Review of Methodologies for Food Consumption Data Collection and Application to the Arab Region

Food Consumption Data Collection Webinar

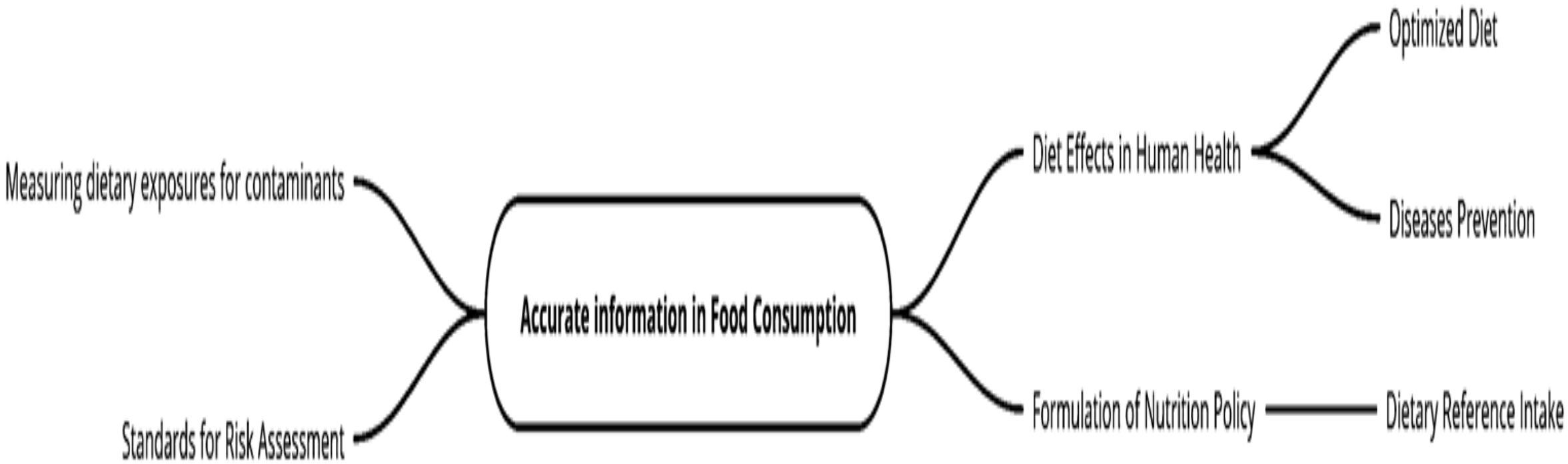
14 December 2023

Maha Hoteit, PhD| *Coordinator of Food Sciences Unit, National Council for Scientific Research Lebanon*

Outline

- ❑Introduction
- ❑Outcomes of Webinar
- ❑Dietary Assessment Methods in National Food Consumption Surveys
- ❑Individual Food Consumption Survey as Gold Standards
- ❑GFORSS Review paper for planning to the first *Arab Food Consumption Survey*
- ❑Example of National Food Consumption Survey in Lebanon

Introduction



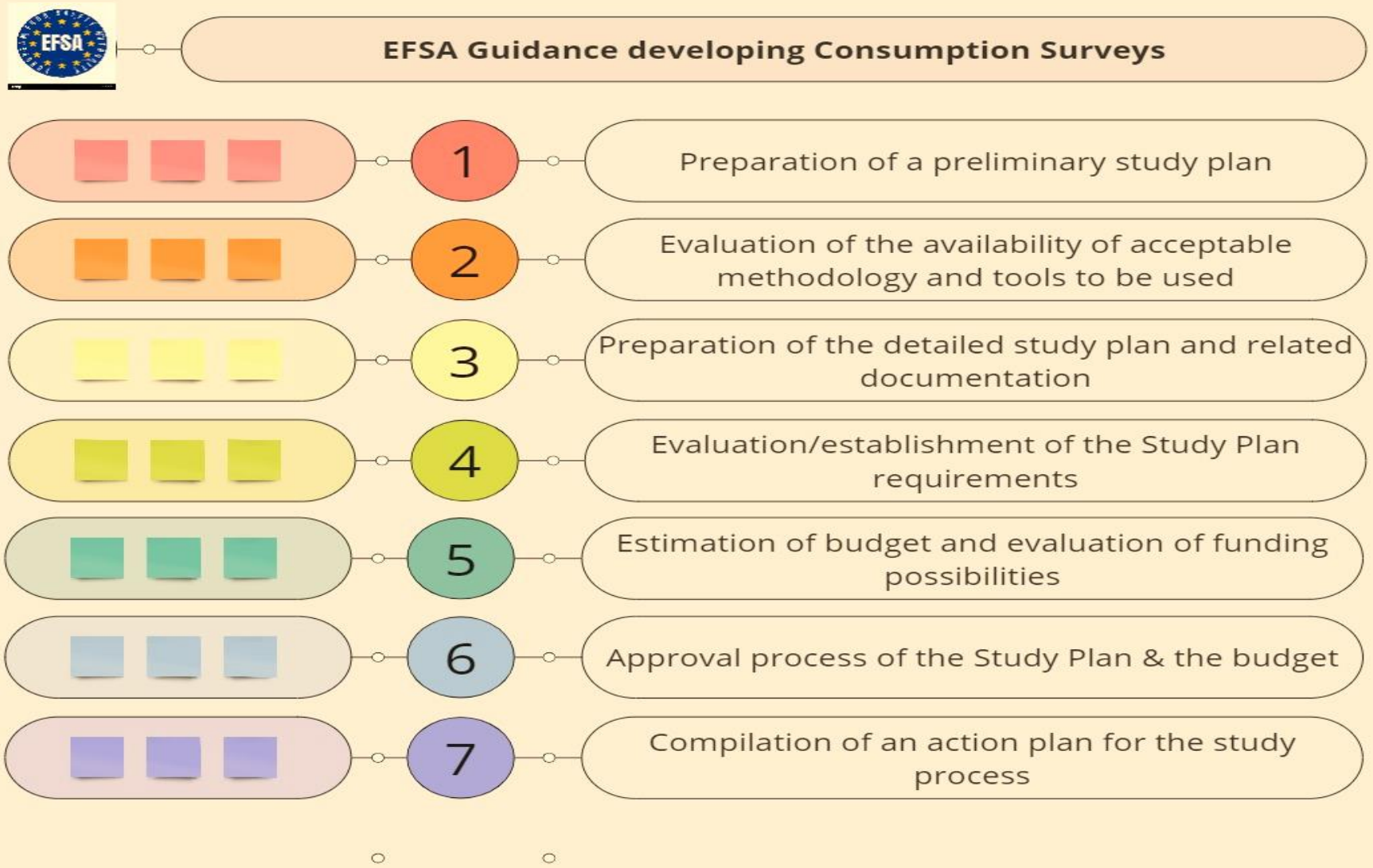
Outcomes of Webinar

- **Question 1**: Which methods and tools were used in previous national food consumption surveys in other countries?

- **Question 2**: Which method and tools are available in the world that can potentially be used at Arab level for developing an **Arab Food Consumption Surveys?**

- **Question 3:** which lessons can be learned and recommendations can be given for an update of the guidance for collection data in national dietary surveys in Arab countries ?

EFSA Guidance-Food Consumption Survey



Dietary Assessment Methods in National Food Consumption Surveys

Food Balance Sheets (FAO)

National Food Accounts,
Supply/Utilization Accounts,
Food Disappearance Data, or Food Consumption Level Estimates

Benefits and use	Equation	Data Not Available
-To estimate food supply and its utilization at the national level. -To resent a comprehensive picture of the pattern of a country's food supply -To show the sources of supply and utilization for each food item -Foods tracked through the FBS include both primary commodities: - wheat -rice -fruit -vegetables and a number of processed commodities (e.g. vegetable oils, butter). FAO provides information on per capita energy, protein, fat and carbohydrates by matching data to food composition database	Food available for consumption = starting stocks + (quantity imported + quantity produced) – (quantity exported + seed + animal feed + waste + other non-food uses) - ending stocks	non-commercial food production and detailed information on processed foods

FBS

Strengths

-Standardized data
-Trends of population-level consumption patterns based on -Food available for consumption in food supply
-Easy to access and analyze, as it is publicly available and free to use through FAOSTAT
-Data available for over 245 countries and territories; collected every year starting in 1961

Weaknesses

-Limited specificity foods and processed foods
-Not accurate links to food composition databases to assess nutrient availability of the food supply
•FAOSTAT is updated annually but there is an approximately three-year lag in reporting
•Quality and coverage vary across countries and commodities
•Non-commercial or subsistence production not usually included

Dietary Assessment Methods in National Food Consumption Surveys

Household Consumption & Expenditure Surveys (HCES)

Household Income and Expenditure Surveys (HIES), Household Budget Surveys (HBS), or Living Standards Measurement Surveys (LSMS)

Benefits and use	Credibility	Data Not Available
-To conduct a nationally representative sample to characterize important aspects of household socioeconomic conditions. -HCES collect data on acquisition, consumption, or both. While consumption data refers to the food consumed by the household, acquisition data refers to the food acquired through: 1) purchases, 2) own-production, and 3) in-kind in a specified period.	-Conducted every 3-5 years in a range of countries and cover 7,000 to 20,000 households to provide a statistically representative sample -Most HCES are implemented by national statistical agencies, often with technical assistance from the World Bank's Living Standard Measurement Study (LSMS) group.	-Total household-level calorie availability -Excludes food away from home

