



GOVERNMENT OF MALAWI

MALAWIAN FOOD COMPOSITION TABLE 2019

February 2020



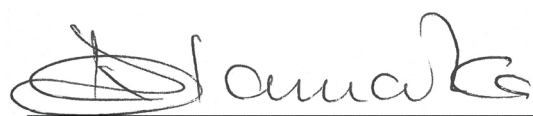
FOREWORD

Adequate nutrition throughout the lifecycle is the centerpiece for every individual's physical and intellectual development since nutrition is a key determinant of one's intellectual performance, academic and professional achievements, and overall work productivity. Because nutrition is fundamental for socioeconomic growth and development of the country, the Government of Malawi (GoM) has identified good nutrition as a key priority in its national development agenda articulated in the Malawi Growth Development Strategy III. To operationalize the Malawi Growth and Development Strategy III, the GoM developed a comprehensive National Multi-Sector Policy and Strategic Plan 2018-2022, which incorporates emerging issues such as diet-related, noncommunicable diseases. Additionally, the GoM is developing the food and nutrition legislation to support implementation of the National Multi-Sector Nutrition Policy (NMNP).

It is worth noting that Malawi is making considerable strides in improving indicators of nutrition as evidenced by the reduction in prevalence of stunting from 47 percent in 2010 to 37 percent in 2016, and reduction in vitamin A deficiency from 22 percent in 2009 to 3.6 percent in 2016, among other achievements. The strides made require continued investment through the integration of nutrition in various areas such as maternal, infant and young child nutrition, and food and dietary diversity. Most of the nutritional challenges that Malawi is facing emanate from well-known underlying causes, including lack of knowledge, which leads to poor food processing and poor utilization.

As one way of ensuring adequate nutrition and improved standards of locally-processed foods for the general population, the GoM, with support from the USAID Feed the Future Innovation Lab for Nutrition at the Friedman School of Nutrition Science and Policy, Tufts University, South African Food Data System (SAFOODS) of the South African Medical Research Council, and Lilongwe University of Agriculture & Natural Resources (LUANAR) and financial support from USAID, Malawi embarked to develop a food composition database. The Malawian Food Composition Database (MFCDB) and subsequent publication of the information from the Database, into the Malawian Food Composition Table (MFCT) describe the nutritive value of locally-produced and imported foods that are available in Malawi. Country-specific food composition databases and tables are essential tools for assessing and planning dietary nutrient intake for individuals and populations. The MFCDB is therefore pivotal in nutrition and dietetic practice, as well as food labeling to ensure improved nutritional wellbeing of the general population.

This first edition of the Malawian Food Composition Table will benefit all nutrition and allied stakeholders, including the private sector, in generating nutritious diets from locally-available foods. It will also provide a platform for continued research and analysis of other local foods not yet included in this edition, thereby contributing to improved nutritional status and health of the citizens of Malawi, who would effectively contribute to the economic growth and development of the country.



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SECRETARY FOR HEALTH AND POPULATION



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ACRONYMS LIST

AFSSA	French Food Safety Agency
AOAC	Association of Official Agricultural Chemists
BLS	German Nutrient Database
CSPO	Food Composition Database for Epidemiological Studies in Italy
DNHA	Department of Nutrition, HIV and AIDS
EUROFIR	European Food Information Resource
FAO	Food and Agriculture Organization (United Nations)
GoM	Government of Malawi
INFOODS	International Network of Food Data Systems
LUANAR	Lilongwe University of Agriculture & Natural Resources
MAFOODS	The Malawian Food Data System
MFCDB	Malawian Food Composition Database
MFCT	Malawian Food Composition Table
MW	Malawi
MZF	Mozambique
NMNP	National Multi-Sector Nutrition Policy
PAT	Policy Advisory Team
SAFOODS	South African Food Data System
SAMRC	South African Medical Research Council
SANE	Strengthening Agriculture and Nutrition Extension
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WA	West Africa
ZA	South Africa



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COMPILATION RESEARCH TEAM





PUBLICATION DESCRIPTION

This publication is divided into four chapters:

CHAPTER 1, the introductory chapter, draws attention to the background of the Malawian Food Composition Table and institutional arrangement of the database. It briefly explains the role of the housing institution as well as other important players in the Malawian Food Composition Program.

CHAPTER 2 provides an overview of the processes and methods employed during data collection, compilation and the resulting publication of the tables.

The information provided in **CHAPTER 3** is of the most importance to users, as it presents an overview of what the table entails and gives guidance on how to use and understand the values presented in the table.

The concluding chapter, **CHAPTER 4**, showcases the nutrient composition of various Malawian foods and composite dishes in an easy-to-read format. In total, 316 food items were categorized into eight food groups: Staples, Animal Foods, Legumes, Vegetables, Fruits, Fats and Oils, Baby Foods and Miscellaneous Food Groups.



CHAPTER 1: INTRODUCTION

The Government of Malawi (GoM) has developed the first edition of the Malawian Food Composition Table (MFCT) which describes the content of commonly-consumed Malawian food items in terms of their nutrients and energy. Food composition data form the basis of all practices in human nutrition and health. It is therefore essential to have a reliable country-specific food composition database.

For many years, Malawi has relied on food composition data from other countries. However, the use of data from other sources is challenging as well as inaccurate due to the potential for significant variability in nutrition content as a function of different processing methods, variations in recipe preparations of composite dishes as well as geographical differences in food cultivation. In light of this, it was critical for Malawi to develop a local food composition database to address its country-specific nutrition concerns and meet current demand due to technological advances. International tools, guidelines and standards were used in developing the food composition table to ensure an accurate, reliable and trustworthy scientific tool. This food composition table will be used in various ways by nutritionists, dietitians, physicians, food technologists, epidemiologists, food manufacturers, public health scientists, economists and research institutions.

The GoM, through the Department of Nutrition and HIV/AIDS (DNHA), is the custodian of the Malawian Food Composition Database and Table. The Malawi food composition program which will be responsible for maintaining and updating of the food composition database and tables will be referred to as “The Malawian Food Data System” (MAFOODS). The DNHA will provide overall management and oversee MAFOODS. The DNHA will also provide operational support to the Malawian food data unit within its jurisdiction to ensure that the data are safe and continuously updated.

To ensure continuous and up-to-date information in the database, the GoM, in collaboration with Malawian research institutions, will update the food composition database on a regular basis with

the Lilongwe University of Agriculture & Natural Resources (LUANAR) taking a lead role due to its comparative advantage of access to active research activities in generating food composition data in collaboration with other academic institutions. In addition to obtaining data, information generated through routine mandated roles and functions within established institutions such as research stations, will also be a valuable source of food composition data for compilation.

The Policy Advisory Team (PAT) which provides policy guidance on nutrition in Malawi, will provide overall guidance and support implementation and management of the Malawi Food composition data Program. The committee will act as an advisory body that will promote the science of food composition data in Malawi. The DNHA will work hand in hand with PAT to devise an updating plan and identify opportunities and partnerships that will lead to further research and the establishment of a comprehensive Malawian food composition database. In addition to the PAT, the Nutrition Research and Surveillance Technical Working Group which is under the National Nutrition Committee will actively support implementation of food composition data activities.

The technical working group will focus on identifying key activities and supporting them in order to ensure that the goals and objectives of the food composition program are met.

The Food Composition Table will be made available through open access linked to the DNHA website, while the access to the master database will be available upon authorization from the DNHA. The GoM wishes to encourage all its stakeholders, data generators, compilers and end users to communicate their requests, concerns, recommendations and comments regarding the database to the Department.



CHAPTER 2: THE COMPILATION PROCESS

2.1 INTRODUCTION

The first edition of the Malawian Food Composition Database (MFCDB) is a result of chemical analytical data sourced from published scientific literature, theses, university reports and food composition databases across the country. A planned phased approach was undertaken commencing with a first phase that involved compiling existing published physicochemical data. Later editions of the MFCDB will aim to compile additional food items and analyze priority foods missing in this edition. Great care was taken to compile the database using international standards for data quality assessment, food composition compilation and data quality assurance (FAO and INFOODS), leading to a comprehensive national nutrient database. The compilation process was divided into three main phases: the scoping phase, the implementation phase and the quality assurance phase.

2.2 THE SCOPING PHASE

Prior to the scoping exercise, desktop research was undertaken to assess the nutrition landscape of the country that assisted to inform the development of an assessment framework for the project. The scoping framework was developed to assess and evaluate the need for a country-specific food composition database, to determine the existing food consumption patterns and trends, explore food composition activities and data in Malawi and to identify key stakeholders and possible partners for collaboration in the development of the database. Information assessed included literature reviews of Malawian scientific literature, reports, surveys, official and non-official publications. In addition, communication through meetings, visitations, interviews and roundtable discussions with key stakeholders were undertaken to complement the data.

A repository of physicochemical research projects, scientific publications, reports and dissertations were collated. Information collected during this phase served as guiding baseline information that informed the followup phases of the project.

2.3 COMPILATION IMPLEMENTATION PHASE

Compilation implementation was the most important phase in the development of this database. Compilation describes all activities of collecting, evaluating, compiling and managing a food composition database [Greenfield & Southgate, 2003]. The phase began with the appointment and training of an in-country food composition data compiler to manage all activities associated with compiling a food composition database and to partner with and collaborate with stakeholders in conjunction with the core research team. The following activities were performed during this phase:

2.3.1 Collection of Nutrient Data

Data were gathered from various sources. Primary sources of data were institutional libraries within the country, namely: the Bunda Campus Library, the Chitedze Agricultural Research Station, the Chancellor College Library and the Malawi Polytechnic Library. Online databases also provided data information on Malawian foods. Other methods of data collection involved stakeholder engagements, food industry visits and various communications with the broader nutrition fraternity and stakeholders in the country. Data collection for missing food items was extended to workshops held specifically to inquire about possible food composition activities and data on specific food items and to raise awareness of the project. National nutrition committee meetings were also utilized as a forum for sharing information on the progress of the project and missing information sought for the tables.

2.3.2 Organization and Assessment of Compilation Data

The data gathered were kept in an electronic repository that acted as an archival record for all information collected. The compilation team developed an evaluation tool based using the existing European Food Information Resource Guidelines for Quality Index Attribution to original



data from scientific literature or reports in addition to various scoring systems available (1. AFSSA; 2. CSPO; 3. USDA1985; 4. BLS). The tool was developed and adapted to project context for data inclusion or exclusion. The original six components: food description, number of primary samples, sampling plan, sample handling and processing, analytical method and quality control, totaled to 18 points score. The tool was further adapted to include additional categories of: number of analyzed samples, moisture content availability and comparability. Articles scoring above the inclusion threshold were included for compilation in the Malawian Food Composition Database (MFCDB).

2.3.3 Compilation of the Master Database

Master of Science students taking a food composition data course compiled a general foods list from which a priority list was drawn. The priority list was informed by scientific literature, national food dietary surveys and publications on dietary intake and patterns in the country. Similarly, components identified to be included were informed by literature, stakeholder engagements and communication which guided the process by identifying nutrients of public health concern and interest. A meeting with nutrition experts from the Ministries of Agriculture and Health helped to validate food descriptions and local names to be presented in the database.

The data were captured into the master database in their original units and then calculated to standardized units according to international standards [FAO/INFOODS]. Missing values were obtained using standard compilation methodology such as matching the food items with a similar food in other selected food composition databases and correcting for moisture differences. Four main databases were used for food matching and borrowing: the Mozambique Food Composition Database, the West African Food Composition Database, the South

African Food Composition Database and the United States Department of Agriculture (USDA) Nutrient Database. The rationale for the selection of food for matching was comparability, followed by the nearest geographical setting of the matching source and finally, reliability with respect to data quality.

In the case where a matching food item was not found in any of the four databases, the incomplete record was dropped in favor of the full record of a borrowed data set for that particular food item. Food components known to be absent according to current literature were assumed and justifiably credited to be zero. All assumed values have been indicated by round brackets (Refer to Chapter 3).

In the MFCDB, standard recipe calculation procedures were used to calculate the nutrient content of composite dishes prepared according to methods in widely-published recipe books in the country.

2.4 QUALITY ASSURANCE PHASE

2.4.1 Initial Data Quality Check and Assurance

Throughout all the stages of compilation, steps were followed to ensure an accurate and valid food composition database. The format and calculation procedures were constantly checked and verified through FAO and INFOODS tools and guidelines outlined in the References section.

2.4.2 Final Data Quality Checks

FAO/INFOODS guidelines for checking food composition data prior to the publication of a user database/table version 1.0 were used to perform final checks before the final publications of the tables (FAO/INFOODS, 2012).

CHAPTER 3: UNDERSTANDING THE TABLES

3.1 INTRODUCTION

This chapter shares information regarding the layout, food group categorization, description and nutrient values included in the tables. Tables on compilers' notes summarize information on the calculated values compiled in the tables and statistical summaries on sources and contribution of data, per food group comprising the database. The chapter concludes with important guidance on how to read the tables and methodology employed for recipes calculated in this edition.

3.2 FOOD GROUPS

Eight (8) food groups are aligned according to Malawi food groups. Food items in the database are grouped into the following categories:

- MW01_Staples
- MW02_Legumes
- MW03_Animal Foods
- MW04_Vegetables
- MW05_Fruits
- MW06_Fats and Oils
- MW07_Baby Foods
- MW08_Miscellaneous

3.2.1 Food Codes

Malawian food codes are assigned with a MW prefix to all food items. As such, there are four-digit codes per food item category, which follows the food group code. For example:

MW01_0001

In addition, food items are arranged in alphabetical order within each food group.

3.2.2 Food Description

Food items are described using the following naming system:

Food item, process state, English name, Scientific name, (local Malawi name)

For deep fried food with fat absorption between 8 to 25 percent, a 10 percent uptake of fat was assumed (Dunford, n/d).

3.2.3 Component/Nutrient Values

A total of 316 food items are presented in this publication. For each food item, energy and approximate composition data are reported and some minerals and vitamins are presented for 42 components, i.e. moisture, energy, macronutrients, minerals and vitamins, as well as phytate values for select items.

3.2.4 Nutrient Information Notes

Table 1 reports on nutrient information notes captured and shows the components, the units used and the definition of the component as presented within the Malawian Food Composition Table.

COMPONENT NAME	AS IN FCT	UNIT	NOTES
Moisture	Mois	g	Moisture values are from different sources and derived from different drying methods.
Energy	Energy-kCal	kCal	Calculated as: [Protein (g) x 4kcal] + [Fat (g) x 9kCal] + [Total Carbohydrates(g) x 4kcal] <u>Note:</u> Alcohol has not been captured in this first draft of the MFCT, and thus not factored into Energy calculations
Energy	Energy-kJ	kJ	Calculated as: [Protein (g) x 17kJ] + [Fat (g) x 37 kJ] + [Total Carbohydrates(g) x 17kJ] <u>Note:</u> Alcohol has not been captured in this first draft of the MFCT, and thus, are not factored into Energy calculations.
Nitrogen	N	g	Conversion factor 6.25 factor used to calculate Total Protein.
Total Protein	Prot	g	Crude protein values identified in <i>Italics</i> Total Protein
Total Fats	Fat	g	Crude fat values identified in <i>Italics</i> Total Fat
Saturated Fatty Acids	SAFA	g	
Monounsaturated Fatty Acids	MUFA	g	
Polyunsaturated Fatty Acids	PUFA	g	
Cholesterol	Chol	mg	
Total Carbohydrate	CHO, tot	g	Carbohydrate, available (g) + Total Fiber (g)
Carbohydrate, available	CHO, avail	g	Calculated, by difference: 100 – (Moisture (g) + Protein (g) + Fat, total (g) + Fiber (g) + Ash (g))
Total Sugars	Tot Sug	g	
Added Sugars	Add Sug	g	
Total Fiber	Fiber	g	Crude Fiber values recorded. Total Fiber reported in some data sources in <i>italics</i> , when Total Dietary Fiber using AOAC Prosky method are reported in literature. This comprises non-starch polysaccharides, lignin, resistant starch and resistant oligosaccharides.
Starch	Starch	g	Detailed information available from Reference database.
Ash	Ash	g	Recorded from literature. Where no ash value reported, sourced from data quality checklist.
Calcium	Ca	mg	
Iron	Fe	mg	
Magnesium	Mg	mg	
Phosphorous	P	mg	
Potassium	K	mg	
Sodium	Na	mg	
Zinc	Zn	mg	
Copper	Cu	mg	
Manganese	Mn	mcg	
Iodine	I	mcg	
Selenium	Se	mcg	
Vitamin A RAE	VitA -RAE	mcg	Calculated as: (Retinol, µg/100g EP x 1) + (β-carotene, µg/100g EP ÷ 12) + (α-carotene, µg/ 100g EP ÷ 24) + (β-cryptoxanthin, µg/100g EP ÷ 24)
Vitamin A RE	VitA-RE	mcg	Calculated as: (Retinol, µg/100g EP x 1) + (β-carotene, µg/100g EP ÷ 6) + (α-carotene, µg/ 100g EP ÷ 12) + (β-cryptoxanthin, µg/100g EP ÷ 12)
Thiamin	Thia	mg	
Riboflavin	Ribo	mg	
Niacin	Niac	mg	
Vitamin B6	Vit B6	mg	
Folic Acid	Folate	mcg	



COMPONENT NAME	AS IN FCT	UNIT	NOTES
Vitamin B12	Vit B12	mcg	
Pantothenate	Panto	mg	
Biotin	Biot	mcg	
Vitamin C	Vit C	mg	
Vitamin D	Vit D	mcg	No definition of Vitamin D reported, no analytical method explained.
Vitamin E	Vit E	mg	No definition of Vitamin E reported, no analytical method explained.
Phytic Acid	Phytate	mg	

Note:

- A food item name occurs in brackets, when nutrient values of low confidence, were sourced from the literature.
- Refer to Addendum 1 for detailed information on analytical methodology used for samples reported from literature sources of data used for compilation of Malawian Food Composition Table.

3.3 SOURCES OF INFORMATION

The data in the MFCT was obtained from various sources. The main reference sources listed in Table 2 together with information of total foods within each food group.

FOOD GROUP CODE	FOOD GROUP	TOTAL FOODS PER FOOD GROUP	MALAWI		MZF*	WA*	ZA*	USDA*
			MW	RECIPES				
MW01	Staples	70	29	33	0	2	4	2
MW02	Legumes	19	12	6	0	0	0	1
MW03	Animal Foods	69	39	19	1	9	1	0
MW04	Vegetables	36	22	8	1	1	4	0
MW05	Fruits	25	11	5	0	1	6	2
MW06	Fats and Oils	5	4	0	1	0	0	0
MW07	Baby Foods	84	0	2	0	0	82	0
MW08	Miscellaneous	8	8	0	0	0	0	0
	TOTAL	316	125	73	3	13	97	5
	% contribution		40%	23%	1%	4%	30%	2%

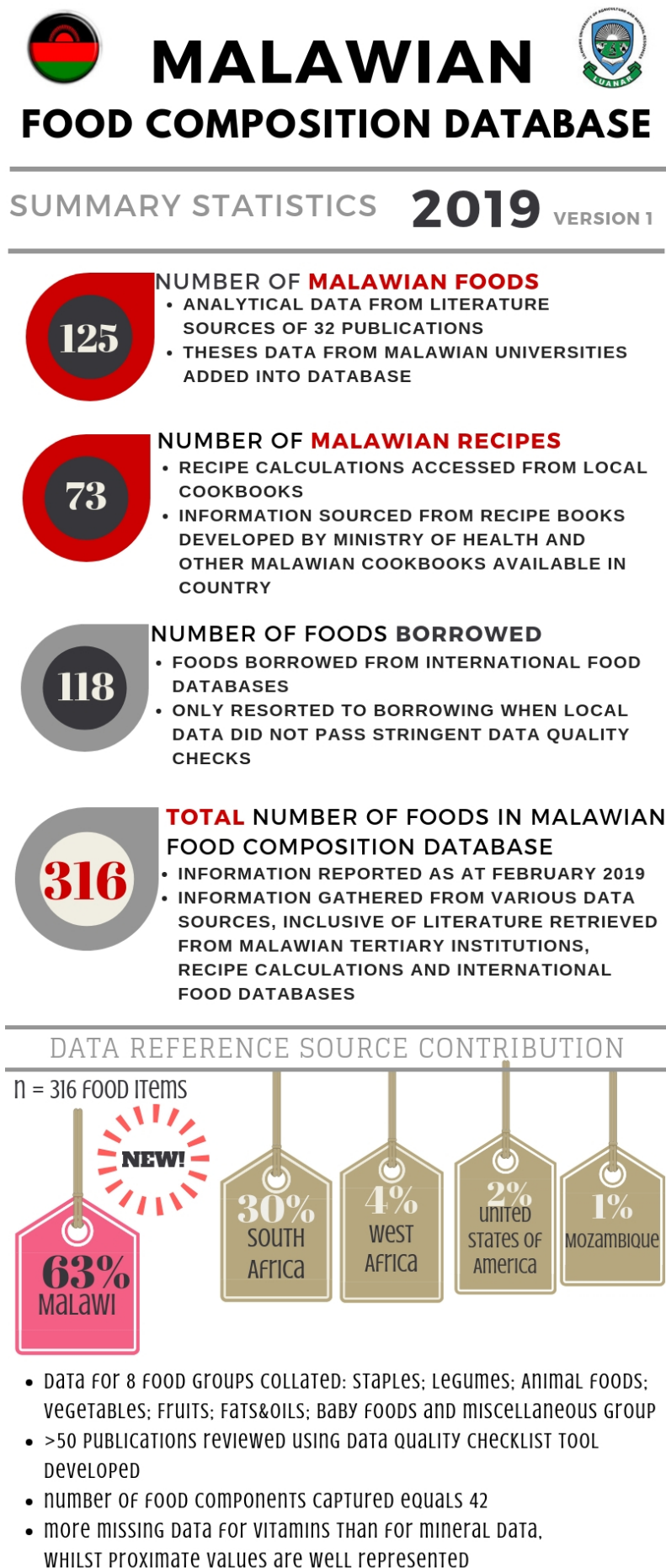
* Details of information borrowed from International Food Composition Tables.

MW (Malawi), MZF (Mozambique), WA (West Africa), ZA (South Africa), USDA (United States Department of Agriculture)

3.4 SUMMARY STATISTICS OF THE COMPONENTS OF THE MFCDB

A summary of all the data reference sources and final statistics of the MFCT is shown in the infographic. (Figure 1).

Figure 1: Summary statistics infographic of Malawian Food Composition Table 2019





3.5 HOW TO READ THE TABLES

There are three main Columns in the Nutrient Tables:

Column 1: The following information, presented as follows:

- The food group code (alphanumeric), separated by an underscore, followed by a four-digit food code number, appears in first row. E.g. MW01 represents the staples group; while 0003 represents the food item code
- The second row of first column, lists the food group name: e.g. Staples
- The third row of first column, refers to the main reference source number for the nutrient composition of the food item: e.g. R44 refers to, Recipe 44; or number 2 refers to article number 2

Column 2: The food item name is presented as a description of the food item, its process state, English name, scientific name, and (local Malawian name). E.g. Bread, wheat, brown, homemade

Column 3, lists nutrient values for 42 components. The full reference is listed in the *References* section. Values are presented per 100g edible portion.

Black font means the value is from original Malawian food product analytical data.

Blue font means the value was factored from a similar food item in another food composition database or scientific literature.

Component values in *italics* reports on *crude* values.

Square brackets [] mean compilers are not confident with value reported. Round brackets () indicate that the value reported is based on an assumption. Curly brackets { } with an asterisk* means that the quality checks of Ash and some of the proximates did not add up, which is explainable due to the borrowing of data from matched sources. Blank values equate to missing data, i.e. reliable information not found, or the information available was below quality criteria.

GROUP 1: STAPLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0001 Staples R06	African cake, (Chikondamoyo/ Chigumu cha nthochi ndi dzira)	49.0	215	911	0.91	5.7	3.0					41.4	38.2		0.00
		3.2		0.8	15	1.8	54	23	292	12	0.88	0.13	323	0.42	0.0
		5		0.19	0.08	0.8	0.292	15	0.1			4		0.72	
MW01_0002 Staples R07	Banana fritters, (Zitumbuwa)	54.8	189	800	0.51	3.2	2.5	0.12	0.23	0.79		38.5	35.6		[1.79]
		2.9		1.0	11	1.0	46	24	377	4	0.51	0.11	665		
		3	0	0.10	0.06	0.8	0.356	12				7	(0.00)	1.10	
MW01_0003 Staples R44	Bread, wheat, brown, homemade	11.2	362	1531	1.72	10.7	6.2	1.71	0.93	0.52	(0)	65.9	63.2		[2.75]
		2.7		0.8	13	4.3	36	134	198	34	0.30	0.04	42	0.18	0.0
		35	0	0.39	0.19	1.9	0.181	56	0.0	0.10	1.1			0.55	
MW01_0004 Staples 2	Bread, wheat, white, commercial, (Buledi woyera)	[35.6]	256	1086	1.36	8.5	1.5					52.1	48.9		
		[3.2]		[2.3]	55	1.2	29	102	137	2000	0.99	0.30	455		
				0.15	0.04	1.2	0.071	30	0.0	0.31					
MW01_0005 Staples 8	Bread, wheat, white, homemade, (Buledi woyera)	37.2	270	1141	1.65	10.4	4.6					46.9	46.5		
		0.4		1.4	28	1.2	23	92	116	541	0.59	0.16			
		0		0.52	0.05	1.5	0.059	29	0.0			0	0.00	0.00	
MW01_0006 Staples R30	Cake, banana, (Keke ya nthochi)	32.8	335	1405	0.85	5.1	13.9	6.16	3.35	2.00		47.3	45.9		[12.88]
		1.3		0.9	15	0.8	18	67	186	133	0.46	0.07	483		
		126		0.25	0.34	2.9	0.445	40	0.4	0.14	0.3	3		1.66	
MW01_0007 Staples R65	Cake, plain, (Keke)	39.6	293	1233	0.94	5.6	10.9	4.17	2.26	1.42		43.2	42.5		[10.00]
		0.7		0.7	59	0.7	12	87	105	113	0.50	0.06	228		
		109		0.18	0.28	2.3	0.224	30	0.3	0.17	0.4	0		1.05	
MW01_0008 Staples R17	Cassava stew, with pigeon pea, (Chinangwa chophika ndi nandolo)	89.9	40	170	0.20	1.3	0.1		(0.00)		(0)	8.5	7.8		(0.00)
		0.7		0.3	30	0.7	18	21	71	16	0.34	0.18	66	0.28	0.4
		2		0.04	0.02	0.2	0.025	18	(0.0)	0.00		3	(0.00)	0.06	
MW01_0009 Staples R16	Cassava thick porridge, (Nsima ya kondowole)	84.2	64	271	0.06	0.4	0.4		(0.00)		(0)	14.8	14.1		(0.00)
		0.7		0.3	30	0.1	12	19	101	5	0.14	0.04		1.77	0.0
				0.01	0.02	0.2	0.028	6	(0.0)			1	(0.00)		
MW01_0010 Staples 9	Cassava, tuber, boiled, (Chinangwa chophika)	63.0	146	619	0.17	1.1	0.3		(0.00)		(0)	34.8	33.1		(0.00)
		1.7		0.9	26	0.6	22	43	263	7	0.60	0.20	280		
		1		0.03	0.04	0.4	0.062	14	(0.0)			19	0.00	0.18	

3.6 STATISTICS

Percentage of missing values reported per food group and component:

MISSING DATA PER FOOD GROUP															
Food Groups	Number of Food Items in Food Group	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total(g)	CHO, Avail (g)	Total Sugar(g)	Added Sugar (g)
		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phy-tate (mg)
MW01 Staples	70	0.0	0.0	0.0	0.0	0.0	0.0	70.0	70.0	70.0	74.3	0.0	0.0	100.0	62.9
		0.0	100.0	0.0	2.9	2.9	5.7	4.3	5.7	7.1	5.7	14.3	38.6	65.7	58.6
		33.0	67.1	5.7	5.7	5.7	5.7	5.7	11.4	57.1	74.3	14.3	42.9	10.0	97.1
MW02 Legumes	19	0.0	0.0	0.0	0.0	0.0	0.0	89.5	89.5	89.5	68.4	0.0	0.0	100.0	68.4
		0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	26.3	68.4	36.8
		21.0	78.9	0.0	0.0	0.0	0.0	0.0	21.0	57.9	78.9	0.0	10.5	10.5	100.0
MW03 Animal Foods	69	0.0	0.0	0.0	0.0	0.0	0.0	76.8	76.8	76.8	94.2	0.0	0.0	71.0	17.4
		0.0	63.8	0.0	15.9	15.9	18.8	18.8	34.8	37.7	39.1	46.4	66.7	85.5	79.7
		49.3	76.8	37.7	37.7	37.7	40.6	40.6	40.6	81.2	89.9	44.9	66.7	49.3	94.2
MW04 Vegetables	36	0.0	0.0	0.0	0.0	0.0	0.0	77.8	77.8	75.0	58.3	0.0	0.0	91.7	33.3
		0.0	97.2	2.8	0.0	0.0	0.0	2.8	2.8	2.8	2.8	11.1	36.1	86.1	52.8
		25.0	63.9	2.8	2.8	5.6	8.3	8.3	13.9	47.2	69.4	5.5	38.9	5.5	100.0
MW05 Fruits	25	0.0	0.0	0.0	0.0	0.0	0.0	60.0	60.0	60.0	40.0	0.0	0.0	88.0	50.0
		0.0	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	16.0	36.0	80.0	68.0
		40.0	52.0	12.0	12.0	12.0	12.0	28.0	24.0	52.0	52.0	12.0	40.0	36.0	88.0
MW06 Fats and Oils	5	0.0	0.0	0.0	80.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	20.0
		0.0	100.0	40.0	80.0	40.0	80.0	80.0	80.0	80.0	40.0	100.0	100.0	100.0	100.0
		80.0	20.0	80.0	80.0	80.0	80.0	80.0	80.0	100.0	100.0	80.0	100.0	0.0	100.0
MW07 Baby Foods	84	0.0	0.0	0.0	0.0	0.0	0.0	40.5	65.5	65.5	70.2	0.0	0.0	57.1	97.6
		0.0	100.0	0.0	0.0	0.0	6.0	3.6	3.6	0.0	0.0	9.5	38.0	97.6	97.6
		69.0	0.0	0.0	0.0	3.6	0.0	9.5	1.2	8.3	34.5	0.0	10.7	13.1	100.0
MW08 Miscellaneous	8	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	50.0	87.5	0.0	0.0	87.5	50.0
		0.0	87.5	37.5	37.5	25.0	37.5	37.5	37.5	37.5	37.5	50.0	50.0	50.0	50.0
		37.5	50.0	50.0	50.0	50.0	50.0	37.5	37.5	50.0	50.0	37.5	50.0	50.0	50.0
Total Items	316	0.0	0.0	0.0	1.3	1.3	0.0	63.3	69.9	69.6	71.8	0.0	0.0	80.0	55.4
		0.0	90.5	1.9	6.0	5.4	9.2	8.5	12.3	12.3	12.6	21.5	44.6	82.3	72.8
		45.9	49.4	13.3	13.3	14.6	14.6	18.0	18.7	48.4	64.9	16.8	38.0	21.8	95.6



3.7 RECIPE CALCULATION

Recipes provide an extension of the MFCD to accommodate for traditional and commonly consumed foods. Common recipes were collated using various recipe source documentation within Malawi.

