**Supplementary file 2:**

**Supplementary table S1a: Studies on diet diversity in pregnancy, infancy or childhood measured using simple count of food**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author** | **Year** | **Foods** | **Population** | **Scoring** | **Outcome** |
| Roche2 | 2008 | 20 Traditional Foods | Mothers and Children (3-6 years) | One point given to each unique local food in the diet reported in two 24-hour recalls, and an individual’s total food diversity score was the sum of points given. | Nutrient adequacy |
| LaChat3 | 2018 | 234 species | Women and children | Number of different species consumed by an individual from 24-hour diet recalls. Minimum cut-offs were set for species richness and diet diversity. | Nutrient adequacy |
| Remans4 | 2011 | Number of species grown on each farm | Household/Adult women | Measured food diversity based on 17 nutrients from 77 crops during the growing season and ranked them based on level of nutrients provided by each species | Nutritional diversity provided by species grown on farms (Household) |
| Bezerra5 | 2011 | 27 foods or groups | Household/Adults | One point given for each of the 27 foods or food groups during a one-week period. First 4 foods/groups not considered healthy: Diet diversity score varied from 0 to 23, depending on the number of groups/foods. | Obesity |
| Onyango 6 | 1998 | Simple foods | Toddlers | Number of different foods consumed | Anthropometry |
| Ntwenya7 | 2017 | Simple foods | Households | Number of foods consumed per day at beginning and end of rainy season | Food diversity vs. biodiversity |

**Supplementary table S1b: Studies on diet diversity measured in pregnancy, infancy or childhood using simple count of food groups**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author** | **Year** | **Food group** | **Population** | **Scoring** | **Outcome** |
| Jones8 | 2017 | 10 food groups based on 124 food items | Household | One point per food group eaten over a 7 day period | Crop series richness vs. diet diversity |
| Chomat9 | 2015 | 10 predefined food groups | Pregnancy | Sum of all groups consumed eaten the day before | Resilience or increase vulnerability of the mother–infant dyad. |
| Rukundo 10 | 2016 | 12 groups consisting of 72 foods commonly eaten in Rwanda | Household/Adults | 1 point for each food group consumed in 30 days based on intake and frequency of intake, food insecurity based [ ‘never’ = 0; one to two times = 1; three to ten times = 2 and more than ten times = 3 points]. Maximum score of 33 points given if the household often reported ‘yes’ to all the eleven questions, indicative of a high level of food insecurity; total score > 0 food insecure. | Food security |
| Christian11 | 2016 | Household diet diversity 14 Food groups  Child Adversity score Child (ASF) = 10 groups | Household food security vs. Children (2-5 years) diet quality | One point given per food group  0 = if no household member consumed any item in that food group in the past 7 days; 1 = if a member consumed something in the food group. The dietary diversity score had a maximum score of 14 (eating from all fourteen food groups). SDF: 0 = did not consume any form of ASF, maximum = 10 (consumed from all ten groups of ASF). | Socio-economic status and childhood diet quality |
| Ey Chua 12 | 2012 | 15 food groups | Children (1-6 years) | 1 point per each food group | Anthropometry |
| Wright 13 | 2015 | 7 food groups +/- breast feeding at birth and bimonthly till 2 year. | Infants (6-24 months) | Any consumption of 10g or more of a given food group was awarded 1 point, for a maximum of 7 points. A 10g threshold was used because a previous study in this cohort imposed this cut-off point.  Foods consumed in very small quantities and improved correlations of the DDS with nutrient intake.  A dietary diversity score based on seven food groups was classified as low (<4) or high (≥4).  The breast- feeding variable was a dichotomous indicator (yes/no) of whether the infant was breast-fed in the past 24h, which is also the same time period of reference for the 24h dietary recall. | Length and weight for age |
| Woo14 | 2015 | 7 food groups | Infants (6-12 months) | Minimum diet diversity was defined as by 4/7; dietary intake assessed weekly with 24-hour recall from 6 – 12 months | Increase in diet diversity from 6 – 12 months |
| Chandrasekhar 15 | 2017 | 7 food groups consisting of 21 foods | Infant (6-23 months) | One point per food group for diet from the 24 hours preceding the survey. | Anthropometry |
| Agize 16 | 2017 | 7 food groups | Children | One point given per food group. Those who fed their child with 4 or more food groups were categorised as practicing good dietary diversity (minimum acceptable diet) and below 4 groups were categorised as not practicing good dietary diversity. | Mother's knowledge on diet diversity and child feeding vs social factors (mother's age, husbands education level, marital status) |
| Gewa 17 | 2014 | 9 food groups | Children (7 years) | 3 scoring schemes: (1) 1 point given based on 1 gram of food in food group (2) 1 point given based on 15g food in food group (3) 1 point given based on minimum required amount eaten for food eaten over the past 24 hours | Minimum intakes required |
| Shamim 18 | 2016 | 9 food groups | Pregnancy | One point per food group eaten in past 24 hours | Sociodemographic status |
| Leroy 19 | 2008 | 9 food groups | Household diet diversity vs. child outcomes (9-36 months) | Number of 9 all-inclusive food groups used in preparing the communal household meals over a 7 day period | Intra-household allocation and gender differences |
| Msaki 20 | 2013 | Food count and count of 5 food groups | Household/Adults (15-50 years) | Number of foods or number of food groups consumed over a 14 day period | Seasonality variation in food quality. |
| Hatloy 21 | 1998 | Counted individual foods and food groups | Children (13-58 months) | Food Variety. simple count of food items, and Dietary Diversity Score , a count of food groups eaten over 2 or 3 days | Nutrient adequacy |
| Mok 22 | 2017 | Seven food groups | Infants (6-36 months) | Diet diversity score = number of food groups consumed at least once over a period of 3 days from the diet record (at 6, 9 and 12 months of age), giving a potential score between 0 and 7 | Adiposity and consumption of home cooked foods |

**Supplementary table S1c: Studies on diet diversity measured in pregnancy, infancy or childhood using count of foods within food groups**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author** | **Year** | **Foods within good group** | **Population** | **Scoring** | **Outcome** |
| Hatloy 23 | 2000 | The food variety score (FVS) was the number of food items from the list of 104 food items. Diet diversity score: the number of food groups consumed | Household and Children (6-59 months) | FVS, where high > 18, medium = 14-18 and low 4-13 food items. The DDS was divided into tertiles, which gave the categories: high = **3**=8, medium=6-7 and low = 2-5. Based on food intake the previous day and the week before | Anthropometry |
| Motbainor 24 | 2015 | The number of food items grouped into specific food groups | Mother and Infants (0-35 months) | Number of different foods or food groups consumed over 24 hours | Stunting and underweight |

**Supplementary table S1d: Studies on diet diversity measured in pregnancy, infancy or childhood and used within an index**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author** | **Year** | **Within an index** | **Population** | **Scoring** | **Outcome** |
| Vadiveloo 25 | 2014 | 5 food groups weighted based on health values used in a modified Berry Index | Household | US house hold food diversity (HFD) index giving a score between zero and 1 based on 24 hour recall | Weight control |

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