FBS

Strengths	Weaknesses
-•Typically nationally representative and sometimes representative at provincial and district levels •Typically collected every 3-5 years, allowing for an examination of trends •Food consumption data from HCES are an important source of information on food security and nutrition •Include a wide range of data on determinants and outcomes (e.g. socioeconomic status, education), enabling various analytical options.	-Data may not be useful for certain food security and nutrition analyses -Some HCES only measure 'apparent consumption not actual consumption -Food list is not always matches with food composition database -Long Recall periods in HCES vary from 1 to 365 days, with long recall periods (>2 weeks) raising concern about reliability and recall bias -Household-level data from HCES do not allow for measurement of individual-level food security and nutrition indicators -Many HCES do not capture seasonal variation

Dietary Assessment Methods in National Food Consumption Surveys

Individual Food Consumption Surveys

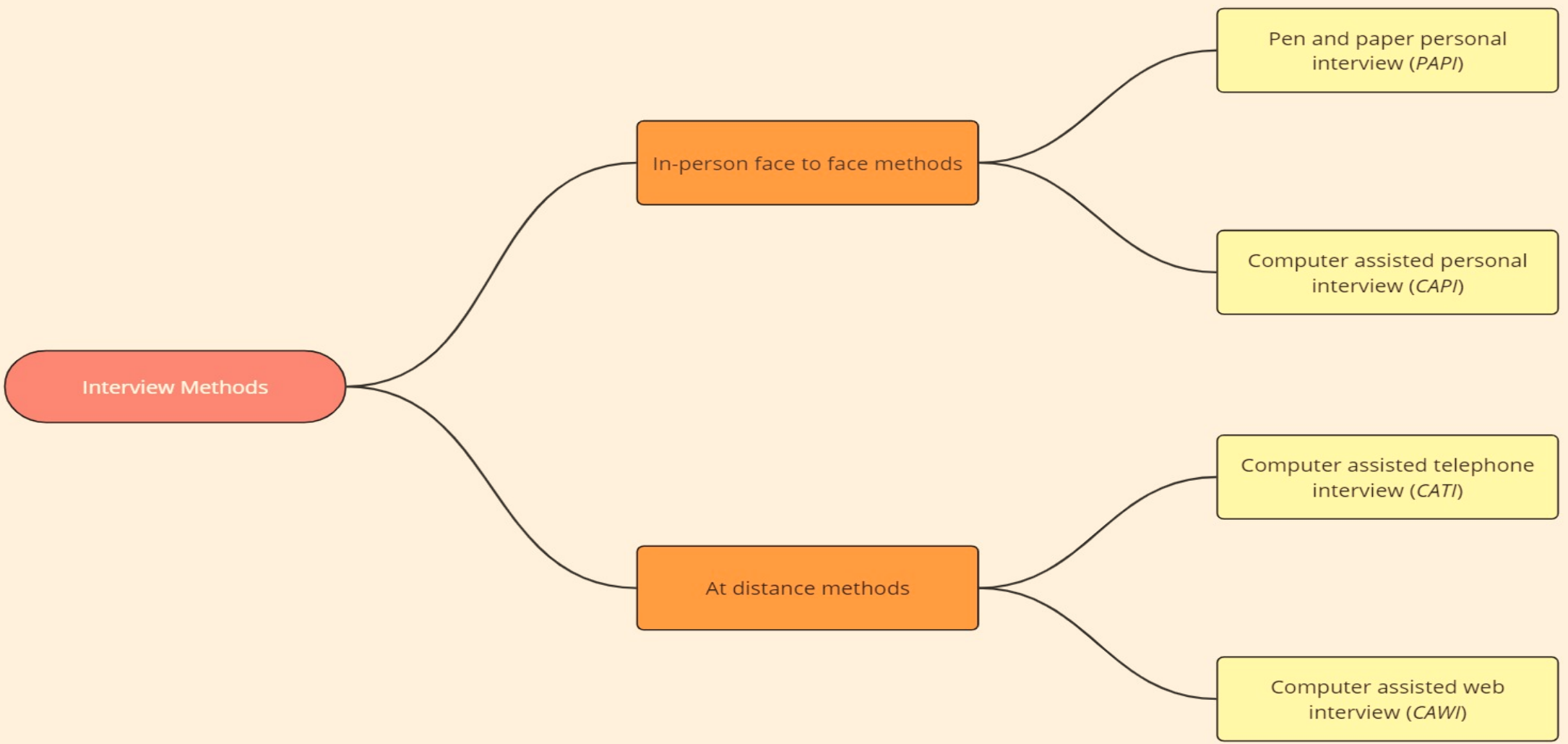
Dietary Intake Surveys , Diet Monitoring Surveys

Benefits and use	GOLD STANDARD	Limitations
-To yields a more reliable measure of dietary adequacy and exposure to contaminants at individual and household levels because it is based on actual food consumption rather than food acquisition. -Comparisons can be made across age and sex groups, and inequalities in intra-household food distribution can be identified		-Collection and processing costs for this data are considerably higher than for the data collected in household consumption and expenditure surveys.

Food Consumption Survey Methods

	Current Intake		Past Dietary	Intake
24 H Dietary Recall	Estimated Food Record	Weighed Food Record	Food Frequency Questionnaire	Dietary History
-Consists of listing of foods and beverages consumed during the previous day or during the 24 h prior to the recall interview. -Researchers have developed multipass methods that guide the respondent through the 24 h reference period several times, providing opportunity for the respondent to remember food details and additional foods. ✕ -Seldom representative of usual intake.	An estimated food record is similar to a 24-hour recall it consists of a detailed description of food and drink consumed over a period (usually three to five days). ✕ High degree of respondent cooperation is necessary, and the act of recording may alter the usual diet.	-The food record, or food diary, requires that the subject (*or observer*) report all foods consumed during a specified period (*usually 7 days or less*). -Amounts may be determined by weighing or measuring volume. ✕ It is costly in both time and money, and requires highly motivated subjects with high levels of literacy	-Consists of a structured listing of individual foods or food groups. -The number of times the food is usually consumed per day, week, month or year. -FFQs may be unquantified, semi-quantified or completely quantified. -A completely quantified FFQ allows the respondent to indicate any amount of food typically consumed. ✕ -Needs training and long duration	-Estimates usual food intakes of individuals over a long period lasting several weeks or months. -to detect seasonal changes, obtain data on all nutrients. ✕ lengthy interview process (and a corresponding respondent burden) and the difficulty and expense of coding the data gathered