3.7.1 Recipe Methodology

A mixed recipe methodology was applied to all recipes in this publication. The nutrient content of the prepared food was estimated by using yield and retention factors. (EUROFIR recipe calculation procedure included use of yield and retention factors. 2008 yield and retention factors were borrowed from international data sources (Bognar, 2002; USA Food Yields, 1975; USA Retention 2012.) Yield factors were applied at the total recipe level and retention factors were applied at the ingredient level to raw ingredients.

In summary, the calculation procedure used for determining nutrient values of composite foods is as follows:

- A standardized recipe from an appropriate Malawian recipe book was selected.
- Individual recipe weight in grams was collected or calculated from a household measure for every ingredient of the dish.
- The nutrient profile of each ingredient at the level of edible portion was collected from the ingredients database.
- In order to project the cooked weight of the recipe being calculated, all recipe ingredient weights were summed to get a total raw weight of the dish and then adjusted for the effect of cooking by applying a yield factor.
- Nutrient retention factors were applied for some minerals and vitamins at the ingredient level to adjust for nutrient gains or losses due to cooking.

- Nutrient values of individual ingredients (yield and retention applied) were then added to get the total value for the composite dish.
- The calculated values were checked for consistency and then the newly-calculated nutrient profile of the cooked dish was finally added to the master database.

All yields were either taken from Bognar, 2002 (tables on weight yield of food and retention factors of food constituents for the calculation of nutrient composition of cooked foods/dishes) and USDA's Handbook 102 (food yields summarized by different stages of preparation) or assumed based on expert knowledge and experience. Nutrient retention factors were selected from USDA tables of nutrient retention factors Release 6 and applied to the minerals: calcium, iron, magnesium, phosphorus, potassium, sodium, zinc, copper and the vitamins: vitamin B1, vitamin B2, vitamin B3, vitamin A, vitamin B6, vitamin B12, vitamin C and folic acid.

Recipe items are found across the eight food groups of the Malawian Food Composition Table. The food group of a recipe was determined by the location of the main ingredient of the recipe.

All recipe items are named in the following way: Recipe Food Code, Recipe Name, (Traditional Recipe Name) Recipe Reference Number: e.g. MW01_0001 African cake, (Chikondamoyo/Chigumu), Ref 34

Information on the ingredients of a recipe is provided at the end of the table for each food group as follows: the amount of the ingredient in grams, the food item code for the specific ingredient and the name of the ingredient. Reported per 100g of total recipe.



CHAPTER 4: NUTRIENT TABLES

4.1 INTRODUCTION

This chapter provides all the food composition/nutrient values of food items currently listed in the MFCDB in a Table format as reported in 3.5, and categorized in the following food groups:

- MW01_Staples
- MW02_Legumes
- MW03_Animal Foods
- MW04_Vegetables
- MW05_Fruits
- MW06_Fats and Oils
- MW07_Baby Foods
- MW08_Miscellaneous

GROUP 1: STAPLES



This group consists of a total of 70 food items which includes 33 recipes. Recipes listed under the staples group contain as the main ingredient a staple such as wheat, sorghum, millet, maize, starchy roots (cassava, potato) and starchy fruits (banana). Brown and white bread is also categorized in this group. Nsima, prepared using cassava or maize was calculated using the recipe methodology explained in chapter 3.

The nutrients for brown bread were calculated with 5% wheat bran inclusion.

NUTRIENTS IN THIS GROUP

The values for the following nutrients were assumed to be zero unless ingredients that contribute to the nutrients were added to a recipe in this group: Cholesterol, Added sugar, Vitamins B12, Vitamin D.

GROUP 1: STAPLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0001 Staples R06	African cake, (Chikondamoyo/ Chigumu cha nthochi ndi dzira)	49.0	215	911	0.91	5.7	3.0					41.4	38.2		0.00
		3.2		0.8	15	1.8	54	23	292	12	0.88	0.13	323	0.42	0.0
		5		0.19	0.08	0.8	0.292	15	0.1			4		0.72	
MW01_0002 Staples R07	Banana fritters, (Zitumbuwa)	54.8	189	800	0.51	3.2	2.5	0.12	0.23	0.79		38.5	35.6		[1.79]
		2.9		1.0	11	1.0	46	24	377	4	0.51	0.11	665		
		3	0	0.10	0.06	0.8	0.356	12				7	(0.00)	1.10	
MW01_0003 Staples R44	Bread, wheat, brown, homemade (Buledi wa bulawuni)	11.2	362	1531	1.72	10.7	6.2	1.71	0.93	0.52	(0)	65.9	63.2		[2.75]
		2.7		0.8	13	4.3	36	134	198	34	0.30	0.04	42	0.18	0.0
		35	0	0.39	0.19	1.9	0.181	56	0.0	0.10	1.1			0.55	
MW01_0004 Staples 2	Bread, wheat, white, commercial, (Buledi woyera)	[35.6]	256	1086	1.36	8.5	1.5					52.1	48.9		
		[3.2]		[2.3]	55	1.2	29	102	137	2000	0.99	0.30	455		
				0.15	0.04	1.2	0.071	30	0.0	0.31					
MW01_0005 Staples 8	Bread, wheat, white, homemade, (Buledi woyera)	37.2	270	1141	1.65	10.4	4.6					46.9	46.5		
		0.4		1.4	28	1.2	23	92	116	541	0.59	0.16			
		0		0.52	0.05	1.5	0.059	29	0.0			0	0.00	0.00	
MW01_0006 Staples R30	Cake, banana, (Keke ya nthochi)	32.8	335	1405	0.85	5.1	13.9	6.16	3.35	2.00		47.3	45.9		[12.88]
		1.3		0.9	15	0.8	18	67	186	133	0.46	0.07	483		
		126		0.25	0.34	2.9	0.445	40	0.4	0.14	0.3	3		1.66	
MW01_0007 Staples R65	Cake, plain, (Keke)	39.6	293	1233	0.94	5.6	10.9	4.17	2.26	1.42		43.2	42.5		[10.00]
		0.7		0.7	59	0.7	12	87	105	113	0.50	0.06	228		
		109		0.18	0.28	2.3	0.224	30	0.3	0.17	0.4	0		1.05	
MW01_0008 Staples R17	Cassava stew, with pigeon pea, (Chinangwa chophika ndi nandolo)	89.9	40	170	0.20	1.3	0.1		(0.00)		(0)	8.5	7.8		(0.00)
		0.7		0.3	30	0.7	18	21	71	16	0.34	0.18	66	0.28	0.4
		2		0.04	0.02	0.2	0.025	18	(0.0)	0.00		3	(0.00)	0.06	
MW01_0009 Staples R16	Cassava thick porridge, (Nsimya ya kondowole)	84.2	64	271	0.06	0.4	0.4		(0.00)		(0)	14.8	14.1		(0.00)
		0.7		0.3	30	0.1	12	19	101	5	0.14	0.04		1.77	0.0
				0.01	0.02	0.2	0.028	6	(0.0)			1	(0.00)		
MW01_0010 Staples 9	Cassava, tuber, boiled, (Chinangwa chophika)	63.0	146	619	0.17	1.1	0.3		(0.00)		(0)	34.8	33.1		(0.00)
		1.7		0.9	26	0.6	22	43	263	7	0.60	0.20	280		
		1		0.03	0.04	0.4	0.062	14	(0.0)			19	0.00	0.18	

GROUP 1: STAPLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0011 Staples 10	Cassava, tuber, raw, (Chinangwa chachiwisi)	59.7	160	678	0.20	1.2	0.3		(0.00)		(0)	38.0	36.2		(0.00)
		1.8		1.0	77	1.5	81	48	275	14	1.13	0.40			1.0
		1		0.04	0.05	0.7	0.091	24	(0.0)			30	0.00	0.19	
MW01_0012 Staples WA	Cocoyam, tuber, boiled, (Masimbi/ koko wowilita)	63.2	145	614	0.40	2.5	0.2		(0.00)		0	33.2	28.9		0.00
		4.3		1.3	11	0.6	12	57	384	6	0.36	0.15			
				0.10	0.03	0.8	0.240	22	0.0			8	0.00	2.40	
MW01_0013 Staples WA	Cocoyam, tuber, raw, (Masimbi/ koko)	64.7	137	584	0.38	2.4	0.2				0	31.5	27.4		0.00
		4.1		1.2	11	0.6	13	58	457	7	1.38	0.16			
				0.10	0.03	0.8	0.240	22	0.0			8	0.00	2.40	
MW01_0014 Staples R05	Doughnuts (Mandasi)	49.0	211	892	1.08	6.8	3.8					37.5	37.0		[8.29]
		0.5		0.6	58	2.0	15	97	128	38	0.25				
		24		0.12	0.14	0.4	0.047	11	0.3			0		0.05	
MW01_0015 Staples R28	Dumplings, (Dampuling'i)	39.8	294	1233	1.53	9.6	12.9	0.92	1.72	4.94		34.8	33.1		(0.00)
		1.7		0.8	47	2.7	31	169	155	51	0.79	0.04	449		
		28	1	0.20	0.19	0.4	0.057	20	43.3	0.15	2.4	0		3.03	
MW01_0016 Staples 10	Finger millet, grain, raw, (Mawere)	8.7	378	1602	1.80	11.3	4.2				(0)	73.8	64.7		(0.00)
		9.1		2.1	380	15.2	161	321	393	20	2.02	0.93			6.0
		0		0.31	0.13	1.8	0.754	30	0.0	0.00		0	0.00	0.05	
MW01_0017 Staples 11	Flour, cassava, raw, (Ufa wa kondowole)	14.0	348	1475	0.32	2.0	2.0				(0)	80.5	76.7		(0.00)
		3.8		1.6	136	0.5	44	101	578	30	0.73	0.22			
				0.07	0.11	1.2	0.167	46	0.0			4	(0.00)		
MW01_0018 Staples 4	Flour, maize, white, degermed-dehulled, unfortified, raw, (Ufa wa galamilu)	12.2	367	1555	1.76	11.0	3.9				(0)	71.9	71.7		(0.00)
		0.2		1.0	4	1.0	31	90	140	2	0.50	0.11			
		0		0.13	0.04	0.8	0.078	10	0.0			0	0.00	0.41	
MW01_0019 Staples 6	Flour, maize, white, whole, unfortified, raw, (Ufa wa mgaiwa)	12.3	374	1584	1.66	10.4	5.5				(0)	70.8	65.5		(0.00)
		5.3		1.0	18	3.8	92	2	312	11	1.71	0.23			
		0		0.5	0.12	1.4	0.367	25	0.0			0	0.00	1.29	
MW01_0020 Staples 9	Flour, maize, white, degermed-dehulled, fermented, unfortified, raw, (Ufa woyera)	10.0	372	1575	1.24	7.7	3.0				(0)	78.5	72.9		(0.00)
		5.6		0.8	3	1.2	21	102	99	0	0.80	0.10	140		
		0		0.39	0.05	1.6	0.377	30	0.0			0	0.00	0.50	

GROUP 1: STAPLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0021 Staples 6	Flour, maize-soy, commercial, raw, (Ufa wosakaniza chimanga ndi soya/ ufa wa likuni phala)	6.6	403	1703	2.26	14.2	8.2				(0)	68.2	62.4		(0.00)
		5.9		2.9											
									(0.0)				(0.00)		
MW01_0022 Staples 9	Flour, sorghum, degermed, raw, Sorghum bicolor, (Ufa wa mapira)	9.0	365	1550	1.70	10.6	1.7				(0)	76.8	72.0		(0.00)
		4.8		1.9	7	3.9	122	224	315	14	1.20	0.23	780		
		0		0.18	0.12	1.4	0.256	26	0.0			0	(0.00)	0.27	
MW01_0023 Staples ZA	Flour, wheat, cake (Ufa wa tirigu wama keke)	12.5	353	1499	1.44	8.2	0.9	0.13	0.07	0.38	0	78.0	76.3		(0.00)
		1.7		0.4	14	1.2	16	85	105	2	0.62	0.14	634		
			0	0.12	0.04	1.3	0.033	26	0.00	0.46	1.0	0	0.00	0.06	
MW01_0024 Staples 8	{(Flour, wheat, white, unfortified, raw, (Ufa wa tirigu))*	10.8	346	1467	1.81	11.3	3.0				(0)	68.4	67.2		(0.00)
		1.2		0.6	13	4.5	22	109	169	2					
		0		0.33	0.11	0.9	0.081	26	0.0			0	(0.00)	0.06	
MW01_0025 Staples R19	French fries/chips, (Chipisi)	44.8	307	1275	0.37	3.3	23.5	2.45	4.55	15.40	(0)	20.6	18.3		(0.00)
		2.2		0.8	8	1.0	20	61	445	3	0.41	0.17	187		
			1	0.18	0.01	1.9	0.287	3	(0.0)	0.44	0.0	16	(0.00)	9.68	
MW01_0026 Staples R71	Macaroni/Spaghetti, unenriched, cooked	69.4	124	526	0.70	4.4	0.5	0.09	0.06	0.19	0	25.4	24.3	0.91	
		1.1	21.24	0.3	8	0.4	18	64	72	2	0.48	0.10	281	0.21	21.5
		0	0	0.02	0.02	0.5	0.043	0	0.0	0.13	0.00	0	0.00	0.04	
MW01_0027 Staples USDA	Macaroni/Spaghetti, wholewheat, cooked	67.2	132	562	0.85	5.3	0.5	0.10	0.08	0.21	0	26.5	22.0		
		4.5		0.4	15	1.1	30	89	44	3	0.81	0.17	1379		
		0	0	0.11	0.05	0.7	0.079	0	0.0	0.42		0	0.00	0.30	
MW01_0028 Staples R21	Maize and soya thick porridge, (Nsimya ya ufa wa chimanga ndi soya)	78.5	93	394	0.57	3.6	1.7				(0)	16.0	14.6		(0.00)
		1.4		0.3	13	0.5	18	46	135	1	0.21	0.25	164	1.69	0.0
			0	0.08	0.02	0.4	0.090	21	(0.0)	0.08		0	(0.00)	0.09	
MW01_0029 Staples R39	Maize flour snack, fried, (Kadyaubwerere/Mbajira)	65.1	149	629	0.63	3.9	2.1				(0)	28.5	26.5		[1.74]
		2.0		0.4	10	1.4	37	1	112	4	0.65	0.09		1.12	0.0
		0		0.15	0.04	0.5	0.125	7	(0.0)	0.00	0.0	0	(0.00)	0.49	
MW01_0030 Staples R02	Maize soft porridge, whole flour, with groundnut flour (Phala la mgaiwa lothila nsinjilo)	82.2	85	357	0.45	2.8	3.0				(0)	11.6	10.5		(0.00)
		1.1		0.3	25	0.7	24	29	94	11	0.40	0.06	34	1.08	0.0
		6		0.08	0.04	0.5	0.073	6	(0.0)			0	(0.00)	0.58	

GROUP 1: STAPLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0031 Staples R18	Maize thick porridge, degermed-dehulled flour, (Nsima ya galamilu)	82.7	72	306	0.35	2.2	0.8				(0)	14.2	14.1		(0.00)
		0.0		0.2	5	0.2	10	18	26	0	0.10	0.02		1.75	0.0
		0		0.02	0.01	0.1	0.014	1	(0.0)			0	(0.00)	0.08	
MW01_0032 Staples R15	Maize thick porridge, refined flour, (Nsima ya ufa oyera)	79.3	85	362	0.28	1.8	0.7				(0)	18.0	16.7		(0.00)
		1.3		0.2	5	0.3	8	23	22		0.18	0.02	29	1.70	0.0
				0.07	0.01	0.3	0.078	5	(0.0)			0	(0.00)	0.11	
MW01_0033 Staples 4	Maize thick porridge, white, whole flour, (Nsima ya mgaiwa)	76.5	130	542	0.45	2.8	7.1				(0)	13.7	13.1		(0.00)
		0.6		0.5											
									(0.0)						
MW01_0034 Staples R01	Maize thick porridge, white, whole flour, (Nsima ya mgaiwa), Calculated	79.9	86	364	0.38	2.4	1.3				(0)	16.3	15.0		(0.00)
		1.2		0.2	8	0.9	25	0	68	3	0.39	0.05		1.70	0.0
		0	0	0.09	0.02	0.3	0.076	4	(0.0)	0.00		0	(0.00)	0.30	0.00
MW01_0035 Staples 9	Maize, bran, <i>Zea mays</i> , (Deya/Gaga)	10.0	381	1611	1.87	11.7	7.2				(0)	67.5	64.1		(0.00)
		3.4		3.7	9	2.4	186	508	531	18	3.70	0.30	610		
		4		0.01	0.09	2.6	0.144	4	0.0			128	(0.00)	0.40	
MW01_0036 Staples 7	Maize, grain, orange, raw, <i>Zea mays</i> , (Mthikinya)	13.5	364	1541	1.05	9.6	5.2				(0)	69.7	59.1		(0.00)
		10.5		1.6	10	3.0	123	241	346	11	2.30	0.20	700		
		1		0.50	0.12	2.2	0.300	33	0.0	0.54	6.1		0.00	1.30	
MW01_0037 Staples 10	Maize, grain, white, raw, (Chimanga choyera)	10.9	370	1568	1.48	9.3	4.1				(0)	74.0	64.3		(0.00)
		9.8		1.8	4	1.8	95	247	312	11	1.91	0.21			2.9
			0	0.35	0.10	2.1	0.201	26	0.0			0	0.00	1.31	
MW01_0038 Staples 14	Maize, grain, white, raw, Se fertilizer applied, (Chimanga choyera)	15.0	352	1490	1.41	8.8	3.9				(0)	70.3	61.0		(0.00)
		9.3		1.7	1	2.2	112	236	381	11	1.80	0.30			11.3
			0	0.34	0.10	2.0	0.192	25	(0.0)			0	(0.00)	1.25	
MW01_0039 Staples 7	Maize, grain, white, raw, <i>Zea mays</i> , (Chimanga choyera)	13.4	335	1423	1.46	9.1	1.9				(0)	70.5	59.9		(0.00)
		10.6		1.6	10	3.0	123	241	346	11	2.30	0.20	700		
		0		0.50	0.12	2.2	0.300	33	0.0	0.54	6.1	0	0.00	1.30	
MW01_0040 Staples 9	Maize, green, boiled, (Dowe wowilita/Chimanga chachiwisi chopika)	68.0	133	564	0.52	3.3	1.5				(0)	26.6	23.1		(0.00)
		3.5		0.7	7	1.1	49	106	141	3	0.80	0.10	130		
		0		0.08	0.03	0.6	0.047	7	0.0			0	0.00	0.47	

GROUP 1: STAPLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0041 Staples R22	Milk scones, (Sikono ya mkaka)	47.0	224	948	1.12	7.0	4.6					38.8	38.4		[13.75]
		0.4		0.7	72	1.8	15	109	137	51	0.36				
		32		0.11	0.17	0.3	0.045	13	0.3			0		0.06	
MW01_0042 Staples ZA	Oats, cooked, (Maotsi ophika)	85.3	66	279	0.27	1.7	1.6	0.29	0.51	0.59	0	11.2	9.6		(0.00)
		1.6		0.2	8	0.7	24	77	57	2	0.50	0.06	590		
			2	0.12	0.02	0.1	0.019	5	0.0	0.20	3.2	0	0.00	0.24	
MW01_0043 Staples ZA	Oats, raw, (Maotsi)	5.6	424	1787	1.71	10.7	10.4	1.83	3.27	3.80	0	71.8	61.6		(0.00)
		10.2		1.1	54	4.4	153	491	362	12	3.18	0.36	3760		
			10	0.76	0.14	0.8	0.124	33	0.0	1.29	20.7	0	0.00	1.56	
MW01_0044 Staples R29	Pancakes, wheat flour and maize flour, (Mandasi a ufa wachimanga ndi tiligu)	67.2	149	627	0.83	5.2	4.9	0.59	0.32	0.18		21.1	20.4		
		0.7		0.6	64	1.1	13	89	111	54	0.36	0.01	11	0.4	0.0
		39		0.11	0.16	0.6	0.093	13	0.3			0		0.23	
MW01_0045 Staples R66	Plantain and bean casserole, (Mbalagha za nyemba)	77.3	89	376	0.21	1.3	1.8	0.18	0.35	1.17	(0)	16.8	15.9		(0.00)
		0.9		0.6	88	2.0	37	28	132	4	0.83	0.52	28	0.16	1.7
		18	0	0.03	0.02	0.3	0.111	7	(0.0)	0.00	0.0	6	(0.00)	0.89	
MW01_0046 Staples R10	Plantain and beef casserole, (Mbalagha za nyama ya ng'ombe)	71.9	106	448	0.89	5.5	2.0	0.17	0.31	1.06		16.4	16.0		(0.00)
		0.4		0.9	120	4.4	29	62	220	15	1.30	0.84	0	0.19	2.5
		26	0	0.04	0.07	1.7	0.146	8	0.2	0.00		8	0.07	0.94	0.05
MW01_0047 Staples R24	Plantain and fish casserole, (Mbalagha za usipa)	62.1	140	593	1.88	11.8	1.6					19.5	19.3		(0.00)
		0.3		2.0	291	2.5	50	285	316	41	4.57	0.44	157	0.16	1.1
		35		0.04	0.14	5.6	0.643	8	4.9	0.00		7	(0.00)	0.58	
MW01_0048 Staples 31	Plantain, green, boiled, <i>Musa paradisiaca</i> , (Matochi)	63.1	124	528	0.20	1.3	0.0				(0)	29.8	29.6		0.00
		0.2		0.9	6	0.8	31	29	156	3	0.10	0.07			
		38		0.05	0.04	0.5	0.204	13	0.0			12	0.00	0.18	
MW01_0049 Staples R31	Potato pie	71.8	139	583	0.37	2.7	8.2	3.60	1.95	1.12		13.7	12.7		(0.00)
		1.0		0.7	60	1.0	28	53	221	83	0.56	0.16	68		0.3
		85		0.20	0.20	2.3	0.298	14	0.1	0.16		6		0.92	
MW01_0050 Staples 30	Potato, local variety, raw, (Mbatata ya kachewere)	77.8	68	287	0.26	2.3	0.1	0.03	0.00	0.04	0	14.4	12.8		(0.00)
		1.6		0.6	6	0.7	14	42	327	2	0.29	0.12	145		
			0	0.16	0.01	1.4	0.211	3	0.0	0.34	0.0	14	0.00	0.06	

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Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0051 Staples R50	Pumpkin fritters, (Mandasi a maungu)	69.7	154	644	0.60	3.8	7.6	0.62	1.18	3.98		17.5	16.2		[3.78]
		1.3		1.4	36	2.1	30	66	311	23	0.32	0.09	23		
		146	0	0.08	0.08	0.6	0.120	11	0.2			5		4.24	
MW01_0052 Staples R03	Rice porridge, (Phala la mpunga)	89.9	42	180	0.12	0.8	0.5	0.11	0.00	0.03		8.8	8.7		(0.00)
		0.1		0.1	8	0.0	20	36	25	10	0.19	0.06	77	0.53	0.0
		4		0.02	0.01	0.1	0.023	1	0.0			0	(0.00)	0.04	
MW01_0053 Staples R42	Rice pudding	90.4	50	209	0.23	1.5	2.6	0.38	0.20	0.12		5.1	5.1		[1.36]
		0.0		0.3	55	0.1	9	48	66	37	0.21	0.01	14		
		28		0.02	0.09	0.2	0.034	4	0.1			0	(0.00)	0.13	
MW01_0054 Staples R43	Rice pudding with eggs	74.2	129	542	0.96	6.0	5.9					13.1	13.0		[4.23]
		0.1		0.8	96	0.6	22	138	135	84	0.70	0.04	49		
		50		0.05	0.22	0.1	0.042	13	0.6			0.46		0.06	
MW01_0055 Staples 5	Rice, brown, raw, <i>Oryza sativa</i> , (Mpunga wa bulawuni)	12.4	357	1513	1.24	7.8	2.2				(0)	76.4	73.4		(0.00)
		3.0		1.3	7	3.2	114	276	248	6	1.88	0.55	2010	0.70	4.1
				0.38	0.07	5.0	0.507	40	0.0			0	(0.00)	0.60	558
MW01_0056 Staples 40	Rice, soaked, (Mpunga woviika)	80.1	80	338	0.20	1.3	0.1				(0)	18.4	18.1		[1.31]
		0.2		0.1	3	0.1	37	67	37	9	0.34	0.13	138	0.42	0.0
		0		0.03	0.01	0.0	0.033	1	(0.0)	0.00	0.0		(0.00)	0.02	
MW01_0057 Staples R37	Rice, white, cooked, (Mpunga woyera wophika)	85.1	60	253	0.16	1.0	0.1				(0)	13.7	13.5		(0.00)
		0.2		0.1	3	0.1	30	51	30	7	0.27	0.10	123	0.51	0.0
			0	0.02	0.00	0.0	0.025	1	(0.0)	0.00	(0.00)		(0.00)	0.02	
MW01_0058 Staples 9	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera)	13.0	348	1479	0.95	6.0	0.5				(0)	80.0	78.9		(0.00)
		1.1		0.6	8	0.4	169	314	183	43	1.60	0.60	720		
		0		0.15	0.03	0.2	0.156	8	(0.0)			0	(0.00)	0.11	
MW01_0059 Staples R20	Samoosa, dough, raw	35.7	309	1298	1.06	6.6	13.5	1.21	2.29	7.73	(0)	40.3	39.6		(0.00)
		0.7		0.4	9	2.7	14	64	94	1				0.45	0.0
		0	0	0.20	0.07	0.4	0.048	12	(0.0)			0	(0.00)	4.87	
MW01_0060 Staples 10	Sorghum, wholegrain, raw, <i>Sorghum bicolor</i> , (Mapira)	12.4	358	1516	1.65	10.3	3.2				(0)	71.8	62.0		(0.00)
		9.7		2.4	17	11.0	175	292	371	14	2.03	0.50			15.2
		1		0.35	0.16	3.2	0.246	29	0.0			0	0.00	1.08	

