TFNC Training
Week 9

Food Composition Data &
Food Matching

07 March 2023

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

University of Nottingham
UK | CHINA | MALAYSIA

MAPS

Agenda

Introduction - 5min

Introduction to Food Composition Data - 15min.

Activity 1: Importing & cleaning FCTs - 1h 5min.

BREAK - 15min.

Introduction to Food Matching - 15min.

Activity 2: Exploring food list - 1h 5min.

Introduce yourself!

Introduction to Food Composition Tables and Databases

Food Composition Tables and Databases

Food Composition Tables and Databases (FCTs)

- What are they?
- Uses and limitations
- How to use them?
- Where to find them?
- Strengths and weaknesses

Food Composition Tables - what are they?

Food Composition Tables and Databases are lists of **foods**, their **nutrient composition** (i.e., proteins, carbohydrates, vitamins, minerals, etc.) and other descriptive information.

Food Composition Tables - what are they?

Information in the FCT…

CONDENSED FOOD COMPOSITION TABLE

TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

FOOD CODE	FOOD NAME IN ENGLISH	NOMS DES ALIMENTS EN FRANÇAIS	EDIBLE PORTION 1	ENERGY (kJ(kcal))	WATER (g)	PROTEIN (g)	FAT (g)	CHO AVAIL (g)	FIBRE. TOTAL DIETARY (g)	ASH (g)
INFOODS TAGNAMES			*EDIBLE1*	*ENERC(kJ(kcal))*	*WATER(g)*	*PROTCNT(g)*	*FAT(g)*	*CHOAVLDF(g)*	*FIBTG(g)*	*ASH(g)*
Cereals and their products/Céréales et produits dérivés										
01_172	Baling béinré (northern Burkina Faso)*: sorghum porridge with monkey bread. tamarind. water. milk and sugar	Baling béinré (nord du Burkina Faso)*: bouillie de sorgho avec pain de singe. tamarin. eau. lait et sucre		329(78)	80.1	2.5	[0.2]	16.1	[0.6]	0.5
01_173	Baling ni zièm béinré (Burkina Faso)*: porridge of degermed sorghum with potash. water and sugar	Baling ni zièm béinré (Burkina Faso)*: bouillie de sorgho dégermé avec potasse. eau et sucre		277(65)	83.3	0.9	[0.2]	14.8	0.5	0.3
01_168	Beenkida (Burkina Faso)*: maize porridge with maize granules	Beenkida (Burkina Faso)*: bouillie de maïs avec grumaux de maïs		426(100)	74.6	2.1	0.3	21.7	1.1	0.2
01_188	Biscuit. sweet. plain. unfortified	Biscuit. sucré. nature. non enrichi	1.00	2 010(479)	4.6	6.2	21.2	64.9	2.0	1.1

FAO/INFOODS Food Composition Table for Western Africa (2019) / Table de composition des aliments FAO/INFOODS pour l'Afrique de l'Ouest.

Food Composition Tables - what are they?

Information in the FCT…

CONDENSED FOOD COMPOSITION TABLE

TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

FOOD CODE	FOOD NAME IN ENGLISH	NOMS DES ALIMENTS EN FRANÇAIS	EDIBLE PORTION 1	ENERGY (kJ)(kcal))	WATER (g)	PROTEIN (g)	FAT (g)	CHO AVAIL (g)	FIBRE. TOTAL DIETARY (g)	ASH (g)
INFOODS TAGNAMES			*EDIBLE1*	*ENERC(kJ(kcal))*	*WATER(g)*	*PROTCNT(g)*	*FAT(g)*	*CHOAVLDF(g)*	*FIBTG(g)*	*ASH(g)*
Cereals and their products/Céréales et produits dérivés										
01_172	Baling béinré (northern Burkina Faso)*: sorghum porridge with monkey bread. tamarind. water. milk and sugar	Baling béinré (nord du Burkina Faso)*: bouillie de sorgho avec pain de singe. tamarin. eau. lait et sucre		329(78)	80.1	2.5	[0.2]	16.1	[0.6]	0.5
01_173	Baling ni zièm béinré (Burkina Faso)*: porridge of degermed sorghum with potash. water and sugar	Baling ni zièm béinré (Burkina Faso)*: bouillie de sorgho dégermé avec potasse. eau et sucre		277(65)	83.3	0.9	[0.2]	14.8	0.5	0.3
01_168	Beenkida (Burkina Faso)*: maize porridge with maize granules	Beenkida (Burkina Faso)*: bouillie de maïs avec grumaux de maïs		426(100)	74.6	2.1	0.3	21.7	1.1	0.2
01_188	Biscuit. sweet. plain. unfortified	Biscuit. sucré. nature. non enrichi	1.00	2 010(479)	4.6	6.2	21.2	64.9	2.0	1.1

FAO/INFOODS Food Composition Table for Western Africa (2019) / Table de composition des aliments FAO/INFOODS pour l'Afrique de l'Ouest.

...contains information on minerals and vitamins

CONDENSED FOOD COMPOSITION TABLE | TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

FOOD CODE	FOOD NAME IN ENGLISH	CALCIUM (mg)	IRON (mg)	MAGNESIUM (mg)	PHOSPHORUS (mg)	POTASSIUM (mg)	SODIUM (mg)	ZINC (mg)	COPPER (mg)	VIT A RE (mcg)	VIT A RAE (mcg)	RETINOL (mcg)	BETA-CAROTENE EQUIV (mcg)
INFOODS TAGNAMES		*CA(mg)*	*FE(mg)*	*MG(mg)*	*P(mg)*	*K(mg)*	*NA(mg)*	*ZN(mg)*	*CU(mg)*	*VITA(mcg)*	*VITA_RAE(mcg)*	*RETOL(mcg)*	*CARTBEQ(mcg)*
Cereals and their products/Céréales et produits dérivés													
01_172	Baling béinré (northern Burkina Faso)*: sorghum porridge with monkey bread, tamarind, water, milk and sugar	61	0.5	12	54	119	23	0.34	0.03	1	0	0	2
01_173	Baling ni zièm béinré (Burkina Faso)*: porridge of degermed sorghum with potash, water and sugar	10	[0.9]	7	11	35	49	0.16	0.02	0	0	0	1
01_168	Beenkida (Burkina Faso)*: maize porridge with maize granules	5	0.2	13	14	25	3	0.18	0.03	0	0	0	0
01_188	Biscuit, sweet, plain, unfortified	67	1.3	16	109	119	390	0.54	0.10	111	106	101	[61]