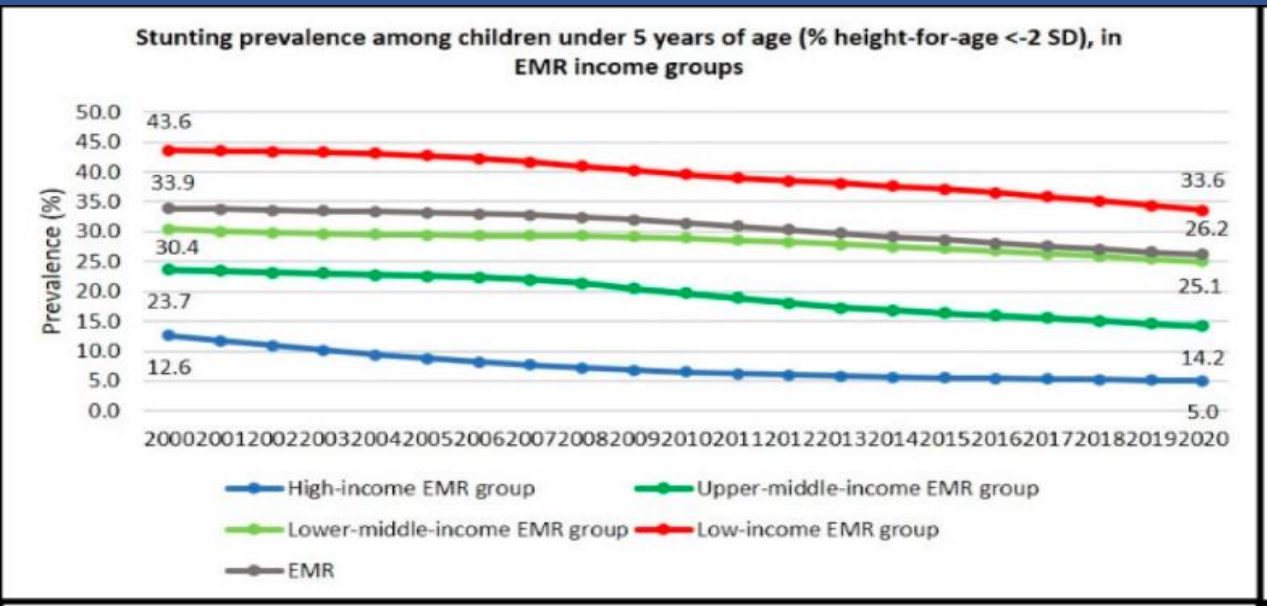
Interview Methods

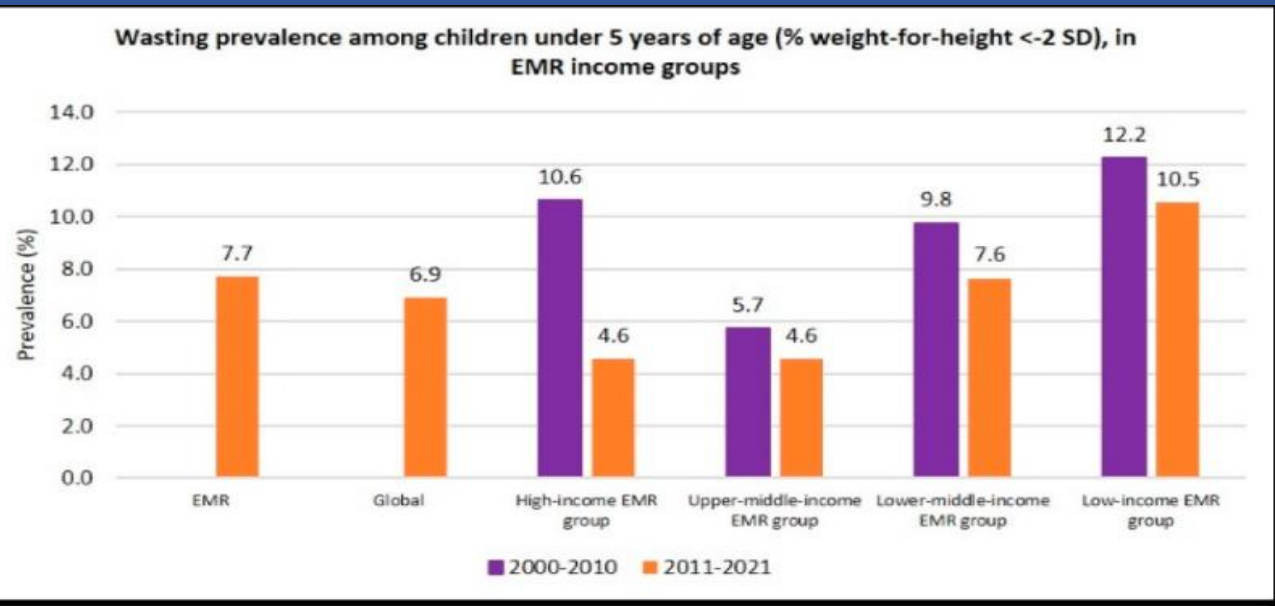


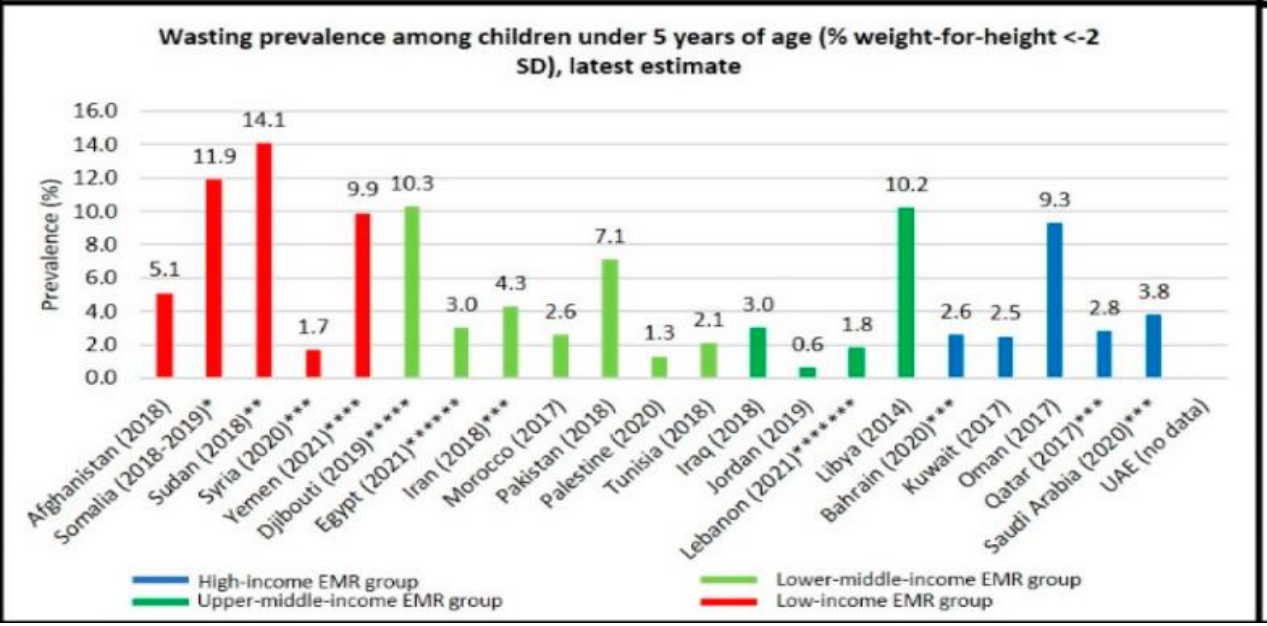
Pros and Cons of Mode of Interviewing

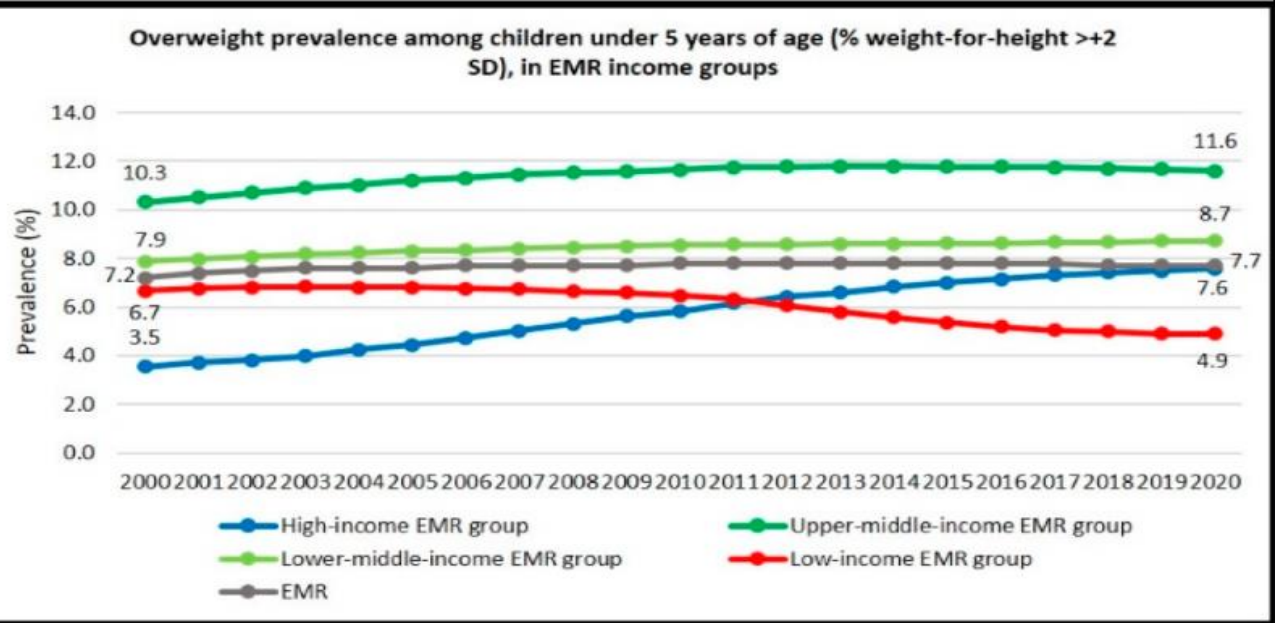
Interviewing mode	Response rate	Population to be reached	Economic cost	Role of the interviewer	Implementing electronic questionnaire
On line Interview (Web survey)	Lower	Easy Internet access with a certain degree of Information and Communication Technology (ICT) literacy	Lowest	None	**Yes**
Postal Survey	Lower	Any sort ofpopulationwritten language literacy	Low	None	**No**
Telephone Survey (CATI)	Intermediate	Population phone connected	High	Yes	**Yes**
Paper personal Interview (PAPI)	Usually thehighest	Any sort of population	Very high	Yes	**No**
Computer assisted personal interview (CAPI)	Usually thehighest	Any sort of population	Very high	Yes	**Yes**
Computer assisted self- administered interview	**Usually thehighest**	**Any sort of population witha certain degree of ICT literacy**	**Very high**	**None**	

