

Statistical Analysis Plan:
Experience and Hypothetical Willingness-to-Pay for LNS-Child: iLiNS-Zinc

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1) Overview and Study Objectives

In this paper we will present the results of analyses exploring the role of “experience” in shaping hypothetical willingness-to-pay (hWTP) for a small-quantity lipid-based nutrient supplement (LNS-Child, hereafter) product formulated for consumption during early childhood (and a local substitute, herbal teas) over the course of the iLiNS-Zinc trial. Because hWTP was collected multiple times over the course of the trial, we are able to assess the influence of personal experiences during the trial on hWTP. The measures of experience, detailed in the Description of Variables section below, are meant to capture a respondent’s experiences during the trial that might influence his/her hWTP and include treatment group, the passage of time,¹ adherence to study protocol, morbidity, etc.²

Using contingent valuation methods, a few weeks after enrollment into the Zinc trial we elicited a first round of hypothetical WTP for one week’s supply of LNS-Child from both the LNS and delayed intervention households participating in the iLiNS-Zinc trial. As a comparator, we also elicited hypothetical WTP for one week’s supply of herbal teas. For both LNS-Child and herbal teas, after eliciting WTP for one week’s supply of the product, we used a set of follow-up questions to assess hypothetical WTP in the long-term (continuous payment for 9 months). We elicited a second round of both short- and long- term hypothetical WTP for the LNS-Child and herbal teas only for the LNS group when the study child was approximately 15 months old.

Preventative LNS-Child products are intended to be consumed daily for many months as a supplement to traditional foods (Dewey and Arimond 2012; Nutriset 2011). This is in contrast to ready-to-use therapeutic foods such as Plumpy’Nut®, which are primarily used in emergency settings and are administered in relatively large doses over a short period of time to treat children with severe acute malnutrition. While the international donor community has historically purchased and distributed therapeutic nutritional products for severely malnourished children for free via public channels, the differences in usage of preventative LNS-Child products coupled with the potentially large and heterogeneous population of women and children who may benefit from them will make full subsidization of preventative LNS-Child products much more expensive and less likely (Lybbert 2012). Thus, a hybrid distribution system that reaches target consumers through both public channels and retail markets may be recommended.

Our estimates of “experience” in shaping hypothetical willingness-to-pay (hWTP) for LNS-Child will shed light on household valuation of LNS-Child and the factors that influence WTP. Moreover, our data on WTP for herbal teas will provide a benchmark from which we can evaluate WTP for LNS-Child relative to a familiar, locally-available product. This collection of results will provide a starting point for characterizing demand for LNS-Child, which in turn may

¹ The passage of time encompasses both the amount of time in which households randomized into the LNS arm of the trial had to learn about LNS-Child (i.e., use the product and learn about some of its private costs and benefits, etc.) as well as experiences not related to LNS-Child that may also influence hWTP for LNS-Child products.

² Note that most experience variables are endogenous. As such, our characterization of the role of experience in explaining hWTP will be based on measures of association (not causation).

guide policy decisions regarding the price LNS-Child consumers might be expected to pay as well as help establish targeting mechanisms to distribute LNS-Child.

2) Description of the Study

A more detailed description of the iLiNS-Zinc randomized trial, including the study population and inclusion and exclusion criteria is available in the main statistical analysis plan (iLiNS-ZINC Statistical Analysis Plan Version 2, 2014-08-07).

In short, the iLiNS-Zinc study is a community-based, partially double-blind, placebo-controlled, randomized clinical trial which took place in Dande district in Burkina Faso. Nine-month-old children were identified by periodic censuses in the study area. 2469 eligible children in the intervention cohort were randomly assigned to receive one of the following interventions from 9 to 18 months of age. To assess zinc-related biochemical and functional responses among young Burkinabe children, the studied children were randomly assigned to receive one of the following interventions from 9 to 18 months of age: 1) LNS without zinc and placebo tablet (LNS-Zn0), 2) LNS with 5mg zinc and placebo tablet (LNS-Zn5), 3) LNS with 10mg zinc and placebo tablet (LNS-Zn10), 4) LNS without zinc and 5mg Zinc tablet (Suppl-Zn5) and 5) Non-intervention group (NI). For the purpose of this study we will group the first 4 interventions into the “LNS group” and the fifth intervention will be the “delayed intervention group”.