CONDENSED FOOD COMPOSITION TABLE | TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

FOOD CODE	FOOD NAME IN ENGLISH	VIT D (mcg)	VIT E (mg)	THIAMINE (mg)	RIBOFLAVIN (mg)	NIACIN EQUIV (mg)	NIACIN (mg)	TRYPTOPHAN (mg)	VIT B6 (mg)	FOLATE (mcg)	FOLATE EQUIV (mcg)	VIT B12 (mcg)	VIT C (mg)
INFOODS TAGNAMES		*VITD(mcg)*	*VITE(mg)*	*THIA(mg)*	*RIBF(mg)*	*NIAEQ(mg)*	*NIA(mg)*	*TRP(mg)*	*VITB6C(mg)*	*FOL(mcg)*	*FOLDFE(mcg)*	*VITB12(mcg)*	*VITC(mg)*
Cereals and their products/Céréales et produits dérivés													
01_172	Baling béinré (northern Burkina Faso)*: sorghum porridge with monkey bread, tamarind, water, milk and sugar	[0.0]	[0.01]	0.03	0.08	0.7	0.2	32	0.02	[4]	[4]	0.12	2
01_173	Baling ni zièm béinré (Burkina Faso)*: porridge of degermed sorghum with potash, water and sugar	0.0	0.01	0.01	0.01	0.3	0.1	9	0.01	[2]	[2]	0.00	0
01_168	Beenkida (Burkina Faso)*: maize porridge with maize granules	0.0	0.08	0.02	0.00	0.2	0.1	7	0.04	1	1	0.00	0
01_188	Biscuit, sweet, plain, unfortified	0.1	[2.60]	0.11	0.04	2.3	1.0	72	0.05	12	12	0.06	1

FAO/INFOODS Food Composition Table for Western Africa (2019) / Table de composition des aliments FAO/INFOODS pour l'Afrique de l'Ouest.

…contains information on minerals and vitamins

CONDENSED FOOD COMPOSITION TABLE | TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

FOOD CODE	FOOD NAME IN ENGLISH	CALCIUM (mg)	IRON (mg)	MAGNESIUM (mg)	PHOSPHORUS (mg)	POTASSIUM (mg)	SODIUM (mg)	ZINC (mg)	COPPER (mg)	VIT A RE (mcg)	VIT A RAE (mcg)	RETINOL (mcg)	BETA-CAROTENE EQUIV (mcg)
INFOODS TAGNAMES		CA(mg)	FE(mg)	MG(mg)	P(mg)	K(mg)	NA(mg)	ZN(mg)	CU(mg)	VITA(mcg)	VITA_RAE(mcg)	RETOL(mcg)	CARTBEQ(mcg)
Cereals and their products/Céréales et produits dérivés													
01_172	Baling béinré (northern Burkina Faso)*: sorghum porridge with monkey bread, tamarind, water, milk and sugar	61	0.5	12	54	119	23	0.34	0.03	1	0	0	2
01_173	Baling ni zièm béinré (Burkina Faso)*: porridge of degermed sorghum with potash, water and sugar	10	[0.9]	7	11	35	49	0.16	0.02	0	0	0	1
01_168	Beenkida (Burkina Faso)*: maize porridge with maize granules	5	0.2	13	14	25	3	0.18	0.03	0	0	0	0
01_188	Biscuit, sweet, plain, unfortified	67	1.3	16	109	119	390	0.54	0.10	111	106	101	[61]

CONDENSED FOOD COMPOSITION TABLE | TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

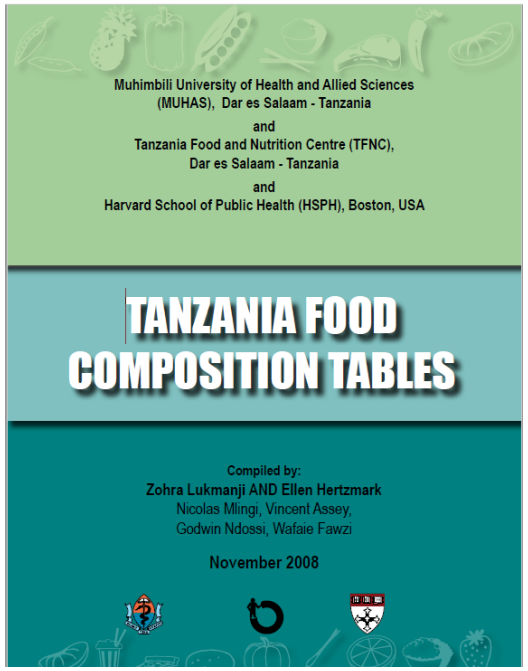
FOOD CODE	FOOD NAME IN ENGLISH	VIT D (mcg)	VIT E (mg)	THIAMINE (mg)	RIBOFLAVIN (mg)	NIACIN EQUIV (mg)	NIACIN (mg)	TRYPTOPHAN (mg)	VIT B6 (mg)	FOLATE (mcg)	FOLATE EQUIV (mcg)	VIT B12 (mcg)	VIT C (mg)
INFOODS TAGNAMES		VITD(mcg)	VITE(mg)	THIA(mg)	RIBF(mg)	NIAEQ(mg)	NIA(mg)	TRP(mg)	VITB6C(mg)	FOL(mcg)	FOLDFE(mcg)	VITB12(mcg)	VITC(mg)
Cereals and their products/Céréales et produits dérivés													
01_172	Baling béinré (northern Burkina Faso)*: sorghum porridge with monkey bread, tamarind, water, milk and sugar	[0.0]	[0.01]	0.03	0.08	0.7	0.2	32	0.02	[4]	[4]	0.12	2
01_173	Baling ni zièm béinré (Burkina Faso)*: porridge of degermed sorghum with potash, water and sugar	0.0	0.01	0.01	0.01	0.3	0.1	9	0.01	[2]	[2]	0.00	0
01_168	Beenkida (Burkina Faso)*: maize porridge with maize granules	0.0	0.08	0.02	0.00	0.2	0.1	7	0.04	1	1	0.00	0
01_188	Biscuit, sweet, plain, unfortified	0.1	[2.60]	0.11	0.04	2.3	1.0	72	0.05	12	12	0.06	1

