Scores for the transmission of knowledge from the Health Care Workers (HCW) to the Beneficiary Mothers/Caretakers (BMC) were computed using SPSS using five questions regarding exchange of knowledge asked both to the HCW and to the BMC. These computed scores ranged from 1 - 5, where 5 is the most reported communication on behalf of the HCW or the most reported reception on behalf of the BMC, and 1 is the least. Figure 2 shows the interpolation map of the entire study region, broken down based on households attending each FDP in Figure 3 below.



Project Results

Figure 6: Density of households with High Reception Scores

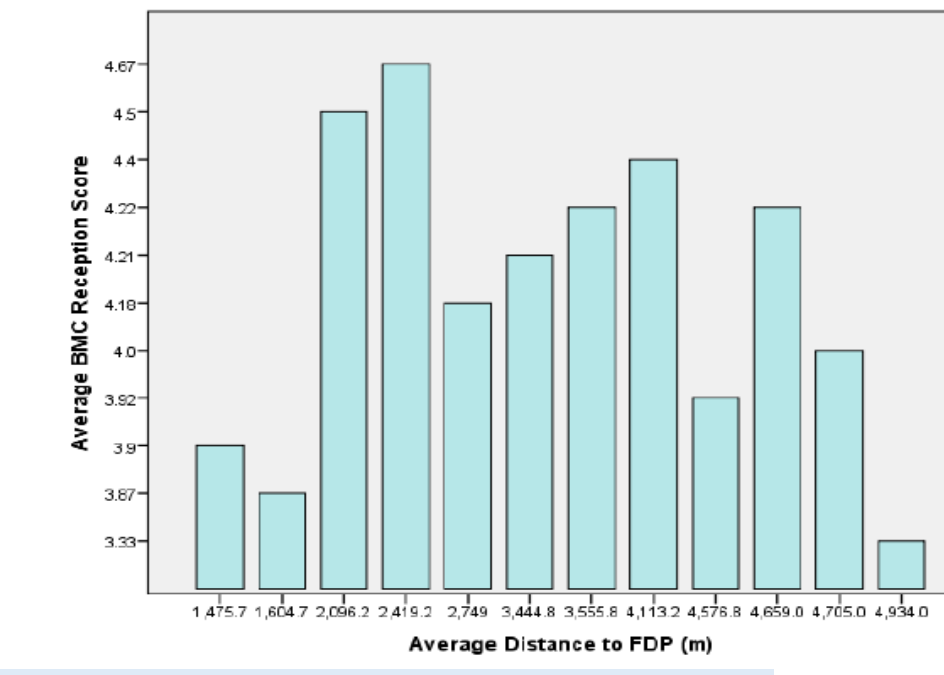


A spatial comparison of Households of BMCs with higher reception scores to lower reception scores revealed (1) that concentration of higher scores is more frequent in the Southern part of the FAQR study region than in the Northern FDP districts, (2) that HCW reported communication score is not a statistically significant predictor of BMC knowledge score after controlling for socio-demographic factors and select reported behaviors, and (3) that within a FDP-specific cluster of houses, there are not any evident correlations between proximity of the FDP to the BMC and a higher amount of knowledge or information exchange regarding SFP use. Analysis of the relationship between a BMC reporting to a FDP with a high aggregate HCW communication score did not reveal any significant relationship. Reported BMC reception. does not correlate with HCW reported reception. Distance between FDP and BMC reception score is not correlated, as seen in Figure 8. A binary

Figure 7: Table 1

FDP	Count of households	Average distance from household (m)	Average Communication of CHW (1-5, 5=best)	Average Reception of BMC (1-5, 5=best)
1	14	3444.84	4.4	4.21
2	17	3555.77	5	4.22
3	15	1604.72	5	3.87
4	11	2749	5	4.18
5	11	2419.16	4.75	4.67
6	10	4113.19	4.5	4.4
7	10	2096.23	4.2	4.5
8	19	1475.57	4.4	3.9
9	12	4576.77	4.67	3.92
10	17	4658.97	4.857	4.22
11	9	4934.03	4.3	3.33
12	19	4704.95	4.6	4

Figure 8: Graph of Distance vs. BMC Score



Conclusions

Although many relationships explored in this project revealed correlations that were not significant nor apparent, the lack of statistically significant findings is, in fact, practically significant. This project reveals that among the households assigned to each specific FDP, there is not a specific factor that affects whether or not they report receiving more or less instruction from the HCW. This analysis also finds that distance between the BMC and his/her assigned FDP does not affect her knowledge score. While some assume that the farther a BMC is from the FDP, the less often he/she will go, the less time he/she will spend there, and ultimately the less information he/she will receive – this project disproves this claim and shows that distance is not a significant factor in knowledge exchange.

This project shows that there are not any factors significantly affecting the baseline exchange of information, and reflects a communication gap between the reported communication by the HCW and the reported received communication by the BMC. As such, the FAQR intervention assessing feasibility, acceptability, and efficacy of these SFPs is important in attempting to close this information gap.

Limitations

This analysis has been done using baseline data from the FAQR Malawi study, and therefore reflects data prior to intervention. Any computed scores reflect only a baseline exchange of information, and the state of affairs prior to FAQR intervention. While this project reveals important trends regarding the (1) the importance, or lack thereof, of distance between BMC and FDP in predicting BMC reception of instructions, and (2) the lacking correlation between the information a HCW reports telling a BMC and the instruction the BMC reports receiving, it should be conducted on future phases of data in order to have practical significance and replicable findings.

References

Lauren Jayson
May 1, 2014
GIS 101
Scale: 1:250,000
Projection: GCS_WGS_1984

Data Source: Food Aid Quality Review at the Friedman School of Nutrition Baseline Data from Malawi Study
1. www.nutrition.tufts.edu/research/food-aid-quality

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Figure 3: Households by FDP in Study Region