Malnutrition Among Arab Children



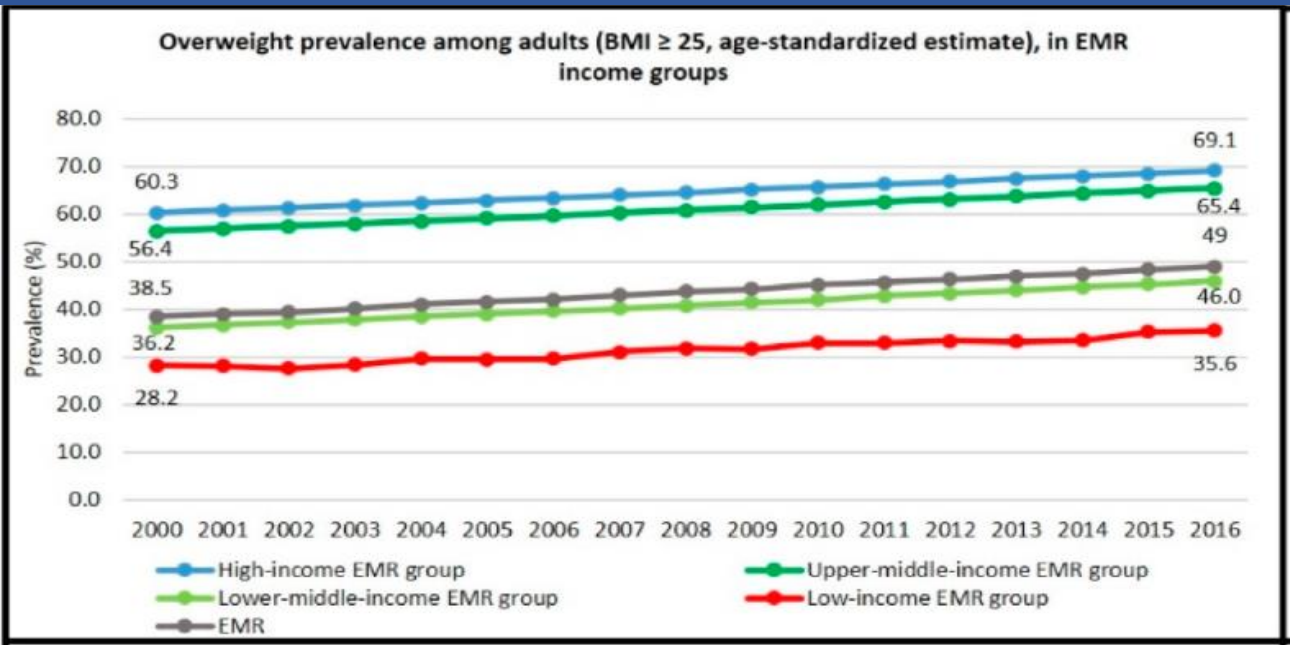


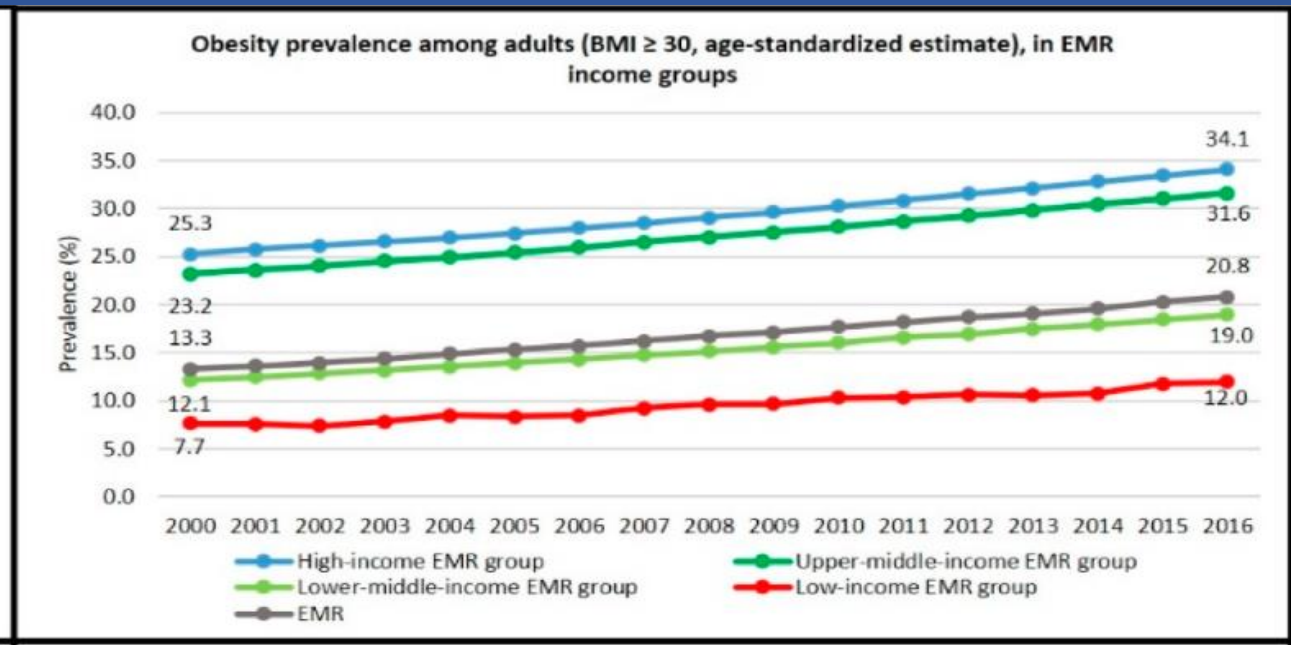


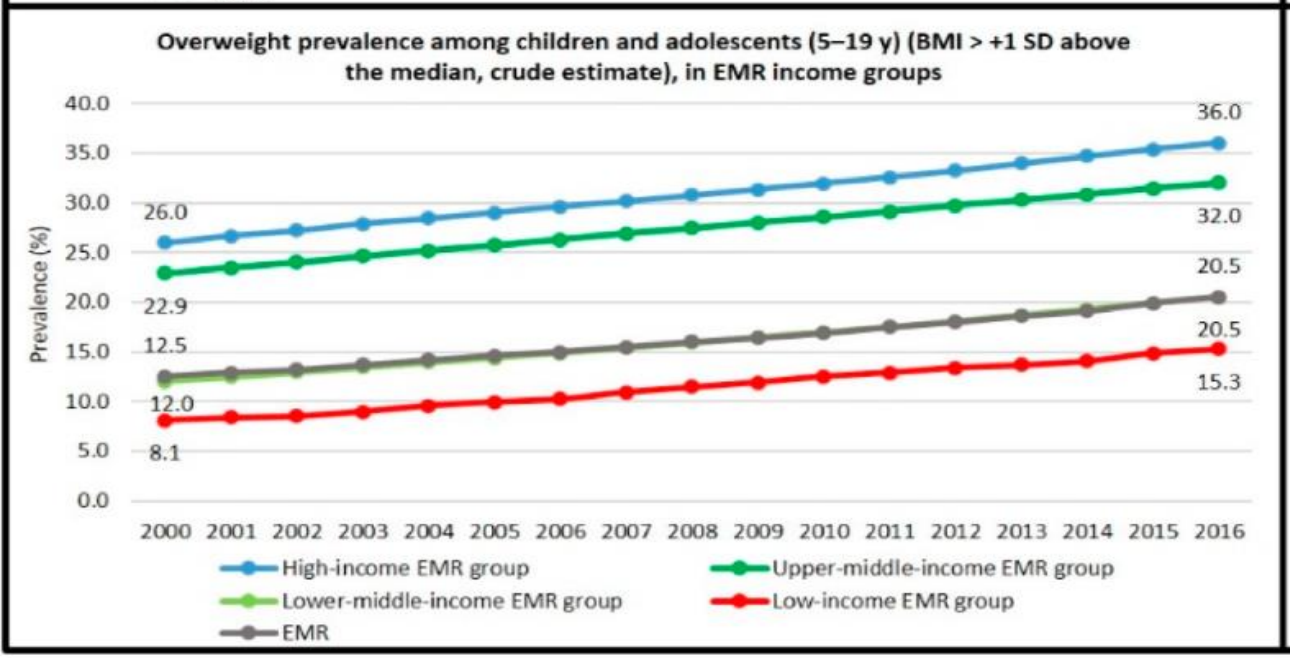


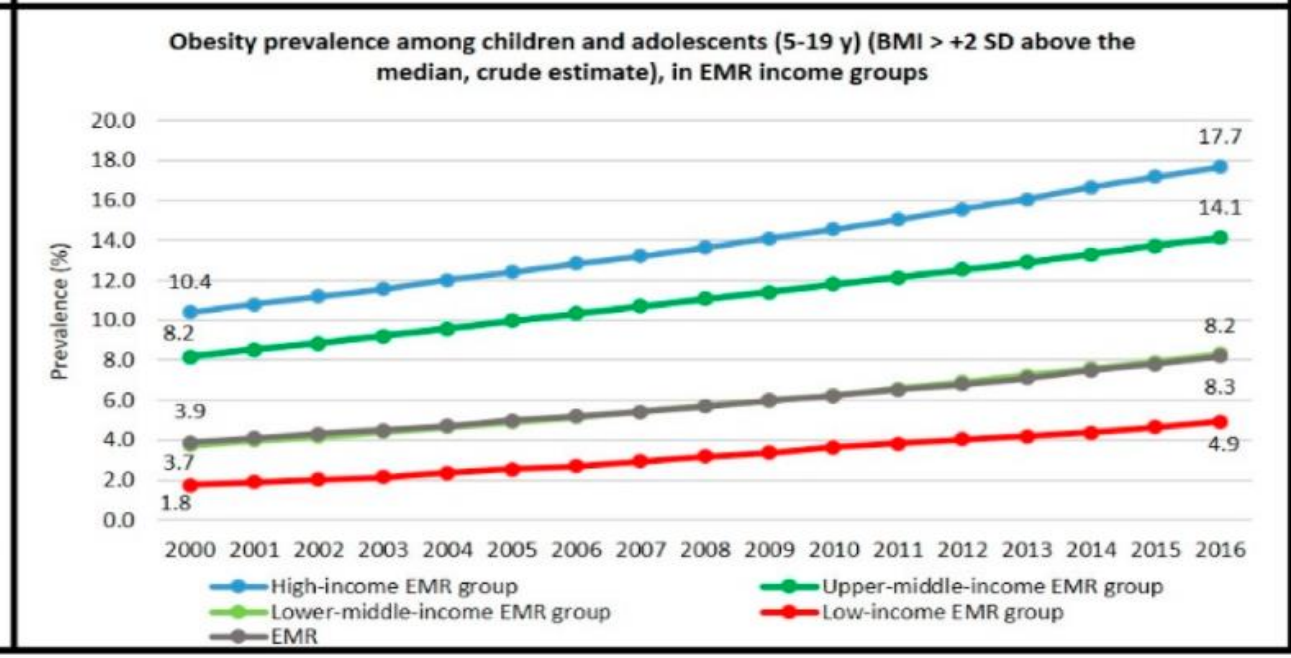
Leppäniemi, H., Ibrahim, E., Abbass, M. M. S., Borghi, E., Flores-Urrutia, M. C., Dominguez Muriel, E., Gatica-Domínguez, G., Kumapley, R., Hammerich, A., & Al-Jawaldeh, A. (2023). Nutrition Profile for Countries of the Eastern Mediterranean Region with Different Income Levels: An Analytical Review. *Children (Basel, Switzerland)*, *10*(2), 236. https://doi.org/10.3390/children10020236