FAO/INFOODS Food Composition Table for Western Africa (2019) / Table de composition des aliments FAO/INFOODS pour l'Afrique de l'Ouest.

Tanzania FCT, 2008

A1 Cereal and Cereal products

	Macronutrients	ENERGY_KC Kcal	PROCNT g	A_PROTEI g	MFP_PROT g	FAT g	CHOCDF g
1	Biscuit	434.0	9.2	0.0	0.0	11.8	71.5
2	Bread roll	274.0	8.8	0.0	0.0	3.0	51.9
3	Bread, white	274.0	8.8	0.0	0.0	3.0	51.9
6	Cake	320.0	4.7	2.2	0.0	12.3	48.6
7	Cookie	478.0	5.1	0.0	0.0	21.1	67.9
8	Donut	478.0	5.1	0.0	0.0	21.1	67.9
9	Infant cereal, Cerelac	387.0	14.0	8.5	0.0	1.0	78.1
33	Macaroni or spaghetti	371.0	10.5	0.0	0.0	1.0	77.8
10	Maize, cracked, cooked	119.0	2.7	0.0	0.0	1.2	25.4
11	Maize, dried, raw	362.0	8.1	0.0	0.0	3.6	76.9
12	Maize, flour, dry	362.0	8.1	0.0	0.0	3.6	76.9
13	Maize, green, cooked	246.0	7.5	0.0	0.0	3.0	57.2
14	Maize, on the cob, immature	59.0	1.8	0.0	0.0	0.7	13.8
15	Maize, yellow, flour	362.0	8.1	0.0	0.0	3.6	76.9
16	Millet, bulrush	361.0	11.6	0.0	0.0	5.0	68.7
17	Millet, finger, grain or flour	328.0	6.6	0.0	0.0	1.3	76.2
34	Mixed porridge flour (maize and oil)	414.4	16.9	0.0	0.0	15.6	56.1

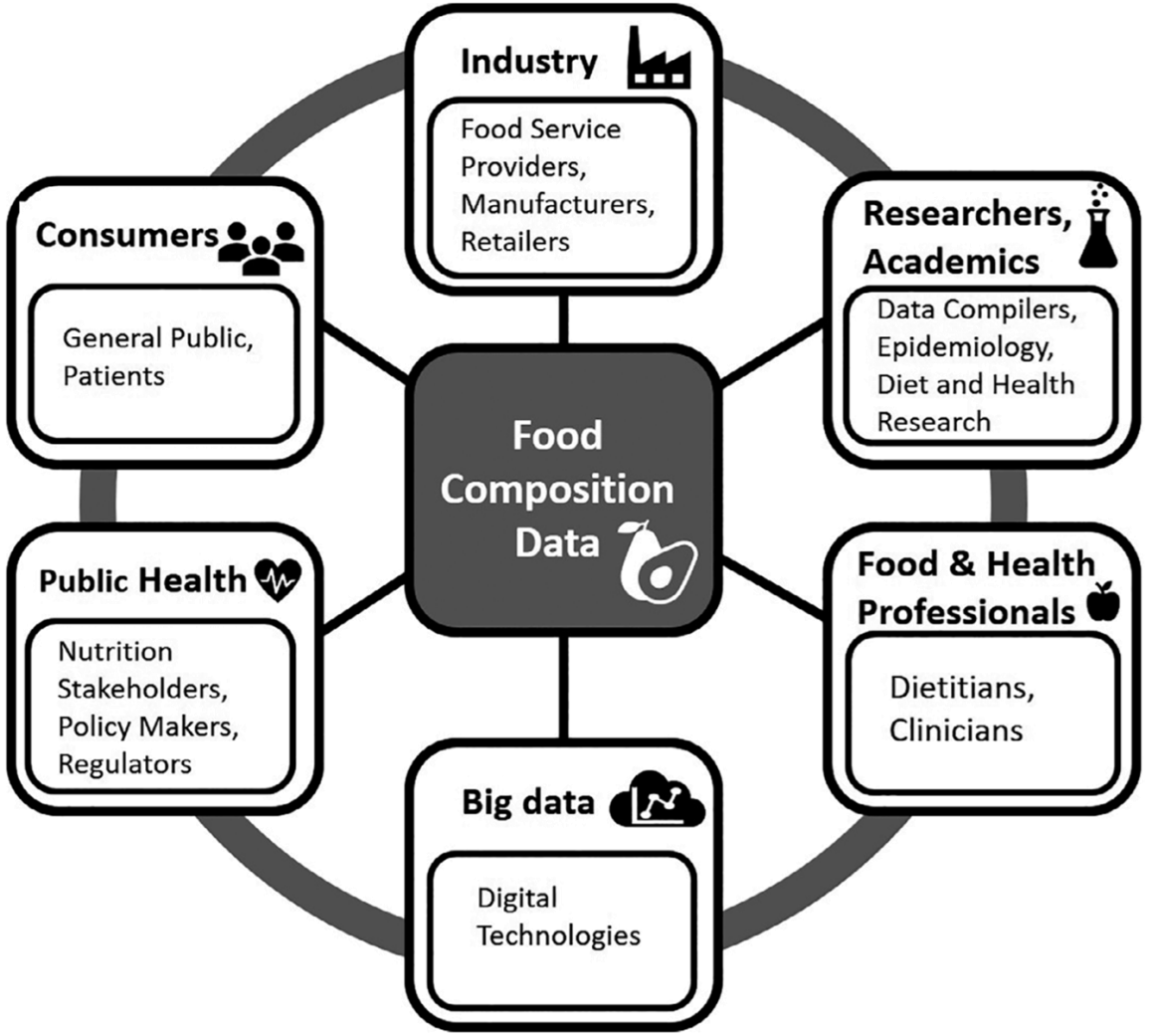


Lukmanji Z., et al. (2008). Tanzania food composition Tables. MUHAS- TFNC

Food Composition Tables – Uses & Users

<u>Examples of application</u>

- Dietary assessment of nutrient intakes
- Food labelling
- Research and Public Health
  - Establishing relationship between nutrient intakes and disease
  - Informing nutrition policies