3) Hypotheses to be Tested

The table below summarizes the main hypotheses (H_0) to be tested.

Note that the term ‘by group’ indicates a comparison across households in which the child received LNS-Child (the LNS group) and those who received LNS-Child after the trial was complete (the delayed intervention group). Also, because the relationship between the experience variables and hWTP may be quite different for those in the LNS group compared to those in the delayed intervention group, some of the hypotheses listed below will be tested separately for each subgroup (as specified in the table). Finally, ‘E’ in Table 1 below is a vector of experience variables as defined in Section 4.2. We will be able to assess whether there is a difference in short- and long-term hWTP by groups only at baseline, as the second round of hWTP data were not collected for the delayed intervention group.

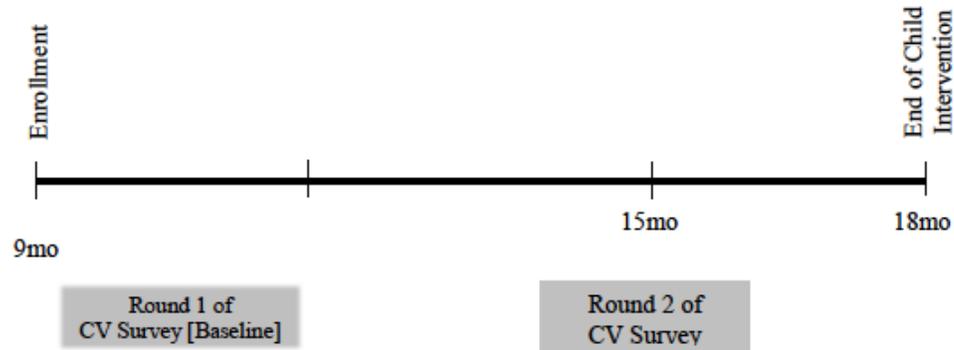
Table 1. Null Hypothesis Tests by Sample

Sample	
Full Sample	H ₀ 1: There is no difference in baseline short-term hWTP for LNS-Child by group
Full Sample	H ₀ 2: There is no difference in baseline long-term hWTP for LNS-Child by group
Full Sample	H ₀ 3: There is no difference in the baseline cross-product difference in short-term hypothetical WTP for LNS-Child and herbal tea by group. That is, (WTP for LNS-Child - WTP for herbal tea)
Full Sample	H ₀ 4: There is no difference in the baseline cross-product difference in long-term hypothetical WTP for LNS-Child and herbal tea by group
By LNS/Delayed intervention Subgroups	H ₀ 5: There is no systematic association between E and short-term hWTP for LNS-Child
By LNS/ Delayed intervention Subgroups	H ₀ 6: There is no systematic association between E and long-term hWTP for LNS-Child
By LNS/ Delayed intervention Subgroups	H ₀ 7: There is no systematic association between E and the cross-product difference in short-term hypothetical WTP for LNS-Child and herbal tea
By LNS/ Delayed intervention Subgroups	H ₀ 8: There is no systematic association between E and the cross-product difference in long-term hypothetical WTP for LNS-Child and herbal tea

Note: 'E' in the table above is a vector of experience variables as defined in Section 4.2 below.

4) Description of Variables

The following subsections describe the dependent and explanatory variables that will be used to model the relationship between experience and hWTP. The timeline in the figure below, where time is measured in months from enrollment into the randomized trial, shows the relationship between child enrollment into and progression through the randomized trial relative to the timing of each round of the contingent valuation survey.



Timeline: Child Intervention and Contingent Valuation (CV) Survey

4.1 Dependent Variables

By hypothesis:

- Hypotheses 1 and 5: Short-term WTP for a day's supply of LNS-Child in 4th quarter 2011 US dollars.
- Hypotheses 2 and 6: Long-term (i.e. continuous 9 months in early childhood) WTP for a day's supply of LNS-Child in 4th quarter 2011 US dollars.
- Hypotheses 3 and 7: Difference between short-term WTP for a day's supply of LNS-Child and herbal tea in 4th quarter 2011 US dollars.
- Hypotheses 4 and 8: Difference between long-term (i.e. continuous 9 months in early childhood) WTP for a day's supply of LNS-Child and herbal tea in 4th quarter 2011 US dollars.

