Project Jigifa – Integrated project to address nutrition, health and child development in Sikasso, Mali

DATA DICTIONARY

Filename: **Dataset_Biomedanthroparent_MaliSIEF_2016_PUF.dta** (Stata, version 15)

Data collection form(s): Form_Biomed_MaliSIEF_Sikasso_2016.pdf
Form_Parent_MaliSIEF_2016_french.pdf
Form_Parent_MaliSIEF_2016_english.pdf

Description of dataset:
Dataset combining data on the main biomedical trial outcomes recorded during the cross-sectional biomedical surveys in July 2016 (including anthropometric outcomes), with information on potential confounders collected through caregiver surveys in May/June 2016. This is the dataset used to evaluate the effect of the nutritional intervention (home supplementation with micronutrient powders, MNPs) on biomedical outcomes.

Study population and sampling:
Sixty villages with Early Child Care Development (ECCD) centres supported by Save the Children in Sikasso Region, Southern Mali were randomised either to the MNP intervention or control arm. Supporting interventions which included parent informational sessions to encourage parenting practices supportive of good child nutrition, hygiene, child safety and early cognitive stimulation were held in all villages (intervention and control). Children in all of the 60 villages also received seasonal malaria chemoprevention to reduce malaria during the months of peak transmission. In the 30 intervention villages, children additionally received daily micronutrient powders for 4 months of the year.

The effect of the MNP intervention was evaluated in two groups of children (aged 3 years and 5 years in 2016). A random sample was drawn from children resident in the village and recorded in the census undertaken at the start of the study in 2013 (ie sampled children will have been resident throughout the prior 3-year period of the intervention), with 20 children drawn from each eligible age band.

Biomedical outcomes were not evaluated in villages without an ECCD centre (non-ECD comparison arm). This dataset thus comprises data from the 60 ECD villages that were randomised either to receive the intervention or control – ie the two randomised arms (MNP intervention and ECD control) only.

Variable name	Data codes	Description/ Other Notes
datesurvey	Date stored as integer (days)	Survey date (all surveys in this dataset were carried out in 2016)
childidsief	numeric code	Unique identifier of child (same IDno was used in 2014 and 2016
studyarm	1 = R 2 = Z	Ignore - use variable trialarm (which groups villages according to intervention received) for statistical analysis
cerclename	text field	District name (there were 2 districts: Sikasso and Yorosso)
communename	text field	Sub district name (there were 22 sub-districts)

villagename	text field	Village name (there were 60 villages with ECD centres included in biomedical survey in 2016 (30 intervention, and 30 control)
communeubsid	numeric code	Sub district code (23 unique values)
villageubsid	numeric code	Village code (60 unique values)
sex	1= female 2= male	Sex of child
agegroup	3= 3y old in 2016 5= 5y old in 2016	Age group of child in 2016
age01may14	decimal	Age in years on 1st May 2014
agesurvey	decimal	Age in years on date of survey 2016
agedays	whole number	Age in days on date of survey 2016
BIOMEDICAL OUTCOMES (from biomedical survey)		
haemoglobin	decimal	Haemoglobin concentration in g/dL
ferritin	decimal	Serum ferritin measurement
logferritin	decimal	Natural log of serum ferritin measurement – to normalise data distribution
anaemia	0= Hb in normal range 1= mild anaemia, Hb<11.0	Anaemia, defined as child with Hb <11.0 g/dL; includes children with mild anaemia, as well as more severe disease
modsevereanaemia	0= Hb 10g/dL or higher 1= moderate anaemia	Moderate-to-severe anaemia, defined as child with Hb <10.0 g/dL
severeanaemia	0= Hb 8g/dL or higher 1= severe anaemia	Severe anaemia, defined as Hb <8.0 g/dL
malaria	0= not infected 1= infected	Infected with malaria parasites (**any species**) - presence of trophozoites and/or schizonts in peripheral blood sample.
malariaresult	text field	Malaria parasitology – results of light microscopy; slides were double read (there were 2 categories: Negative, Positive)
species	0= not infected 1= *P.falciparum* only 2= *P.malariae* only 3= *P.ovale* only 4= *P.falc + P.malariae* 5= *P.falc + P.ovale*	Malaria parasite species Note: It is possible to be infected by more than one species; thus there were 5 categories for different combinations of species.
density	decimal	Malaria parasite density (trophozoite count)
gametocytes	decimal	Malaria gametocyte count
logdensity	decimal	Natural log of malaria parasite density – to normalise data distribution
loggameto	decimal	Natural log of malaria gametocyte count
gameto2cat	0= absent 1= present	Presence/absence of gametocytes in blood. This is the mature form of the malaria parasite than can be passed to mosquitoes and transmit the infection to others
stunted	0= not stunted 1= stunted	Children with a height-for-age Z-score more than 2 standard deviations (SD) below the mean
underweight	0= not underweight 1= underweight	Children with a weight-for-age Z-score more than 2 SD below the mean