Traka et al. 2020. Nutrition Bulletin.

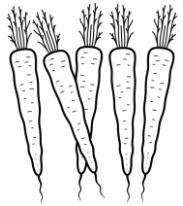
Food Composition Table – Uses & Limitations

Factors influencing the accuracy of nutrient values reported

1. Variability in the composition of foods
2. Type and Quality of the underlying data

1. Variability in the composition of foods

Nutrient variability in raw foods



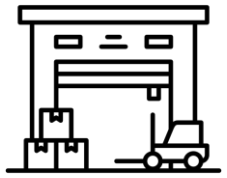
Cultivar/ Variety

Environmental factors

Agri-practices

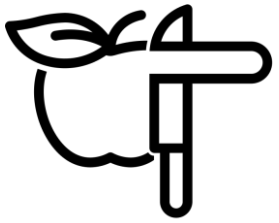
Maturity/ Colour

Nutrient variability by local and cultural practices



Transportation/ Storage

Processing/ formulation



Preparation (EP)

Cooking

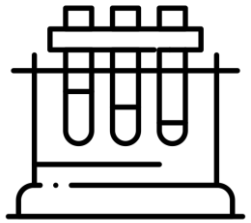
2. Type and Quality of the underlying data

- Type of data used to populate the FCT
- Sampling design and analytical methods
- Calculations & data standardisation

2. Type and Quality of the underlying data

Type of data used to populate the FCT

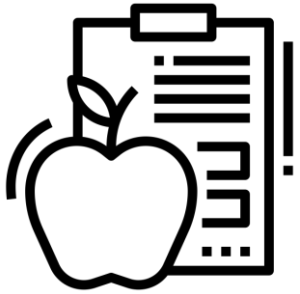
Chemically analysed values



Primary data

Secondary data

Borrowed values
(i.e., from other FCTs)



Calculated values
(i.e., Energy, recipes)

Sampling design and analytical methods

Example of diversity of analytical methods for total fat

Table 7.5 Methods of analysis for lipids

Procedure	*Application*	*Limitations*	*Capital costs*	*Selected references*
Total fat				
Continuous extraction (single solvent)	Low moisture foods (dry analytical samples)	Incomplete extraction from many foods. Time consuming. Extracts cannot be used for fatty acid studies	Low	Sullivan and Carpenter, 1993
Acid hydrolysis	All foods except dairy and high sugar products	Some hydrolysis of lipids. Extracts cannot be used for fatty acid studies	Low	AOAC International, 2002; Sullivan and Carpenter, 1993
Hydrolysis and capillary GLC	Most foods (NLEA compliance)		High	Ngeh-Ngwainbi, Lin and Chandler, 1997; House, 1997
Mixed solvent extraction	Rapid, efficient for many foods. Extract can be used for fatty acid measurements	Complete extraction from most foods. Extracts often need clean-up	Low	Bligh and Dyer, 1959; Hubbard *et al*., 1977
Alkaline hydrolysis	Dairy foods	Validated for dairy foods only	Low	AOAC International, 2002
NIR	Established for cereals	Requires extensive calibration against other methods	High	Hunt *et al*., 1977a

Greenfield & Southgate (2003). Food composition data: production, management, and use. FAO, Rome.

Calculations & data standardisation

Food component names/ description standardisation using Tagnames. For example…

- “Vitamin B12” -> VITB12
- “Vitamin A” -> VITA or VITA_RAE
- “Vitamin B6” -> VITB6A or VITB6C or VITB6-?