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Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW01_0061 Staples R57	Steamed maize & banana snack, (Mkate)	51.0	220	928	0.86	5.4	5.7				(0)	36.9	33.0		(0.00)
		3.9		1.0	17	0.9	46	90	362	4	0.62	0.17	631		
		2	0	0.17	0.05	1.7	0.365	23	(0.0)	0.01	0.2	8	(0.00)	1.54	
MW01_0062 Staples R32	Sweet potato fritters, (Zitumbuwa za mbatata)	61.7	198	827	0.83	5.2	11.6	4.51	2.45	1.39		18.3	16.3		(0.00)
		2.0		0.9	29	1.1	13	87	198	120	0.62				
		623		0.20	0.32	2.5	0.368	36	0.5			17		1.27	
MW01_0063 Staples 29	Sweet potato, orange fleshed, raw, (Mbatata yofiila mkati)	76.6	81	343	0.29	1.8	0.1				(0)	18.1	15.4		(0.00)
		2.7		0.7	26	0.5	14	46	243	10	0.49				
		926		0.03	0.05	1.0	0.204	11	0.0			30	(0.00)	0.25	
MW01_0064 Staples R68	Sweet potato, orange fleshed, with milk, (Mbatata yofiila mkati yothira mkaka)	86.6	57	239	0.27	1.7	1.8					8.4	7.2		(0.00)
		1.2		0.5	36	0.2	12	42	128	25	0.31	0.01	31	0.60	0.1
		354		0.02	0.05	0.6	0.091	5	0.1	0.02		10		0.28	
MW01_0065 Staples 10	Sweet potato, white-fleshed, raw, <i>Ipomoea batatas</i> , (Mbatata zoyera mkati)	77.3	89	379	0.18	1.1	0.1				(0)	20.9	18.7		(0.00)
		2.2		0.7	17	1.0	81	38	337	15	0.82	1.24			1.0
		2		0.07	0.03	0.4	0.199	38	0.0			16	0.00	0.13	
MW01_0066 Staples 9	Sweet potato, white-fleshed, without skin, boiled, <i>Ipomoea batatas</i> , (Mbatata yoyera mkati yowilitsa)	76.0	97	411	0.21	1.3	0.1				(0)	22.5	19.9		(0.00)
		2.6		0.5	19	0.4	11	38	302	10	0.20	0.20	120		
			4	0.07	0.01	0.7	0.092	8	0.0	0.51	6.1	9	0.00	0.29	
MW01_0067 Staples R08	Sweet potatoes, boiled, with groundnut flour, (Futali wa mbatata yakholowa)	78.2	95	399	0.49	3.1	3.4				(0)	13.1	10.6		(0.00)
		2.4		0.6	24	0.6	23	63	214	8	0.52	0.06	69	0.44	0.0
		564		0.08	0.04	1.3	0.165	13	(0.0)	0.00		15	(0.00)	0.95	
MW01_0068 Staples 1	Tuber, wild water lily, freeze dried, boiled, <i>Nymphaea Petersiana</i> , (Nyika)	0.7	395	1676	1.28	8.0	1.0				(0)	88.4	75.4		(0.00)
		13.0		1.9	138	2.0		225			2.10				
									(0.0)				(0.00)		
MW01_0069 Staples 1	Tuber, wild water lily, sun dried, raw, <i>Nymphaea Petersiana</i> , (Nyika)	10.8	352	1494	1.30	8.1	0.9				(0)	77.8	63.8		(0.00)
		12.0		2.4	95	10.0		288			2.50				
									(0.0)				(0.00)		
MW01_0070 Staples ZA	Wheat, bran, selected (Deya wa tiligu)	14.0	350	1482	2.71	15.5	5.1				0	60.6	23.7		0.00
		36.9		4.8	27	6.9	355	859	1115	18	6.90	0.86	951		
			0	2.88	0.73	13.7	0.860	1030	0.0	2.20	24.2		(0.00)	1.91	

GROUP 1: STAPLES RECIPES

MW01_0001	African cake, (Chikondamoyo/Chigumu)		Ref 34
37g	MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati yokupsya) RF 0151 (Ref 42)	
36g	MW01_0019	Flour, maize, white, whole, unfortified, raw, (Ufa wa Mgaiwa); RF 0301 (Ref 42)	
23g	MW08_0008	Water, (Madzi)	
5g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0101 (Ref 42)	
	YF	0.84 (Ref 43)	
MW01_0002	Banana fritters, (Zitumbuwa)		Ref 52
80g	MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati yokupsya) 0153 (Ref 42)	
17g	MW01_0019	Flour, maize, white, whole, unfortified, raw, (Ufa wa mgaiwa)	
2g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
1g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.89 (Ref 44)	
MW01_0003	Bread, wheat, brown, homemade		Ref 32
79g	MW01_0024	{{(Flour, wheat, white, unfortified, raw, (Ufa wa tirigu))*}; RF 0301 (Ref 42)	
10g	MW08_0008	Water, (Madzi)	
4g	MW06_0001	Margarine, Rama, brick	
4g	MW01_0070	Wheat, bran, selected (Deya wa tiligu); RF 0301 (Ref 42)	
2g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.9 (Ref 44)	
MW01_0006	Cake, banana, (Keke ya nthochi)		Ref 39
300g	MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati yokupsya); RF 0151 (Ref 42)	
240g	MW01_0023	Flour, wheat, cake (Ufa wa tirigu wama keke); RF 0301 (Ref 42)	
125g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0101 (Ref 42)	
115g	MW06_0001	Margarine, Rama, brick	
100g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.88 (Ref 44)	
MW01_0007	Cake, plain, (Keke)		Ref 39
38g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2153 (Ref 42)	
36g	MW01_0023	Flour, wheat, cake (Ufa wa tirigu wama keke); RF 0301 (Ref 42)	
9g	MW06_0001	Margarine, Rama, brick	
9g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
8g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0101 (Ref 42)	
	YF	0.91 (Ref 44)	

GROUP 1: STAPLES RECIPES

MW01_0008	Cassava stew, with pigeon pea, (Chinangwa chophika ndi nandolo)		Ref 34
45g	MW08_0008	Water, (Madzi)	
33g	MW01_0011	Cassava, tuber, raw, (Chinangwa chachiwisi); RF: Table 31 (Ref 44)	
13g	MW02_0017	Pigeon pea, dry, Canjanus cajan, (Nandolo wowuma); RF 0542 (Ref 42)	
7g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
2g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
	YF	2.53 (Ref 44)	
MW01_0009	Cassava thick porridge, (Nsimya ya kondowole)Ref 34		
32g	MW01_0017	Flour, cassava, raw, (Ufa wa kondowole); RF 0302 (Ref 42)	
68g	MW08_0008	Water, (Madzi)	
	YF	0.75 (Assumption)	
MW01_0014	Doughnuts, (Mandasi)		Ref 33
42g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
41g	MW01_0024	{{(Flour, wheat, white, unfortified, raw, (Ufa wa tirigu))*}; RF 0305 (Ref 42)	
8g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0103 (Ref 42)	
8g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	1.02 (Ref 43)	
MW01_0015	Dumplings, (Dampuling'i)		Ref 32
35g	MW01_0024	{{(Flour, wheat, white, unfortified, raw, (Ufa wa tirigu))*}; RF 0302 (Ref 42)	
27g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0101 (Ref 42)	
20g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2152 (Ref 42)	
11g	MW01_0043	Oats, raw, (Maotsi); RF 0352 (Ref 42)	
7g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.96 (Ref 44)	
MW01_0025	French fries/chips, (Chipisi)		Ref 53
86g	MW01_0050	Potato, local variety, raw, (Mbatata ya kachewere); RF 3315 (Ref 42)	
14g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.6 (Ref 44)	
MW01_0028	Maize and soya thick porridge, (Nsimya ya ufa wa chimanga ndi soya)		Ref 34
82g	MW08_0008	Water, (Madzi)	
14g	MW01_0018	Flour, maize, white, degermed-dehulled, unfortified, raw, (Ufa wa galamilu); RF0302 (Ref42)	
4g	MW02_0009	Flour, boiled soybean, (Ufa wa soya)	
	YF	0.75 (Assumption)	

GROUP 1: STAPLES RECIPES

MW01_0029	Maize flour snack, fried, (Kadyaubwerere/Mbajira)		Ref 39
65g	MW08_0008	Water, (Madzi)	
34g	MW01_0019	Flour, maize, white, whole, unfortified, raw, (Ufa wa mgaiwa); RF 0302 (Ref 42)	
2g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.89 (Ref 44)	
MW01_0030	Maize soft porridge, whole flour, with groundnut flour (Phala la mgaiwa lothira nsinjilo)		Ref 33
69g	MW08_0008	Water, (Madzi)	
14g	MW01_0019	Flour, maize, white, whole, unfortified, raw, (Ufa wa mgaiwa); RF 0302 (Ref 42)	
14g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
4g	MW02_0010	Flour, groundnut, Arachis hypogaea, (Nsinjilo); RF 2204 (Ref 42)	
	YF	0.98 (Assumption)	
MW01_0031	Maize thick porridge, degermed-dehulled flour, (Nsimya ya galamilu)		Ref 32
85g	MW08_0008	Water, (Madzi)	
15g	MW01_0018	Flour, maize, white, degermed-dehulled, unfortified, raw, (Ufa wa mgaiwa); RF 0302 (Ref 42)	
	YF	0.75 (Assumption)	
MW01_0032	Maize thick porridge, refined flour, (Nsimya ya ufa oyera)		Ref 33
83g	MW08_0008	Water, (Madzi)	
17g	MW01_0020	Flour, maize, white, degermed-dehulled, fermented, unfortified, raw, (Ufa woyera); RF 0302 (Ref 42)	
	YF	0.75 (Assumption)	
MW01_0034	Maize thick porridge, white, whole flour, (Nsimya ya mgaiwa)		Ref 32
83g	MW08_0008	Water, (Madzi)	
17g	MW01_0019	Flour, maize, white, whole, unfortified, raw, (Ufa wa mgaiwa); RF 0302 (Ref 42)	
	YF	0.75 (Assumption)	
MW01_0041	Milk scones, (Sikono ya mkaka)		Ref 39
46g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2125 (Ref 42)	
29g	MW01_0024	{(Flour, wheat, white, unfortified, raw, (Ufa wa tirigu))*}; RF 0301 (Ref 42)	
12g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0101 (Ref 42)	
12g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.89 (Ref 44)	

GROUP 1: STAPLES RECIPES

MW01_0044	Pancakes, wheat flour and maize flour, (Mandasi a ufa wachimanga ndi tiligu)		Ref 32
42g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
25g	MW08_0008	Water, (Madzi)	
15g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
8g	MW01_0018	Flour, maize, white, degermed-dehulled, unfortified, raw, (Ufa wa galamilu); RF 0305 (Ref 42)	
8g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0103 (Ref 42)	
1g	MW06_0001	Margarine, Rama, brick	
	YF	0.89 (Ref 44)	
MW01_0045	Plantain and bean casserole, (Mbalagha za nyemba)		Ref 39
46g	MW01_0048	Plantain, green, boiled, <i>Musa paradisiaca</i> , (Matochi); RF 0155 (Ref 42)	
31g	MW02_0005	Beans, boiled, (Nyemba zowilitsa)	
12g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3752 (Ref 42)	
10g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
2g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.98 (Assumption)	
MW01_0046	Plantain and beef casserole, (Mbalagha za nyama ya ng'ombe)		Ref 35
43g	MW01_0048	Plantain, green, boiled, <i>Musa paradisiaca</i> , (Matochi); RF 0152 (Ref 42)	
4g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
20g	MW03_0006	Beef, raw, (Nyama ya ng'ombe); RF 0704 (Ref 42)	
21g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
11g	MW08_0008	Water, (Madzi)	
1g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.87 (Ref 44)	
MW01_0047	Plantain and fish casserole, (Mbalagha za usipa)		Ref 32
61g	MW01_0048	Plantain, green, boiled, <i>Musa paradisiaca</i> , (Matochi); RF 0151 (Ref 42)	
16g	MW03_0027	Fish, lake sardine, whole, dried, <i>Engraulicypris breianalis</i> , (Usipa wowuma); RF 2452 (Ref 42)	
10g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
10g	MW08_0008	Water, (Madzi)	
3g	MW04_0031	Onion, raw, (Anyezi); RF 3451 (Ref 42)	
	YF	0.98 (Assumption)	

GROUP 1: STAPLES RECIPES

MW01_0049	Potato pie		Ref 32
52g	MW01_0050	30 Potato, local variety, raw, (Mbatata ya kachewere); RF 3302 (Ref 42)	
24g	MW03_0059	20 Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2153 (Ref 42)	
9g	MW06_0001	MZF Margarine, Rama, brick	
9g	MW04_0031	10 Onion, raw, (Anyezi); RF 3451 (Ref 42)	
6g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0301 (Ref 42)	
	YF	1.0 (Ref 44)	
MW01_0051	Pumpkin fritters, (Mandasi a maungu)		Ref 39
76g	MW04_0034	Pumpkin, boiled, <i>Cucurbita maxima</i> , (Dzungu lowiritsa); RF 3780 (Ref 42)	
11g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0103 (Ref 42)	
5g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
4g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
3g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.89 (Ref 44)	
MW01_0052	Rice porridge, (Phala la mpunga)		Ref 33
69g	MW08_0008	Water, (Madzi)	
21g	MW01_0058	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera); RF 0432 (Ref 42)	
9g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
1g	MW06_0001	Margarine, Rama, brick	
	YF	2.0 (Ref 44)	
MW01_0053	Rice pudding		Ref 39
91g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2152 (Ref 42)	
4g	MW01_0058	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera); RF 0432 (Ref 42)	
3g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
2g	MW06_0001	Margarine, Rama, brick	
	YF	2.0 (Assumption)	
MW01_0054	Rice pudding with eggs		Ref 39
64g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2152 (Ref 42)	
26g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0101 (Ref 42)	
6g	MW01_0058	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera); RF 0432 (Ref 42)	
4g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.91 (Ref 44)	

GROUP 1: STAPLES RECIPES

MW01_0056	Rice, soaked, (Mpunga woviika)		Ref 39
43g	MW01_0058	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera)	
55g	MW08_0008	Water, (Madzi)	
3g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	2.0 (Assumption)	
MW01_0057	Rice, white, cooked, (Mpunga woyera wophika)		Ref 32
66g	MW08_0008	Water, (Madzi)	
34g	MW01_0058	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera); RF 0432 (Ref 42)	
	YF	2.0 (Ref 44)	
MW01_0059	Samoosa, dough, raw		Ref 34
59g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*	
29g	MW08_0008	Water, (Madzi)	
12g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	1.0 (Assumption)	
MW01_0061	Steamed maize & banana snack, (Mkate)		Ref 39
64g	MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati, yokupsya); RF 0151 (Ref 42)	
21g	MW01_0018	Flour, maize, white, degermed-dehulled, unfortified, raw, (Ufa wa galamilu); RF 0302(Ref 42)	
10g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2201 (Ref 42)	
4g	MW05_0014	Lemon, raw, peeled, (Ndimu losenda)	
	YF	0.96 (Ref 44)	
MW01_0062	Sweet potato fritters, (Zitumbuwa za mbatata)		Ref 32
62g	MW01_0063	Sweet potato, orange fleshed, raw, (Mbatata yofiila mkati); RF 3710 (Ref 42)	
22g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0103 (Ref 42)	
10g	MW06_0001	Margarine, Rama, brick	
7g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
	YF	0.89 (Ref 44)	
MW01_0064	Sweet potato, orange fleshed, with milk, (Mbatata yofiila mkati yothira mkaka)		Ref 40
39g	MW08_0008	Water, (Madzi)	
39g	MW01_0063	Sweet potato, orange fleshed, raw, (Mbatata yofiila mkati); RF 3709 (Ref 42)	
20g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
2g	MW02_0016	Peanut butter, smooth style, with salt	
	YF	1.0 (Assumption)	

GROUP 1: STAPLES RECIPES

MW01_0067	Sweet potatoes, boiled, with groundnut flour, (Futali wa mbatata yakholowa)		Ref 34
64g	MW01_0063	Sweet potato, orange fleshed, raw, (Mbatata yofiila mkati); RF 3709 (Ref 42)	
28g	MW08_0008	Water, (Madzi)	
7g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2204 (Ref 42)	
	YF	1.0 (Ref 44)	

GROUP 2: LEGUMES



The legume food group consists of dried and processed beans, lentils, peas, groundnuts and soybeans. The group also contains some recipes with legumes as the main ingredient, comprising 19 food items in total.

NUTRIENTS IN THIS GROUP

The values for the following nutrients were assumed to be zero unless ingredients that contribute to the nutrients were added to a recipe in this group: Added sugar, Vitamin D, Vitamin B12, Cholesterol

GROUP 2: LEGUMES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (mg)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW02_0001 Legume R12	Bean and groundnut stew, (Ndawwa)	89.1	54	226	0.44	2.7	2.3				(0)	5.5	3.3		(0.00)
		2.1		0.4	36	1.0	21	41	104	2	0.52	0.23	92	0.47	1.4
		2		0.06	0.02	0.6	0.048	23	(0.0)	0.00		1	(0.00)	0.58	
MW02_0002 Legume R45	Bean soup, (Supu wa nyemba)	88.7	44	185	0.46	2.9	0.1				(0)	7.8	4.7		(0.00)
		3.1		0.5	22	1.0	24	41	166	4	0.49	0.10	174	0.43	1.3
			88	0.04	0.02	0.2	0.043	24	(0.0)	0.01	0.2	3	(0.00)	0.04	
MW02_0003 Legume R11	Bean stew, (Nyemba zouma zokazingira)	88.2	49	208	0.46	2.9	0.8	0.07	0.13	0.45	(0)	7.6	4.5		(0.00)
		3.1		0.5	45	1.4	20	49	143	4	0.61	0.28	168	0.43	2.0
		3	0	0.04	0.02	0.2	0.040	24	(0.0)	0.00	0.0	1	(0.00)	0.34	
MW02_0004 Legume 9	Bean, kidney, dry, <i>Phaseolus vulgaris</i> , (Nyemba zouma)	11.0	343	1455	3.80	23.8	0.8				(0)	60.0	34.9		(0.00)
		25.1		3.6	90	7.7	172	440	1397	27	3.30	0.70	1420		10.4
		0		0.54	0.22	2.1	0.400	397	0.0			5	0.00	0.22	
MW02_0005 Legume R66A	Beans, boiled, (Nyemba zowilitisa)	93.8	24	101	0.26	1.6	0.1				(0)	4.2	2.4		(0.00)
		1.7		0.2	7	0.43	10	26	68	2	0.21	0.03	99	0.51	0.7
		0		0.02	0.01	0.1	0.015	10	(0.0)	0.00	0.0	0	(0.00)	0.02	
MW02_0006 Legume R62	Cowpea relish, (Khobwe wowilitisa ndi tomato)	91.0	40	167	0.31	1.9	0.9	0.08	0.15	0.50	(0)	6.0	4.5		(0.00)
		1.4		0.3	45	1.1	16	31	94	2	0.50	0.29	0	0.49	1.3
		3	0	0.03	0.01	0.2	0.025	14	(0.0)	0.00	0.0	1	(0.00)	0.39	
MW02_0007 Legume 10	Cowpea, dry, <i>Vigna unguiculata</i> , (Khobwe/Nseula wouma)	11.1	349	1483	3.42	21.4	1.3				(0)	63.0	47.6		(0.00)
		15.4		3.2	87	5.9	195	390	1220	20	2.95	0.73			5.8
		3		0.72	0.15	3.1	0.363	421				1	0.00	0.42	
MW02_0008 Legume 9	Cowpeas, boiled, <i>Vigna unguiculata</i> , (Khobwe wowilitisa)	67.0	130	552	1.28	8.0	0.5				(0)	23.4	17.7		(0.00)
		5.8		1.2	23	2.3	48	152	389	10	1.00	0.20	480		
				0.17	0.04	0.7	0.091	78	0.0			0	0.00	0.14	
MW02_0009 Legume 6	Flour, boiled soybean, (Ufa wa soya)	6.7	479	2005	7.12	44.5	23.5				(0)	22.3	15.6		(0.00)
		6.7		3.1	180	5.8	220	569	2464	17	1.13	4.87	2953		
			4	0.36	0.28	2.1	0.529	393	0.0	1.75		0	0.00		
MW02_0010 Legume 9	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo)	8.0	583	2420	4.09	25.6	44.6				(0)	19.7	10.2		(0.00)
		[9.5]		2.0	83	3.8	187	455	892	18	2.80	0.80	930		
		0		0.86	0.14	9.5	0.577	108	0.0			0	0.00	10.60	

GROUP 2: LEGUMES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (mg)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW02_0011 Legume 8	Flour, pigeon pea, <i>Canjanus cajan</i> , (Ufa wa nandolo)	7.0	374	1585	5.22	32.7	2.4				(0)	55.4	54.6		(0.00)
		0.8		2.5	129	6.1	179	295	971	27	2.90				
		8		0.61	0.18	2.7	0.272	356				0	(0.00)	0.39	
MW02_0012 Legume 6	Flour, roasted soybean, (Ufa wa soya)	9.1	458	1918	7.58	47.4	23.2				(0)	14.9	6.8		(0.00)
		8.1		5.3	264	9.5	244	469	1744	5	3.48	1.31			7.4
		1		0.70	0.08	2.0	0.822	376	(0.0)			0	0.00	0.72	
MW02_0013 Legume R09	Groundnut sauce, (Thendo)	83.9	98	409	0.67	4.2	6.8				(0)	5.0	3.1		(0.00)
		1.9		0.5	161	3.4	40	78	209	5	1.49	1.10	127	0.78	3.2
		12		0.12	0.03	1.5	0.112	16	(0.0)	0.01		4	(0.00)	1.77	
MW02_0014 Legume 10	Groundnut, dry, <i>Arachis hypogae</i> , (Mtedza wouma)	6.5	597	2481	3.72	23.2	45.8				(0)	23.1	14.6		(0.00)
		8.5		2.3	45	2.1	200	358	725	6	2.32	0.93			2.9
		0		0.87	0.14	15.5	0.589	110	0.0			0	0.00	10.88	
MW02_0015 Legume 9	Groundnut, dry, boiled, <i>Arachis hypogae</i> , (Mtedza wouma wophika)	49.0	324	1345	1.95	12.2	25.0				(0)	12.6	7.9		(0.00)
		4.6		1.3	41	2.1	123	265	510	15	1.40	0.40	650		
		0		0.47	0.08	8.4	0.321	60	0.0			0	0.00	5.93	
MW02_0016 Legume USDA	Peanut butter, smooth style, with salt	1.2	640	2657	3.55	22.2	51.4				(0)	22.3	17.3		
		5.0		2.9	49	1.7	168	335	558	426	2.51	0.42	1665		4.1
		0		0.15	0.19	13.2	0.441	0	0.0	1.14		0	0.00	9.10	
MW02_0017 Legume 9	Pigeon pea, dry, <i>Canjanus cajan</i> , (Nandolo wowuma)	8.0	364	1546	3.39	21.2	1.5				(0)	66.6	57.6		(0.00)
		9.0		3.8	112	6.1	179	344	971	27	2.20	1.20	1310		
		8		0.61	0.18	2.7	0.272	356	0.0			0	(0.00)	0.39	
MW02_0018 Legume 9	Pigeon pea, green, boiled, <i>Canjanus cajan</i> , (Nandolo wamuwisi owilitsa)	63.0	146	619	1.25	7.8	0.7				(0)	27.1	18.4		(0.00)
		8.6		1.4	42	1.7	67	140	446	6	0.90	0.40	470		
		0		1.15	0.06	0.8	0.081	97				0	0.00		
MW02_0019 Legume 10	Soybean, dry, (Soya)	8.5	432	1815	5.16	32.3	17.1				(0)	37.2	27.8		(0.00)
		9.4		4.9	266	9.6	245	472	1755	5	3.50	1.32			7.5
		1		0.71	0.08	2.0	0.827	378	0.0			0	0.00	0.73	

GROUP 2: LEGUMES RECIPES

MW02_0001	Bean and groundnut stew, (Ndawva)		Ref 34
63g	MW08_0008	Water, (Madzi)	
13g	MW02_0004	Bean, kidney, dry, <i>Phaseolus vulgaris</i> , (Nyemba zouma); RF 0542 (Ref 42)	
10g	MW02_0014	Groundnut, dry, <i>Arachis hypogae</i> , (Mtedza wouma); RF 0542 (Ref 42)	
10g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
4g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
	YF	2.03 (Ref 44)	
MW02_0002	Bean soup, (Supu wa nyemba)		Ref 39
57g	MW08_0008	Water, (Madzi)	
24g	MW02_0004	Bean, kidney, dry, <i>Phaseolus vulgaris</i> , (Nyemba zouma); RF 0522 (Ref 42)	
7g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
7g	MW04_0009	Green pepper, raw, (Gilini pepa); RF Table 28 (Ref 44)	
6g	MW04_0005	Carrot, with skin, raw, (Kaloti); RF 3456 (Ref 42)	
	YF	2.03 (Ref 44)	
MW02_0003	Bean stew, (Nyemba zouma zokazingira)		Ref 53
57g	MW08_0008	Water, (Madzi)	
24g	MW02_0004	Bean, kidney, dry, <i>Phaseolus vulgaris</i> , (Nyemba zouma); RF 0522 (Ref 42)	
14g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
3g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
1g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	2.03 (Ref 44)	
MW02_0005	Beans, boiled, (Nyemba zowilitsa)		Ref 53
83g	MW08_0008	Water, (Madzi)	
17g	MW02_0004	Bean, kidney, dry, <i>Phaseolus vulgaris</i> , (Nyemba zouma); RF 0542 (Ref 42)	
	YF	2.5 (Ref 44)	
MW02_0006	Cowpea relish, (Khobwe wowilitsa ndi tomato)		Ref 41
63g	MW08_0008	Water, (Madzi)	
17g	MW02_0007	Cowpea, dry, <i>Vigna unguiculata</i> , (Khobwe/Nseula wouma); RF 0542 (Ref 42)	
15g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3752 (Ref 42)	
3g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
2g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	2.0 (Ref 43)	

MW02_0013	Groundnut sauce, (Thendo)		Ref 36
50g	MW08_0008	Water, (Madzi)	
30g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
15g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2204 (Ref 42)	
5g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
	YF	0.99 (Assumption)	

GROUP 3: ANIMAL FOODS



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MALAWIAN FOOD COMPOSITION TABLE 2019

The animals' food group consists of 69 food items, including beef, pork, goat, lamb, chicken, quail and rabbit meat as well as some organ meats. Fish and related products are the biggest contributors of food items to this group. This group also includes eggs, milk and milk products, while commonly consumed insects such as flies and caterpillars are also included in this group.