Overweight and Obesity Among Arab Adolescents and Adults

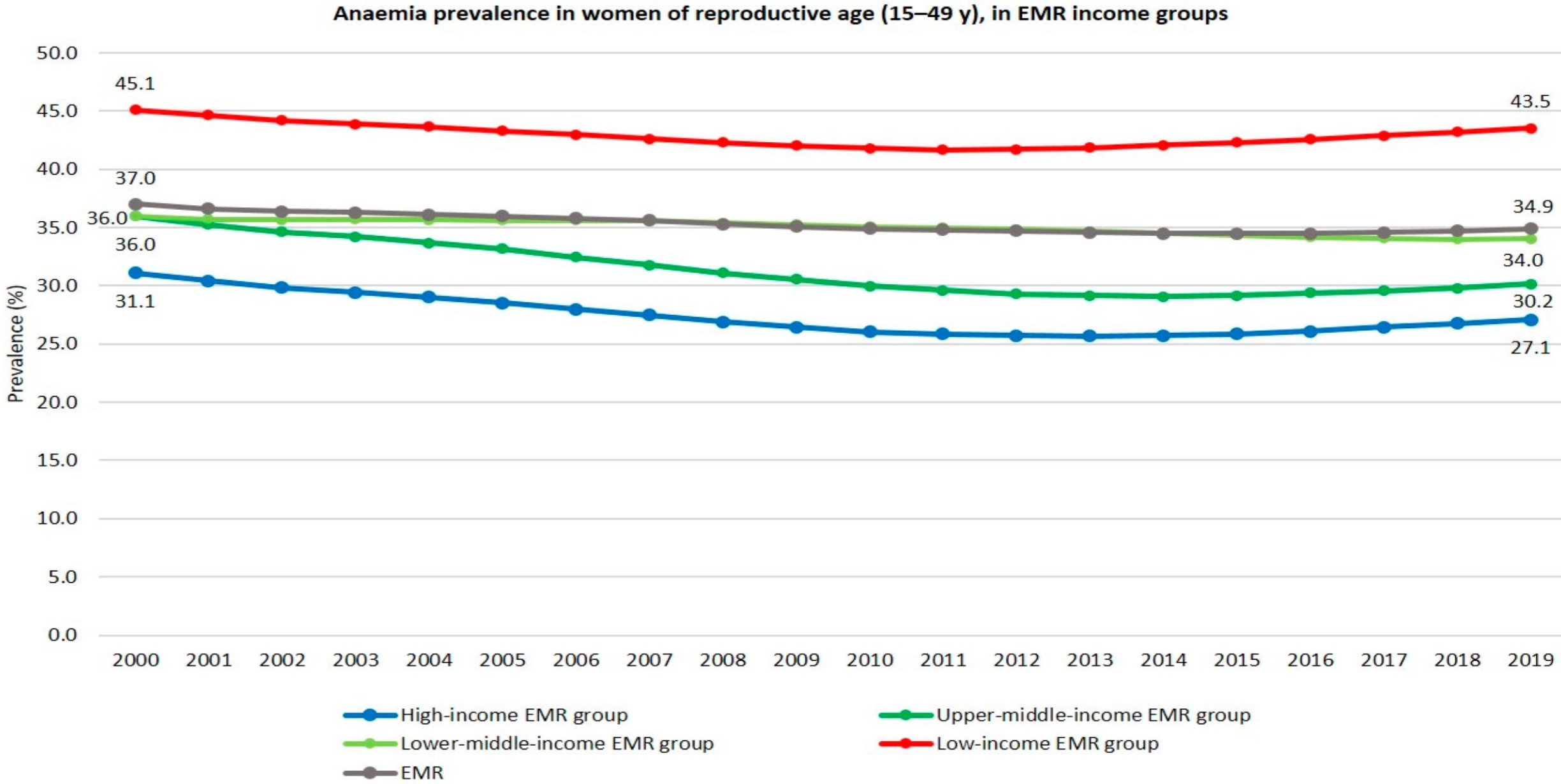




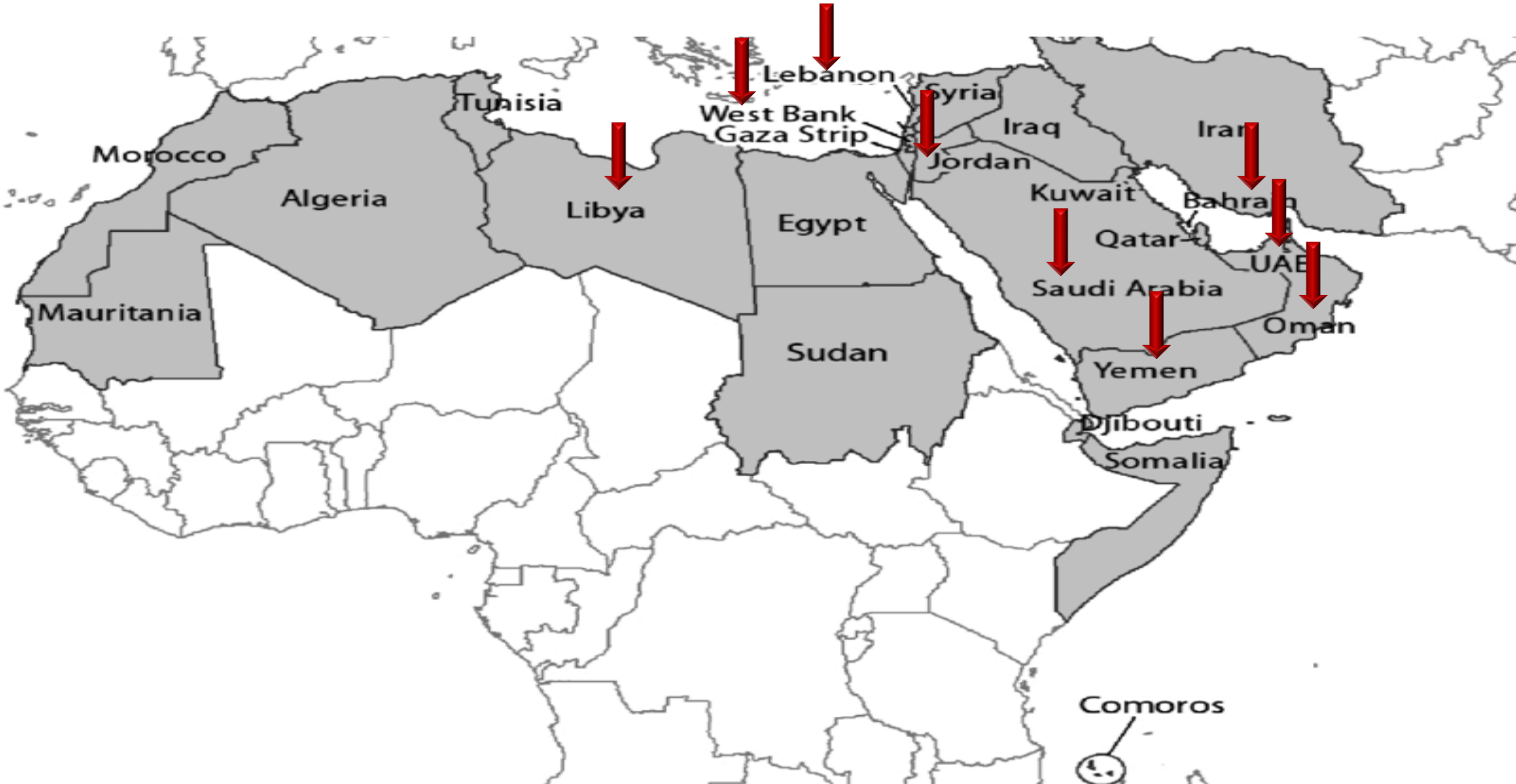




Prevalence of Anemia Among Arab Women of reproductive Age (15-49 y)