Note: The distributions of WTP for LNS-Child and herbal tea are right-skewed. To account for this in our models, we may transform WTP to $\ln(\text{WTP})$.³

³ Because the natural log of zero is undefined, we will set all zero WTP values to a value slightly smaller than the minimum non-zero value of $\ln(\text{WTP})$.

4.2 Experience Variables

The following table defines the set of variables meant to capture a respondent's experiences during the trial that might influence his/her hWTP.

For all analyses of hWTP for LNS-Child, morbidity and adherence data will come from form N07 iLiNS-Zinc Weekly Morbidity Form.

Variable Name	Description
Months Enrolled	Number of months from enrollment to hWTP survey administration.
Adherence	Percentage of sachets of LNS-Child consumed as prescribed during the 30-day period ⁴ immediately prior to the hWTP survey administration.
Poor Appetite	Count variable indicating the number of days of reported child's poor appetite during the 30-day period immediately prior to the hWTP survey administration.
Vomiting	Count variable indicating the number of days of reported child's vomiting during the 30-day period immediately prior to the hWTP survey administration.
Diarrhea	Count variable indicating the number of days of reported child's diarrhea during the 30-day period immediately prior to the hWTP survey administration.
Child Gender	Gender of the iLiNS child.
WLZ	iLiNS child's weight-for-length z-score at the measurement closest to hWTP survey administration calculated using WHO Anthro, a Stata macro from the World Health Organization based on the updated WHO child growth standards.
LAZ	iLiNS child's length-for-age z-score at the measurement closest to hWTP survey administration calculated using WHO Anthro, a Stata macro from the World Health Organization based on the updated WHO child growth standards.
Growing Well	Dummy variable = 1 if mother/caregiver indicated she thought the iLiNS child was growing well and = 0 otherwise.
Reduced Activity	A count variable indicating the number of days the mother/caregiver reported the iLiNS child experienced reduced activity in the 30-day period immediately prior to the hWTP survey administration.
Good Food	Dummy variable = 1 if mother/caregiver reported being able to feed the iLiNS child the kind of food she thought was good for him/her and = 0 otherwise.

⁴ If less than 30 days elapsed between enrollment and the first hWTP survey administration, the adherence and morbidity variables for this observation will be constructed based on the period from enrollment to hWTP survey administration.

4.3 Time-Invariant Control Variables

Respondent Baseline Characteristics:

- Household Head: Indicator variable that = 1 if the respondent is the iLiNS household head and = 0 if respondent is the mother of the iLiNS child.⁵
- Age: Respondent's age in years at baseline.
- Education: Number of completed years of formal or informal education by the respondent.

Child Characteristics:

- Length-for Age: iLiNS child's length-for-age z-score at enrollment into the trial.
- Weight-for-Length: iLiNS child's weight-for-length z-score at enrollment into the trial.
- Child gender: =1 if child is male and =0 if child is female.

Household Characteristics:

- Language: Set of dummy variables indicating primary language spoken at home.
- Children Under Five: The number of children under five years of age who are household members⁶ at baseline.
- HFIA Score: The Household Food Insecurity Access (HFIA) Score is a continuous measure of the degree of food insecurity in the household at baseline. For each of nine questions, the survey respondent, who is the person primarily responsible for food preparation and meals in the household, indicates whether anyone in her household experienced the food insecurity condition in the previous four weeks. If yes, the respondent indicates how frequently the specific condition was experienced, where 'rarely' = 1-2 times in the past four weeks, 'sometimes' = 3-10 times in the past four weeks, and 'often' = more than 10 times in the past four weeks. Each household receives a score from 0-27 based on a simple sum of the frequency of occurrence of each food insecurity condition, where 'never' = 0 points, 'rarely' = 1 point, 'sometimes' = 2 points, and 'often' = 3 points. The higher the score, the higher the degree of household food insecurity experienced in the previous four weeks.
- Household Asset Index: A proxy measure of household socioeconomic status based on baseline ownership of a set of assets (radio, television, refrigerator, car, bicycle, telephone (cell phone and line), and # of rooms in the house, drinking water supply, sanitation facilities, and flooring materials. Household ownership of this set of assets is combined into an index (with a mean of zero and standard deviation of one) using principal components analysis. Higher asset index scores indicate relatively 'better-off' households.
- Household Per Capita Food Expenditures: Daily per capita food expenditures in 4th quarter 2011 US dollars.