NUTRIENTS IN THIS GROUP

The values for the following nutrients were assumed to be zero unless ingredients that contribute to the nutrients were added to a recipe in this group: Total sugar, Added sugar, Fibre, Starch, Phytate

GROUP 3: ANIMAL FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW03_0001 Animal R20B	Beef mince, fried, (Nyama ya ng'ombe yogaya yokazinga)	67.3	159	663	2.54	15.9	9.3	0.84	1.59	5.35	0	2.9	2.5		(0.00)
		0.4	(0.00)	1.3	94	7.0	73	131	295	38	2.45	0.42			0.9
			0	0.04	0.14	4.5	0.161	5	1.0			1	0.32	3.53	0.18
MW03_0002 Animal R27	Beef stew, (Nyama ya ng'ombe yokazingira)	73.6	94	399	2.70	16.9	1.3					3.8	3.0		(0.00)
		0.8	(0.00)	1.6	252	10.4	43	143	392	40	3.32	1.70	0	0.38	5.2
		18		0.06	0.15	4.4	0.166	10	0.9	0.01		7	0.33	0.45	0.19
MW03_0003 Animal WA	Beef, kidney, raw, (Impsyo ya ng'ombe)	77.9	99	416	2.78	17.4	3.1					0.3	0.3	0.00	0.00
		0.0	0.00	1.3	13	4.6	17	257	262	182	1.92	0.43			
		419		0.36	2.84	8.0	0.670	98	27.5			9	1.10	[0.22]	(0.00)
MW03_0004 Animal WA	Beef, liver, raw, (Chiwindi cha ng'ombe)	71.0	133	559	3.10	19.4	4.4					3.9	3.9	0.00	0.00
		0.0	0.00	1.3	7	8.8	18	369	313	69	3.50	9.76			
		4970		0.19	1.56	13.2	1.080	290	59.3			1	1.20		(0.00)
MW03_0005 Animal R53	Beef, liver, stew, (chiwindi cha ng'ombe chokazingira)	78.7	113	474	1.38	8.6	5.9	0.41	0.77	2.59		6.5	5.4		(0.00)
		1.1	(0.00)	0.9	244	8.2	52	171	281	34	3.45	5.48	18		4.6
		1848	5	0.09	0.65	5.2	0.454	88	20.7	0.03	0.7	16	0.49	1.84	(0.00)
MW03_0006 Animal 22	Beef, raw, (Nyama ya ng'ombe)	72.1	95	402	3.27	20.5	1.5					0.0	0.0	(0.00)	(0.00)
		(0.0)	0.00	1.6	1	7.5	23	177	375	52	1.77	0.10			
			0	0.06	0.2	6.5	0.239	7	1.5			0	0.42	0.24	0
MW03_0007 Animal WA	Beef, tripe, raw, (Nthumbwana za ng'ombe)	84.2	82	343	1.94	12.1	3.7					0.0	0.0	0.00	0.00
		0.0	0.00	0.6	69	0.6	13	64	67	97	1.42	0.07			
		0		0.00	0.06	0.9	0.010	5	1.4			0	0.00	[0.09]	(0.00)
MW03_0008 Animal 23	Caterpillar, dry, roasted, <i>Usta terphrichore</i> , (Nyamanyama zootcha)	14.7	377	1588	10.16	63.5	11.3					5.3	[0]	(0.00)	(0.00)
		5.3	(0.00)	5.2	1	208.5	5		657						
															(0.00)
MW03_0009 Animal 23	Caterpillar, roasted, <i>Imbrasia ertli</i> , (Mphalabungu zootcha)	20.7	308	1300	7.12	44.5	7.6					15.4	[0]	(0.00)	(0.00)
		15.4	(0.00)	11.8	1	226.3	4		607						
															(0.00)
MW03_0010 Animal R41	Chicken stew, (Nkhuku yokazingira)	72.5	157	655	2.39	14.9	9.8	0.65	1.24	4.17		2.3	1.7		(0.00)
		0.5	(0.00)	1.1	120	2.9	28	110	216	33	2.01	0.73	12	0.44	2.3
		13	4	0.06	0.05	2.2	0.144	3	0.1	0.02	0.5	10	0.00	2.91	

GROUP 3: ANIMAL FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW03_0011 Animal 26	Chicken, meat with skin, free range, local, raw, (Nkhuku ya chikuda)	73.1	129	541	3.38	21.1	4.9					[0]	[0]	(0.00)	(0.00)
		(0.00)	(0.00)	1.3	8	1.0	18	146	207	43	1.60				
		7		0.09	0.06	3.7	0.272	2	0.2			1		0.28	(0.00)
MW03_0012 Animal 9	Crabs, boiled, (Nkhanu/Nkhala zowilitsa)	51.0	191	810	6.68	41.8	2.7					0.0	0.0	(0.00)	(0.00)
		0.00	(0.00)	4.5	3292	5.6	259	553	304	578	6.32				
		102		0.18	0.54	5.7	0.340	99	20.3			16			(0.00)
MW03_0013 Animal R59	Egg, chicken, boiled, (Dzira lankhuku lowilitsa)	72.2	164	684	2.24	14.0	11.4					1.3	1.3	0.00	(0.00)
		0.0	0.00	1.0	43	2.0	10	213	103	140	1.28				
		74		0.12	0.42	0.1	0.042	38	1.8			0			(0.00)
MW03_0014 Animal R61	Egg, chicken, scrambled, (Dzira la nkhuku lokanya)	66.6	231	957	1.59	10.0	20.4	6.12	3.32	1.88		2.0	2.0		(0.00)
		0.0	0.00	1.1	55	1.4	9	161	99	218	0.93				
		185		0.28	0.57	2.8	0.333	44	1.4			0		1.50	(0.00)
MW03_0015 Animal MZF	Egg, chicken, whole, raw, (Dzira la nkhuku)	75.0	148	616	2.02	12.6	10.3					1.2	1.2		0.00
		0.0		0.9	39	1.8	9	192	98	126	1.15				
		67		0.130	0.40	0.1	0.04	46	1.9			0			(0.00)
MW03_0016 Animal 9	Egg, duck, boiled, (Dzira la bakha lowilitsa/lobwatitsa)	70.0	153	638	2.07	12.9	10.6					1.5	1.5		(0.00)
		0.0	(0.00)	1.1	108	4.0	14	450	99	60	1.50	0.10	30		
		199		0.16	0.41	0.2	0.257	82	5.5			0		1.38	(0.00)
MW03_0017 Animal R63	Eggs, chicken, boiled, with peas, (Mazira ankhuku owilitsa ndi nsawawa)	82.4	97	405	0.68	4.2	5.6	0.29	0.51	1.76		7.4	5.7		(0.00)
		1.7		0.6	177	3.2	25	80	173	43	1.48	0.90	57		2.8
		32	4	0.08	0.12	0.7	0.066	20	0.3	0.07	2.3	8		1.23	(0.00)
MW03_0018 Animal R60	Eggs, chicken, boiled, with tomatoes, (Mazira ankhuku owilitsa othila tomato)	77.0	140	585	0.92	5.7	9.7	0.57	1.08	3.63		7.5	6.4		(0.00)
		1.1		0.7	304	6.3	35	96	196	53	2.66	1.87	5		6.0
		44	0	0.07	0.16	0.4	0.086	17	0.6	0.01		8		2.59	
MW03_0019 Animal R13	Fish powder stew, (Supu ya ufa wansomba)	91.1	44	187	0.44	2.8	1.8					4.3	3.2		(0.00)
		1.1		0.7	292	6.6	43	30	177	4	2.04	1.88	27	0.93	6.0
		23		0.04	0.01	0.6	0.068	9	0.0	0.01		8	0.00	0.62	
MW03_0020 Animal 9	Fish, catfish, dry, <i>Clarius gariepinus</i> , (Mlamba wouma)	17.0	419	1754	9.21	57.6	20.1					1.8	1.8	0.00	0.00
		0.00	(0.00)	3.5	1145	3.2	143	1345	1328	340	5.50	0.20	3400		
		88		0.42	0.21	4.9	1.024	28	8.1			0	30.37	2.05	(0.00)

GROUP 3: ANIMAL FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW03_0021 Animal R34	Fish, catfish, fresh, fried, (Mlamba wokazinga)	60.8	207	866	2.90	18.1	11.8	0.38	0.72	2.44		7.1	7.0		0.00
		0.1	0.00	1.1	44	1.7	29	224	279	78	0.84	0.04			
		38	0	0.14	0.18	1.1	0.229	18	1.9			0		1.53	(0.00)
MW03_0022 Animal WA	Fish, catfish, raw, <i>Synodontis</i> , (Nkholokolo)	76.5	117	488	2.61	16.3	5.7					0.0	0.0	0.00	0.00
		0.0	0.00	1.0	38	0.9	30	191	304	48	0.60	0.05			
		25		0.12	0.06	1.4	0.290	8	2.30						(0.00)
MW03_0023 Animal 9	Fish, catfish, smoked, <i>Clarias gariepinus</i> , (Mlamba wowamba)	14.0	434	1817	9.54	59.6	20.9					1.9	[0]	(0.00)	(0.00)
		0.0	(0.00)	3.7	929	3.3	139	1016	1273	258	5.80	0.10	3080		
		91		0.44	0.22	5.1	1.060	29	8.4			0	31.47	2.12	(0.00)
MW03_0024 Animal 13	Fish, fillet, fresh, <i>Rhamphochromis esox</i> (Mnofu wa mcheni wa fuleshi)	65.8	168	699	2.57	16.1	11.5					0.00	[0]	(0.00)	(0.00)
		[0]	(0.00)	1.3											
															(0.00)
MW03_0025 Animal 13	Fish, fresh, gutted, <i>Rhamphochromis esox</i> , (Mcheni wa fuleshi)	57.7	238	989	3.35	20.9	17.1					0.0	0.0	(0.00)	(0.00)
		[0.0]	(0.00)	4.0											
															(0.00)
MW03_0026 Animal 13	Fish, gutted, frozen, <i>Rhamphochromis esox</i> , (Mcheni wa fuleshi)	56.6	226	939	3.08	19.3	16.5					0.0	0.0	(0.00)	(0.00)
		[0.0]	(0.00)	4.5											
MW03_0027 Animal 9	Fish, lake sardine, whole, dried, <i>Engraulicypris breianalis</i> , (Usipa wowuma)	13.0	364	1533	10.76	67.2	10.1					1.0	1.0	(0.00)	(0.00)
		[0.0]	(0.00)	8.7	1453	6.2	155	1630	1235	235	25.40	0.40	970		
		66		0.07	0.73	32.6	3.327	14	38.1					2.53	(0.00)
MW03_0028 Animal 6	Fish, powder, <i>Engraulicypris sardella</i> , (Ufa wausipa)	9.4	388	1629	9.55	59.7	15.9					1.5	0.0	(0.00)	(0.00)
		1.5	(0.00)	14.9	512	46.1	851	0							
															(0.00)
MW03_0029 Animal R52	Fish, tilapia, fresh, fried, (Chambo chokazinga)	53.8	225	938	1.94	12.1	15.8	1.00	1.88	6.35		8.6	8.3	(0.00)	(0.00)
		0.3	(0.00)	4.7	113	4.4	86	14	24	0		0.00	2		
			0	0.03	0.01	0.1	0.010	2	0.0	0.01	0.1	1	0.00	3.98	(0.00)
MW03_0030 Animal R33	Fish, tilapia, fresh, grilled, (Chambo chootcha)	68.0	146	608	1.81	11.3	11.2	2.62	1.42	0.81	0	0.1	0.1	0.00	(0.00)
		0.0	(0.00)	4.9	117	4.0	88	0	1	48	0.00				
		54		0.08	0.11	1.1	0.127	11	0.1			0		0.64	(0.00)

GROUP 3: ANIMAL FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW03_0031 Animal 9	Fish, tilapia, whole, dried, <i>Oreochromis shiranus</i> , (Chambo chouma)	6.0	331	1403	11.49	71.8	4.9					0.1	0.0	(0.00)	(0.00)
		0.0	(0.00)	17.2	1664	44.1	161	1369	1184	263	3.70	0.60	2790		
		0		0.05	0.24	3.4	0.722	13	15.9					0.76	(0.00)
MW03_0032 Animal 27	Fish, tilapia, whole, fresh, <i>Oreochromis shiranus</i> , (Chambo cha fuleshi)	96.8	21	89	0.54	3.4	0.9					0.0	0.0	(0.00)	(0.00)
		0.0	(0.00)	0.9											
															(0.00)
MW03_0033 Animal 28	Fish, whole, fresh, <i>Barbus paludinosus</i> , (Matemba a fuleshi)	79.9	71	298	1.93	12.1	2.5					0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	2.7											
															(0.00)
MW03_0034 Animal 15	Fish, whole, fresh, <i>Copadichromis inornatus</i> , (Utaka wa fuleshi)	72.9	114	477	2.35	14.7	6.2					0.0	[0]	(0.00)	(0.00)
		(0.0)	(0.00)	4.2	714	3.0	156	0							
															(0.00)
MW03_0035 Animal 15	Fish, whole, fresh, <i>Engraulicypris sardella</i> , (Usipa wa fuleshi)	72.7	138	578	2.42	15.1	8.2					1.1	1.1	(0.00)	(0.00)
		(0.0)	(0.00)	3.0	340	4.6	139	0							
															(0.00)
MW03_0036 Animal 15	Fish, whole, fresh, <i>Oreochromis lidole</i> , (Chambo cha fuleshi)	74.8	95	395	1.71	10.7	5.8					0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	4.6	110	3.8	83	0							
MW03_0037 Animal 13	{(Fish, whole, fresh, <i>Rhamphochromis esox</i> , (Mcheni wa fuleshi))*}	70.7	214	889	2.74	17.1	16.2					0.0	[0.0]	(0.00)	(0.00)
		(0.0)	(0.00)	3.8											
															(0.00)
MW03_0038 Animal 15	Fish, whole, fresh, <i>Rhamphochromis ferox</i> , (Mcheni wa fuleshi)	70.3	130	545	3.06	19.1	5.1					2.0	2.0	(0.00)	(0.00)
		(0.0)	(0.00)	3.7	825	188.0	490	0							
															(0.00)
MW03_0039 Animal 15	Fish, whole, par-boiled, sun dried, <i>Engraulicypris sardella</i> , (Usipa ofutsa)	56.3	194	813	4.34	27.1	9.5					0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	4.9	510	9.2	283	0							
															(0.00)
MW03_0040 Animal 13	{(Fish, whole, salted, smoked, <i>Rhamphochromis esox</i> , (Mcheni wowamba))*}	15.3	335	1393	4.59	28.7	24.0					1.0	1.0	(0.00)	(0.00)
		(0.0)	(0.00)	18.2											
															(0.00)

GROUP 3: ANIMAL FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW03_0041 Animal 13	{(Fish, whole, salted, sun dried, <i>Rhamphochromis esox</i> , (Mcheni wadzuwa))*}	22.0	347	1439	3.93	24.6	27.6					0.0	[0.0]	(0.00)	(0.00)
		(0.0)	(0.00)	15.2											
															(0.00)
MW03_0042 Animal 28	{(Fish, whole, smoked, <i>Barbus paludinosus</i> , (Matemba owamba))*}	19.5	344	1442	7.73	48.3	16.8					0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	9.6	1569										
															(0.00)
MW03_0043 Animal 15	Fish, whole, smoked, <i>Copadichromis inornatus</i> , (Utaka wowamba)	52.7	194	816	4.71	29.4	8.4					0.4	0.4	(0.00)	(0.00)
		(0.0)	(0.00)	9.2	1744	12.3	356	0							
															(0.00)
MW03_0044 Animal 15	Fish, whole, smoked, <i>Oreochromis lidole</i> , (Chambo chowamba)	12.8	340	1424	7.94	49.6	15.6					0.2	0.0	(0.00)	(0.00)
		[0.0]	(0.00)	21.9	5870	190.0	312	320	1222	349	3.07	0.10	1180		
			706	0.13	0.40	5.7	0.673	5	10.2	0.77		0		0.50	(0.00)
MW03_0045 Animal 13	Fish, whole, smoked, <i>Rhamphochromis esox</i> , (Mcheni owamba)	12.9	465	1933	5.90	36.9	35.3					0.0	[0]	(0.00)	(0.00)
		(0.0)	(0.00)	15.1											
															(0.00)
MW03_0046 Animal 15	Fish, whole, smoked, <i>Rhamphochromis ferox</i> , (Mcheni owamba)	48.8	197	828	5.57	34.8	6.4					0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	10.2	2485	464.0	792	1050							
															(0.00)
MW03_0047 Animal 9	Fish, tilapia, whole, smoked, sun dried, <i>Oreochromis shiranus</i> , (Chambo chowamba)	9.0	354	1485	8.28	51.8	16.3					0.2	0.0	(0.00)	(0.00)
		0.0	(0.00)	22.8	1565	198.2	172	1278	1274	364	3.20	0.10	1230		
		736		0.13	0.42	6.0	0.702	5	11.2	0.81		0		0.52	(0.00)
MW03_0048 Animal 13	Fish, whole, sun dried from fresh, <i>Rhamphochromis esox</i> , (Mcheni wadzuwa)	21.0	491	2038	5.33	33.3	39.8					0.0	[0.0]	(0.00)	(0.00)
		(0.0)	(0.00)	6.1											
															(0.00)
MW03_0049 Animal 15	Fish, whole, sun dried, <i>Copadichromis inornatus</i> , (Utaka wadzuwa)	30.1	328	1373	6.37	39.8	18.1					1.5	1.5	(0.00)	(0.00)
		(0.0)	(0.00)	10.7	1884	20.3	520	0							
															(0.00)
MW03_0050 Animal 15	Fish, whole, sun dried, <i>Engraulicypris sardella</i> , (Usipa wadzuwa)	20.3	354	1480	7.31	45.7	19.0					0.0	0.0	(0.00)	(0.00)
				8.2	451	40.6	749	0							
		(0.00)	(0.00)												(0.00)

GROUP 3: ANIMAL FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW03_0051 Animal 15	Fish, whole, sun dried, <i>Rhamphochromis ferox</i> , (Mcheni wadzuwa)	24.1	349	1464	7.86	49.1	17.0					0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	12.2	2485	464.0	595	1180							
															(0.00)
MW03_0052 Animal WA	Goat, meat, raw, (Nyama ya mbuzi)	68.0	165	690	2.80	17.5	10.6					0.0	0.0	0.00	0.00
		0.0	0.00	1.1	11	2.4	27	150	385	82	3.45	0.16			
		0		0.18	0.29	6.1	0.400	5	1.1			0		0.18	(0.00)
MW03_0053 Animal R26	Lake flies stew, (Nkhungu zotendera)	48.1	304	1267	3.47	21.8	19.7	0.21	0.40	1.36	0	9.9	5.3		(0.00)
		4.6		2.1	127	2.8	66	317	259	3	1.43	0.95	0	0.08	3.0
		8	0	0.21	0.04	4.2	0.176	27	0.0	0.00		3	0.00	3.97	
MW03_0054 Animal 23	Lake flies, dry, roasted, <i>Chaoborus edulis</i> , (Nkhungu zokazinga)	1.1	501	2101	10.70	67.2	21.9					8.7	0.0	(0.00)	(0.00)
		8.7	(0.00)	6.1	38	0.9		942							
															(0.00)
MW03_0055 Animal R25	Lake sardine stew, with groundnut flour, (Usipa wotendera)	48.3	250	1047	5.00	31.2	11.6	0.13	0.25	0.84		5.2	3.4		(0.00)
		1.7		4.0	737	5.6	104	736	675	101	11.76	1.13	484	0.2	2.7
		36	0	0.14	0.32	14.0	1.324	20	14.8	0.00		4	0.00	3.16	
MW03_0056 Animal R54	Lamb, meat, roast, (Nyama ya nkhusa yootcha)	44.5	362	1500	3.72	23.2	29.9					0.0	0.0	0.00	0.00
		(0.0)	(0.00)	1.4	14	3.0	31	210	335	107	4.69	0.15			
		11		0.13	0.27	3.9	0.423	2	2.9			0	0.42	0.30	
MW03_0057 Animal WA	Locust, raw, (Dzombe)	76.7	105	443	2.24	14.0	3.3					4.9	0.9	(0.00)	(0.00)
		4.0		1.1	28	3.0	22	150	217	32	3.50	0.87			
				0.19	0.57	6.7									(0.00)
MW03_0058 Animal 9	Locust, roasted, (Dzombe lokazinga)	50.0	226	952	4.81	30.0	7.1					10.5	1.9	(0.00)	(0.00)
		8.6	(0.00)	2.4	90	6.4	62	424	545	55	8.40	3.00	1460		
				0.41	1.32	14.4									(0.00)
MW03_0059 Animal 20	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi)	87.9	67	277	0.46	2.9	4.2					4.4	4.4	(0.00)	(0.00)
		(0.0)	(0.00)	0.7	120	0.1	12	90	136	65	0.38				
		44		0.02	0.16	0.1	0.040	5	0.4			1		0.07	(0.00)
MW03_0060 Animal ZA	Milk, powder, full fat, vitamin A, D and Fe enriched, (Mkaka ng'ombe wa ufa)	3.0	504	2109	4.03	25.7	28.0	17.55	8.31	0.70	97	37.4	37.4		0.00
		0.0		5.7	930	6.0	85	750	1200	350	3.34	0.08	40		
			450	0.23	1.40	0.6	0.302	37	1.8	2.00	13.9	9	10.00	1.08	

GROUP 3: ANIMAL FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW03_0061 Animal R35	Milkshake, banana	82.6	81	342	0.38	2.4	3.0					11.2	10.6		[0.85]
		0.6		0.7	88	0.2	17	71	201	46	0.33	0.02	189		
		32	0	0.03	0.13	0.2	0.130	8	0.3			2	0.00	0.16	
MW03_0062 Animal R56	Mutton stew, (Nyama ya nkhusa yokazingira)	77.4	125	522	0.90	5.8	8.2	0.21	0.38	1.30		7.1	6.2		(0.00)
		1.0		0.6	128	3.1	33	63	216	27	2.02	0.78	35	0.63	2.3
		10	288	0.07	0.07	1.2	0.152	48	0.6	0.06	0.2	5	0.09	1.03	
MW03_0063 Animal WA	Mutton, meat, ~20% fat, raw, (Nyama ya Nkhosa)	60.6	257	1065	2.64	16.5	21.2					0.0	0.0	0.00	0.00
		0.0	0.00	1.0	10	2.1	22	149	250	76	3.33	0.11			
		10		0.13	0.19	3.5	0.400	2	2.9			0	0.30	0.21	
MW03_0064 Animal WA	Pork, meat, ~20% fat, raw, <i>Sus Scrofa domestica</i> , (Nyama ya nkhumba)	60.1	265	1100	2.67	16.8	22.0					0.0	0.0	0.00	0.00
		0.0	0.00	1.1	10	1.4	20	170	301	68	3.60	0.10			
		0		0.72	0.22	3.8	0.320	2	0.8			0	0.70	0.10	
MW03_0065 Animal 19	Quail, breast, raw, <i>Coturnix japonica</i> , (Chinziri)	72.5	121	508	3.39	21.2	4.0	0.84	0.82	0.75	56	0.0	0.0	(0.00)	(0.00)
		[0.0]	(0.00)	1.9	10	2.2	27	221	252	53	2.62				
		11		0.23	0.24	8.0	0.514	4	0.6			5			(0.00)
MW03_0066 Animal R55	Rabbit stew, (Nyama ya kalulu yokazingira)	63.2	181	758	3.94	24.6	7.7	0.13	0.26	0.86		3.1	3.0		0.00
		0.1		1.3	74	1.8	47	260	417	84	2.23	0.25			0.2
		21	0	0.11	0.21	8.3	0.482	5	7.7			0		1.43	
MW03_0067 Animal WA	Rabbit, meat, raw, <i>Oryctolagus cuniculus</i> , (Nyama ya kalulu)	72.7	130	545	3.46	21.6	4.8					0.0	0.0	0.00	0.00
		0.0	0.00	1.0	16	1.2	27	212	351	60	1.70	0.15			
		10		0.11	0.15	9.5	0.570	5	10.0			0	0.00	0.80	
MW03_0068 Animal R20C	Samosa, beef filling, fried, (Samusa wa nyama ya ng'ombe wokazinga)	64.4	180	750	2.54	15.9	11.2	1.03	1.96	6.60	0	3.8	3.3	(0.00)	(0.00)
		0.4	(0.00)	1.3	95	7.0	73	132	295	38	2.44	0.42		0.5	0.9
			0	0.04	0.14	4.4	0.161	5	0.9			1	0.31	4.31	0.18
MW03_0069 Animal 23	Termites, dry, <i>Macrotermes subhyalinus</i> , (Ngumbi)	[2.9]	627	2605	6.56	41.0	48.2					7.3	0.0	(0.00)	(0.00)
		7.3	(0.00)	4.1	8	5.8		478							
															(0.00)

GROUP 3: ANIMAL FOODS RECIPES

MW03_0001	Beef mince, fried, (Nyama ya ng'ombe yogaya yokazinga)		Ref 34
66g	MW03_0006	Beef, raw, (Nyama ya ng'ombe)	
27g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
7g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.87 (Ref 44)	
MW03_0002	Beef stew, (Nyama ya ng'ombe yokazingira)		Ref 32
80g	MW03_0006	Beef, raw, (Nyama ya ng'ombe); RF 0605 (Ref 42)	
48g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3752 (Ref 42)	
25g	MW08_0008	Water, (Madzi)	
14g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
	YF	0.6 (Ref 44)	
MW03_0005	Beef, liver, stew, (chiwindi cha ng'ombe chokazingira)		Ref 39
34g	MW03_0004	Beef, liver, raw, (Chiwindi cha ng'ombe); RF Table 18 (Ref 44)	
32g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3752 (Ref 42)	
19g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
12g	MW04_0009	Green pepper, raw, (Gilini pepa); RF Table 28 (Ref 44)	
3g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.82 (Ref 44)	
MW03_0010	Chicken stew, (Nkhuku yokazingira)		Ref 39
48g	MW03_0011	Chicken, meat with skin, free range, local, raw, (Nkhuku ya chikuda); RF Table 12 (Ref 44)	
20g	MW08_0008	Water, (Madzi)	
15g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya) RF 3751 (Ref 42)	
7g	MW04_0009	Green pepper, raw, (Gilini pepa); RF Table 28 (Ref 44)	
5g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
4g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.7 (Ref 44)	
MW03_0013	Egg, chicken, boiled, (Dzira lankhuku lowilitsa)		Ref 39
83g	MW08_0008	Water, (Madzi)	
17g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkhuu); RF 0105 (Ref 42)	
	YF	0.9 (Ref 44)	
MW03_0014	Egg, chicken, scrambled, (Dzira la nkhuu lokanya)		Ref 39
68g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkhuu); RF 0103 (Ref 42)	
19g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
14g	MW06_0001	Margarine, Rama, brick	
	YF	0.91 (Ref 44)	

GROUP 3: ANIMAL FOODS RECIPES

MW03_0017	Eggs, chicken, boiled, with peas, (Mazira ankhuku owilitsa ndi nsawawa)		Ref 39
19g	MW04_0032	Peas, raw, <i>Pisum sativum</i> , (Nsawawa zaziwisi); RF Table 28 (Ref 44)	
15g	MW03_0013	Egg, chicken, boiled, (Dzira lankhuku lowilitsa)	
8g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
3g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
27g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3752 (Ref 42)	
2g	MW01_0020	Flour, maize, white, degermed-dehulled, fermented, unfortified, raw, (Ufa woyera); RF 0302 (Ref 42)	
	YF	1.03 (Ref 44)	
MW03_0018	Eggs, chicken, boiled, with tomatoes, (Mazira ankhuku owilitsa othila tomato)		Ref 39
48g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3752 (Ref 42)	
30g	MW03_0013	Egg, chicken, boiled, (Dzira lankhuku lowilitsa)	
14g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
5g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
3g	MW01_0018	Flour, maize, white, degermed-dehulled, unfortified, raw, (Ufa wa galamilu); RF 0305 (Ref 42)	
	YF	0.87 (Ref 44)	
MW03_0019	Fish powder stew, (Supu ya ufa wansomba)		Ref 40
46g	MW08_0008	Water, (Madzi)	
44g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
6g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
2g	MW03_0028	Fish, powder, <i>Engraulicypris sardella</i> , (Ufa wausipa); RF 2456 (Ref 42)	
2g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2204 (Ref 42)	
	YF	0.76 (Ref 44)	
MW03_0021	Fish, catfish, fresh, fried, (Mlamba wokazinga)		Ref 32
64g	MW03_0022	Fish, catfish, raw, <i>Synodontis</i> , (Nkholokolo); RF 2460 (Ref 42)	
25g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0103 (Ref 42)	
8g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
3g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.8 (Ref 44)	
MW03_0029	Fish, tilapia, fresh, fried, (Chambo chokazinga)		Ref 39
81g	MW03_0036	Fish, whole, fresh, <i>Oreochromis lidole</i> , (Chambo cha fuleshi); RF 2460 (Ref 42)	
13g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
2g	MW05_0014	Lemon, raw, peeled, (Ndimu losenda)	
8g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.8 (Ref 44)	

GROUP 3: ANIMAL FOODS RECIPES

MW03_0030	Fish, tilapia, fresh, grilled, (Chambo chootcha)		Ref 32
94g	MW03_0036	Fish, whole, fresh, <i>Oreochromis lidole</i> , (Chambo cha fuleshi); RF 2455 (Ref 42)	
6g	MW06_0001	Margarine, Rama, brick	
	YF	0.89 (Assumption)	
MW03_0053	Lake flies stew, (Nkhungu zotendera)		Ref 32
33g	MW02_0014	Groundnut, dry, <i>Arachis hypogae</i> , (Mtedza wouma); RF 2204 (Ref 42)	
27g	MW03_0054	Lake flies, dry, roasted, <i>Chaoborus edulis</i> , (Nkhungu zokazinga)	
25g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF3751 (Ref 42)	
6g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
6g	MW08_0008	Water, (Madzi)	
2g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	1.2 (Assumption)	
MW03_0055	Lake sardine stew, with groundnut flour, (Usipa wotendera)		Ref 32
40g	MW03_0027	Fish, lake sardine, whole, dried, <i>Engraulicypris breianalis</i> , (Usipa wowuma); RF 2552 (Ref 42)	
25g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
14g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2204 (Ref 42)	
7g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
1g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.98 (Assumption)	
MW03_0056	Lamb, meat, roast, (Nyama ya nkhusa yootcha)		Ref 39
100g	MW03_0063	WA Mutton, meat, ~20% fat, raw, (Nyama ya Nkhosa); RF Table 8 (Ref 42)	
	YF	0.71 (Ref 44)	
MW03_0061	Milkshake, banana		Ref 39
71g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi)	
28g	MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati yokupsya)	
1g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	1.0 (Assumption)	

GROUP 3: ANIMAL FOODS RECIPES

MW03_0062	Mutton stew, (Nyama ya nkhusa yokazingira)		Ref 39
31g	MW08_0008	Water, (Madzi)	
22g	MW03_0063	Mutton, meat, ~20% fat, raw, (Nyama ya Nkhosa); RF Table 8 (Ref 44)	
15g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
12g	MW01_0050	Potato, local variety, raw, (Mbatata ya kachewere); RF Table 31 (Ref 44)	
9g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
7g	MW04_0005	Carrot, with skin, raw, (Kaloti); RF Table 26 (Ref 44)	
2g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 0305 (Ref 42)	
1g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.76 (Ref 44)	
MW03_0066	Rabbit stew, (Nyama ya kalulu yokazingira)		Ref 39
74g	MW03_0067	Rabbit, meat, raw, <i>Oryctolagus cuniculus</i> , (Nyama ya kalulu); RF Table 8 (Ref 44)	
19g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2153 (Ref 42)	
5g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
1g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
1g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.68 (Ref 44)	
MW03_0068	Samoosa, beef filling, fried, (Samusa wa nyama ya ng'ombe wokazinga)		Ref 34
25g	MW01_0059	Samoosa, dough, raw; RF Table 38 (Ref 44)	
73g	MW03_0001	Beef mince, fried, (Nyama ya ng'ombe yogaya yokazinga)	
1g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.74 (Ref 44)	

GROUP 4: VEGETABLES



This group includes data on many plant foods used as vegetables including indigenous leaves in raw and boiled forms. Nutrient information on commonly consumed vegetable recipes, including traditional and indigenous Malawian vegetable dishes, are also included and bring the total number of food items to 36.