National Consumption Surveys in Arab Countries



Scientific Journal Submission

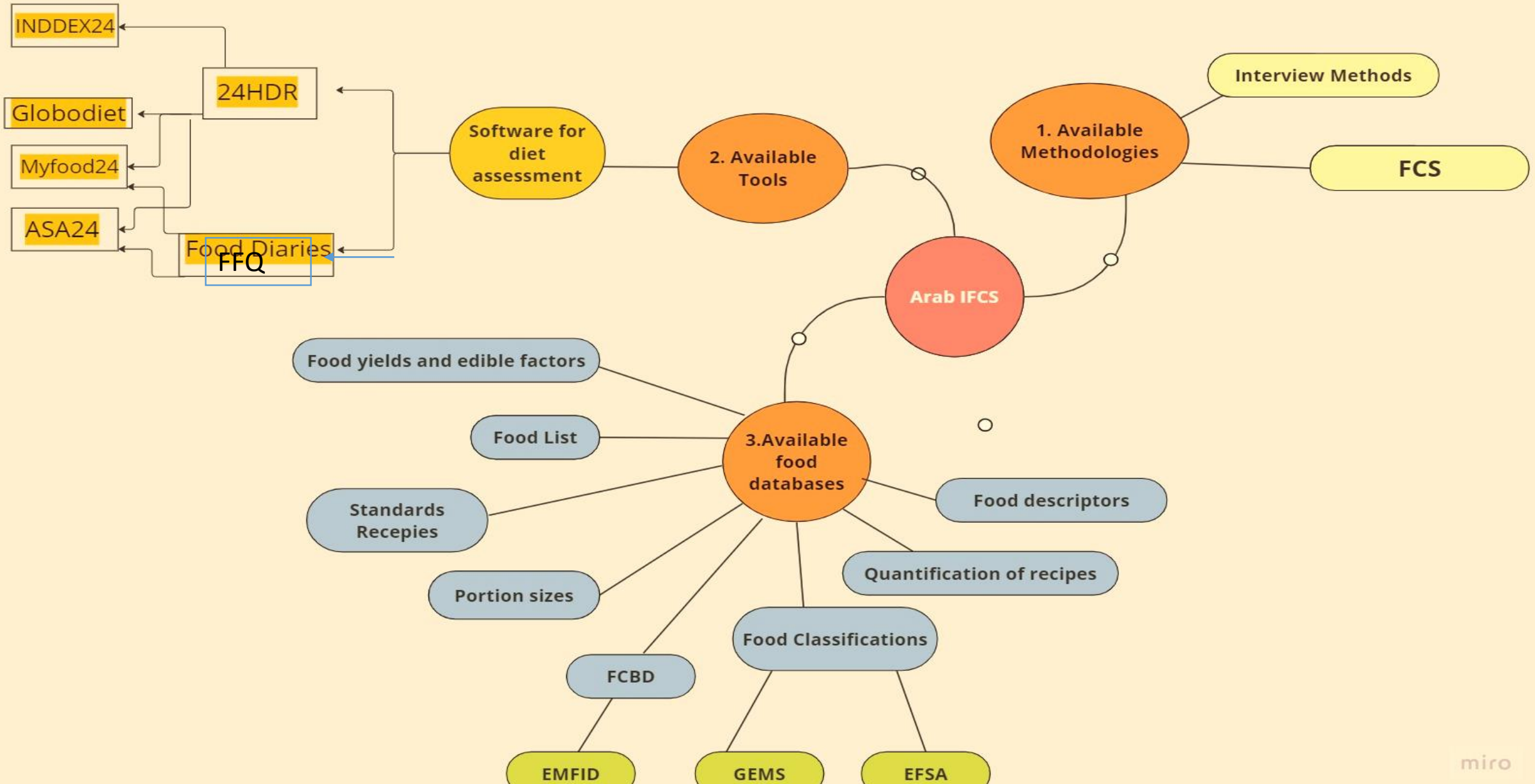
Bibliographic review for the planning of an Arabic food consumption survey to support risk assessment activities *(following the recommendations of EFSA EU Menu)*

By Dr Noura BRAHAM, *Senior Public Health Physician (Clinical Epidemiology Department Habib Thameur University Hospital, Tunis)*

In collaboration with Éliane Picard-Deland, MSc, Food Risk Analysis and Regulatory Excellence Platform (PARERA), INAF, Université Laval

In Submission

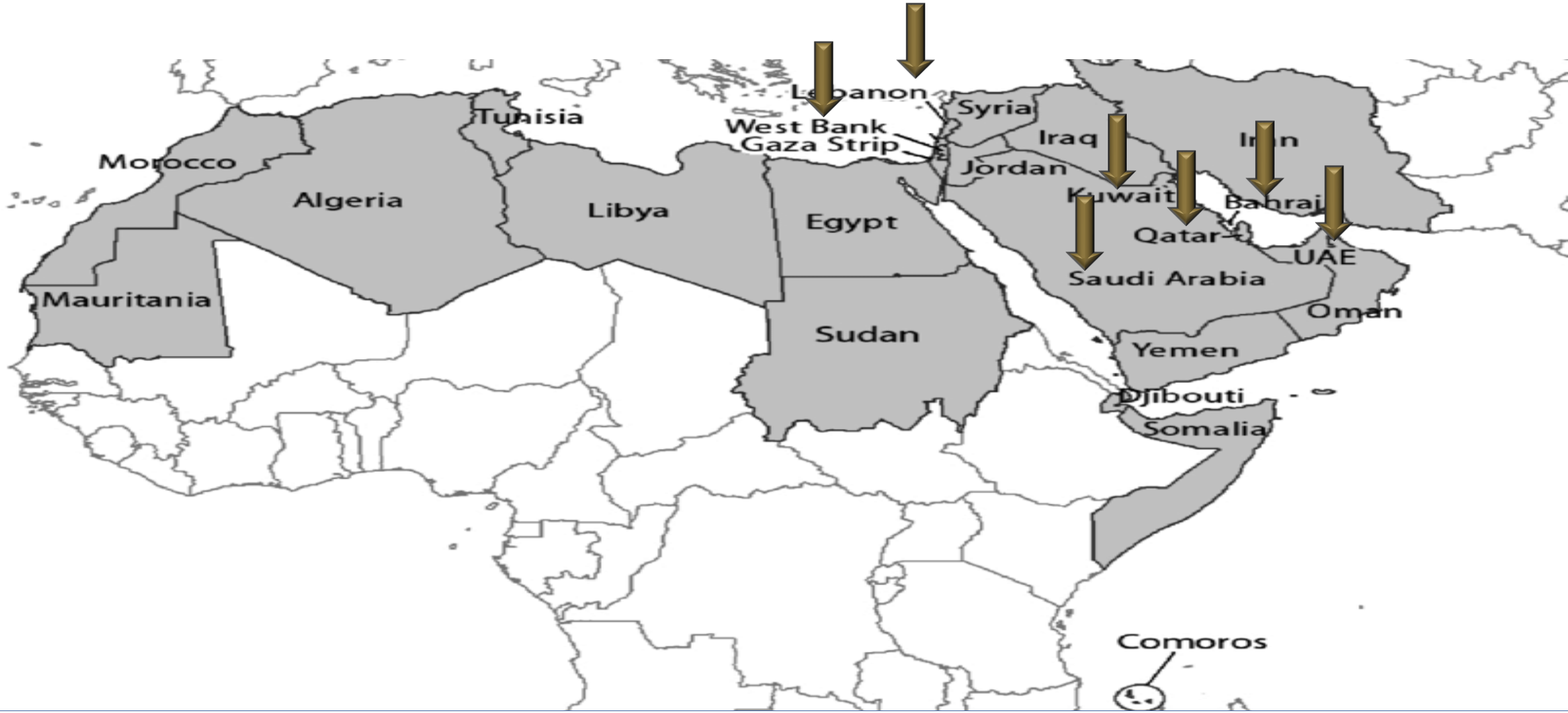
Availability of Methods and Tools At Arab level