Re-calculation of food components and foods. For example, …

- Energy, Carbohydrates by difference or Vitamin A (RAE).
- Recipe calculation

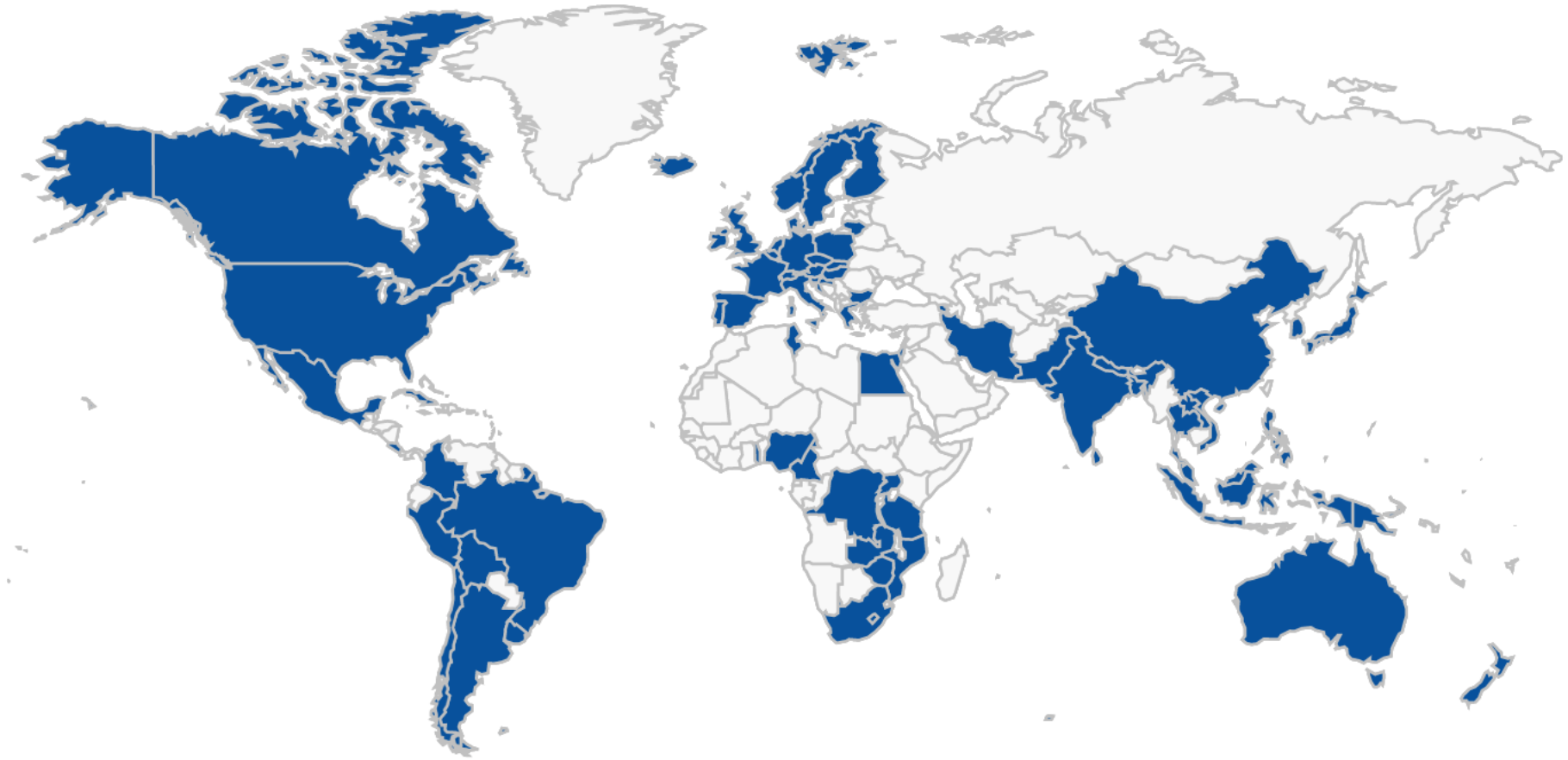
Unit of measure standardisation. For example, …

- mg/100g to g/100g.[1]

How to use them? – How to choose FCTs

1. Relevancy for the study/context (e.g., geographically and culturally close)
2. FCT availability & missing values (e.g., relevant foods and nutrients are reported)
3. Data quality and reporting (e.g., method of analysis, good metadata)

1. Relevancy for the study/context



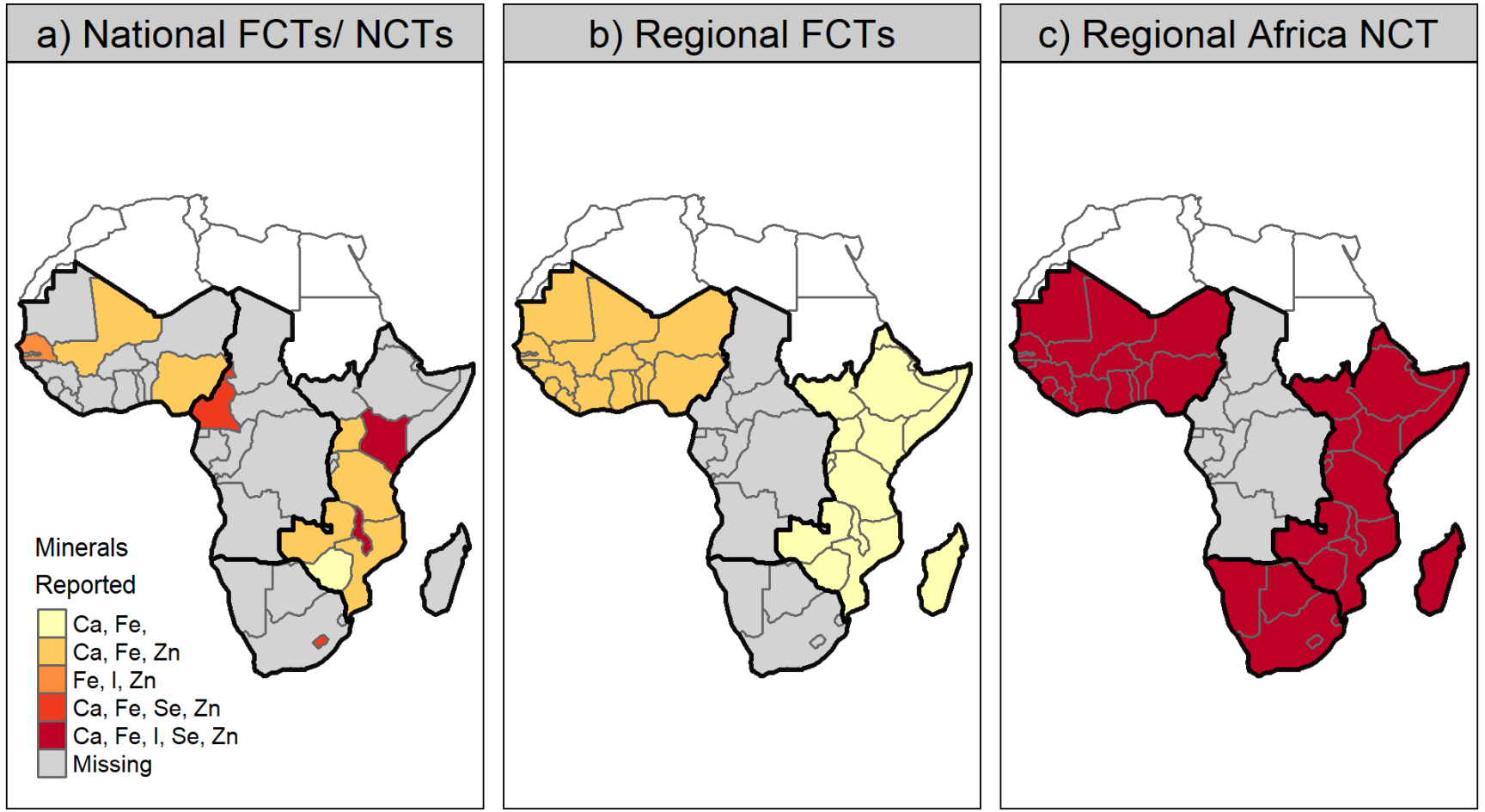
Food composition data availability widely varies across different regions