NUTRIENTS IN THIS GROUP

The values for the following nutrients were assumed to be zero unless ingredients that contribute to the nutrients were added to a recipe in this group: Added sugar, Vitamin D, Vitamin B12, Cholesterol

GROUP 4: VEGETABLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW04_0001 Vegetables 9	Bean, lima, green, fresh, <i>Phaseolus lunatus</i> , (Kabaifa/Kamumpanda)	66.0	132	561	1.26	7.8	1.0				(0)	23.1	17.5	(0.00)	(0.00)
		5.6		2.2	29	3.6	66	161	660	17	1.30	0.30	700		2.1
		11		0.25	0.12	1.7	0.232		0.0	0.28		27	0.00	0.37	
MW04_0002 Vegetables R14	Black jack leaves stew, with ground-nut flour, (Chisoso chotendela)	80.1	109	457	0.94	5.9	6.9				(0)	6.0	3.2		(0.00)
		2.8		1.5	582	9.3	203	76	317	111	3.32	1.32	7057	0.44	3.2
		7	270	0.14	0.07	1.6	0.201	91	0.0	0.03	0.0	7	(0.00)	2.11	
MW04_0003 Vegetables 9	Cabbage, Chinese, boiled, <i>Brassica chinensis</i> , (Chayinizi)	95.0	19	80	0.13	0.8	0.1				(0)	3.6	2.0		(0.00)
		1.6		0.5	84	0.3	15	22	167	9	0.60	0.06	200		
			8	0.02	0.02	0.5	0.049	13	0.0	0.09	4.3	38	0.00	0.00	
MW04_0004 Vegetables 10	Cabbage, raw, (Kabichi)	92.2	32	136	0.23	1.4	0.1				(0)	6.3	4.2		(0.00)
		2.2		0.6	1019	41.3	424	31	167	28	3.53	2.03			7.8
			7	0.04	0.02	0.3	0.077	15	0.0	0.15	4.6	29	0.00	0.24	
MW04_0005 Vegetables ZA	Carrot, with skin, raw, (Kaloti)	89.2	40	170	0.14	0.9	0.0				0	9.1	6.4		0.00
		2.7		0.8	24	0.6	10	23	242	24	0.35	0.02	110		
			3250	0.03	0.12	0.6	0.060	10	0.0	0.07	2.4	4	0.00	0.39	
MW04_0006 Vegetables R46	Eggplant fritters, (Mabilinganya okazinga)	78.0	93	394	0.72	3.2	1.9					15.6	14.5		[2.17]
		1.1	2.80	0.9	44	1.6	15	60	299	24	0.27	0.00	0	0.00	0.00
				0.07	0.10	0.5	0.085	21	0.2	0.00	0.5	6		0.24	0.00
MW04_0007 Vegetables 9	Eggplant, raw, (Mabilinganya)	90.0	39	164	0.16	1.0	0.2	0.00	0.00	0.00	(0)	8.2	6.9		0.00
		1.3		0.6	14	1.3	14	26	350	4	0.16				
		6		0.05	0.05	0.5	0.100	29	(0.0)			9.00	(0.00)	0.30	
MW04_0008 Vegetables 10	Green beans, raw, (Zitheba)	89.7	38	162	0.34	2.1	0.1	0.02	0.00	0.05	(0)	7.2	3.8		(0.00)
		3.4		0.8	51	1.3	24	45	265	5	0.36	0.11	250		
			36	0.07	0.06	0.8	0.070	23	(0.0)	0.17	6.1	9	(0.00)	0.00	
MW04_0009 Vegetables 10	Green pepper, raw, (Gilini pepa)	94.6	24	102	0.14	0.9	0.1	0.01	0.01	0.05	(0)	4.9	3.1		(0.00)
		1.8		0.4	7	0.9	10	23	177	6	0.24	0.17	120		
			36	0.04	0.02	0.6	0.171	5	(0.0)	0.13	5.1	77	(0.00)	0.04	
MW04_0010 Vegetables 9	Leaves, amaranth, boiled, <i>Amaranthus thunbergii</i> , (Bonongwe wowilitsa)	84.0	57	243	0.91	5.7	0.4				(0)	7.8	6.0		(0.00)
		1.9		2.7	372	6.1	135	68	443	24	1.30	0.10	1888		
		283		0.04	0.29	0.7	0.161	52	(0.0)			24	0.00	0.31	

GROUP 4: VEGETABLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW04_0011 Vegetables WA	Leaves, amaranth, raw, (Bonongwe)	87.8	42	178	0.61	3.8	0.3				(0)	6.0	4.6		(0.00)
		1.4		2.1	2350	66.7	1350	58	602	13	5.28	1.02			7.6
		241		0.04	0.33	0.9	0.190	79	(0.0)			45	(0.00)	0.24	
MW04_0012 Vegetables 19	Leaves, black jack, raw, (Chisoso)	88.0	40	170	0.80	5.0	0.6				(0)	3.7	0.8		(0.00)
		2.9		2.8	1270	18.4	435	5	365	290	5.69	1.52	21000		3.1
			776	0.06	0.14	0.6	0.278	277	0.0	0.10	0.1	18	0.00	1.19	
MW04_0013 Vegetables 9	Leaves, cassava, boiled, <i>Manihot esculenta</i> , (Ntapasha/Chigwada chowilitisa)	78.0	85	360	0.98	6.1	0.7				(0)	13.5	10.6		(0.00)
		3.0		1.5	178	3.4	75	94	304	13	1.20	0.05	920		
		211		0.13	0.24	0.9	0.163	48	(0.0)			12	0.00	1.97	
MW04_0014 Vegetables WA	Leaves, cassava, raw, (Ntapasha/Chigwada)	73.2	104	441	1.20	7.5	0.9				(0)	16.5	12.9		(0.00)
		3.6		1.8	276	5.5	58	106	605	6	0.69	0.16			
		286		0.25	0.46	1.6	0.300	118	0.0			39	0.00	2.40	
MW04_0015 Vegetables 18	Leaves, cat's whiskers, raw, <i>Cleome gynadra</i> , (Luni)	82.0	45	189	0.76	4.8	1.1				(0)	3.9	2.0		(0.00)
		1.9		6.1	2210	35.7	91	14	574	23	2.60	0.50	1918		
			1436	0.12	0.14	1.6	0.416	415	0.0	0.14	0.1	265	0.00	2.99	
MW04_0016 Vegetables 21	Leaves, jews mallow, raw, <i>Corchorus trilocularis</i> , (Denje)	77.3	79	335	0.66	4.1	0.4				(0)	14.7	12.1		(0.00)
		2.7		3.1	495	8.1	77	162	580	8	0.58	0.24			
		346		0.2	0.70	1.6	0.398	157	(0.0)			38	(0.00)	1.05	
MW04_0017 Vegetables 9	Leaves, okra, boiled, <i>Abelmoschus esculentus</i> , (Thelele lowilitisa)	79.0	77	326	0.65	4.1	0.4				(0)	14.2	6.7		(0.00)
		7.5		2.5	514	0.7	74	116	317	23	1.80	0.20	2470		
		77		0.16	0.41	0.1	0.304	90	0.0			22	0.00	1.12	
MW04_0018 Vegetables 9	Leaves, pumpkin, boiled, <i>Cucurbita maxima</i> , (Nkhwani wowilitisa)	89.0	47	199	0.84	5.2	1.1				(0)	4.1	1.3		(0.00)
		2.9		0.5	142	2.2	75	82	170	10	0.70	0.20	1230		
		485		0.00	0.11			47	0.0			0	(0.00)	2.17	
MW04_0019 Vegetables 10	Leaves, pumpkin, raw, (Nkhwani)	92.9	27	114	0.32	2.0	0.2				(0)	4.2	3.2		(0.00)
		1.0		0.6	1980	131.7	726	55	230	6	4.08	0.97			11.0
		126		0.05	0.07	0.5	0.111	32	0.0			23	(0.00)	4.54	
MW04_0020 Vegetables 10	Leaves, rape, raw, (Lepu)	89.7	37	158	0.24	1.5	0.3				(0)	7.1	3.9		(0.00)
		3.2		1.4	1990	30.8	425	[42]	296	40	5.91	0.73			8.2
		579		0.07	0.10	0.60	0.263	194	0.0			60	(0.00)	2.86	

GROUP 4: VEGETABLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW04_0021 Vegetables 21	Leaves, roselle, raw, <i>Hibiscus subdaiffa</i> , (Chidedede)	83.6	54	228	0.27	1.7	0.2				(0)	11.2	5.1		(0.00)
		6.2		1.7	241	12.3	72	80	539	7	1.11	0.22			
		265		0.21	0.56	1.5	0.370	144	0.0			41	(0.00)	2.34	
MW04_0022 Vegetables R47	Mushroom stew, with groundnut flour, (Bowa wotendera)	79.7	110	461	0.84	5.3	6.5				(0)	7.8	5.9		(0.00)
		1.9		0.9	156	3.4	50	127	383	13	1.85	1.12	177	0.21	4.0
		11	0	0.16	0.17	3.5	0.152	27	(0.00)	0.53	0.0	4	0.31	1.64	
MW04_0023 Vegetables 16	Mushroom, indigenous, raw, <i>Cantherellus cibarius</i> , (Bowa wa chiwindi/Malasutwe)	91.5	15	64	0.30	1.9	0.2					1.4	0.9		(0.00)
		0.5		0.9	6	2.0	9	39	381	2	0.58				
		17		0.00	0.19	0.0									
MW04_0024 Vegetables 16	Mushroom, indigenous, raw, <i>Termitomyces letestui</i> , (Bowa wautale)	88.0	22	92	0.62	3.9	0.7					0.0	0.0		(0.00)
		0.5			6	1.0	9								
MW04_0025 Vegetables 16	Mushroom, oyster, cultivated, raw, <i>Pleurotus florida</i> , (Bowa wolimidwa)	91.7	30	127	0.37	2.3	0.2					4.7	4.5		(0.00)
		0.2		0.8	3	0.2	8	92	322	14	0.59	0.19	87		2.0
		2		0.10	0.27	3.8	0.084	29	0.00	0.99		0	0.54	0.00	
MW04_0026 Vegetables R38	Mushroom, relish, (Bowa okazingila)	85.9	84	352	0.26	1.6	5.7	0.56	1.07	3.60	(0)	6.7	5.7		(0.00)
		1.0		0.7	301	5.8	42	57	291	11	2.58	1.98	32		6.9
		22	0	0.06	0.12	1.8	0.095	14	(0.0)	0.38		8	0.22	2.55	
MW04_0027 Vegetables 16	Mushroom, white button, cultivated, raw, <i>Agaricus bisporus</i> , (Bowa wolimidwa)	91.6	32	133	0.48	3.0	0.8					3.1	2.6		(0.00)
		0.5		1.0	2	0.2	8	356	96	6	0.58				
		0		0.09	0.45	4.0	0.112	18	0.0			2		0.01	
MW04_0028 Vegetables R49	Okra relish, (Thelele lobala lokazingira)	84.7	89	370	0.24	1.5	5.6	0.55	1.04	3.50	(0)	8.2	5.6		(0.00)
		2.5		0.7	313	5.8	56	49	274	9	2.43	1.85	0		5.7
		32	0	0.04	0.05	0.7	0.161	38	(0.0)	0.01		19	(0.00)	2.67	(0.00)
MW04_0029 Vegetables R48	Okra stew, (Thelele lobala lokupa)	90.3	39	164	0.30	1.9	0.3				(0)	7.2	4.8		(0.00)
		2.4		0.8	879	48.8	275	59	286	7	2.82	1.5	0	0.41	7.6
		68		0.04	0.07	0.7	0.165	43	(0.00)	0.01		23	(0.00)	1.94	
MW04_0030 Vegetables 9	Okra, raw, <i>Abelmoschus esculentus</i> , (Therere lobala)	84.0	61	260	0.43	2.7	0.3				(0)	11.9	6.9		(0.00)
		5.0		1.1	104	1.3	77	95	382	11	0.94	0.14			
		41		0.06	0.13	1.1	0.345	138	0.0			44	0.00	0.57	

GROUP 4: VEGETABLES		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW04_0031 Vegetables 10	Onion, raw, (Anyezi)	89.1	43	181	0.14	0.9	0.1				(0)	9.6	8.1		(0.00)
		1.4		0.4	307	4.4	184	32	172	14	3.62	1.13			3.0
		0		0.03	0.01	0.1	0.115	2	0.0			6	(0.00)	0.02	
MW04_0032 Vegetables ZA	Peas, raw, <i>Pisum sativum</i> , (Nsawawa zaziwisi)	78.2	88	371	0.88	5.5	0.8	0.14	0.07	0.38	(0)	14.6	8.3		0.00
		6.3		0.7	20	1.7	28	83	265	14	0.87	0.17	330		
			26	0.28	0.08	2.5	0.100	82	0.00	0.38	13.0	27	0.00	0.04	
MW04_0033 Vegetables R04	Pumpkin leaves stew, (Nkhwani wokazingira)	91.7	46	191	0.21	1.3	2.6	0.25	0.47	1.59	(0)	4.3	3.3		(0.00)
		1.0		0.5	1120	67.0	364	36	199	5	3.14	1.53	0	0.19	8.7
		71	0	0.03	0.04	0.4	0.082	15	(0.0)	0.01		12	(0.00)	3.37	
MW04_0034 Vegetables 9	Pumpkin, boiled, <i>Cucurbita maxima</i> , (Dzungu lowiritsa)	84.0	60	254	0.32	2.0	0.2				(0)	12.5	11.1		(0.00)
		1.5		1.5	35	2.0	32	44	358	8	0.20	0.10	30		
		189		0.07	0.04	0.7	0.145	9	0.0			10	0.00	2.04	
MW04_0035 Vegetables R23	Tomato soup, (Supu wa tomato)	83.5	101	421	0.24	1.5	6.6	3.22	1.75	0.99	(0)	8.9	7.3		(0.00)
		1.6		0.8	557	11.3	13	35	310	66	3.83	3.86	0		12.5
		116		0.15	0.16	2.1	0.259	23	0.1	0.02		16	(0.00)	1.46	
MW04_0036 Vegetables 10	Tomato, ripe, raw, (Tomato okupsya)	94.5	26	109	0.14	0.9	0.2				(0)	5.1	3.9		(0.00)
		1.2		0.5	433	8.7	2	24	237	5	2.92	3.05	0		9.9
		42		0.04	0.02	0.6	0.080	15	0.0	0.02		14	0.00	0.54	

GROUP 4: VEGETABLES RECIPES

MW04_0002	Black jack leaves stew, with groundnut flour, (Chisoso chotendela)		Ref 34
34g	MW04_0012	Leaves, black jack, raw, (Chisoso); RF 3006 (Ref 42)	
27g	MW08_0008	Water, (Madzi)	
17g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
14g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2204 (Ref 42)	
8g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
	YF	0.94 (Ref 44)	
MW04_0006	Eggplant fritters, (Mabilinganya okazinga)		Ref 39
67g	MW04_0007	Eggplant, raw, (Mabilinganya); RF Table 28 (Ref 44)	
16g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
8g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
6g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0103 (Ref 42)	
2g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.89 (Ref 44)	
MW04_0022	Mushroom stew, with groundnut flour, (Bowa wotendera)		Ref 39
48g	MW04_0025	Mushroom, oyster, cultivated, raw, <i>Pleurotus florida</i> , (Bowa wolimidwa); RF Table 33 (Ref 42)	
21g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
12g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2204 (Ref 42)	
11g	MW08_0008	Water, (Madzi)	
8g	MW04_0031	Onion, raw, (Anyezi); RF 3456 (Ref 42)	
	YF	0.82 (Ref 44)	
MW04_0026	Mushroom, relish, (Bowa okazingila)		Ref 39
45g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
34g	MW04_0025	Mushroom, oyster, cultivated, raw, <i>Pleurotus florida</i> , (Bowa wolimidwa); RF Table 33 (Ref 44)	
17g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
4g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.82 (Ref 44)	
MW04_0028	Okra relish, (Thelele lobala lokazingira)		Ref 39
50g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
31g	MW04_0030	Okra, raw, <i>Abelmoschus esculentus</i> , (Therere lobala); RF Table 28 (Ref 42)	
14g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
5g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.93 (Ref 44)	

GROUP 4: VEGETABLES RECIPES

MW04_0029	Okra stew, (Thelele lobala lokupa)		Ref 39
29g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
26g	MW04_0019	Leaves, pumpkin, raw, (Nkhwani); RF 3006 (Ref 42)	
24g	MW04_0030	Okra, raw, <i>Abelmoschus esculentus</i> , (Therere lobala); RF Table 28 (Ref 44)	
20g	MW08_0008	Water, (Madzi)	
	YF	0.76 (Ref 44)	
MW04_0033	Pumpkin leaves stew, (Nkhwani wokazingira)		Ref 33
48g	MW04_0019	Leaves, pumpkin, raw, (Nkhwani); RF 3006 (Ref 42)	
32g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
12g	MW08_0008	Water, (Madzi)	
6g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
2g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.98 (Ref 44)	
MW04_0035	Tomato soup, (Supu wa tomato)		Ref 53
89g	MW04_0036	Tomato, ripe, raw, (Tomato okupsya); RF 3751 (Ref 42)	
6g	MW06_0001	Margarine, Rama, brick	
4g	MW04_0031	Onion, raw, (Anyezi); RF 3460 (Ref 42)	
2g	MW01_0024	{{Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)}}*; RF 0305 (Ref 42)	
	YF	0.71 (Ref 44)	



GROUP 5: FRUITS

The fruit group contains nutrient data of 25 food items and includes data on a variety of raw fruit (including indigenous fruit), fruit juices and recipes where fruit is the major ingredient. Fruits commonly consumed, but not cultivated in Malawi are also included as borrowed from composition tables from South Africa, West Africa and the United States of America.

NUTRIENTS IN THIS GROUP

The values for the following nutrients were assumed to be zero unless ingredients that contribute to the nutrients were added to a recipe in this group: Added sugar, Vitamin D, Vitamin B12, Cholesterol

GROUP 5: FRUITS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW05_0001 Fruits ZA	Apple, average, raw, (Apozi)	83.9	63	267	0.03	0.2	0.1	0.02	0.00	0.03	0	15.3	13.0		0.00
		2.3		0.3	2	0.3	3	7	99	4	0.09	0.07	80		
			3	0.02	0.06	0.2	0.030	1	0.0	0.09	1.2	5	0.00	0.16	
MW05_0002 Fruits 9	Avocado, raw, peeled, <i>Persea americana</i> , (Peyala losenda)	78.0	152	629	0.25	1.6	13.7				(0)	5.7	1.3		(0.00)
		4.4		1.0	7	0.7	14	40	455	9	0.30	0.30	170		
		6		0.06	0.14	1.7	0.320	33	0.0			13	0.00	1.49	
MW05_0003 Fruits R64	Banana, fried, (Nthochi yokazinga)	57.6	213	892	0.38	2.4	9.9	0.97	1.83	6.16	(0)	28.5	26.7	(0.00)	(0.00)
		1.8		0.7	8	0.8	27	34	296	2	0.16	0.06	520		0.0
		2	0	0.06	0.04	0.5	0.263	10	0.0	0.00	0.0	6	0.00	4.17	0.00
MW05_0004 Fruits 9	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyela mkati yokupsya)	72.0	109	464	0.20	1.3	0.2				(0)	25.5	23.4		0.00
		2.1		0.8	9	0.3	31	26	391	2	0.20	0.08	740		
		4		0.04	0.04	0.6	0.360	20	(0.0)			11	0.00	0.39	
MW05_0005 Fruits 17	Baobab, raw, <i>Adansonia digitata</i> , (Malambe)	13.2	349	1478	0.43	2.7	3.7				(0)	76.1	68.9		(0.00)
		7.2		4.3	100	5.0	181	39	2462	16	3.75	0.73			
		6		0.39	0.06	2.2	0.021		0.0			258	0.00		
MW05_0006 Fruits USDA	Custard apple, wild, <i>Annona senegalensis</i> , (Mpoza)	71.5	113	480	0.27	1.7	0.6				(0)	25.2	22.8		(0.00)
		2.4		1.0	30	0.7	18	21	382	4					
		2		0.08	0.10	0.5	0.221		(0.0)			19	(0.00)		
MW05_0007 Fruits R67	Fruit salad, fresh, (mango, banana, pineapple & pawpaw)	79.5	80	342	0.13	0.8	0.2				(0)	18.9	17.2		(0.00)
		1.7		0.6	121	1.2	86	16	243	2	0.42	0.46	322		2.6
		54		0.05	0.03	0.3	0.173	22	(0.0)	0.02	0.2	19	0.47	0.20	
MW05_0008 Fruits 9	Guavas, <i>Psidium guajava</i> , (Gwafa)	83.0	71	300	0.13	0.8	1.0				(0)	14.7	7.0		(0.00)
		7.8		0.6	7	0.4	18	28	282	7	0.20	0.10	90		
		5	0	0.05	0.02	1.2	0.790	19	0.0			341	(0.00)	0.72	
MW05_0009 Fruits 17	Jakjak fruit, <i>Azanza garckeana</i> , (Matowo)	47.2	201	852	1.01	6.3	0.6				(0)	42.5	18.6		(0.00)
		23.9		3.3	5	4.4	77	78	1383	11					
									(0.0)				(0.00)		
MW05_0010 Fruits R58	Juice tamarind, homemade, (Juwisi wa bwemba)	75.3	97	412	0.18	1.1	0.2	0.00	0.00	0.00	(0)	22.8	18.0	(0.00)	0.00
		4.8		0.6	43	0.6	21	27	161	3	0.03	0.02	0	1.44	0.0
		0	0	0.07	0.04	0.2	0.018	3	0.0	0.00	0.0	1	0.00	0.02	0.00

GROUP 5: FRUITS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW05_0011 Fruits R36	Juice, baobab, homemade, (Juwisi wamalambe)	84.4	63	266	0.03	0.2	0.2				(0)	14.9	14.5		[10.25]
		0.4		0.3	10	0.3	14	2	144	1	0.23	0.05	0	1.32	0.0
		0	0	0.02	0.00	0.1	0.001		(0.0)	0.00	0.0	10	(0.00)		
MW05_0012 Fruits R51	Juice, orange, homemade, (Juwisi wa malalanje)	77.8	89	376	0.08	0.5	0.1	0.01	0.01	0.01	(0)	21.6	19.8		[14.81]
		1.8		0.2	19	0.2	6	10	91	1	0.12	0.05	42	0.86	0.0
		0	2	0.04	0.01	0.2	0.021	11	(0.0)	0.14	2.3	27	(0.00)	0.10	
MW05_0013 Fruits 17	Jujube, <i>Ziziphus mauritiana</i> , (Masau)	85.2	60	255	0.10	0.6	1.4				(0)	11.3	10.8		(0.00)
		0.5		1.5	20	0.5	8	32	256	6	0.04	0.04			
		1		0.01	0.02	0.6	0.050		(0.0)			39	(0.00)		
MW05_0014 Fruits ZA	Lemon, raw, peeled, (Ndimu losenda)	87.8	49	208	0.11	0.7	0.2	0.03	0.01	0.06	0	11.1	7.0		0.00
		4.1		0.4	29	0.3	9	16	157	3	0.09	0.12	70		
			1	0.04	0.01	0.2	0.035	17	0.0	0.24	4.6	57	0.00	0.27	
MW05_0015 Fruits USDA	Loquats, wild, <i>Uapaca kirkiana</i> , (Masuku a mtchire)	86.7	52	221	0.07	0.4	0.2				(0)	12.1	10.4		(0.00)
		1.7		0.5	16	0.3	13	27	266	1	0.05	0.04	148		0.6
		76		0.02	0.02	0.2	0.100	14	0.0			1	(0.00)		
MW05_0016 Fruits 10	Mango, ripe, (Mango)	83.5	66	279	0.09	0.5	0.2				(0)	15.5	14.1		(0.00)
		1.4		0.4	114	1.7	95	10	148	1	0.54	0.72			4.1
		123		0.05	0.03	0.0	0.063	34	0.0			28	(0.00)	1.01	
MW05_0017 Fruits 17	Medlar, African, raw, <i>Vangueria infausta</i> , (Lokwati)	73.5	106	449	0.24	1.5	0.7				(0)	23.4	20.7		(0.00)
		2.7		0.9	3	7.5	48	22	483	6	0.11	0.08	452		
			5	0.03	0.03	0.4	0.029	12	0.0	0.11	0.3	0	0.00	0.00	
MW05_0018 Fruits ZA	Orange, raw, peeled, <i>Citrus sinensis</i> , (Lalanje losenda)	86.5	54	228	0.13	0.8	0.1	0.01	0.02	0.02	0	12.4	9.2		0.00
		3.2		0.4	30	0.3	8	19	176	1	0.22	0.10	85		
			4	0.08	0.02	0.3	0.040	30	0.0	0.28	4.4	53	0.00	0.19	
MW05_0019 Fruits 10	Pawpaw, fresh, (Papaya)	88.1	48	202	0.07	0.4	0.3				(0)	10.8	9.0		(0.00)
		1.8		0.4	963	3.9	432	7	205	7	1.29	1.34			10.8
		16		0.03	0.01	0.3	0.011	15	0.0			93	(0.00)	0.78	

GROUP 5: FRUITS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW05_0020 Fruits ZA	Peach, raw, <i>Prunus persica</i> , (Pichesi)	87.8	46	196	0.11	0.7	0.1	0.00	0.00	0.01	0	10.6	8.6		0.00
		2.0		0.4	4	0.3	8	17	201	4	0.09	0.08	50		
			6	0.02	0.02	0.6	0.010	2	0.0	0.25	5.1	8	0.00	0.70	
MW05_0021 Fruits ZA	Pineapple, raw, peeled, <i>Ananas comosus</i> , (Nanazi losenda)	85.3	58	247	0.06	0.4	0.1	0.01	0.01	0.03	0	13.9	12.1		0.00
		1.8		0.4	4	0.3	10	6	159	1	0.03	0.04	440		
			5	0.08	0.02	0.3	0.055	16	0.0	0.18	2.1	43	0.00	0.00	
MW05_0022 Fruits 17	Plum, Mobola, <i>Parinari curatellifolia</i> , (Maula/Mbula)	72.9	108	461	0.13	0.8	0.4				(0)	25.4	23.9		(0.00)
		1.5		0.5	3	2.8	2	9	281	7					
									(0.0)				(0.00)		
MW05_0023 Fruits 17	Plum, sour, <i>Ximenia caffra</i> , (Mpinjipinji)	82.8	69	292	0.21	1.3	0.9				(0)	13.9	13.6		(0.00)
		0.4		1.9	0	6.3	8	29	719	3					
									(0.0)				(0.00)		
MW05_0024 Fruits WA	Tamarind, fruit, raw, <i>Tamarindus indica</i> , (Bwemba)	26.9	286	1214	0.67	4.2	0.6				(0)	65.9	47.6		(0.00)
		18.3		2.4	151	2.2	68	103	648	11	0.11	0.09			
		1		0.26	0.14	1.0	0.070	15	0.0			4	(0.00)	0.09	
MW05_0025 Fruits ZA	Watermelon, raw, peeled, <i>Citrullus lanatus</i> , (Mavwende/Mavumbe osenda)	91.8	33	138	0.14	0.9	0.1	0.01	0.02	0.03	0	7.0	5.9		0.00
		1.1		0.3	3	0.1	10	5	137	4	0.09	0.09	25		
			11	0.03	0.01	0.2	0.030	4	0.0	0.32	2.7	6	0.00	0.15	

GROUP 5: FRUITS RECIPES

MW05_0003	Banana, fried, (Nthochi yokazinga)		Ref 39
78g	MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati yokupsya); RF 0153 (Ref 42)	
13g	MW01_0024	{{(Flour, wheat, white, unfortified, raw, (Ufa wa tirigu))*}; RF 0305 (Ref 42)	
9g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	1.0 (Assumption)	
MW05_0007	Fruit salad, fresh, (mango, banana, pineapple & pawpaw)		Ref 39
46g	MW05_0016	Mango, ripe, (Mango)	
38g	MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati yokupsya)	
9g	MW05_0021	Pineapple, raw, peeled, <i>Ananas comosus</i> , (Nanazi losenda)	
7g	MW05_0019	Pawpaw, fresh, (Papaya)	
	YF	1.0 (Assumption)	
MW05_0010	Juice tamarind, homemade, (Juwisi wa bwemba)		Ref 39
75g	MW08_0008	Water, (Madzi)	
21g	MW05_0024	Tamarind, fruit, raw, <i>Tamarindus indica</i> , (Bwemba)	
4g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
	YF	0.8 (Assumption)	
MW05_0011	Juice, baobab, homemade, (Juwisi wamalambe)		Ref 32
84g	MW08_0008	Water, (Madzi)	
10g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
6g	MW05_0005	Baobab, raw, <i>Adansonia digitata</i> , (Malambe)	
	YF	0.98 (Assumption)	
MW05_0012	Juice, orange, homemade, (Juwisi wa malalanje)		Ref 39
43g	MW05_0018	Orange, raw, peeled, <i>Citrus sinensis</i> , (Lalanje losenda)	
12g	MW08_0006	Sugar, white, fortified, (Shuga woyera)	
1g	MW05_0014	Lemon, raw, peeled, (Ndimu losenda)	
45g	MW08_0008	Water, (Madzi)	
	YF	0.8 (Ref 44)	

GROUP 6: FATS AND OILS



This group includes different types of oils and margarine.