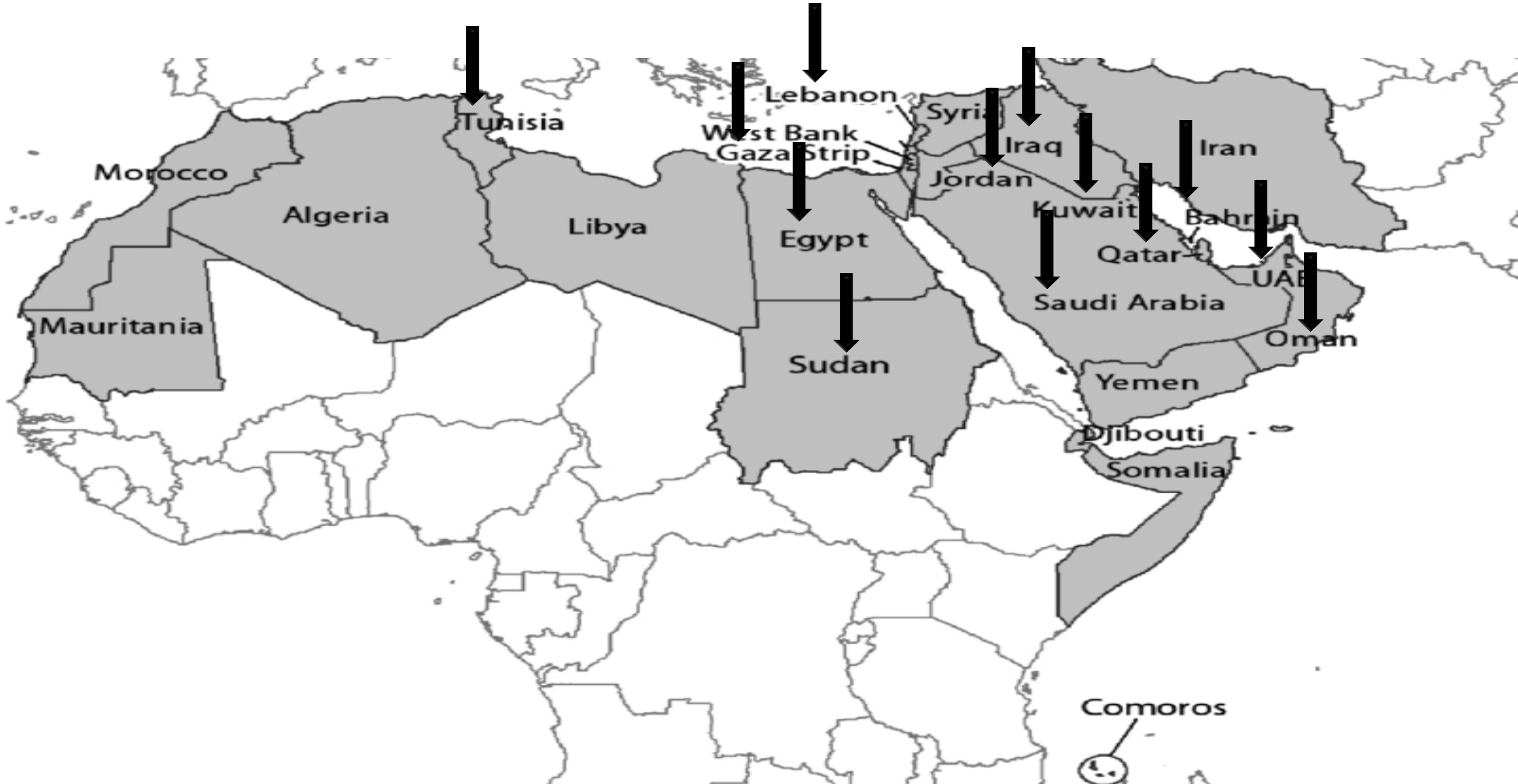
Validity

- Validity is the ability of an instrument to measure what it is intended to measure.
- Most dietary assessment methods → usual or customary food and/or supplement intake over a defined period of time.
- Because true usual diet is difficult if not impossible to measure → investigators assess relative or criterion validity.
- Relative validity compares a new measurement method with one or more established methods **believed to have a greater degree** of demonstrated or face validity
- The measurement error in the new instrument or method is examined and calibrated with the reference method. **This type of validity assessment will fail to detect systematic reporting error or bias if both the new and reference method have correlated error**.
- Alternatively, the new method or instrument can be validated against an independent, external criterion reference measurement, **such as a biomarker of intake**.

Valid FFQs in the Arab countries



Food Composition databases



Lebanon Food Composition Data

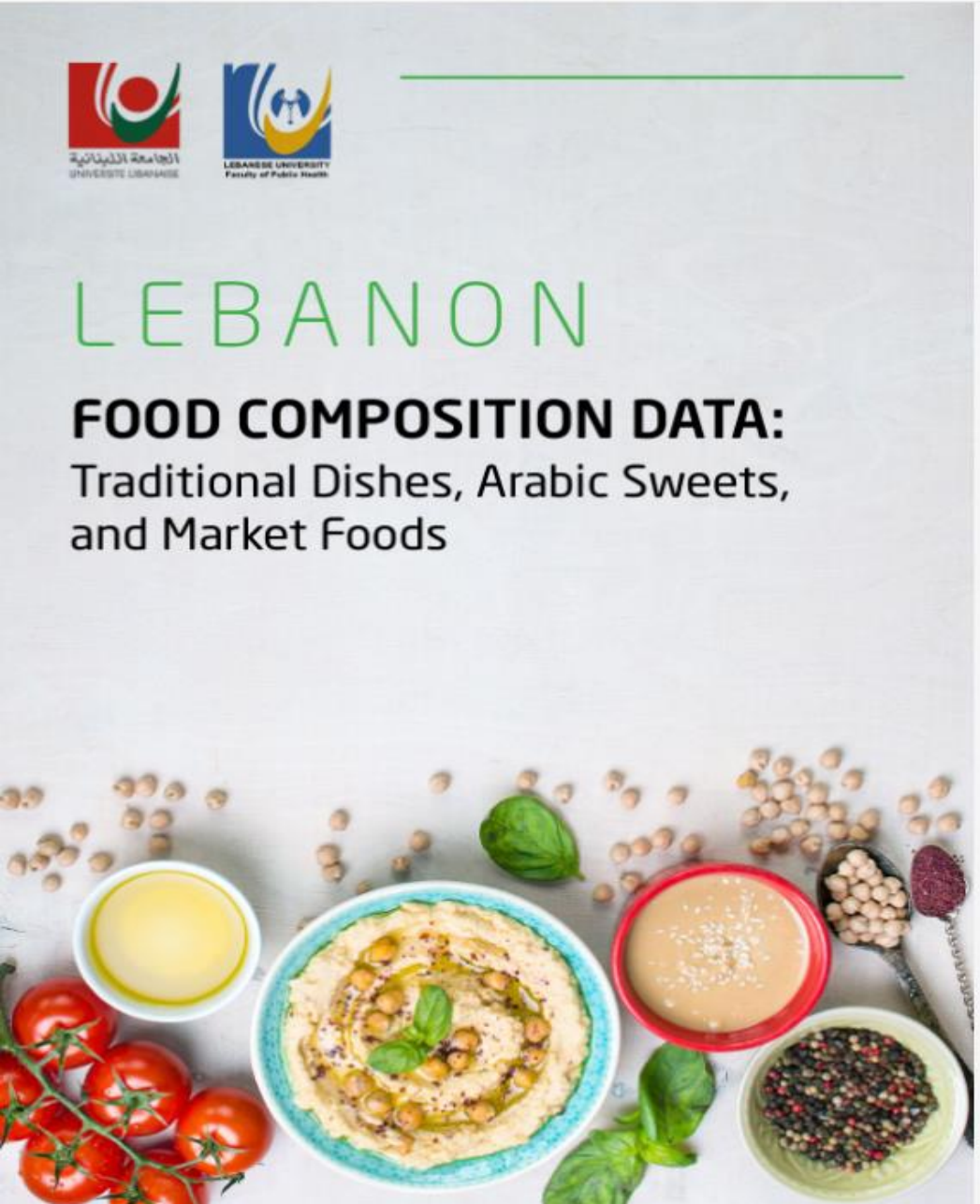


Table 1. Total sugar, salt, iron, total fatty acids, trans fat, fatty acids ratios in traditional dishes collected from Mount Lebanon and the percentages of their daily contribution in a 2000 Kcal-diet.