⁵ The respondent to the contingent valuation survey was determined randomly (by tossing a coin) to be either the iLiNS child's mother or the head of the household.

⁶ Household members are defined as people who have been regularly sleeping in the same dwelling and sharing food from the same cooking pots for at least the last three months.

- Household Per Capita Income: Household labor income per capita per day in 4th quarter 2011 US dollars.
- Food Ratio: The ratio of per capita daily food expenditure to per capita total daily expenditure, defined as (PC daily food expenditures/PC total daily expenditures).

Intervention Group:

- Treatment Group: Dummy variable indicating randomized group assignment into LNS or delayed intervention groups.

4.4 Time-Varying Control Variables

- Version of Questionnaire: Control variables for different versions of the contingent valuation survey to control for starting 'bid' pricing (version A: 100CFA; version B: 500CFA; version C: 1000CFA)
- Enumerator: Set of enumerator control variables.
- Dry Season: Dummy variables indicating whether the hWTP survey was administrated during the dry season.
- Year: Dummy variables indicating the year when the hWTP survey was administrated.

5) Statistical Methods

5.1 Data Cleaning

Cleaning of the SES data follows the same procedure outlined in the main analysis plan (iLiNS-ZINC Statistical Analysis Plan Version 1, 2013-08-20).

5.2 Outliers

Identification and treatment of outliers in the SES data and experience variables will follow the treatment described in the main statistical analysis plan (iLiNS-ZINC Statistical Analysis Plan Version 1, 2013-08-20).

5.3 Software

All statistical analyses will be performed with Stata 13 statistical package.

5.4 Basis for the Analysis

The basis for the analysis is an intent-to-treat framework. hWTP respondents who were lost to follow-up (either temporarily or permanently) will be included in the analysis for all time points where data are available, and the sample size will be clearly reported for each regression analysis/time point.

5.5 Analysis

5.5.1 Summary Baseline Characteristics

Summary statistics, including mean (count for dichotomous variables), standard deviation (percentage for dichotomous variables), minimum, and maximum for all baseline control variables (as described in section 4.3 above) will be presented in Table 1 along with other summary household characteristics. As a check for the success of the randomization, we will report any differences in mean explanatory variables across treatment groups (i.e., LNS vs delayed intervention groups). Scatter plots, histograms, and/or kernel density estimates will also be presented.

5.5.2 Summary of Experience Variables

Experience variables will be defined in Table 2. Summary statistics, including mean, standard deviation, minimum, and maximum for the experience variables will be presented by treatment group (LNS vs delayed intervention groups) in Tables 3. Scatter plots, histograms, and/or kernel density estimates will also be presented.

5.5.3 Summary of Short- and Long-Term hWTP

Summary statistics, including mean, standard deviation, minimum, and maximum for short-term (i.e., a day's supply) hWTP for LNS-Child and herbal teas, the difference in short-term hWTP between LNS-Child and herbal tea will be presented in Table 4. Table 5 will present the same statistics for long-term (i.e., continuous 9 months in early childhood) WTP for LNS-Child and herbal teas, the difference between the two products and across rounds for the LNS group.

Kernel density estimates of hWTP will also be presented.

5.5.4 Effect of Treatment Group on hWTP

The following regression models will be estimated to test the hypotheses related to the effect of being randomized into the LNS group on hWTP, which are hypotheses 1-4 in Section 3 above.

In the next equations, we analyze the short-term and long-term hWTP as well as cross product difference in short-term and long-term hWTP at baseline.

Since we have just one hWTP observation per respondent, we will estimate the following model using OLS for $i = 1, 2, \dots, N$ contingent valuation survey respondents:

$$y_i = \alpha + \beta_1 LNS_i + \varphi T_i + \delta X_i + \varepsilon_i \quad (1)$$

The dependent variable, y_i , is the hWTP variable of interest for respondent i . LNS_i is an indicator variable equal to one if the child in respondent i 's household was randomized to

receive LNS-Child and zero otherwise. The vector T_i is composed of time-varying covariates defined in Section 4.4. To improve the precision of our estimates, we also include a vector of time-invariant baseline covariates, X_i , as defined in Section 4.3 above. Given the single observation per respondent we estimate the model with heteroskedasticity-robust standard errors. Heterogeneity by time and by respondent will be modeled by interaction terms.