NUTRIENTS IN THIS GROUP

The values for the following nutrients were assumed to be zero (excluding code MW06_0001 margarine): Cholesterol, Total Sugar, Added Sugar, Fibre, Available Carbohydrates, Total Carbohydrates, Starch

GROUP 6: FATS AND OILS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar (g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW06_0001 Fats and Oils MZF	Margarine, Rama, brick	17.1	724	2977	0.00	0.0	80.0	41.21	22.38	12.67	0	1.0	1.0		
		0.0		1.9	6	0.0	1	0	9	750	0.00				
		850		1.30	1.70	18.0	2.000	200	1.0			0		10.00	
MW06_0002 Fats and Oils 12	Oil, soybean, fortified, local market, (Mafuta ophikira a soya)	[0]	900	3700			100.0	15.65	22.78	57.74	0	0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	[0.0]		0.1					0.01				
			3											8.18	
MW06_0003 Fats and Oils 12	Oil, soybean, fortified, supermarket, (Mafuta ophikira a soya)	[0]	900	3700			100.0	15.65	22.78	57.74	0	0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)	[0.0]		0					0.01				
			4											8.18	
MW06_0004 Fats and Oils 12	Oil, sunflower, fortified, local market, (Mafuta ophikira a mpendadzuwa)	[0]	900	3700			100.0	10.30	19.50	65.70	0	0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)												
			3											41.08	
MW06_0005 Fats and Oils 12	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	[0]	900	3700			100.0	10.30	19.50	65.70	0	0.0	0.0	(0.00)	(0.00)
		(0.0)	(0.00)												
			4											41.08	

GROUP 7: BABY FOODS



A majority of the baby food items in this group are borrowed from the South African Food Composition Database (2017) as these foods are commonly consumed in Malawi. This group includes baby cereals, infant formulae, first foods, infant and junior foods and puddings. The traditional Malawian weaning food recipes are also included in this group bringing the total food items to 84.

NUTRIENTS IN THIS GROUP

The nutrient values for the powder form as well as the values for the reconstituted formulae (nutrients/100mL) are given in most cases.

The values for added sugar were assumed to be zero for only the two traditional weaning food codes MW07_0083 and MW07_0084.

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0001 Baby foods ZA	Baby cereal, containing milk, 12 months, strawberry flavor, dry	2.5	414	1749	2.40	15.0	9.0	4.20	4.00	2.40		68.3	66.6	31.80	
		1.7		2.0	550	8.0		440	730	250	3.90				
			490	0.60	0.90	3.2	0.300	60	2.3	2.80	34.0	50	6.00	3.20	
MW07_0002 Baby foods ZA	Baby cereal, containing milk, 6 months, dry	2.5	420	1774	2.40	15.0	9.5	3.00	2.50	0.13		68.7	67.4	33.00	
		1.3		1.9	550	11.0		440	700	250	2.30				
			490	0.60	0.40	2.9	0.300	70	0.9	1.30		80	6.50	3.50	
MW07_0003 Baby foods ZA	Baby cereal, containing milk, 7 months, regular flavor, dry	5.2	394	1669	3.15	19.7	3.3					71.3	71.3	26.50	
		0.0		0.5	285	19.2	44			106	3.00				
			390	0.50	0.40		0.300	19	1.0	1.90	37.0	35	6.25	0.40	
MW07_0004 Baby foods ZA	Baby cereal, containing milk, 9 months, mixed fruit flavor, dry	2.5	420	1774	2.40	15.0	9.5					68.7	67.4	33.00	
		1.3		1.9	550	11.0		440	700	250	2.30				
			490	0.60	0.40	2.9	0.300	70	0.9	1.30		80	6.50	3.50	
MW07_0005 Baby foods ZA	Baby cereal, maize, 6 months, dry	11.8	347	1473	0.96	6.0	2.6					75.0	62.4	10.50	
		2.6		0.8	691	50.4	70			2	10.00				
			600	1.60	0.60		0.600	44	2.0	3.00	50.0	71	10.00	0.60	
MW07_0006 Baby foods ZA	Baby cereal, maize, 9 months, strawberry and banana flavor, dry (Nestum)	3.0	366	1551	0.96	6.0	4.0	0.80				76.5	73.0	10.00	
		3.5		1.0	323	15.0		266	200	229	4.50				
			650	1.20	0.60	5.0	0.500	100	1.4	2.40	25.0	110	9.00	7.00	
MW07_0007 Baby foods ZA	Baby cereal, mixed cereal, 7 months, dry	2.5	364	1542	1.44	9.0	2.4	0.80				76.50	73.0	17.00	
		3.5		1.0	323	15.0		266	200	229	4.50				
			650	1.20	0.60	5.0	0.500	100	1.4	2.40	25.0	110	9.00	7.00	
MW07_0008 Baby foods ZA	Baby cereal, mixed grain, 7 months, dry	6.7	355	1503	1.94	12.1	2.9					70.00	67.8	12.40	
		2.2		0.6	557	25.2	35			20	5.00				
			300	0.80	0.30		0.300	22	1.00	1.50	25.0	35	5.00	0.30	
MW07_0009 Baby foods ZA	Baby food (jar), 10 months, banana & berry with yoghurt	85.2	47	199	0.11	0.7	0.0	0.00				11.00	10.6	7.20	
		0.4		0.3	28	0.1	9	26	94	0	0.24	0.02			
		3	4	0.09	0.38	0.2	0.075	0	0.1			13	0.00	0.02	

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0010 Baby foods ZA	Baby food (jar), 10 months, summer fruit dessert	83.0	63	269	0.77	4.8	0.0	0.00				11.0	10.5	7.70	
		0.5		0.5	6	0.2	6	8	119	14	0.07	0.03			
		3	5	0.01	0.04	0.3	0.064	0	0.0			12	0.00	0.00	
MW07_0011 Baby foods ZA	Baby food (jar), 6 months, apple	87.0	48	204	0.00	0.0	0.0	0.00				12.0	11.0	11.26	
		1.0		0.2	5	0.3	3	8	81	0	0.02	0.04			
		1	19	0.01	0.03	0.1	0.040	0	0.0	0.13		44		0.68	
MW07_0012 Baby foods ZA	Baby food (jar), 6 months, banana	84.5	47	201	0.10	0.6	0.1	0.03	0.01	0.02		11.0	10.5	8.00	
		0.5		0.2	5	0.2	10	13	193	0	0.06	0.04			
		2	1	0.01	0.04	0.4	0.173	0	0.0	0.15		16		0.58	
MW07_0013 Baby foods ZA	Baby food (jar), 6 months, butternut	88.8	52	221	0.16	1.0	0.0	0.00				12.0	10.0		
		2.0		0.3	16	0.5	12	37	236	4	0.18	0.07			
			500	0.09	0.07	0.9	0.184			0.31		18			
MW07_0014 Baby foods ZA	Baby food (jar), 6 months, carrot	88.8	44	187	0.16	1.0	0.0	0.00				10.0	7.0	5.30	
		3.0		0.4	32	0.5	13	29	285	69	0.22	0.06			
		833	1146	0.03	0.06	0.7	0.106	0	0.0	0.35		8	0.00	0.76	
MW07_0015 Baby foods ZA	Baby food (jar), 6 months, guava & pear	84.5	51	218	0.10	0.6	0.1	0.00				12.0	11.4	12.20	
		0.6		0.2	4	0.1	9	9	183	0	0.09	0.08			
			19	0.02	0.03	0.4	0.026		0.0	0.17		35			
MW07_0016 Baby foods ZA	Baby food (jar), 6 months, sweet potato	88.8	36	153	0.16	1.0	0.0	0.00				8.0	7.5	5.00	
		0.5		0.2	12	0.3	10	18	194	0	0.15	0.06			
		237	474	0.02	0.02	0.3	0.069	0	0.0	0.08		44		1.89	
MW07_0017 Baby foods ZA	Baby food (jar), 7 months, apple	87.0	48	204	0.00	0.0	0.0	0.00				12.0	11.0	11.26	
		1.0		0.2	5	0.3	3	8	81	0	0.02	0.04			
		1	19	0.01	0.03	0.1	0.040	0	0.0	0.13		44		0.68	
MW07_0018 Baby foods ZA	Baby food (jar), 7 months, banana	84.5	47	201	0.10	0.6	0.1	0.03	0.01	0.02		11.0	10.5	8.00	
		0.5		0.2	3	0.2	17	13	193	0	0.06	0.04			
		2	1	0.01	0.04	0.4	0.173	0	0.0	0.15		4		0.58	
MW07_0019 Baby foods ZA	Baby food (jar), 7 months, banana & yoghurt	89.0	37	159	0.14	0.9	0.2	0.10				8.0	7.8	4.90	
		0.2		0.1	26	0.1	9	25	88	0	0.23	0.02			
		3	4	0.01	0.04	0.2	0.070		0.1			12	0.00		

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0020 Baby foods ZA	Baby food (jar), 7 months, butternut	88.2	38	163	0.26	1.6	0.0	0.00				8.0	7.6	4.50	
		0.4		0.3	13	0.2	15	35	222	0	0.24	0.08	57		
			269	0.04	0.02	1.1	0.073	6	0.0	0.21	5.1	3	0.00	1.09	
MW07_0021 Baby foods ZA	Baby food (jar), 7 months, carrot	92.0	20	83	0.14	0.9	0.0	0.00				4.0	3.7	3.70	
		0.3		0.4	34	0.6	14	31	300	39	0.23	0.06			
		878	1756	0.04	0.06	0.7	0.112	0	0.0	0.37		9	0.00		
MW07_0022 Baby foods ZA	Baby food (jar), 7 months, mixed vegetables	89.4	49	207	0.83	5.2	0.0	0.00				7.0	6.5	1.70	
		0.5		0.2	14	0.3	10	23	132	14	0.16	0.04			
		164	329	0.02	0.03	0.3	0.057		0.0	0.26		2	0.00		
MW07_0023 Baby foods ZA	Baby food (jar), 7 months, peach	84.0	38	160	0.19	1.2	0.1	0.00				8.0	6.4	7.60	
		1.6		0.2	4	0.2	7	16	203	0	0.11	0.03			
		35	71	0.02	0.08	1.7	0.019		0.0	0.09		48	0.00		
MW07_0024 Baby foods ZA	Baby food (jar), 7 months, pear	83.0	60	255	0.00	0.0	0.0					15.0	12.0		
		3.0		0.2	12	0.4	12	18	191	1	0.12	0.10			
		1	2	0.019	0.04	0.3	0.012		0.0	0.13		36	0.00		
MW07_0025 Baby foods ZA	Baby food (jar), 7 months, sweet potato	88.2	36	153	0.16	1.0	0.0	0.00				8.0	7.5	5.00	
		0.5		0.2	12	0.3	10	19	204	0	0.16	0.06			
		250	500	0.02	0.03	0.3	0.072		0.0	0.30		8	0.00		
MW07_0026 Baby foods ZA	Baby food (jar), 7 months, vegetables & beef	88.5	36	153	0.14	0.9	0.5	0.30				7.0	6.9	0.70	
		0.1		0.2	13	0.3	8	25	111	19	0.29	0.02	140		
		188	376	0.01	0.04	0.6	0.048	2	0.1	0.08		0	0.00		
MW07_0027 Baby foods ZA	Baby food (jar), 7 months, vegetables & chicken	88.5	42	178	0.42	2.6	0.4	0.10				7.0	6.3	0.50	
		0.7		0.3	24	0.5	12	41	139	41	0.42	0.06	130		
		182	363	0.03	0.05	0.6	0.063		0.0	0.09		0	0.09		
MW07_0028 Baby foods ZA	Baby food (jar), 8 months, apple	86.5	50	213	0.05	0.3	0.1					12.0	10.8	10.90	
		1.2		0.1	6	0.3	4	8	99	0	0.05	0.05			
		2	0	0.02	0.04	0.01	0.049	0	0.0	0.12		61	0.00	0.95	

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0029 Baby foods ZA	Baby food (jar), 8 months, apple & banana	81.9	71	300	0.06	0.4	0.1					17.0	15.8	15.68	
		1.2		0.3	3	0.1	9	10	76	1	0.05	0.03			
		2	3	0.02	0.02	0.1	0.064	0	0.0			13	0.00	0.02	
MW07_0030 Baby foods ZA	Baby food (jar), 8 months, fruit & yoghurt	90.6	37	159	0.14	0.9	0.2	0.10				8.0	7.7	4.60	
		0.3		0.4	28	0.2	4	22	62	0	0.11	0.02			
		5	8	0.02	0.05	0.1	0.040	0	0.0			12	0.00	0.13	
MW07_0031 Baby foods ZA	Baby food (jar), 8 months, fruit salad	81.9	67	283	0.06	0.4	0.1					16.0	14.8		
		1.2		0.1	11	0.3	5	9	62	1	0.05	0.03			
		1	0	0.01	0.03	0.1	0.033	0	0.0	0.10		20	0.00		
MW07_0032 Baby foods ZA	Baby food (jar), 8 months, peach	84.5	38	160	0.19	1.2	0.1					8.0	6.4	7.60	
		1.6		0.6	4	0.3	8	17	216	0	0.12	0.03	41		
		38	76	0.02	0.09	1.8	0.020	0	0.0	0.09		51	0.00	2.19	
MW07_0033 Baby foods ZA	Baby food (jar), 8 months, pear	81.9	63	266	0.06	0.4	0.1					15.0	12.1	10.88	
		2.9		0.5	12	0.4	12	19	203	1	0.12	0.10			
		2	2	0.02	0.04	0.3	0.012	0	0.0	0.14		38	0.00	0.14	
MW07_0034 Baby foods ZA	Baby food (jar), 8 months, pears with yoghurt	91.3	34	143	0.06	0.4	0.0	0.00				8.0	7.7	4.70	
		0.3		0.4	26	0.4	12	26	97	0	0.17	0.04			
		1	1	0.00	0.05	0.4	0.019	0	0.4			11	0.00	0.00	
MW07_0035 Baby foods ZA	Baby food (jar), 8 months, vegetables & chicken	88.5	55	233	0.86	5.4	0.6	0.20				7.0	5.8	1.40	
		1.2		0.4	24	0.5	12	41	139	42	0.42	0.06			
		182	363	0.03	0.05	0.6	0.063	0	0.1	0.09		0	0.09	0.28	
MW07_0036 Baby foods ZA	BMS, acidified follow-up formula, Nan Pelargon 2, reconstituted/100mL	90.5	68	285	0.32	2.0	3.1					8.0	8.0		
		0.0		0.3	82	1.0	7	54	94	31	0.80	0.05	7		
			68	0.10	0.20	0.6	0.100	17	0.2	0.80	2.0	8	1.00	1.34	
MW07_0037 Baby foods ZA	BMS, acidified formula, Nan Pelargon 1 powder	3.5	512	2142	1.82	11.4	26.0					58.0	58.0		
		0.0		2.0	480	5.4	50	270	670	210	5.10	0.40	90		
			560	0.60	1.20	4.5	0.400	70	1.3	4.30	16.0	60	8.00	8.04	
MW07_0038 Baby foods ZA	BMS, acidified formula, Nan Pelargon 1, reconstituted/100mL	90.5	69	287	0.24	1.5	3.4					8.0	8.0		
		0.0		0.3	63	0.7	7	35	88	28	0.70	0.10	12		
			73	0.10	0.20	0.6	0.100	9	0.2	0.60	2.0	8	1.00	1.34	

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0039 Baby foods ZA	BMS, acidified, follow-up formula, Nan Pelargon 2 powder	3.5	492	2064	2.37	14.8	22.8					57.0	57.0		
		0.0		2.4	600	7.2	50	400	692	225	5.90	0.40	50		
			500	0.90	1.50	4.2	0.600	125	1.5	5.70	18.0	60	9.00	9.38	
MW07_0040 Baby foods ZA	BMS, casein-predominant formula, Lactogen 1 powder	3.0	513	2147	1.86	11.6	26.5					57.0	57.0		
		0.0		1.9	485	5.4	46	275	565	180	5.40	0.40	108		
			600	0.60	1.00	4.3	0.400	68	1.0	4.10	18.0	90	7.00	8.04	
MW07_0041 Baby foods ZA	BMS, casein-predominant formula, Lactogen 1, reconstituted/100mL	86.7	66	274	0.24	1.5	3.5					7.0	7.0		
		0.0		0.3	63	0.7	6	36	74	23	0.70	0.05	14		
			78	0.10	0.10	0.6	0.050	9	0.1	0.50	2.0	12	1.00	1.34	
MW07_0042 Baby foods ZA	BMS, follow-up formula Lactogen 2, reconstituted/100mL	84.8	67	281	0.32	2.0	3.0					8.0	8.0		
		0.0		0.3	82	1.0	6	56	89	25	0.80	0.05	5		
			73	0.10	0.20	0.6	0.100	12	0.1	1.00	3.0	8	1.00	1.34	
MW07_0043 Baby foods ZA	BMS, follow-up formula, Infacare Classic 2 powder	3.0	457	1922	2.67	16.7	16.7	8.00	4.00	3.60	3	60.0	60.0		
		0.0		2.6	583	6.3	51	438	722	240	4.20	0.33	31		
			531	0.69	1.09	2.9	0.397	57	1.4	1.99	14.0	64	7.60	5.10	
MW07_0044 Baby foods ZA	BMS, follow-up formula, Infacare Classic 2, reconstituted/100mL	88.0	67	283	0.38	2.4	2.4	1.10	0.60	0.50	0	9.0	9.0		
		0.0		0.5	84	0.9	7	63	104	35	0.60	0.05	4		
			77	0.10	0.16	0.4	0.057	8	0.2	0.29	2.0	9	1.10	0.70	
MW07_0045 Baby foods ZA	BMS, follow-up formula, Infacare Classic 3 powder	3.0	458	1927	2.69	16.8	16.8	8.10	4.10	3.70	3	60.0	60.0		
		0.0		2.6	583	6.3	52	438	722	239	4.20	0.33	31		
			531	0.69	1.09	2.9	0.397	57	1.4	1.99	14.0	64	7.60	5.30	
MW07_0046 Baby foods ZA	BMS, follow-up formula, Infacare Classic 3, reconstituted/100mL	82.0	88	368	0.51	3.2	3.2	1.55	0.75	0.70	1	11.5	11.5		
		0.0		0.7	111	1.2	10	83	137	46	0.80	0.06	6		
			101	0.13	0.21	0.6	0.076	11	0.3	0.38	2.5	12	1.45	1.00	
MW07_0047 Baby foods ZA	BMS, follow-up formula, Lactogen 2 powder	3.0	486	2039	2.35	14.7	21.7					58.0	58.0		
		0.0		2.3	595	7.3	40	405	650	180	5.50	0.40	39		
			530	1.00	1.40	4.5	0.600	90	1.0	7.00	19.0	58	9.00	8.71	

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0048 Baby foods ZA	BMS, follow-up formula, Lactogen 3, powder	2.0	486	2039	2.35	14.7	21.7					58.0	58.0		
		0.0		3.7	560	7.3	40	370	580	180	5.50	0.40	39		
			530	1.00	1.40	4.5	0.600	90	1.0	7.00	19.0	58	9.00	8.71	
MW07_0049 Baby foods ZA	BMS, follow-up formula, Lactogen 3, reconstituted/100mL	88.0	67	281	0.32	2.0	3.0					8.0	8.0		
		0.0		0.5	77	1.0	6	51	80	25	0.80	0.10	5		
			73	0.14	0.20	0.6	0.100	12	0.1	1.00	3.0	8	1.20	1.34	
MW07_0050 Baby foods ZA	BMS, follow-up formula, Nan 2 powder	3.0	490	2053	2.36	14.7	23.0					56.0	56.0		
		0.0		3.0	580	7.3	45	380	650	190	5.40	0.40	60		
			580	1.10	1.20	4.4	0.600	127	2.0	5.20	19.0	65	9.00	10.72	
MW07_0051 Baby foods ZA	BMS, follow-up formula, Nan 2, reconstituted/100mL	90.4	68	285	0.32	2.0	3.1					8.0	8.0		
		0.0		0.4	79	1.0	6	52	89	26	0.70	0.05	10		
			79	0.20	0.20	0.6	0.100	17	0.2	0.70	3.0	9	1.20	1.34	
MW07_0052 Baby foods ZA	BMS, follow-up formula, Nan 3 powder	3.0	485	2036	2.34	14.6	21.2					59.0	59.0		
		0.0		3.3	575	7.3	45	390	625	205	5.90	0.40	40		
			530	0.90	1.40	4.5	0.400	106	1.0	5.90	19.0	62	8.00	9.38	
MW07_0053 Baby foods ZA	BMS, follow-up formula, Nan 3, reconstituted/100mL	90.4	67	279	0.32	2.0	3.0					8.0	8.0		
		0.0		0.5	79	1.0	6	54	86	28	0.80	0.10	6		
			73	0.10	0.20	0.6	0.100	15	0.1	0.80	3.0	9	1.00	1.34	
MW07_0054 Baby foods ZA	BMS, follow-up formula, S-26 Progress 3 powder	2.0	452	1901	2.30	14.4	14.9	3.10	5.90	5.00	1	65.0	65.0		
		0.0		2.4	451	5.6	45	360	811	212	4.50	0.41	586		
			338	0.41	0.72	5.2	0.450	23	0.9	1.35	9.0	54	6.00	3.90	
MW07_0055 Baby foods ZA	BMS, follow-up formula, S-26 Progress 3, reconstituted/100mL	80.0	101	423	0.51	3.2	3.3	0.65	1.60	1.10	0	14.5	14.5		
		0.0		0.5	100	1.5	10	80	180	47	1.00	0.09	130		
			75	0.09	0.16	1.3	0.100	5	0.2	0.30	2.00	12	1.50	0.85	
MW07_0056 Baby foods ZA	BMS, follow-up formula, S-26 Progress Gold 3 powder	2.0	452	1901	2.37	14.8	17.0	3.70	6.70	5.70	2	60.0	60.0		
		0.0		2.8	517	6.8	46	347	1136	256	2.80	0.21	682		
			401	0.35	0.57	3.4	0.284	85	1.2	2.29	9.00	57	10.00	3.40	

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0057 Baby foods ZA	BMS, follow-up formula, S-26 Progress Gold 3, reconstituted/100mL	83.3	77	325	0.41	2.6	3.0	0.63	1.21	1.00	0	10.0	10.0		
		0.0		0.6	91	1.2	8	61	200	45	0.50	0.04	120		
			70	0.06	0.10	0.6	0.050	15	0.4	0.40	1.7	10	1.67	0.42	
MW07_0058 Baby foods ZA	BMS, follow-up formula, S-26 Promil 2 powder	2.0	471	1976	2.51	15.7	20.0	8.80	5.70	4.30	2	57.0	57.0		
		0.0		2.3	821	8.6	61	464	714	250	3.60	0.29	71.40		
			536	0.71	1.07	2.9	0.429	57	1.4	2.50	14.0	64	8.00	1.00	
MW07_0059 Baby foods ZA	BMS, follow-up formula, S-26 Promil 2, reconstituted/100mL	90.0	66	277	0.35	2.2	2.8	1.20	0.80	0.60	0	8.0	8.0		
		0.0		0.4	115	1.2	9	65	100	35	0.50	0.04	10		
			75	0.10	0.15	0.4	0.060	8	0.2	0.35	2.0	9	1.06	0.74	
MW07_0060 Baby foods ZA	BMS, follow-up formula, S-26 Promil Gold 2 powder	2.0	478	2003	2.51	15.7	22.1	9.70	6.30	4.80	0	54.0	54.0		
		0.0		2.5	559	8.8	63	375	662	246	3.10	0.22	257		
			434	0.38	1.03	2.9	0.294	59	1.3	2.57	10.0	63	10.00	4.90	
MW07_0061 Baby foods ZA	BMS, follow-up formula, S-26 Promil Gold 2, reconstituted/100mL	90.0	63	266	0.34	2.1	3.0	1.30	0.90	0.60	0	7.0	7.0		
		0.0		0.3	76	1.2	9	51	90	34	0.40	0.03	35		
			59	0.05	0.14	0.4	0.040	8	0.2	0.35	1.0	9	1.00	0.70	
MW07_0062 Baby foods ZA	BMS, follow-up formula, soy based, Infasoy 2 powder	2.0	497	2081	2.62	16.4	23.9	9.50	5.90	7.10	0	54.0	54.0	17.10	
		0.0		2.1	653	7.5	60	410	746	224	6.00	0.42	246		
			519	0.75	1.12	4.5	0.410	60	1.5	2.24	26.0	67	7.90	5.50	
MW07_0063 Baby foods ZA	BMS, follow-up formula, soy-based, Infasoy 2, reconstituted/100mL	89.8	66	275	0.35	2.2	3.2	1.30	0.80	0.90	0	7.0	7.0	2.30	
		0.0		0.3	88	1.0	8	55	100	30	0.80	0.06	33		
			70	0.10	0.15	0.6	0.055	8	0.2	0.30	4.0	9	1.10	0.70	
MW07_0064 Baby foods ZA	BMS, follow-up formula, soy-based, Isomil® 2 powder	2.0	471	1977	2.38	14.9	20.0					57.8	57.8		
		0.0		2.2	530	7.0	56	350	600	220	5.00	0.33	300		
			554	0.68	0.77	4.0	0.430	72	1.0	3.00	18.0	63	7.00	7.40	
MW07_0065 Baby foods ZA	BMS, follow-up formula, soy-based, Isomil® 2, reconstituted/100mL	85.5	68	287	0.35	2.2	2.9					8.4	8.4		
		0.0		0.3	77	1.0	8	51	87	32	0.73	0.05	40		
			80	0.10	0.11	0.6	0.060	10	0.2	0.44	2.6	9	1.03	1.07	