FCDB: Food Composition Tables and Dases

Source: World Nutrient Databases for Dietary Studies (WNDDS)

2. FCT availability & missing values

Mineral composition availability in FCTs for use in Southern, Eastern, Central and Western Africa



Nutrient reported varies in different food composition tables

Data quality and reporting

1. Coverage of foods and food description, including…
    1. Edible portions
    2. Raw or cooked (boiled, grilled, etc.)
    3. Variety, fat content, etc.
    4. Fortification
2. Food components, description and analytical methods
    1. Definitions and calculations
    2. Method of analysis and sampling
    3. Units of measure (e.g., g/100g of EP)*
3. Reporting
    1. Sources of the data for each component value
    2. Food composition data and metadata format

*Edible portion on fresh weight basis

Food Composition T
them?

fao.org/infoods/infoods/tables-and-databases/en/

english français español

International Network of Food Data Systems (INFOODS)

Food and Agriculture Organization of the United Nations

for a world without hunger

FAO Home

Nutrition home

INFOODS

- Structure and tasks of INFOODS
- Food composition challenges
- Regional data centres
- Plans and achievements
- Standards & Guidelines
- Tables and databases
  - FAO/INFOODS Databases
  - Asia
  - Africa
  - Canada, Caribbean

International food composition tab

The DIRECTORY was first compiled in September
are not held by the INFOODS Secretariat, and mar
can often be obtained by library interloan using the
numbers of contact persons are indicated. When pc

- FAO/INFOODS Databases
- Asia
- Africa
- Canada, Caribbean, United States
- Europe
- Latin American
- Middle East
- Oceania
- International Databases
- Inventories

INFOODS handles hundreds of requests each yea
now including information on their availability and
tables and is not a commercial endorsement for any

fao.org/infoods/infoods/tables-and-databases/africa/en/

english français español

International Network of Food Data Systems (INFOODS)

Food and Agriculture Organization of the United Nations

for a world without hunger

FAO Home

Nutrition home

Africa

Africa

Not secure | langual.org/langual_linkcategory.asp?CategoryID=4&Category=Food+Composition

LANGUAL™

- provided by Danish Food Informatics

LangualTM Home
Thesaurus
Literature
Proposals
Downloads
Contacts
About the web pages
Links

Other DFI sites
DFI Home
SciName Finder™
Compilers' Toolbox™

LINKS

Food Composition on the Web

List updated 2022-10-04 at 09:40:53

Argentina
ARGENFOODS - Tabla de Composición de Alimentos

Armenia
Food Composition Table for Armenia by Karine Babikyan (available from FAO INFOODS website)

ASEAN
ASEAN Food Composition Tables

Australia
Brand Miller et al - Tables of Composition of Australian Aboriginal Foods (Google Books)
FSANZ - Australian Food Composition Database (January 2019)
FSANZ - The Nutrition Panel Calculator

Austria
ÖNWT - Die österreichische Nährwerttabelle [The Austrian Food Composition Table]
Michael Murkovic et al. - Carotenoids in Austrian Vegetables
Michael Murkovic et al. - Carotenoids in Austrian Pumpkins

Bahrain
Food Composition Tables for Kingdom of Bahrain

Bangladesh
Ministry of Food (FPMU) - A food composition database for Bangladesh with special reference to selected ethnic foods
University of Dhaka - Food Composition Table for Bangladesh (printed table - pdf file)

Belgium
INTERNUBEL - Belgian food composition brand name database
NUBEL - Belgian Food Composition Data

Biodiversity for Food and Nutrition
Biodiversity for Food and Nutrition - Species Database

News

2021 Release of the New Zealand Food Composition Database.
2022-10-04
The 2021 update of New Zealand food composition database (NZFCD) released online on 31st March 2022. For more information, see the EuroFIR website.

7th edition of the Belgian food composition table.
2022-10-04
New version of the Belgian printed food composition table. For more information, see the EuroFIR website.

First edition of the Kyrgyz Food Composition Table.
2022-10-04
Kyrgyzstan has released their first national food composition table. For more information, see the EuroFIR website.

Version 6.4 of the Swiss food composition database.
2022-08-01
The updated Swiss Food Composition Database includes new data from analyses of minerals and vitamins carried out in Switzerland, see the FSVO website.

Strengths & weaknesses (Food composition Tables)

Strengths	Weaknesses
• Provide essential information for estimating apparent nutrient intake • Can provide good insight about food and nutrients consumed in a region • Most of the FCTs are freely available	• Missing data (foods or nutrients) • Inadequate reporting and/or description (food items, nutrients, etc.) • Obsolete methods and instruments • Inaccurate data (errors in imputed values, calculations, implausible values,…)

Activity 1: Importing & Cleaning FCTs

Food Composition Tables and Databases

Tanzania FCT, 2008 – Food Composition Data

1. Get familiar with food composition data processing

    - Importing FCT
    - Checking food groups
    - Food item descriptions
    - Food component descriptions

2. FCT – data cleaning and standardisation

BREAK

Introduction to Food Matching

Food Composition Tables and Databases

Food Matching

- What’s food matching?
- Why is important/ necessary?
- How to do it?
- Potential pitfalls

What’s food matching?

Food matching links food consumption/supply data with food composition data.