Heterogeneity by survey respondent will be estimated as:

$$y_{it} = \beta_1 LNS_i + \beta_2 R_i + \beta_3 (LNS_i * R_i) + \varphi T_{it} + \delta X_i + \alpha_i + \varepsilon_{it} \quad (2)$$

where $R_i = 1$ if the survey respondent was the iLiNS woman and = 0 if head of household.⁷

Heterogeneity by timing of enumeration will be similarly estimated as:

$$y_{it} = \beta_1 LNS_i + \beta_2 En_i + \beta_3 (LNS_i * En_i) + \varphi T_{it} + \delta X_i + \alpha_i + \varepsilon_{it} \quad (3)$$

where En_i is equal to the number of months from enrollment into the iLiNS trial to hWTP survey administration.

Regression results for the effect of treatment group on hWTP will be presented in Table 6.

5.5.5 Relationship Between Experience and hWTP

This section describes the regression equations that will be used to estimate the relationship between hWTP and the set of experience variables defined in section 4.2 (hypotheses 5-8 in Section 3 above). As noted, these regressions will be run separately on the subset of LNS and the delayed intervention households.

When we potentially have two observations of hWTP for each respondent from the LNS group, we will estimate the following pooled OLS models for $i = 1, 2, \dots, N$ contingent valuation survey respondents and for $t = 1, 2$ rounds of hWTP data collection:

$$y_{it} = \alpha + \beta_1 E_{it} + \varphi T_{it} + \delta X_i + \varepsilon_{it}. \quad (4)$$

Here, y_{it} is the hWTP variable of interest for respondent i at time t . The relevant experience variables as described in the table in Section 4.2 are contained in the vector E_{it} . We include a vector of time-invariant baseline covariates, X_i , as defined in Section 4.3 above, and the vector T_{it} is composed of other time-varying covariates defined in Section 4.4. ε_{it} is an idiosyncratic error. To account for the fact that the error is likely correlated over time for a given respondent, we will cluster the standard errors at the respondent level.

⁷ The respondent to the hWTP survey was determined randomly (by the tossing a coin) to be either the iLiNS woman or the head of household. In cases where the iLiNS woman is also the head of household, this variable will be coded as =1 (iLiNS woman).

Since we have just one hWTP observation per respondent for the delayed intervention group, we will estimate the following model using OLS for $i = 1, 2, \dots, N$ contingent valuation survey respondents:

$$y_i = \alpha + \beta_1 E_i + \varphi T_i + \delta X_i + \varepsilon_i. \quad (5)$$

Everything is as defined as in equation (4) except E_i is limited to variables relevant as defined in the table in Section 4.2. As above, heterogeneity by time and by respondent will be assessed using interaction terms.

Heterogeneity by respondent will be modeled with interactions as:

$$y_{it} = \alpha + \beta_1 E_{it} + \beta_2 R_i + \beta_3 (E_{it} * R_i) + \varphi T_{it} + \delta X_i + \varepsilon_{it} \quad (6)$$

where $R_i = 1$ if the survey respondent was the iLiNS woman and $= 0$ if head of household.

Heterogeneity by timing of enumeration will be similarly estimated as:

$$y_{it} = \alpha + \beta_1 E_{it} + \beta_2 En_i + \beta_3 (E_{it} * En_i) + \varphi T_{it} + \delta X_i + \varepsilon_{it} \quad (7)$$

where En_i is equal to the number of months from enrollment into the iLiNS trial to hWTP survey administration.

Regression results for the effect of experience on hWTP will be presented in Tables 7-12.

5.6 Other Statistical Notes

5.6.1 Collinearity

Collinearity among all covariates will be assessed using Stata's `collin` command. Variables with a high variance inflation factor ($VIF > 10$) will be assessed and the set of covariates will be reduced so that all covariates have a $VIF < 10$ (Chen et al. 2003).

5.6.2 Missing Data

All missing data, including impossible/improbable outliers coded as missing, will be treated as missing (i.e., not imputed) in all analyses.