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0066 Baby foods ZA	BMS, follow-up formula, soy-based, Isomil® 3, reconstituted/100mL	85.7	69	289	0.37	2.3	3.1					8.0	8.0		
		0.0		0.4	95	1.2	9	66	100	35	0.78	0.07	40		
			79	0.10	0.11	1.3	0.140	7	0.1	0.43	3.0	8	1.00	1.80	
MW07_0067 Baby foods ZA	BMS, premature, whey-predominant formula, PreNan powder	3.0	503	2104	2.30	14.4	25.9					53.0	53.0		
		0.0		2.6	760	10.4	50	445	605	269	6.30	0.80	70		
			1350	0.90	1.30	14.9	0.800	300	2.0	6.00	25.0	125	19.00	20.10	
MW07_0068 Baby foods ZA	BMS, premature, whey-predominant formula, PreNan, reconstituted/100mL	87.5	83	348	0.37	2.3	4.2					9.0	9.0		
		0.0		0.4	122	1.7	8	72	97	43	1.00	0.10	10		
			220	0.10	0.20	2.4	0.100	48	0.4	1.00	4.0	20	3.00	3.35	
MW07_0069 Baby foods ZA	BMS, soy-based formula, Infasoy 1 powder	2.0	517	2161	2.21	13.8	27.7	11.10	6.90	8.10	0	53.0	53.0	19.20	
		0.0		2.0	515	6.2	51	385	554	146	4.60	0.43	154		
			535	0.77	1.15	4.6	0.423	62	1.5	2.31	27.0	69	8.00	5.70	
MW07_0070 Baby foods ZA	BMS, soy-based formula, Infasoy 1, reconstituted/100mL	89.8	68	283	0.29	1.8	3.6	1.40	0.90	1.00	0	7.0	7.0	2.50	
		0.0		0.3	67	0.8	7	50	72	19	0.60	0.06	20		
			70	0.10	0.15	0.6	0.055	8	0.2	0.30	4.0	9	1.00	0.70	
MW07_0071 Baby foods ZA	BMS, soy-based formula, Isomil® 1 powder	2.0	507	2122	2.05	12.8	27.4				0.00	52.4	52.4		
		0.0		2.2	532	7.8	41	380	578	243	6.00	0.36	300		
			570	0.49	0.52	4.8	0.300	75	1.3	3.80	19.0	64	8.00	9.40	
MW07_0072 Baby foods ZA	BMS, soy-based formula, Isomil® 1, reconstituted/100mL	86.6	68	285	0.27	1.7	3.7					7.0	7.0		
		0.0		0.3	71	1.0	6	51	77	33	0.80	0.05	0		
			76	0.07	0.07	0.6	0.040	10	0.2	0.51	2.5	9	1.10	1.30	
MW07_0073 Baby foods ZA	BMS, whey-predominant formula, Infacare Classic 1 powder	3.0	507	2122	1.82	11.4	25.0	11.90	6.00	5.50	3	59.0	59.0		
		0.0		1.6	345	6.1	35	240	490	155	3.80	0.35	32		
			591	0.79	1.18	3.9	0.472	63	1.6	2.36	16.0	71	8.40	5.60	
MW07_0074 Baby foods ZA	BMS, whey-predominant formula, Infacare Classic 1, reconstituted/100mL	88.0	68	284	0.24	1.5	3.3	1.60	0.80	0.70	0	8.0	8.0		
		0.0		0.3	46	0.8	5	32	65	21	0.50	0.05	4		
			78	0.10	0.16	0.5	0.062	8	0.2	0.31	2.0	9	1.10	0.70	

GROUP 7: BABY FOODS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW07_0075 Baby foods ZA	BMS, whey-predominant formula, Nan 1 powder	3.0	502	2099	1.58	9.9	26.0					57.0	57.0		
		0.0		1.6	325	5.4	50	170	500	190	5.00	0.40	0		
			560	0.60	0.80	4.3	0.300	85	1.0	3.30	13.0	80	8.00	8.04	
MW07_0076 Baby foods ZA	BMS, whey-predominant formula, Nan 1, reconstituted/100mL	90.4	69	288	0.21	1.3	3.5					8.0	8.0		
		0.0		0.2	44	0.7	7	23	67	25	0.70	0.10	0		
			75	0.10	0.10	0.6	0.050	11	0.1	0.40	2.0	11	1.00	1.34	
MW07_0077 Baby foods ZA	BMS, whey-predominant formula, S-26 Classic 1, powder	2.0	522	2183	1.89	11.8	28.3	12.30	8.10	6.20	0	55.0	55.0		
		0.0		1.7	362	6.3	50	262	551	126	4.70	0.44	39		
			591	0.79	1.18	3.9	0.472	63	1.6	2.36	16.0	71	8.00	5.80	
MW07_0078 Baby foods ZA	BMS, whey-predominant formula, S-26 Classic 1, reconstituted/100mL	90.0	66	278	0.24	1.5	3.6	1.60	1.00	0.70	0	7.0	7.0		
		0.0		0.2	46	0.8	6	33	70	16	0.60	0.06	5		
			75	0.10	0.15	0.5	0.060	8	0.2	0.30	2.0	9	1.10	0.74	
MW07_0079 Baby foods ZA	BMS, whey-predominant formula, S-26 Comfort Gold, powder	2.0	520	2175	1.92	12.0	28.0	12.50	10.00	5.30	37	55.0	55.0		
		0.0		1.5	328	6.3	35	188	508	125	4.70	0.34	39		
			516	0.78	0.86	3.9	0.430	84	1.4	2.73	16.0	70	8.30	5.80	
MW07_0080 Baby foods ZA	BMS, whey-predominant formula, S-26 Comfort Gold, reconstituted/100mL	90.0	67	279	0.26	1.6	3.6	1.60	1.30	0.70	5	7.0	7.0		
		0.0		0.2	42	0.8	5	24	65	16	0.60	0.04	5		
			66	0.10	0.11	0.5	0.550	11	0.2	0.35	2.0	9	1.10	0.70	
MW07_0081 Baby foods ZA	BMS, whey-predominant formula, S-26 Gold 1 powder	2.0	526	2200	1.71	10.7	28.8	12.60	8.10	6.30	3	56.0	56.0		
		0.0		1.6	336	6.4	36	192	520	128	4.80	0.27	40		
			528	0.80	0.88	4.0	0.440	86	1.4	2.80	16.0	72	10.00	5.90	
MW07_0082 Baby foods ZA	BMS, whey-predominant formula, S-26 Gold 1, reconstituted/100mL	90.0	66	274	0.21	1.3	3.6	1.60	1.00	0.80	0	7.0	7.0		
		0.0		0.2	42	0.8	5	24	65	16	0.60	0.03	5		
			66	0.10	0.11	0.5	0.055	11	0.2	0.35	2.0	9	1.20	0.74	
MW07_0083 Baby foods R70	Maize soft porridge, with egg & vegetable, (Phala lamgaiwa loika mazira ndi masamba)	82.4	93	391	0.51	3.2	4.9	0.28	0.54	1.81		9.2	8.5		(0.00)
		0.7		0.3	108	3.5	71	29	75	19	0.59	0.07		1.06	0.3
		19	0	0.07	0.08	0.2	0.054	9	0.2			1		1.30	
MW07_0084 Baby foods R69	Rice porridge, with carrot, milk & groundnut flour, (Phala la mpunga lothira kaloti, mkaka ndi nsinjilo)	88.8	52	221	0.25	1.6	1.8					7.6	6.7		(0.00)
		0.8		0.3	19	0.3	21	44	89	12	0.28	0.07	94	1.03	0.0
		3	469	0.04	0.04	0.4	0.038	5	0.0	0.01	0.4	1		0.41	

GROUP 7: BABY FOODS RECIPES

MW07_0083	Maize soft porridge, with egg & vegetable, (Phala lamgaiwa loika mazira ndi masamba)		Ref 40
68g	MW08_0008	Water, (Madzi)	
14g	MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku); RF 0103 (Ref 42)	
12g	MW01_0019	Flour, maize, white, whole, unfortified, raw, (Ufa wa mgaiwa) ; RF 0302 (Ref 42)	
4g	MW04_0011	Leaves, amaranth, raw, (Bonongwe); RF 3006 (Ref 42)	
3g	MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	
	YF	0.98 (Assumption)	
MW07_0084	Rice porridge, with carrot, milk & groundnut flour, (Phala la mpunga lothira kaloti mkaka ndi nsinjilo)		Ref 40
67g	MW08_0008	Water, (Madzi)	
7g	MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi); RF 2151 (Ref 42)	
6g	MW01_0058	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera); RF 0432 (Ref 42)	
3g	MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo); RF 2204 (Ref 42)	
16g	MW04_0005	Carrot, with skin, raw, (Kaloti); RF Table 26 (Ref 44)	
	YF	1.0 (Assumption)	



GROUP 8: MISCELLANEOUS

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MALAWIAN FOOD COMPOSITION TABLE 2019

The miscellaneous group has composition data for foods that do not fall into the other seven groups. Miscellaneous food items include select local ready-to-use therapeutic food (RUTF), fortificant premix, sugar and water. The sugarcane listed in this group refers to the sugar cane as consumed by locals; e.g. chewed and sucked.

NUTRIENTS IN THIS GROUP

The values for fat and added sugar were assumed to be zero for all food items in this group excluding the RUTF. Most organic nutrients were assumed zero for water.

GROUP 8: MISCELLANEOUS		Per 100g edible food													
Code	Food Item Name	Mois (g)	Energy (kCal)	Energy (kJ)	N (g)	Prot (g)	Fat (g)	SAFA (g)	MUFA (g)	PUFA (g)	Chol (mg)	CHO Total (g)	CHO, avail (g)	Total Sugar(g)	Added Sugar (g)
Food Group		Fiber (g)	Starch (g)	Ash (g)	Ca (mg)	Fe (mg)	Mg (mg)	P (mg)	K (mg)	Na (mg)	Zn (mg)	Cu (mg)	Mn (mcg)	I (mcg)	Se (mcg)
Reference		VitA-RAE (mcg)	VitA-RE (mcg)	Thia (mg)	Ribo (mg)	Niac (mg)	Vit B6 (mg)	Folate (mcg)	Vit B12 (mcg)	Panto (mg)	Biot (mcg)	Vit C (mg)	Vit D (mcg)	Vit E (mg)	Phytate (mg)
MW08_0001 Miscellaneous 3	Fortificant premix, IS-353, DSM	5.0	0	0	0.00	0.0	0.0					0.0	0.0		(0.00)
		(0.0)				19.3					8.29				
		1						1100							(0.00)
MW08_0002 Miscellaneous 25	Ready-to-use therapeutic food (RUTF), milk, maize, soya, sorghum (MSMS)	2.9	553	2306	2.66	16.6	36.0	15.50	12.60	4.09		40.7	35.9		20.50
		4.8		3.8	399	31.6	119	493	1070	52	19.90	1.50	1350	100000.00	25.0
			1160	1.12	1.97	7.9	0.930	200	2.6	4.73	81.0	306	17.80	39.00	3
MW08_0003 Miscellaneous 25	Ready-to-use therapeutic food (RUTF), milk-free, soya, maize, sorghum (FSMS)	2.2	547	2280	2.94	18.4	34.2	13.50	11.50	5.58		41.3	34.2		22.50
		7.1		3.9	571	35.1	104	503	991	87	19.50	1.48	1710	100000.00	26.0
			1250	1.28	1.63	7.5	0.990	210	2.5	5.36	86.0	323	19.20	39.00	5
MW08_0004 Miscellaneous 25	Ready-to-use therapeutic food (RUTF), peanut, milk (PM)	1.1	547	2281	2.50	15.6	33.8	11.00	18.20	3.16		45.0	43.1		25.00
		1.9		3.9	434	10.5	97	351	1125	131	11.10	1.60		85000.00	27.0
			1180	0.97	3.20	7.6	0.660	268	3.2	4.50	80.0	87	18.70	35.00	3
MW08_0005 Miscellaneous 24	Sugar, brown, fortified, (Shuga wa bulawuni)	0.0	400	1699	0.03	0.2	0.0					99.8	99.8		(0.00)
		[0.0]													
		1													
MW08_0006 Miscellaneous 24	Sugar, white, fortified, (Shuga woyera)	0.0	400	1699	0.03	0.2	0.0					99.8	99.8		(0.00)
		[0.0]													
		1													
MW08_0007 Miscellaneous 9	Sugarcane, raw, <i>Saccharum officinarum</i> , (Mzimbe)	90.0	40	169	0.05	0.3	0.0					9.6	9.6		(0.00)
		[0.0]		0.1	8	0.6		18					610		
		0							0.0			7			
MW08_0008 Miscellaneous 10A	Water, (Madzi)	100.0	0	0	(0.00)	(0.0)	(0.0)	(0.00)	(0.00)	(0.00)	(0)	(0.0)	(0.0)	(0.00)	(0.00)
		(0.0)	(0.00)	0.0	4	0.0	3	0	0	0	0.00	0.00	0	1.54	0.0
		(0)	(0)	(0.00)	(0.00)	(0.0)	(0.000)	(0)	(0.0)	(0.00)	(0.0)	(0)	(0.00)	(0.00)	(0)

ALPHABETICAL LIST

FOOD CODE	FOOD ITEM NAME (ALPHABETICALLY)	PAGE NR
MW01_0001	African cake, (Chikondamoyo/Chigumu cha nthochi ndi dzira)	19
MW05_0001	Apple, average, raw, (Apozi)	58
MW05_0002	Avocado, raw, peeled, <i>Persea americana</i> , (Peyala losenda)	58
MW07_0001	Baby cereal, containing milk, 12 months, strawberry flavor, dry	65
MW07_0002	Baby cereal, containing milk, 6 months, dry	65
MW07_0003	Baby cereal, containing milk, 7 months, regular flavor, dry	65
MW07_0004	Baby cereal, containing milk, 9 months, mixed fruit flavor, dry	65
MW07_0005	Baby cereal, maize, 6 months, dry	65
MW07_0006	Baby cereal, maize, 9 months, strawberry and banana flavor, dry (Nes-tum)	65
MW07_0007	Baby cereal, mixed cereal, 7 months, dry	65
MW07_0008	Baby cereal, mixed grain, 7 months, dry	65
MW07_0009	Baby food (jar), 10 months, banana & berry with yoghurt	65
MW07_0010	Baby food (jar), 10 months, summer fruit dessert	66
MW07_0011	Baby food (jar), 6 months, apple	66
MW07_0012	Baby food (jar), 6 months, banana	66
MW07_0013	Baby food (jar), 6 months, butternut	66
MW07_0014	Baby food (jar), 6 months, carrot	66
MW07_0015	Baby food (jar), 6 months, guava & pear	66
MW07_0016	Baby food (jar), 6 months, sweet potato	66
MW07_0017	Baby food (jar), 7 months, apple	66
MW07_0018	Baby food (jar), 7 months, banana	66
MW07_0019	Baby food (jar), 7 months, banana & yoghurt	66
MW07_0020	Baby food (jar), 7 months, butternut	67
MW07_0021	Baby food (jar), 7 months, carrot	67
MW07_0022	Baby food (jar), 7 months, mixed vegetables	67
MW07_0023	Baby food (jar), 7 months, peach	67
MW07_0024	Baby food (jar), 7 months, pear	67
MW07_0025	Baby food (jar), 7 months, sweet potato	67
MW07_0026	Baby food (jar), 7 months, vegetables & beef	67
MW07_0027	Baby food (jar), 7 months, vegetables & chicken	67
MW07_0028	Baby food (jar), 8 months, apple	67
MW07_0029	Baby food (jar), 8 months, apple & banana	68
MW07_0030	Baby food (jar), 8 months, fruit & yoghurt	68
MW07_0031	Baby food (jar), 8 months, fruit salad	68
MW07_0032	Baby food (jar), 8 months, peach	68
MW07_0033	Baby food (jar), 8 months, pear	68
MW07_0034	Baby food (jar), 8 months, pears with yoghurt	68
MW07_0035	Baby food (jar), 8 months, vegetables & chicken	68
MW01_0002	Banana fritters, (Zitumbuwa)	19
MW05_0003	Banana, fried, (Nthochi yokazinga)	58
MW05_0004	Banana, white fleshed, raw, peeled, <i>Musa paradisiaca</i> , (Nthochi yoyera mkati yokupsya)	58
MW05_0005	Baobab, raw, <i>Adansonia digitata</i> , (Malambe)	58
MW02_0001	Bean and groundnut stew, (Ndawva)	34
MW02_0002	Bean soup, (Supu wa nyemba)	34
MW02_0003	Bean stew, (Nyemba zouma zokazingira)	34
MW02_0004	Bean, kidney, dry, <i>Phaseolus vulgaris</i> , (Nyemba zouma)	34
MW04_0001	Bean, lima, green, fresh, <i>Phaseolus lunatus</i> , (Kabaifa/Kamumpanda)	51
MW02_0005	Beans, boiled	34
MW03_0001	Beef mince, fried, (Nyama ya ng'ombe yogaya yokazinga)	39
MW03_0002	Beef stew, (Nyama ya ng'ombe yokazingira)	39
MW03_0003	Beef, kidney, raw, (Impsyo ya ng'ombe)	39



FOOD CODE	FOOD ITEM NAME (ALPHABETICALLY)	PAGE NR
MW03_0004	Beef, liver, raw, (Chiwindi cha ng'ombe)	39
MW03_0005	Beef, liver, stew, (chiwindi cha ng'ombe chokazingira)	39
MW03_0006	Beef, raw, (Nyama ya ng'ombe)	39
MW03_0007	Beef, tripe, raw, (Nthumbwana za ng'ombe)	39
MW04_0002	Black jack leaves stew, with groundnut flour (Chisoso chotendela)	51
MW07_0036	BMS, acidified follow-up formula, Nan Pelargon 2, reconstituted/100mL	68
MW07_0037	BMS, acidified formula, Nan Pelargon 1 powder	68
MW07_0038	BMS, acidified formula, Nan Pelargon 1, reconstituted/100mL	68
MW07_0039	BMS, acidified, follow-up formula, Nan Pelargon 2 powder	69
MW07_0040	BMS, casein-predominant formula, Lactogen 1 powder	69
MW07_0041	BMS, casein-predominant formula, Lactogen 1, reconstituted/100mL	69
MW07_0042	BMS, follow-up formula Lactogen 2, reconstituted/100mL	69
MW07_0043	BMS, follow-up formula, Infacare Classic 2 powder	69
MW07_0044	BMS, follow-up formula, Infacare Classic 2, reconstituted/100mL	69
MW07_0045	BMS, follow-up formula, Infacare Classic 3 powder	69
MW07_0046	BMS, follow-up formula, Infacare Classic 3, reconstituted/100mL	69
MW07_0047	BMS, follow-up formula, Lactogen 2 powder	69
MW07_0048	BMS, follow-up formula, Lactogen 3, powder	70
MW07_0049	BMS, follow-up formula, Lactogen 3, reconstituted/100mL	70
MW07_0050	BMS, follow-up formula, Nan 2 powder	70
MW07_0051	BMS, follow-up formula, Nan 2, reconstituted/100mL	70
MW07_0052	BMS, follow-up formula, Nan 3 powder	70
MW07_0053	BMS, follow-up formula, Nan 3, reconstituted/100mL	70
MW07_0054	BMS, follow-up formula, S-26 Progress 3 powder	70
MW07_0055	BMS, follow-up formula, S-26 Progress 3, reconstituted/100mL	70
MW07_0056	BMS, follow-up formula, S-26 Progress Gold 3 powder	70
MW07_0057	BMS, follow-up formula, S-26 Progress Gold 3, reconstituted/100mL	71
MW07_0058	BMS, follow-up formula, S-26 Promil 2 powder	71
MW07_0059	BMS, follow-up formula, S-26 Promil 2, reconstituted/100mL	71
MW07_0060	BMS, follow-up formula, S-26 Promil Gold 2 powder	71
MW07_0061	BMS, follow-up formula, S-26 Promil Gold 2, reconstituted/100mL	71
MW07_0062	BMS, follow-up formula, soy based, Infasoy 2 powder	71
MW07_0063	BMS, follow-up formula, soy-based, Infasoy 2, reconstituted/100mL	71
MW07_0064	BMS, follow-up formula, soy-based, Isomil® 2 powder	71
MW07_0065	BMS, follow-up formula, soy-based, Isomil® 2, reconstituted/100mL	71
MW07_0066	BMS, follow-up formula, soy-based, Isomil® 3, reconstituted/100mL	72
MW07_0067	BMS, premature, whey-predominant formula, PreNan powder	72
MW07_0068	BMS, premature, whey-predominant formula, PreNan, reconstituted/100mL	72
MW07_0069	BMS, soy-based formula, Infasoy 1 powder	72
MW07_0070	BMS, soy-based formula, Infasoy 1, reconstituted/100mL	72
MW07_0071	BMS, soy-based formula, Isomil® 1 powder	72
MW07_0072	BMS, soy-based formula, Isomil® 1, reconstituted/100mL	72
MW07_0073	BMS, whey-predominant formula, Infacare Classic 1 powder	72
MW07_0074	BMS, whey-predominant formula, Infacare Classic 1, reconstituted/100mL	72
MW07_0075	BMS, whey-predominant formula, Nan 1 powder	73
MW07_0076	BMS, whey-predominant formula, Nan 1, reconstituted/100mL	73
MW07_0077	BMS, whey-predominant formula, S-26 Classic 1, powder	73
MW07_0078	BMS, whey-predominant formula, S-26 Classic 1, reconstituted/100mL	73
MW07_0079	BMS, whey-predominant formula, S-26 Comfort Gold, powder	73
MW07_0080	BMS, whey-predominant formula, S-26 Comfort Gold, reconstituted/100mL	73
MW07_0081	BMS, whey-predominant formula, S-26 Gold 1 powder	73
MW07_0082	BMS, whey-predominant formula, S-26 Gold 1, reconstituted/100mL	73
MW01_0003	Bread, wheat, brown, homemade (Buledi wabulawuni)	19
MW01_0004	Bread, wheat, white, commercial, (Buledi woyera)	19



FOOD CODE	FOOD ITEM NAME (ALPHABETICALLY)	PAGE NR
MW01_0005	Bread, wheat, white, homemade, (Buledi woyera)	19
MW04_0003	Cabbage, chinese, boiled, <i>Brassica chinensis</i> , (Chayinizi)	51
MW04_0004	Cabbage, raw, (Kabichi)	51
MW01_0006	Cake, banana, (Keke ya nthochi)	19
MW01_0007	Cake, plain	19
MW04_0005	Carrot, with skin, raw, (Kaloti)	51
MW01_0008	Cassava stew, with pigeon pea (Chinangwa chopika ndinandolo)	19
MW01_0009	Cassava thick porridge, (Nsima ya kondowole)	19
MW01_0010	Cassava, tuber, boiled, (Chinangwa chophika)	19
MW01_0011	Cassava, tuber, raw, (Chinangwa chachiwisi)	20
MW03_0008	Caterpillar, dry, roasted, <i>Usta terphrichore</i> , (Nyamanyama zootcha)	39
MW03_0009	Caterpillar, roasted, <i>Imbrasia ertli</i> , (Mphalabungu zootcha)	39
MW03_0010	Chicken stew, (Nkhuku yokazingira)	39
MW03_0011	Chicken, meat with skin, free range, local, raw, (Nkhuku ya chikuda)	40
MW01_0012	Cocoyam, tuber, boiled, (Masimbi/koko wowilita)	20
MW01_0013	Cocoyam, tuber, raw, (Masimbi/koko)	20
MW02_0006	Cowpea relish, (Khobwe wowilita ndi tomato)	34
MW02_0007	Cowpea, dry, <i>Vigna unguiculata</i> , (Khobwe/Nseula wouma)	34
MW02_0008	Cowpeas, boiled, <i>Vigna unguiculata</i> , (Khobwe wowilita)	34
MW03_0012	Crabs, boiled, (Nkhanu/Nkhala zowilita)	40
MW05_0006	Custard apple, wild, <i>Annona senegalensis</i> , (Mpoza)	58
MW01_0014	Doughnuts (Mandasi)	20
MW01_0015	Dumplings, (Dampuling'i)	20
MW03_0013	Egg, chicken, boiled, (Dzira lankhuku lowilita)	40
MW03_0014	Egg, chicken, scrambled, (Dzira la nkuku lokanya)	40
MW03_0015	Egg, chicken, whole, raw, (Dzira la nkuku)	40
MW03_0016	Egg, duck, boiled, (Dzira la bakha lowilita/lobwatitsa)	40
MW04_0006	Eggplant fritters (Mabilinganya okazinga)	51
MW04_0007	Eggplant, raw, (Mabilinganya)	51
MW03_0017	Eggs, chicken, boiled, with peas, (Mazira ankhuku owilita ndi nsawawa)	40
MW03_0018	Eggs, chicken, boiled, with tomatoes, (Mazira ankhuku owilita othila tomato)	40
MW01_0016	Finger millet, grain, raw, (Mawere)	20
MW03_0019	Fish powder stew, (Supu ya ufa wansomba)	40
MW03_0020	Fish, catfish, dry, <i>Clarius gariepinus</i> , (Mlamba wouma)	40
MW03_0021	Fish, catfish, fresh, fried, (Mlamba wokazinga)	41
MW03_0022	Fish, catfish, raw, <i>Synodontis</i> , (Nkholokolo)	41
MW03_0023	Fish, catfish, smoked, <i>Clarias gariepinus</i> , (Mlamba wowamba)	41
MW03_0024	Fish, fillet, fresh, <i>Rhamphochromis esox</i> , (Mcheni)	41
MW03_0025	Fish, fresh, gutted, <i>Rhamphochromis esox</i> , (Mcheni wafresh)	41
MW03_0026	Fish, gutted, frozen, <i>Rhamphochromis esox</i> , (Mcheni)	41
MW03_0027	Fish, lake sardine, whole, dried, <i>Engraulicypris breianalis</i> , (Usipa wow-uma)	41
MW03_0028	Fish, powder, <i>Engraulicypris sardella</i> , (Ufa wausipa)	41
MW03_0029	Fish, tilapia, fresh, fried, (Chambo chokazinga)	41
MW03_0030	Fish, tilapia, fresh, grilled, (Chambo chootcha)	41
MW03_0031	Fish, tilapia, whole, dried, <i>Oreochromis shiranus</i> , (Chambo chouma)	42
MW03_0032	Fish, tilapia, whole, fresh, <i>Oreochromis shiranus</i> , (Chambo chafresh)	42
MW03_0033	Fish, whole, fresh, <i>Barbus paludinosus</i> , (Matemba afresh)	42
MW03_0034	Fish, whole, fresh, <i>Copadichromis inornatus</i> , (Utaka wafresh)	42
MW03_0035	Fish, whole, fresh, <i>Engraulicypris sardella</i> , (Usipa wafresh)	42
MW03_0036	Fish, whole, fresh, <i>Oreochromis lidole</i> , (Chambo chafresh)	42
MW03_0037	Fish, whole, fresh, <i>Rhamphochromis esox</i> , (Mcheni wafresh)	42
MW03_0038	Fish, whole, fresh, <i>Rhamphochromis ferox</i> , (Mcheni wafresh)	42
MW03_0039	Fish, whole, par-boiled, sun dried, <i>Engraulicypris sardella</i> , (Usipa ofutsa)	42
MW03_0040	Fish, whole, salted, smoked, <i>Rhamphochromis esox</i> , (Mcheni wowamba)	42