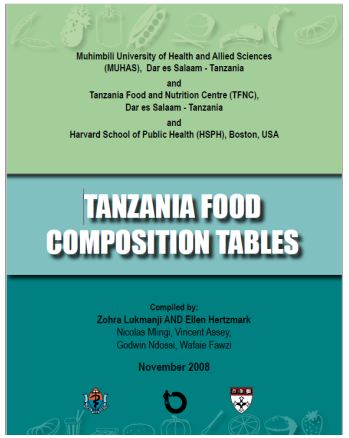
Why is important/ necessary?

1. To obtain (high quality) estimations of apparent nutrient intakes

2. For compiling FCTs (e.g. when filling missing data)

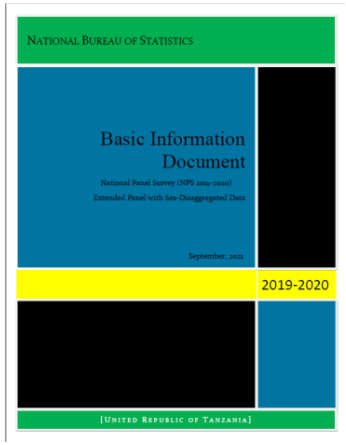
Food Matching: Estimating nutrient intakes & adequacy

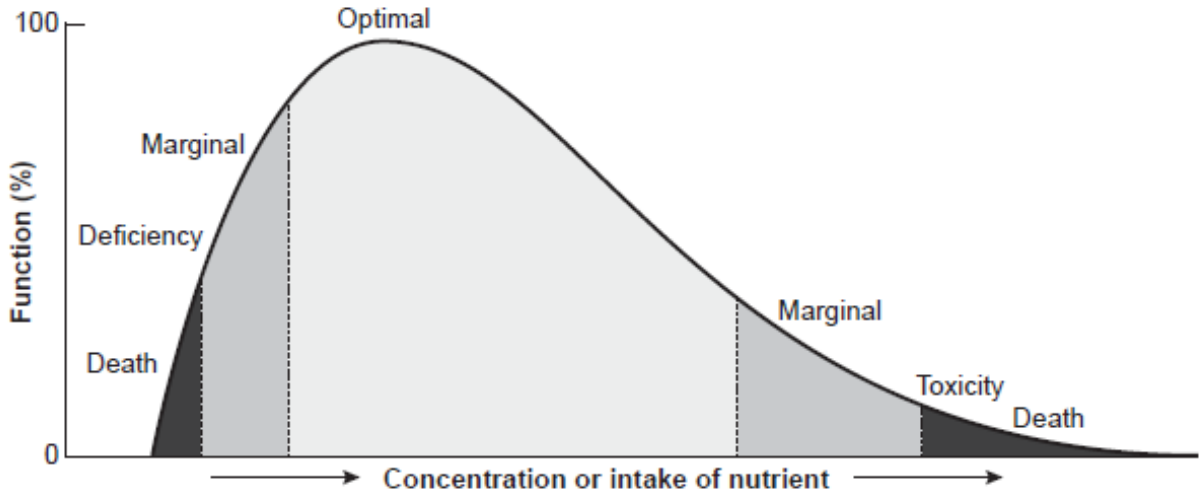
Food composition tables



$$Nutrient(k)\ intake_{d,i} = \sum_{f=1}\left[Nutrient\ (k) content^{(f)}_{100g}\, x\, \frac{Consumed\ food\ amount^{(f),d,i}}{100}\right]$$

Food (apparent) consumption



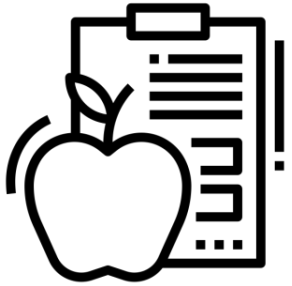


Lukmanji Z., et al. (2008). Tanzania food composition Tables. MUHAS- TFNC; Bailey, West, Black, (2015). Ann Nutr Metab.

How to do it? - Example of Food Matching Process

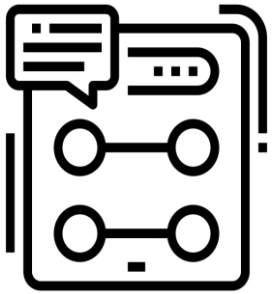
NPS-SDD – apparent food consumption in Tanzania

Food composition tables



1) Tanzania FCT, 2008, Western Africa FCT, 2019
2) **Kenya FCT, 2018**
3) Tanzania FCT, 2008, Western Africa FCT, 2019
- ….

Food Matching -



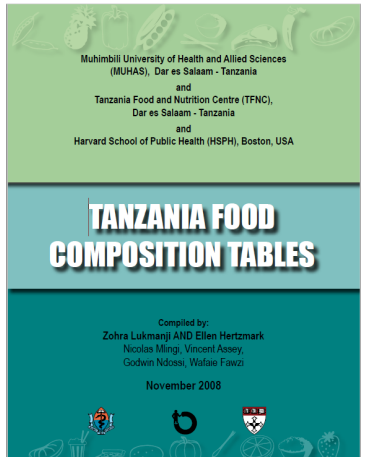
1. Tanzania FCT – has the food?
   a) Yes - Check:
      - Food description
      - Moisture content
      - Nutrient values
   b) No, go to the next FCT

2. Kenya FCT – has the food?
   a) Yes – Check
   b) No, go to the next FCT

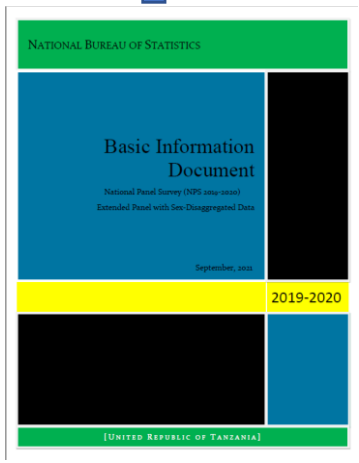
3. Next FCT

Estimating apparent nutrient intakes

$$\boldsymbol{Nutrient(k)\ intake_{d,i}} = \sum_{f=1} \left[Nutrient\ (k) content^{(f)}_{100g} x \frac{Consumed\ food\ amount^{(f),d,i}}{100} \right]$$



TZ08



NPS-SDD

Lukmanji Z., et al. (2008). Tanzania food composition Tables. MUHAS- TFNC; Bailey, West, Black, (2015). Ann Nutr Metab.