6) Design of Tables

Table 1. Description of Respondent, Maternal, and Household Characteristics

	Variable	Definition	Mean	Std Dev	Min	Max
Respondent	Age	Age in years at baseline				
	Education	Completed years of education				
	Head of Household	= 1 if respondent is head of household (= 0 if iLiNS mother)				
The iLiNS Child	Length for Age	Child's length for age z-score				
	Weight for length	Child's weight for length z-score				
	Child gender	=1 if iLiNS child is male =0 if iLiNS child is female				
Household	Children Under 5	Number of children under age 5				
	Language	Set of dummy variables indicating primary language spoken at home				
	Asset Index	Proxy measure of socioeconomic status based on asset ownership				
	HFIA Score	Household Food Insecurity Access Score				
	PC Food Expenditures	Per capita daily expenditures on food in 2011 USD				
	PC Household Daily Income	Per capita household income per day in 2011 USD				
	PC Daily Expenditures	Per capita total daily expenditures in 4 th quarter 2011 USD				
	Food Ratio	The ratio of PC daily food expenditures to PC total daily expenditures				

N=xxx

Significance codes for difference in means between LNS and the delayed intervention groups:

*** (p < .01), ** (p < .05), * (p < .1).

Table 2. Definitions of Experience Variables

Variable	Definition
Adherence	Percentage of sachets of LNS-Child consumed as prescribed during the 30-day period immediately prior to the hWTP survey administration.
Poor Appetite	Count variable indicating the number of days of reported child's poor appetite during the 30-day period immediately prior to the hWTP survey administration.
Vomiting	Count variable indicating the number of days of reported child's vomiting during the 30-day period immediately prior to the hWTP survey administration.
Diarrhea	Count variable indicating the number of days of reported child's diarrhea during the 30-day period immediately prior to the hWTP survey administration.
Reduced Activity	A count variable indicating the number of days the mother/caregiver reported the child experienced reduced activity in the 30-day period immediately prior to the hWTP survey administration.
Child Gender	Gender of the iLiNS child.
WLZ	iLiNS child's weight-for-length z-score at the measurement closest to hWTP survey administration.
LAZ	iLiNS child's length-for-age z-score at the measurement closest to hWTP survey administration.
Growing Well	Dummy variable = 1 if mother/caregiver indicated she thought the iLiNS child was growing well and = 0 otherwise.
Reduced Activity	A count variable indicating the number of days the mother/caregiver reported the iLiNS child experienced reduced activity in the 30-day period immediately prior to the hWTP survey administration.
Good Food	Dummy variable = 1 if mother/caregiver reported being able to feed the iLiNS child the kind of food she though was good for him/her and = 0 otherwise.
Months Enrolled	Number of months from enrollment to hWTP survey administration

iLiNS Child

N=xxx

Table 3. Summary of Experience Variables by Treatment Group

Variable	LNS			Delayed-Intervention		
	Mean	Std Deviation	Min, Max	Mean	Std Deviation	Min, Max
Child Poor Appetite						
Child Vomiting						
Child Diarrhea						
Reduced Activity						
WLZ						
LAZ						
Growing Well						
Good Food						
Adherence						
Months Enrolled						
Child Gender						

N=xxx

Table 4. Average hWTP for a Day's Supply by Treatment Group

	Product	N	Mean [†] (Std Error)	Std Deviation	Min, Max*	Zero Max WTP/Difference
LNS Group	LNS-Child	xxx	x.xx (x.xx)	x.xx	x, x.xx	xx (x.x%)
	Herbal teas					
	Difference					
Delayed - intervention Group	LNS-Child					
	Herbal teas					
	Difference					

[†]In 4th Quarter 2011 US Dollars.

*Observations > 6 SD above the mean were omitted as outliers.

Difference is defined as (WTP for LNS-Child – WTP for herbal teas).

Significance codes for difference in means between LNS and delayed intervention groups: *** (p < .01), ** (p < .05), * (p < .1).

Table 5. Average Long-Term hWTP by Treatment Group

	Product	N	Mean [†] (Std Error)	Std Deviation	Min, Max*	Zero Max WTP/Difference
LNS Group	LNS-Child	xxx	x.xx (x.xx)	x.xx	x, x.xx	xx (x.x%)
	Herbal teas					
	Difference					
Delayed- intervention Group	LNS-Child					
	Herbal teas					
	Difference					

[†]In 4th Quarter 2011 US Dollars.

*Observations > 6 SD above the mean were omitted as outliers.

Difference is defined as (WTP for LNS-Child – WTP for herbal teas).

Significance codes for difference in means between LNS and delayed intervention groups: *** (p < .01), ** (p < .05), * (p < .1).