FOOD CODE	FOOD ITEM NAME (ALPHABETICALLY)	PAGE NR
MW03_0041	Fish, whole, salted, sun dried, <i>Rhamphochromis esox</i> , (Mcheni wadzu-wa)	43
MW03_0042	Fish, whole, smoked, <i>Barbus paludinosus</i> , (Matemba owamba)	43
MW03_0043	Fish, whole, smoked, <i>Copadichromis inornatus</i> , (Utaka wowamba)	43
MW03_0044	Fish, whole, smoked, <i>Oreochromis lidole</i> , (Chambo chowamba)	43
MW03_0045	Fish, whole, smoked, <i>Rhamphochromis esox</i> , (Mcheni owamba)	43
MW03_0046	Fish, whole, smoked, <i>Rhamphochromis ferox</i> , (Mcheni owamba)	43
MW03_0047	Fish, whole, smoked, sun dried, <i>Oreochromis shiranus</i> , Tilapia, (Chambo chowamba)	43
MW03_0048	Fish, whole, sun dried from fresh, <i>Rhamphochromis esox</i> , (Mcheni wadzuwa)	43
MW03_0049	Fish, whole, sun dried, <i>Copadichromis inornatus</i> , (Utaka wadzuwa)	43
MW03_0050	Fish, whole, sun dried, <i>Engraulicypris sardella</i> , (Usipa wadzuwa)	43
MW03_0051	Fish, whole, sun dried, <i>Rhamphochromis ferox</i> , (Mcheni wadzuwa)	44
MW02_0009	Flour, boiled soybean, (Ufa wa soya)	34
MW01_0017	Flour, cassava, raw, (Kondowole)	20
MW02_0010	Flour, groundnut, <i>Arachis hypogaea</i> , (Nsinjilo)	34
MW01_0018	Flour, maize, white, degermed-dehulled, unfortified, raw, (Ufa wa galamilu)	20
MW01_0019	Flour, maize, white, whole, unfortified, raw, (Ufa wa mgaiwa)	20
MW01_0020	Flour, maize, white, degermed-dehulled, fermented, unfortified, raw, (Ufa woyera)	20
MW01_0021	Flour, maize-soy, commercial, raw, (Ufa wosakaniza chimanga ndi soya)	21
MW02_0011	Flour, pigeon pea, <i>Canjanus cajan</i> , (Ufa wa nandolo)	35
MW02_0012	Flour, roasted soybean, (Ufa wa soya)	35
MW01_0022	Flour, sorghum, degermed, raw, <i>Sorghum bicolor</i> , (Ufa wa mapira)	21
MW01_0023	Flour, wheat, cake (Ufa wa tirigu wama keke)	21
MW01_0024	Flour, wheat, white, unfortified, raw, (Ufa wa tirigu)	21
MW08_0001	Fortificant premix, IS-353, DSM	76
MW01_0025	French fries/chips, (Chipisi)	21
MW05_0007	Fruit salad, fresh, (mango, banana, pineapple & pawpaw)	58
MW03_0052	Goat, meat, raw, (Nyama ya mbuzi)	44
MW04_0008	Green beans, raw, (Zitheba)	51
MW04_0009	Green pepper, raw, (Gilini pepa)	51
MW02_0013	Groundnut sauce, (Thendo)	21
MW02_0014	Groundnut, dry, <i>Arachis hypogae</i> , (Mtedza wouma)	21
MW02_0015	Groundnut, dry, boiled, <i>Arachis hypogae</i> , (Mtedza wouma wophika)	21
MW05_0008	Guavas, <i>Psidium guajava</i> , (Gwafa)	58
MW05_0009	Jakjak fruit, <i>Azanza garckeana</i> , (Matowo)	58
MW05_0010	Juice tamarind, homemade, (Juwisi wa bwemba)	58
MW05_0011	Juice, baobab, homemade, (Juwisi wa malambe)	59
MW05_0012	Juice, orange, homemade, (Juwisi wa malalanje)	59
MW05_0013	Jujube, <i>Ziziphus mauritiana</i> , (Masau)	59
MW03_0053	Lake flies stew, (Nkhungu zotendera)	44
MW03_0054	Lake flies, dry, roasted, <i>Chaoborus edulis</i> , (Nkhungu zokazinga)	44
MW03_0055	Lake sardine stew, with groundnut flour, (Usipa wotendera)	44
MW03_0056	Lamb, meat, roast, (Nyama ya nkhusa yootcha)	44
MW04_0010	Leaves, amaranth, boiled, <i>Amaranthus thunbergii</i> , (Bonongwe wowilitsa)	51
MW04_0011	Leaves, amaranth, raw, (Bonongwe)	52
MW04_0012	Leaves, black jack, raw, (Chisoso)	52
MW04_0013	Leaves, cassava, boiled, <i>Manihot esculenta</i> , (Ntapasha/Chigwada chowilitsa)	52
MW04_0014	Leaves, cassava, raw, (Ntapasha/Chigwada)	52
MW04_0015	Leaves, cat's whiskers, raw, <i>Cleome gynadra</i> , (Luni)	52
MW04_0016	Leaves, jews mallow, raw, <i>Corchorus trilocularis</i> , (Denje)	52
MW04_0017	Leaves, okra, boiled, <i>Abelmoschus esculentus</i> , (Thelele lowilitsa)	52
MW04_0018	Leaves, pumpkin, boiled, <i>Cucurbita maxima</i> , (Nkhwani wowilitsa)	52



FOOD CODE	FOOD ITEM NAME (ALPHABETICALLY)	PAGE NR
MW04_0019	Leaves, pumpkin, raw, (Nkhwani)	52
MW04_0020	Leaves, rape, raw, (Lepu)	52
MW04_0021	Leaves, roselle, raw, <i>Hibiscus subdaiffa</i> , (Chidede)	53
MW05_0014	Lemon, raw, peeled, (Ndimu losenda)	59
MW03_0057	Locust, raw, (Dzombe)	44
MW03_0058	Locust, roasted, (Dzombe lokazinga)	44
MW05_0015	Loquats, wild, <i>Uapaca kirkiana</i> , (Masuku a mtchire)	59
MW01_0026	Macaroni/Spaghetti, unenriched, cooked	21
MW01_0027	Macaroni/Spaghetti, wholewheat, cooked	21
MW01_0028	Maize and soya thick porridge, (Nsima ya ufa wa chimanga ndi soya)	21
MW01_0029	Maize flour snack, fried, (Kadyaubwerere)	21
MW01_0030	Maize soft porridge, whole flour, with groundnut flour (Phala la mgaiwa lothila nsinjilo)	31
MW07_0083	Maize soft porridge, with egg & vegetable, (Phala lamgaiwa loika mazi-ra ndi masamba)	73
MW01_0031	Maize thick porridge, degermed-dehulled flour, (Nsima ya galamilu)	22
MW01_0032	Maize thick porridge, refined flour, (Nsima ya ufa oyera)	22
MW01_0033	Maize thick porridge, white, whole flour, (Nsima ya mgaiwa)	22
MW01_0034	Maize thick porridge, white, whole flour, (Nsima ya mgaiwa)	22
MW01_0035	Maize, bran, <i>Zea mays</i> , (Deya/Gaga)	22
MW01_0036	Maize, grain, orange, raw, <i>Zea mays</i> , (Mthikinya)	22
MW01_0037	Maize, grain, white, raw, (Chimanga choyera)	22
MW01_0038	Maize, grain, white, raw, Se fertilizer applied, (Chimanga choyera)	22
MW01_0039	Maize, grain, white, raw, <i>Zea mays</i> , (Chimanga choyera)	22
MW01_0040	Maize, green, boiled, (Dowe wowilita/Chimanga chachiwisi chopika)	22
MW05_0016	Mango, ripe, (Mango)	59
MW06_0001	Margarine, Rama, brick	63
MW05_0017	Medlar, African, raw, <i>Vangueria infausta</i> , (Lokwati)	59
MW01_0041	Milk scones, (Sikono ya mkaka)	23
MW03_0059	Milk, cow, whole, fresh, (Mkaka wa ng'ombe wa madzi)	44
MW03_0060	Milk, powder, full fat, vitamin A, D and Fe enriched, (Mkaka wa ufa)	44
MW03_0061	Milkshake, banana	45
MW04_0022	Mushroom stew, with groundnut flour, (Bowa wotendera)	53
MW04_0023	Mushroom, indigenous, raw, <i>Cantherellus cibarius</i> , (Bowa wa chiwindi/ Malasutwe)	53
MW04_0024	Mushroom, indigenous, raw, <i>Termitomyces letestui</i> , (Bowa wautale)	53
MW04_0025	Mushroom, oyster, cultivated, raw, <i>Pleurotus florida</i> , (Bowa wolimidwa)	53
MW04_0026	Mushroom, stew (Bowa wokazingila)	53
MW04_0027	Mushroom, white button, cultivated, raw, <i>Agaricus bisporus</i> , (Bowa wolimidwa)	53
MW03_0062	Mutton stew, (Nyama ya nkhusa yokazingira)	45
MW03_0063	Mutton, meat, ~20% fat, raw, (Nyama ya Nkhosa)	45
MW01_0042	Oats, cooked, (Maotsi ophika)	23
MW01_0043	Oats, raw, (Maotsi)	23
MW06_0002	Oil, soybean, fortified, local market, (Mafuta ophikira a soya)	63
MW06_0003	Oil, soybean, fortified, supermarket, (Mafuta ophikira a soya)	63
MW06_0004	Oil, sunflower, fortified, local market, (Mafuta ophikira a mpendadzuwa)	63
MW06_0005	Oil, sunflower, fortified, supermarket, (Mafuta ophikira a mpendadzuwa)	63
MW04_0028	Okra relish, (Thelele lobala lokazingira)	53
MW04_0029	Okra stew, (Thelele lobala lokupa)	53
MW04_0030	Okra, raw, <i>Abelmoschus esculentus</i> , (Therere lobala)	53
MW04_0031	Onion, raw, (Anyezi)	54
MW05_0018	Orange, raw, peeled, <i>Citrus sinensis</i> , (Lalanje losenda)	59
MW01_0044	Pancakes, wheat flour and maize flour, (Mandasi a ufa wachimanga ndi tiligu)	23
MW05_0019	Pawpaw, fresh, (Papaya)	59
MW05_0020	Peach, raw, <i>Prunus persica</i> , (Pichesi)	60



FOOD CODE	FOOD ITEM NAME (ALPHABETICALLY)	PAGE NR
MW02_0016	Peanut butter, smooth style, with salt	35
MW04_0032	Peas, raw, <i>Pisum sativum</i> , (Nsawawa zaziwisi)	54
MW02_0017	Pigeon pea, dry, <i>Canjanus cajan</i> , (Nandolo wowuma)	35
MW02_0018	Pigeon pea, green, boiled, <i>Canjanus cajan</i> , (Nandolo wamuwisi owilitsa)	35
MW05_0021	Pineapple, raw, peeled, <i>Ananas comosus</i> , (Nanazi losenda)	60
MW01_0045	Plantain and bean casserole, (Mbalagha za nyemba)	23
MW01_0046	Plantain and beef casserole, (Mbalagha za nyama ya ng'ombe)	23
MW01_0047	Plantain and fish casserole, (Mbalagha za usipa)	23
MW01_0048	Plantain, green, boiled, <i>Musa paradisiaca</i> , (Matochi)	23
MW05_0022	Plum, Mobola, <i>Parinari curatellifolia</i> , (Maula/Mbula)	60
MW05_0023	Plum, sour, <i>Ximenia caffra</i> , (Mpinjipinji)	60
MW03_0064	Pork, meat, ~20% fat, raw, <i>Sus Scrofa domesticus</i> , (Nyama ya nkumba)	45
MW01_0049	Potato pie	23
MW01_0050	Potato, local variety, raw, (Mbatata ya kachewere)	23
MW01_0051	Pumpkin fritters, (Mandasi a maungu)	24
MW04_0033	Pumpkin leaves stew, (Nkhwanzi wokazingira)	54
MW04_0034	Pumpkin, boiled, <i>Cucurbita maxima</i> , (Dzungu lowiritsa)	54
MW03_0065	Quail, breast, raw, <i>Coturnix japonica</i> , (Chinziri)	45
MW03_0066	Rabbit stew, (Nyama ya kalulu yokazingira)	45
MW03_0067	Rabbit, meat, raw, <i>Oryctolagus cuniculus</i> , (Nyama ya kalulu)	45
MW08_0002	Ready to use therapeutic food (RUTF), milk, maize, soya, sorghum (MSMS)	76
MW08_0003	Ready to use therapeutic food (RUTF), milk-free, soya, maize, sorghum (FSMS)	76
MW08_0004	Ready to use therapeutic food (RUTF), peanut, milk (PM)	76
MW01_0052	Rice porridge, (Phala la mpunga)	24
MW07_0084	Rice porridge, with carrot, milk & groundnut flour, (Phala la mpunga lothira kaloti, mkaka ndi nsinjilo)	73
MW01_0053	Rice pudding	24
MW01_0054	Rice pudding with eggs	24
MW01_0055	Rice, brown, raw, <i>Oryza sativa</i> , (Mpunga wa bulawuni)	24
MW01_0056	Rice, soaked, (Mpunga woviika)	24
MW01_0057	Rice, white, cooked, (Mpunga woyera wophika)	24
MW01_0058	Rice, white, raw, <i>Oryza sativa</i> , (Mpunga woyera)	24
MW03_0068	Samoosa, beef filling, fried, (Samusa wa nyama ya ng'ombe wokazingira)	45
MW01_0059	Samoosa, dough, raw	24
MW01_0060	Sorghum, wholegrain, raw, <i>Sorghum bicolor</i> , (Mapira)	24
MW02_0019	Soybean, dry, (Soya)	35
MW01_0061	Steamed maize & banana snack, (Mkate)	25
MW08_0005	Sugar, brown, fortified, (Shuga wa bulawuni)	76
MW08_0006	Sugar, white, fortified, (Shuga woyera)	76
MW08_0007	Sugarcane, raw, <i>Saccharum officinarum</i> , (Mzimbe)	76
MW01_0062	Sweet potato fritters, (Zitumbuwa za mbatata)	25
MW01_0063	Sweet potato, orange fleshed, raw, (Mbatata yofiila mkati)	25
MW01_0064	Sweet potato, orange fleshed, with milk, (Mbatata yofiila mkati yothira mkaka)	25
MW01_0065	Sweet potato, white-fleshed, raw, <i>Ipomoea batatas</i> , (Mbatata zoyera mkati)	25
MW01_0066	Sweet potato, white-fleshed, without skin, boiled, <i>Ipomoea batatas</i> , (Mbatata zoyera mkati yowilitsa)	25
MW01_0067	Sweet potatoes, boiled, with groundnut flour (Futali)	25
MW05_0024	Tamarind, fruit, raw, <i>Tamarindus indica</i> , (Bwemba)	60
MW03_0069	Termites, dry, <i>Macrotermes subhyalinus</i> , (Ngumbi)	45
MW04_0035	Tomato soup, (Supu wa tomato)	54
MW04_0036	Tomato, ripe, raw, (Tomato okupsya)	54
MW01_0068	Tuber, wild water lily, freeze dried, boiled, <i>Nymphaea Petersiana</i> , (Nyika)	25
MW01_0069	Tuber, wild water lily, sun dried, raw, <i>Nymphaea Petersiana</i> , (Nyika)	25



FOOD CODE	FOOD ITEM NAME (ALPHABETICALLY)	PAGE NR
MW08_0008	Water, (Madzi)	76
MW05_0025	Watermelon, raw, peeled, <i>Citrullus lanatus</i> , (Mavwende/Mavumbe osenda)	60
MW01_0070	Wheat, bran, (Madeya a tiligu)	25

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ADDENDUM

1. ANALYTICAL METHODOLOGY

The following table documents different analytical and nutrient determination methods used in samples as reported in the sources of data linked to literature referenced to compile this database.

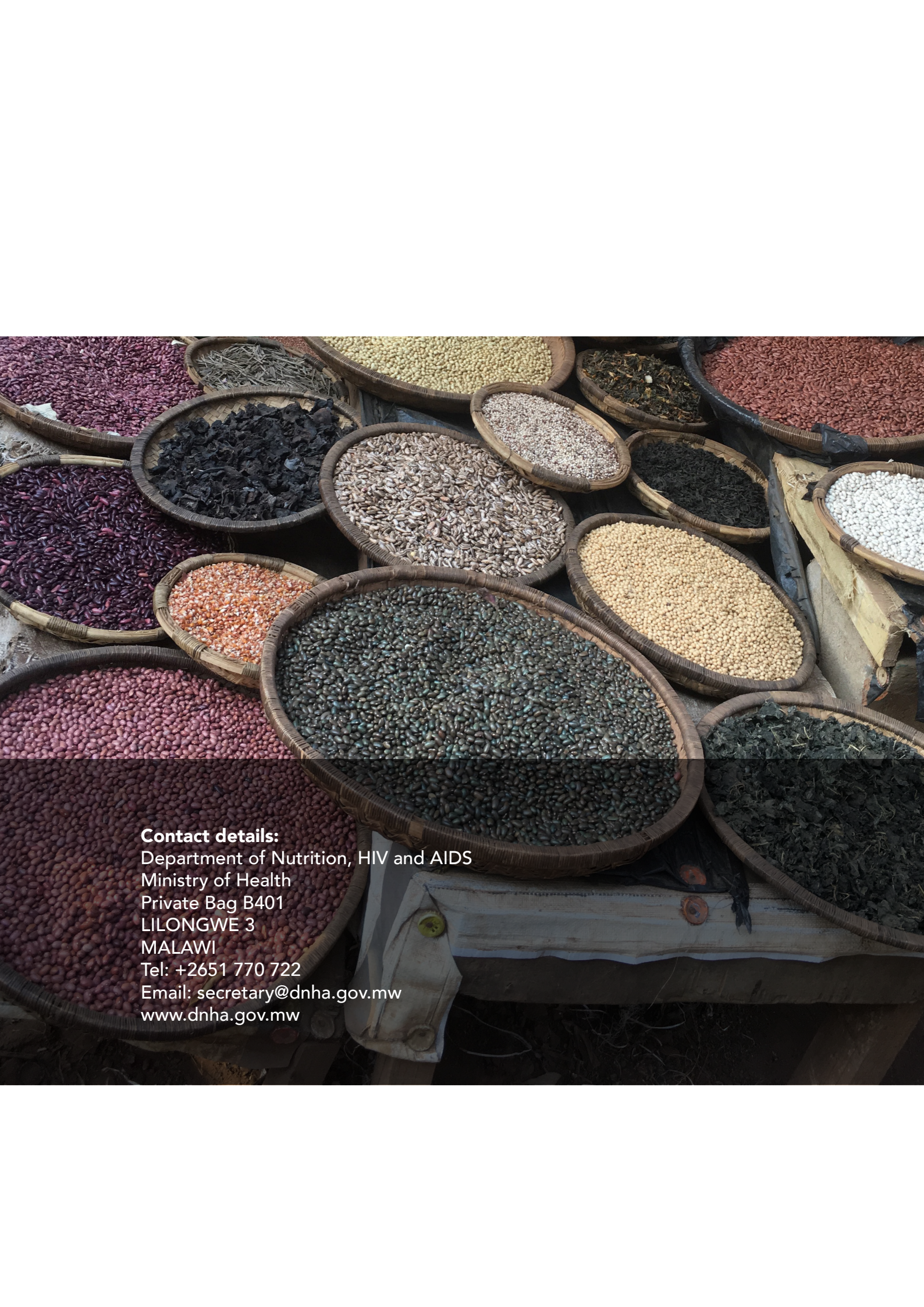
REFERENCE #	NUTRIENT	FRACTION MEASURED	ANALYTICAL METHOD
1	Moisture		Vacuum drying at 135°C (AOAC, 1984)
1	Nitrogen		Kjeldahl method (AOAC, 1984)
1	Fat	Total	Gravimetric determination (AOAC, 1990-modified)
1	Fiber		Assay kit method (Sigma, 1990)
1	Ash		Muffle furnace @ between 450°C-620°C (AOAC, 1984)
1	Minerals	Ca, Fe, Se	Atomic Absorption Spectrophotometry (AOAC, 1984)
1	Phosphorus	P	Calorimetry (AOAC, 1984)
1	Fatty acids		Chloroform methanol extraction (AOAC, 1990)
1	Vitamin C	Ascorbic acid	High-Performance Liquid Chromatography (HPLC) (AOAC, 2002)
2	Sodium	Na	Flame Atomic Absorption Spectrometry (AOAC, 2002)
3	Moisture		Oven-drying method (AOAC, 2002)
3	Ash		Drying ashing, muffle furnace (AOAC, 2002)
3	Minerals	Zn, Fe	Atomic Absorption Spectrophotometry (AOAC, 2002)
3	Vitamin A		Atomic Absorption Spectrophotometry (AOAC, 2002)
4	Moisture		Oven-drying method @ 105°C (AOAC, 2002)
4	Moisture		Oven-drying method @ 105°C (AOAC, 1982)
4	Nitrogen		Kjeldahl method (AOAC, 1984)
4	Fat	Total	Soxhlet extraction method
4	Ash		Muffle furnace @ 530°C
4	Fiber		Reflux method (AOAC, 1984)
5	Minerals		Inductively coupled plasma mass spectrometry
5	Phytic acid	Total	PA-assay kit method (Reason et al., 2015)
6	Moisture		Conventional oven drying method @ 105°C (AOAC, 2002)
6	Nitrogen		Kjeldahl method (AOAC, 2002)
6	Ash		Dry ashing, muffle oven @ 550°C (AOAC, 2002)
6	Fat	Total	Soxhlet extraction method, (AOAC, 2002)
7	Moisture		Conventional oven drying method @ 105°C (AOAC, 2002)
7	Nitrogen	Total	Kjeldahl method (AOAC, 2002)
7	Ash		Conventional oven method @ 550°C (AOAC, 2002)
7	Fat		Soxhlet method (AOAC, 2002)
8	Moisture		Oven-drying method @ 130°C (AOAC, 1990)
8	Nitrogen		Kjeldahl method
8	Ash		Soxhlet extraction method
8	Fat		Muffle furnace @ 600°C (AOAC, 1990)
9	Moisture		Oven-drying method
9	Ash		Dry ashing in oven
9	Minerals	Zn, Cu, Mg, Ca, Na	Flame Atomic Absorption Spectrophotometry (AOAC, 2002)



REFERENCE #	NUTRIENT	FRACTION MEASURED	ANALYTICAL METHOD
9	Phosphorus	P	Calorimetry
10	Minerals	Ca, Zn, Cu, Fe, Mg, Se,	Inductively Coupled Plasma Mass Spectrometry
11	Moisture		Oven-drying method @ 105°C
11	Nitrogen		Kjeldahl method
11	Fat		Soxhlet method (AOAC, 1984)
11	Ash		Muffle furnace (AOAC, 1984)
11	Iron	Fe	Atomic Absorption Spectrophotometry (AOAC, 1984)
11	Vitamin C	Ascorbic acid	2, 6 Dichlorophenolindophenol (DCPIP)
12	Moisture		Oven-drying method at 130°C (AOAC, 1990)
12	Nitrogen		Kjeldahl method
12	Ash		Muffle furnace @ 600°C (AOAC, 1990)
12	Fat	Total	Soxhlet method
13	Moisture		Oven drying method @ 105°C (AOAC, 2002)
13	Nitrogen		Kjeldahl method (AOAC, 2002)
13	Ash		Oven furnace @ 500°C (AOAC, 2002)
13	Fat		Soxhlet method (AOAC, 2002)
14	Vitamin A		Atomic Absorption Spectrophotometry (AOAC, 2002)
15	Moisture		Oven-drying method @ 105°C (AOAC, 2002)
15	Nitrogen		Kjeldahl method (AOAC, 2002)
15	Ash		Dry ashing, muffle oven @ 555°C (AOAC, 2002)
15	Fat		Soxhlet extraction method (AOAC, 2002)
15	Iron	Fe	Atomic Absorption Spectrophotometry
15	Minerals	Ca, Mg	Titration method (AOAC, 2002)
15	Phosphorus	P	Calorimetry (AOAC, 2002)
16	Moisture		Oven drying @ 105°C (AOAC, 2002)
16	Nitrogen		Kjeldahl method (AOAC, 2002)
16	Ash		Muffle furnace @ 550°C (AOAC, 2002)
16	Crude Fiber		Henneberg-Stohmann method ()
16	Minerals	Ca, Mg, Fe	Atomic Absorption Spectrophotometry
17	Moisture		Air-oven drying method
17	Nitrogen		Kjeldahl method
17	Ash		Dry ashing in muffle furnace
17	Fat		Soxhlet method
17	Minerals	Ca, Mg, Fe	Atomic Absorption Spectrophotometry (Osborne & Voogt, 1978)
17	Phosphorus	P	Calorimetry (AOAC, 2002)
18	Moisture		Oven-drying method
18	Nitrogen		Kjeldahl method
18	Crude Fiber		Acid hydrolysis (AOAC, 1990)
18	Ash		Muffle furnace (AOAC, 1990)
18	Minerals	Ca, Fe, Zn	Atomic Absorption Spectrophotometry
18	Vitamin C		Spectro-photometric method*
19	Moisture		Oven-drying method @105°C (AOAC, 2002)
19	Nitrogen		Kjeldahl method
19	Ash		Muffle furnace @ 105°C. (AOAC, 2002)



REFERENCE #	NUTRIENT	FRACTION MEASURED	ANALYTICAL METHOD
19	Fat		Soxhlet method
20	Calcium	Ca	Titration method
21	Moisture		Oven-drying method @ 105°C (AOAC, 2002)
21	Nitrogen		Kjeldahl method
21	Ash		Dry ashing in muffle furnace (AOAC, 2002)
21	Minerals	Ca, Fe	Atomic Absorption Spectrophotometry
21	Vitamin C	Ascorbic acid	HPLC (AOAC, 2002)
22	Moisture		Oven-drying method (AOAC, 2002)
22	Nitrogen		LECO combustion method (AOAC, 2002)
22	Ash		Dry ashing in muffle furnace (AOAC, 2002)
22	Fat		Acid hydrolysis extraction (AOAC, 2002)
22	Minerals	Cu, Zn, Fe, Mn	Inductively coupled plasma mass spectrometry (AOAC, 2002)
23	Calcium	Ca	Titration method (Skoog, D.A and West, D.M)
23	Minerals	P, Fe	Calorimetry (AOAC, 2002)
26	Moisture		Oven drying @ 105°C (AOAC, 2002)
26	Nitrogen		Kjeldahl method
26	Ash		Muffle furnace @ 550°C
26	Fat		Gravimetric measurement (AOAC, 2000)
27	Moisture		Oven drying (AOAC, 2003)
27	Protein		Kjeldahl method (AOAC, 2003)
27	Ash		Muffle furnace @ 550°C (AOAC, 2003)
27	Fat		Soxhlet method (AOAC, 2003)
28	Moisture		Oven drying @ 105°C (AOAC, 2002)
28	Nitrogen		Kjeldahl method
28	Ash		Muffle furnace @ 550°C
28	Fat		Soxhlet extraction method (AOAC, 2005)
29	Moisture		Oven drying @ 102°C (AOAC, 2002)
29	Vitamin A		UV/Visible Spectrophotometry
30	Moisture		Oven-drying method
30	Nitrogen		Kjeldahl method
30	Vitamin C	Ascorbic acid	DCPIP
31	Moisture		Oven-drying method @ 105°C (AOAC, 2002)
31	Nitrogen		Kjeldahl method (AOAC, 2002)
31	Ash		Dry ashing in muffle furnace at 550°C
31	Crude Fiber		Acid hydrolysis (AOAC, 2002)
31	Fat		Soxhlet method (AOAC, 2002)
31	Minerals	Ca, P	Atomic Absorption Spectrophotometry

A photograph showing a variety of dried grains and legumes arranged in several woven baskets. The items include red lentils, yellow lentils, black lentils, white lentils, and various types of beans and seeds. The baskets are made of woven wood or bamboo and are placed on a wooden surface.

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