Potential Pitfalls – Food Composition Tables

Factors influencing the accuracy of nutrient intake estimation

1. Variability in the composition of foods
2. Type and Quality of the underlying data
3. Food and component description

3. Food and component description

CONDENSED FOOD COMPOSITION TABLE | TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

FOOD CODE	FOOD NAME IN ENGLISH	NOMS DES ALIMENTS EN FRANÇAIS		EDIBLE PORTION 1	ENE (kJ(	WATER (g) WATER(g)	ROTEIN (g)	FAT (g) FAT(g)	HO AIL (g)	FIBRE, TOTAL DIETARY (g)	ASH (g)
INFOODS TAGNAMES				EDIBLE1	ENERC(		ROTCNT(g)		VLDF(g)	FIBTG(g)	ASH(g)
Cereals and their products/Céréales et produits dérivés											
01_010	Maize. DMR-ESR-W variety. whole kernel. dry. raw (Benin). n=1		(Bénin). n=1	1.00	1 43(	13.2	8.8	[3.9]	1.6	11.5	1.1
Non-Africa											
01_011			ier. sec. cru	1.00	1 40(		9.0		2.5	11.5	1.0
Non-Africa											
01_012	Maize. POZA - RICA 7843 - SR variety. whole kernel. dry. raw (Benin). n=1		nin). n=1	1.00	1 43(	13.4	8.8	[2.6]	0.1	11.5	1.1
Non-Africa											
01_013			n). n=1	1.00	1 39(		7.6		3.8	11.5	1.2
Non-Africa											
01_014			(Bénin)	1.00	1 41(		8.4		2.4	11.5	1.1
Non-Africa											
SD or min-r	Maize. TZPB-SR variety. whole kernel. dry. raw (Benin). n=1					14.0	0.5	[4.5]			0.1
n				1			7			1	7
01_123			bouilli*	1.00	456		2.7		0.1	3.7	0.4
01_062	Maize. Gnonli variety. whole kernel. dry. raw (Benin). n=1		bouilli*	1.00	456	13.6	2.7	[2.4]	0.1	3.7	0.4
01_060				1.00	1 47(		8.1		3.7	6.2	0.4
Non-Africa											
SD or min-r	Maize. combined varieties. whole kernel. dry. raw (Benin)					13.4	0.8	[3.2]			0.3-0.4
n				1			3			1	2
01_080	Maize. white. meal. sifted. unfortified	Maïs. blanc. farine tamisée. non enrichi		1.00	1 490(353)	11.5	8.7	3.3	68.6	7.0	0.9
Non-African data									oa	oa	
SD or min-max						1.0	0.6	0.1		6.7-7.3	0.1
n				1		4	3	3		2	3
01_091	Maize. white. meal. sifted. fortified with vitamin A (Nigeria)		ia)	1.00	1 490(353)	11.5	8.7	3.3	68.6	7.0	0.9
Non-Africa									oa	oa	
SD or min-max						1.0	0.6	0.1		6.7-7.3	0.1
n				1		4	3	3		2	3

Importance of good food description:

Nutrient variability in different maize varieties in Benin

Example of fortification in Nigeria

FAO/INFOODS Food Composition Table for Western Africa (2019) / Table de composition des aliments FAO/INFOODS pour l'Afrique de l'Ouest.

3. Food and component description

Nutrient descriptions are also important:
Vitamin A (RAE) and Vitamin (RE) are calculated differently.

VIT A RE (mcg)	VIT A RAE (mcg)
VITA(mcg)	VITA_RAE(mcg)

CONDENSED FOOD COMPOSITION TABLE | TABLE DE COMPOSITION DES ALIMENTS CONDENSÉE

FOOD CODE	FOOD NAME IN ENGLISH	CALCIUM (mg)	IRON (mg)	MAGNESIUM (mg)	PHOSPHORUS (mg)	POTASSIUM (mg)	SODIUM (mg)	ZINC (mg)	COPPER (mg)	VIT A RE (mcg)	VIT A RAE (mcg)	RETINOL (mcg)	BETA-CAROTENE EQUIV (mcg)
INFOODS TAGNAMES		CA(mg)	FE(mg)	MG(mg)	P(mg)	K(mg)	NA(mg)	ZN(mg)	CU(mg)	VITA(mcg)	VITA_RAE(mcg)	RETOL(mcg)	CARTBEQ(mcg)
Cereals and their products/Céréales et produits dérivés													
01_172	Baling béinré (northern Burkina Faso)*: sorghum porridge with monkey bread, tamarind, water, milk and sugar	61	0.5	12	54	119	23	0.34	0.03	1	0	0	2
01_173	Baling ni zièm béinré (Burkina Faso)*: porridge of degermed sorghum with potash, water and sugar	10	[0.9]	7	11	35	49	0.16	0.02	0	0	0	1
01_168	Beenkida (Burkina Faso)*: maize porridge with maize granules	5	0.2	13	14	25	3	0.18	0.03	0	0	0	0
01_188	Biscuit, sweet, plain, unfortified	67	1.3	16	109	119	390	0.54	0.10	111	106	101	[61]

FAO/INFOODS Food Composition Table for Western Africa (2019) / Table de composition des aliments FAO/INFOODS pour l'Afrique de l'Ouest.

Activity 2: Exploring food list

Food Matching

NPS-SDD – apparent food consumption in Tanzania

1. Get familiar with the food listed as consumed

- Number of foods in the list
- Food highly consumed
- Food item descriptions
- Key foods for certain nutrients

2. Start thinking about food matching

Questions?

THANK YOU!