Table 6. Effect of Treatment Group on Baseline hWTP

	Day's Supply		Long-Term	
	LNS-Child (1)	LNS-Child-Herbal teas (2)	LNS-Child (3)	LNS-Child-Herbal teas (4)
LNS				
Constant				
N				
Wald Chi ²				
Prob > Chi ²				

Significance codes: *** (p < .01), ** (p < .05), * (p < .1).

Notes: Dependent variables are (1) hWTP for a day's supply of LNS-Child, (2) difference in hWTP for a day's supply of LNS-Child and Herbal teas, (3) long-term hWTP for a day's supply of LNS-Child, and (4) difference in long-term hWTP for a day's supply of LNS-Child and herbal teas. Controls for respondent, respondent age, respondent education, if respondent is the head of the household, baseline length-for-age and weight-for-length of the iLiNS child, child gender, primary language spoken in household, number of children under five, HFIA score, household asset index, household per capita food expenditures, household per capita income, food ratio, enumerator, dry season, year, version of questionnaire, and months from enrollment into the iLiNS trial to hWTP survey administration are included in the model (unreported). Cluster-robust standard errors in parentheses.

Table 7. Effect of Experience on hWTP: LNS-Group

	Day's Supply		Long-Term	
	LNS-Child (1)	LNS-Child-Herbal teas (2)	LNS-Child (3)	LNS-Child-Herbal teas (4)
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				
Child Gender				
Good Food				
Adherence				
Months Enrolled				
Constant				
N				
Wald Chi ²				
Prob > Chi ²				

Significance codes: *** (p < .01), ** (p < .05), * (p < .1).

Notes: Dependent variables are (1) hWTP for a day's supply of LNS-Child, (2) difference in hWTP for a day's supply of LNS-Child and herbal teas, (3) long-term hWTP for a day's supply of LNS-Child, and (4) difference in long-term hWTP for a day's supply of LNS-Child and herbal teas. Controls for respondent, respondent age, respondent education, if respondent is the head of the household, baseline length-for-age and weight-for-length of the iLiNS child, child gender, primary language spoken in household, number of children under five, HFIA score, household asset index, household per capita food expenditure, household per capita income, food ratio, enumerator, dry season, year, and version of questionnaire are included in the model (unreported).

Table 8. Heterogeneity by Respondent in Effect of Experience on hWTP: LNS-Group

	Day's Supply		Long-Term	
	LNS-Child (1)	LNS-Child-Herbal teas (2)	LNS-Child (3)	LNS-Child-Herbal teas (4)
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				
Child Gender				
Good Food				
Adherence				
Months Enrolled				
Respondent				
Respondent X				
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				

Growing Well

Child Gender

Good Food

Adherence

Months enrolled

Constant

N

Wald Chi²

Prob > Chi²

Significance codes: *** (p < .01), ** (p < .05), * (p < .1).

Notes: Dependent variables are (1) hWTP for a day's supply of LNS-Child, (2) difference in hWTP for a day's supply of LNS-Child and herbal teas, (3) long-term hWTP for a day's supply of LNS-Child, and (4) difference in long-term hWTP for a day's supply of LNS-Child and herbal teas. Controls for respondent, respondent age, respondent education, if respondent is the head of the household, baseline length-for-age and weight-for-length of the iLiNS child, child gender, primary language spoken in household, number of children under five, HFIA score, household asset index, household per capita food expenditure, household per capita income, food ratio, enumerator, dry season, year, and version of questionnaire are included in the model (unreported). The variable 'respondent' indicates whether the respondent to the hWTP survey was the iLiNS woman (=1) or head of household (=0).

Table 9. Heterogeneity by Timing of Enumeration in Effect of Experience on hWTP: LNS-Group

	Day's Supply		Long-Term	
	LNS-Child (1)	LNS-Child-Herbal teas (2)	LNS-Child (3)	LNS-Child-Herbal teas (4)
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				
Child Gender				
Good Food				
Adherence				
Months Enrolled				
Months Enrolled X				
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				

Child Gender

Good Food

Adherence

Constant

N

Wald Chi²

Prob > Chi²

Significance codes: *** (p < .01), ** (p < .05), * (p < .1).