acutemalnutrition	0= no acute malnutrition 1= acutely malnourished	Children with a BMI-for-age Z-score more than 2 SD below the mean
lowweightheight	0= no acute malnutrition 1= acutely malnourished	Children with a weight-for-height Z-score more than 2 SD below the mean **(measure of acute malnutrition in 3y cohort only)**
weight	decimal	Weight of child in kg (average of two measurements)
height	decimal	Height of child in cm (average of two measurements)
bmi	decimal	Body mass index, BMI=weight/height^2
weight1	decimal	Weight of child in kg (first measurement)
weight2	decimal	Weight of child in kg (second measurement)
height1	decimal	Height of child in cm (first measurement)
height2	decimal	Height of child in cm (second measurement)
muac	decimal	Mid upper arm circumference (MUAC) in cm
zweightage	includes negative numbers	Weight-for-age Z-score (WAZ)
zheightage	includes negative numbers	Height-for-age Z-score (HAZ)
zbmiage	includes negative numbers	BMI-for-age Z-score (BAZ)
zweightheight	includes negative numbers	Weight-for-height Z-score (WHZ) **(for 3y cohort only)**
dewormed	Oui = dewormed in 2016, missing= No,not dewormed	Has child been dewormed in 2016? (question from biomedical survey questionnaire)
_agemons	decimal	Calculated age in months on date of survey 2016 for deriving z-scores (for 5y cohort only)
childid_2014	numeric code	Unique identifier for subset of children who were also surveyed in 2014
SOCIOECONOMIC, HOUSEHOLD and NUTRITION variables (from parental questionnaire) *With number and wording of question from parental survey shown in red*		
matlit	0= No – mother cannot read 1= Yes – mother can read	Maternal literacy *B4. Can the child's mother read?*
mainlang	1= Bambara 2= Shenara 3= Mamara 7= Other language	Main language spoken in the home (can be used as indicator of ethnicity) *B10. What is the main language spoken at home?*
eccdenrol	0= No 1= Yes–currently enrolled in ECD	Child enrolled in ECD program *D1. Is your child currently enrolled at a preschool or other early learning program?*
Household assets:	***Does anyone in your household own the following?*** All coded 0=no, 1=yes	
radio	Radio	
tv	Television	
moped	Moped or motorbike	
car	Motor vehicle (tractor, car, lorry)	
phone	Mobile phone	
solar	Solar panel	
cow	Cows (any number)	
goat	Goats and/or sheep (any number)	
horse	Horse	

cart	Horse-drawn Cart	
mealsday	1= child ate less than 2 meals 2= ate 2 meals yesterday 3= ate 3 times yesterday 4= ate 4 times yesterday 5= ate 5 times yesterday	Number of meals/snacks eaten per day *N9. How many times did your child eat a meal yesterday (include snacks)?*
Dietary diversity:	***Did you child eat any of the following foods yesterday?*** *All coded 0=no, 1=yes*	
grains	Grains: millet, sorghum, maize, rice	
roots	Roots: cassava, potato, yam	
beansnuts	Beans and nuts (arachides)	
otherveg	Other vegetables	
fruit	Fruit	
meatfish	Meat, Poultry or Fish	
milk	Milk	
eggs	Eggs	
palmoil	Palm oil	
otheroil	Other oils and fats	
limitdiet	0= No 1= Yes – diet in last 4 weeks limited by lack of resources	Dietary diversity limited by lack of resources *N10. In the past four weeks, did your child ever have to eat a limited variety of foods due to a lack of resources?*
hungry	0= No 1= Yes – child has gone to bed hungry in last 4 weeks	Amount of food limited by lack of resources *N11. In the past four weeks, did your child ever go to sleep at night hungry because there was not enough food?*
attendinfo	0= No 1= Yes – attended one or more information sessions for parents	Parent attended at least one information session for parents *N12. Have you participated in any sessions about feeding your child or about playing with or stimulating your child?*
smc	0= No 1= Yes – child received SMC in 2015	Child received SMC (seasonal malaria chemoprevention) during last rainy season *F8. Did your child receive any tablets to protect them against malaria last year (2015)?*
employ	0= subsistence farming 1= paid work (cash crops, petty trading, skilled trade, salaried employment, etc)	Main source of revenue for family *E6. What is the household's main source of livelihood?*
roof	0= low cost (thatch, mud) 1= high cost (zinc, tiles)	Type of building materials used in construction of roof of family home
walls	0= low cost (mud walls, sundried bricks, wood) 1= high cost (fired bricks and/or cement)	Type of building materials used in construction of walls of family home
floor	0= low cost (mud) 1= high cost (cement, tiles)	Type of building materials used for floor of family home
light	0= low cost (candles, torch, oil lamp) 1= high cost (solar panel, electricity)	Type of lighting used in home *E4. What is the main source of lighting in your home?*

ITN_lastnight	0= No 1= Yes – slept under mosquito net last night	Use of mosquito net *F6. Did your child sleep under a bed net last night?*
mnpadd	0= No 1= Yes - added MNPs to child's food	Did child ever receive MNPs? *G5. Have you ever added these to your child's food?*
mnpdays	0= Did not use MNPs 1= Used MNPs once a week 2= Used MNPs 2-3 days/week 4= Used MNPs 4-6 days/week 7= Used MNPs every day	How many times per week did child receive MNPs *G6. On how many days in the last 7 days, were these sachets added to your child's food?*
SOCIO-ECONOMIC STATUS OF FAMILY: based on asset ownership (from parental questionnaire)		
wealthindex	PCA score	PCA score using data on household assets, house structure and paid work
wealth5cat	0= 1st quintile (most poor) 1= 2nd quintile 2= 3rd quntile 3= 4th quintile 4= 5th quintile (least poor)	Overall wealth index divided into five quintiles **Note. PCA scores and quintiles were calculated using data from entire parent dataset – across 90 ECD and non-ECD villages**
wealth2cat	0= most poor 1= least poor	Binary grouping to identify the poorest households (two lowest quintiles vs rest)
assetsindex	PCA score	PCA score using data on household assets only
assets5cat	0= 1st quintile (most poor) 1= 2nd quintile 2= 3rd quntile 3= 4th quintile 4= 5th quintile (least poor)	Household assets index divided into five quintiles Note. PCA scores and quintiles were calculated using data from entire parent dataset – across 90 ECD and non-ECD villages
trialarm	1= ECD control 2= MNP intervention	classifies 60 villages according to intervention received – **use for statistical analysis**