Notes: Dependent variables are (1) hWTP for a day's supply of LNS-Child, (2) difference in hWTP for a day's supply of LNS-Child and herbal teas, (3) long-term hWTP for a day's supply of LNS-Child, and (4) difference in long-term hWTP for a day's supply of LNS-Child and herbal teas. Controls for respondent, respondent age, respondent education, if respondent is the head of the household, baseline length-for-age and weight-for-length of the iLiNS child, child gender, primary language spoken in household, number of children under five, HFIA score, household asset index, household per capita food expenditure, household per capita income, food ratio, enumerator, dry season, year, and version of questionnaire are included in the model (unreported).

Table 10. Effect of Experience on hWTP: Delayed Intervention Group

	Day's Supply		Long-Term	
	LNS-Child (1)	LNS-Child-Herbal teas (2)	LNS-Child (3)	LNS-Child-Herbal teas (4)
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				
Child Gender				
Good Food				
Adherence				
Months Enrolled				
Constant				
N				
Wald Chi ²				
Prob > Chi ²				

Significance codes: *** (p < .01), ** (p < .05), * (p < .1).

Notes: Dependent variables are (1) hWTP for a day's supply of LNS-Child, (2) difference in hWTP for a day's supply of LNS-Child and herbal teas, (3) long-term hWTP for a day's supply of LNS-Child, and (4) difference in long-term hWTP for a day's supply of LNS-Child and herbal teas. Controls for respondent, respondent age, respondent education, if respondent is the head of the household, baseline length-for-age and weight-for-length of the iLiNS child, child gender, primary language spoken in household, number of children under five, HFIA score, household asset index, household per capita food expenditure, household per capita income, food ratio, enumerator, dry season, year, and version of questionnaire are included in the model (unreported).

Table 11 Heterogeneity by Respondent in Effect of Experience on hWTP: Delayed intervention Group

	Day's Supply		Long-Term	
	LNS-Child	LNS-Child-Herbal teas	LNS-Child	LNS-Child-Herbal teas
	(1)	(2)	(3)	(4)
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				
Child Gender				
Good Food				
Adherence				
Months Enrolled				
Respondent				
Respondent X				
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				

Growing Well

Child Gender

Good Food

Adherence

Months enrolled

Constant

N

Wald Chi²

Prob > Chi²

Significance codes: *** (p < .01), ** (p < .05), * (p < .1).

Notes: Dependent variables are (1) hWTP for a day's supply of LNS-Child, (2) difference in hWTP for a day's supply of LNS-Child and herbal teas, (3) long-term hWTP for a day's supply of LNS-Child, and (4) difference in long-term hWTP for a day's supply of LNS-Child and herbal teas. Controls for respondent, respondent age, respondent education, if respondent is the head of the household, baseline length-for-age and weight-for-length of the iLiNS child, child gender, primary language spoken in household, number of children under five, HFIA score, household asset index, household per capita food expenditure, household per capita income, food ratio, enumerator, dry season, year, and version of questionnaire are included in the model (unreported). The variable 'respondent' indicates whether the respondent to the hWTP survey was the iLiNS woman (=1) or head of household (=0).

Table 12 Heterogeneity by Timing of Enumeration in Effect of Experience on hWTP: Delayed intervention Group

	Day's Supply		Long-Term	
	LNS-Child	LNS-Child-Herbal teas	LNS-Child	LNS-Child-Herbal teas
	(1)	(2)	(3)	(4)
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				
Child Gender				
Good Food				
Adherence				
Months Enrolled				
Months Enrolled X				
Child Poor Appetite				
Child Vomiting				
Child Diarrhea				
Reduced Activity				
WLZ				
LAZ				
Growing Well				

Child Gender

Good Food

Adherence

Constant

N

Wald Chi²

Prob > Chi²

Significance codes: *** (p < .01), ** (p < .05), * (p < .1).

Notes: Dependent variables are (1) hWTP for a day's supply of LNS-Child, (2) difference in hWTP for a day's supply of LNS-Child and herbal teas, (3) long-term hWTP for a day's supply of LNS-Child, and (4) difference in long-term hWTP for a day's supply of LNS-Child and herbal teas. Controls for respondent, respondent age, respondent education, if respondent is the head of the household, baseline length-for-age and weight-for-length of the iLiNS child, child gender, primary language spoken in household, number of children under five, HFIA score, household asset index, household per capita food expenditure, household per capita income, food ratio, enumerator, dry season, year, and version of questionnaire are included in the model (unreported).

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