Dish	Amounts in 100 g of edible portions (per gram)								Percentage Daily Contributions in 2000 Kcal-Diet								Fatty acid Ratios			
	Tot S.	NaCl	Iron	Fat	SFA	MUFA	PUFA	TFA	Tot S.	NaCl	Iron	Fat	SFA	MUFA	PUFA	TFA	P:S	M:S	P:M	P:M:S
Baba ghanouj	2.8	0.7	0.6	4.3	0.7	3	0.5	Tr	1.9	14	3.3	5.5	3.5	6.9	2.3	Tr	0.7	4.2	0.1	0.7:4.2:1
Batata mahchi	2.5	1.1	1.1	1.5	0.4	0.5	0.4	0.02	1.7	22	6.3	1.9	2.4	1.1	2.2	0.8	0.9	1	0.9	0.9:1:1
Borgul bi banadoura	1.5	1.4	1.5	6	0.6	1.9	3.3	Tr	1	28	8.5	7.6	3.2	4.4	15.3	Tr	5.2	3	1.7	5.2:3:1
Chichbarak	2.3	0.7	2.8	2.9	0.8	0.9	1.1	0.01	1.5	14	15.7	3.7	4	2.2	5	0.2	1.3	1.2	1.1	1.3:1.2:1
Falafel	3.6	1.4	1.8	11	1.4	4.3	5.1	Tr	2.4	28	10.2	13.9	7.3	9.8	23.2	Tr	3.4	2.9	1.1	3.4:2.9:1
Fatayer sabanikh	1.6	0.9	5	1.7	0.1	0.5	0.9	Tr	1	18	27.7	2.1	0.8	1.2	4.3	Tr	5.4	3.1	1.7	5.4:3.1:1
Fattat Hommos	3	0.6	0.9	6	2.6	1.8	1.4	0.04	2	12	5.2	7.6	13.3	4.1	6.7	1.9	0.5	0.6	0.8	0.5:0.6:1
Fattoush	1.6	0.3	0.6	2.7	0.3	1.5	0.7	Tr	1	6	3.3	3.4	1.7	3.5	3.5	Tr	2.1	4.4	0.4	2.1:4.4:1
Foul moudamas	1	1	0.6	1.4	0.2	0.9	0.2	Tr	0.6	20	3.3	1.7	1.1	2.2	0.8	Tr	0.8	4.3	0.2	0.8:4.3:1
Hindbe bil zet	4.2	0.7	1.6	6.9	1	4.4	1.5	Tr	2.8	14	9	8.8	5.3	10.1	6.9	Tr	1.4	4.1	0.3	1.4:4.1:1
Hommos bi tahini	1.6	0.8	0.8	2.8	0.3	1	1.4	Tr	1.0	16	4.7	3.5	1.7	2.4	6.3	Tr	4	3	1.3	4:3:1
Kafta wa batata	1.1	1.2	4.1	9.1	2.9	3.9	1.9	0.19	0.7	24	22.9	11.6	14.7	9	8.9	8.6	0.6	1.3	0.5	0.6:1.3:1
Kebba bil sayniya	2.5	1.2	2	4	1	1.6	1.2	0.02	1.7	24	11.3	5.1	5.4	3.7	5.7	1.0	1.1	1.5	0.7	1.1:1.5:1
Koussa mahchi	0.4	1.2	1.3	3.8	1	1.4	1.3	0.03	0.2	24	7.3	4.8	5.2	3.2	6	1.2	1.2	1.3	0.9	1.2:1.3:1
Lahm bil ajin	1.5	0.5	1.9	2	0.7	0.9	0.3	0.01	1	10	11	2.5	3.5	2.1	1.5	0.2	0.4	1.3	0.3	0.4:1.3:1
Loubia bil zet	1.8	0.6	0.8	7.3	1	3.4	2.8	0.01	1.2	12	4.8	9.3	5	7.7	13	0.3	2.8	3.4	0.8	2.8:3.4:1
Malfouf mahchi	2.1	1.8	1	1.6	0.5	0.5	0.4	0.02	1.4	36	6	2	2.8	1.2	2.2	0.7	0.8	0.9	0.9	0.8:0.9:1
Moujadara	1.5	0.4	1.2	6	0.5	2	3.3	Tr	1	8	6.9	7.6	2.9	4.6	15.3	Tr	5.6	3.4	1.6	5.6:3.4:1
Moghrabia	1.2	0.4	0.9	2.1	0.9	0.7	0.4	0.01	0.8	8	5.2	2.6	4.6	1.6	1.9	0.4	0.4	0.7	0.5	0.4:0.7:1
Mousaka batinjan	2	0.6	1	4.9	0.5	1.7	2.6	Tr	1.3	12	5.7	6.2	2.5	3.9	12.1	Tr	5.3	3.4	1.5	5.3:3.4:1
Riz a dajaj	1.2	0.7	1	5.9	0.9	2.7	2.1	0.03	0.8	14	5.9	7.5	4.8	6.2	9.8	1.3	2.2	2.8	0.7	2.2:2.8:1
Riz bi lahma	1	0.4	1.3	7.4	1.1	3.7	2.5	0.03	0.6	8	7.3	9.4	5.8	8.4	11.3	1.3	2.1	3.1	0.6	2.1:3.1:1
Sayadia	0.4	0.8	1.3	2.9	0.3	1.2	1.3	Tr	0.2	16	7.3	3.7	1.8	2.8	5.8	Tr	3.6	3.4	1	3.6:3.4:1
Shawarma dajaj	2.2	1.4	1.6	3.6	0.5	1.2	1.8	Tr	1.5	28	9.2	4.6	2.5	2.9	8.2	Tr	3.5	2.5	1.4	3.5:2.5:1
Shawarma lahma	0.9	0.7	1.5	8.8	5.6	2.6	0.3	0.18	0.6	14	8.3	11.2	28.1	6	1.5	8.4	0	0.4	0.1	0:0.4:1
Tabboula	0.6	1.1	1	0.6	0	0.4	0	Tr	0.4	22	6	0.7	0.4	1	0.2	Tr	0.6	4.7	0.1	0.6:4.7:1
Warak enab	1.1	1.3	1.3	5.1	2.5	1.7	0.7	0.08	0.7	26	7.3	6.5	12.7	4	3.2	3.7	0.2	0.6	0.4	0.2:0.6:1
Yakhnat Bamia	1.4	1.1	1.5	2.9	0.3	1	1.5	Tr	0.9	22	8.6	3.7	1.7	2.2	7	Tr	4.3	2.8	1.5	4.3:2.8:1
Yakhnat Fassoulia	1	1	0.9	1.9	0.2	0.6	1	Tr	0.6	20	5.2	2.4	1.2	1.4	4.5	0.1	4.2	2.7	1.5	4.2:2.7:1
Yakhnat Mouloukhia	0.9	0.9	1	1.5	0.1	0.5	0.8	Tr	0.6	18	5.8	1.9	0.8	1.1	3.8	Tr	5.1	3	1.6	5.1:3:1

Quantification of Recipes

Portion size measurement aids :

- portion-size picture books,
- household measures (HHMs),
- standard portions
- known package sizes

Standard food-specific coefficients

Example :

- raw-to-cooked yield factors,
- edible part coefficients

Preparation of recipes including

home recipe

and ready-made recipe

Libyan Journal of Medicine 2016, 11: 32676 - http://dx.doi.org/10.3402/ljm.v11.32676

Table 15. Exchange list for commonly consumed traditional dishes.

Dish	Serving Exchanges per 100g	Serving size per measurement tool	Exchange per serving size	Amounts per Serving in gram and Kcal			
				CHO	Protein	Fat	Energy
Baba ghanouj	1 vegetable, 0.25 fat	100 g (6 Tbsp)	1 vegetable, 0.25 fat	4.5	1.1	1.8	39
Batata mahchi	1,25 starch, 1 fat	100 g (1 Large or 3 small)	1,25 starch, 1 fat	18	5	5.7	143
Borgul bi banadoura	1,5 starch, 0.5 fat	100 g (1/2 cup)	1,5 starch, 0.5 fat	20.8	3	5.6	146
Chichbarak	1 starch, 0.5 LM	100 g (1/2 cup)	1 starch, 0.5 WM	18.7	4.8	6.7	154
Falafel	2 starch, 2 MFM, 0.5 fat	40 g (2 patty balls)	1 starch, 1 MFM	14.6	5.3	6.2	135.6
Fatayer sabanikh	1.5 starch, 1 protein, 4 fat	55 g (1 triangle)	1 starch, 2 fat	14.9	2.9	11.0	171.0
Fattat Hommos	1 whole milk	100 g (1/2 cup)	1 WM	15.8	6.5	7.7	159
Fattoush	1 vegetable, 0.5 fat	200 g (1 cup)	2 vegetable, 1 fat	14.4	3	3.8	104
Foul moudamas	1 starch, 1 LM	100 g (1/2 cup)	1 starch, 1 LM	14.2	5.3	4.2	116
Hindbe bil zet	1 vegetable, 4,5 fat	50 g (1/4 cup)	0.5 vegetable, 2 fat	2.9	1.2	11.2	117.5
Hommos bi tahini	1 starch, 1 MFM	100 g (6 Tbsp)	1 starch, 1 MFM	17.2	7.5	5.2	146
Kafta wa batata	0.5 starch, 1 LM, 0.25 fat	200 g (1 cup)	1 starch, 2 LM, 0.25 fat	14	17.6	6.8	188
Kebba bil sayniya	1,25 starch, 1,5 HFM	76 g (half a square)	1 starch, 1 HFM, 0.5 fat	14.9	8.5	12.0	202.1
Koussa mahchi	1 starch, 1 vegetable, 0.5 fat	100 g (2 Medium)	1 starch, 1 vegetable, 0.5 fat	20.3	3.8	2.9	123
Lahm bil ajin	2,5 starch, 1 LM	40 g (2 medium piece)	1 starch, 0.5 LM	14.8	4.4	2.24	97.6
Loubia bil zet	1,5 vegetable, 0.5 fat	100 g (1/2 cup)	1.5 vegetable, 0.5 fat	7.2	2.1	2.8	62
Malfouf mahchi	1 vegetable, 0.5 starch	100 g (4 pieces)	1 vegetable, 0.5 starch	12.1	3.8	1.3	75
Moujadara	1 starch, 0.5 LM	100 g (1/2 cup)	1 starch, 0.5 LM	21.8	5.4	0.5	113
Moghrabia	1 starch, 1 LM	100 g (1/2 cup)	1 starch, 1 LM	15.6	6.7	3.9	124
Mousaka batinjan	1 starch, 2 fat	100 g (1/2 cup)	1 starch, 2 fat	14.8	3.2	10.3	165
Riz a dajaj	1 starch, 1LM, 1 fat	100 g (1/2 cup)	1 starch, 1 LM, 1 fat	18.8	7.2	7	167
Riz bi lahma	1 starch, 1 LM, 1 fat	65 g (1/3 cup)	1 starch, 0.5 LM	14.9	4.8	3.1	107.2
Sayadia	1, 25 starch, 1 MFM	100 g (1/2 cup)	1, 25 starch, 1 MFM	22.1	6.5	6.3	171
Shawarma dajaj	4,25 LM	54 g (4 Tbsp)	2 LM,0.25 fat	0.5	16.0	4.4	106.3
Shawarma lahma	2,25 MF, 0.25 fat	50 g (4 Tbsp)	1 MF, 0.25 fat	1.3	8.7	5.5	89.5
Tabboula	1 vegetable, 0.5 fat	200 g (1 cup)	2 vegetable, 1 fat	12.2	3.8	4.6	106
Warak enab	1 vegetable,1 starch	100 g (6 pieces)	1 vegetable,1 starch	17.7	4.4	1.5	102
Yakhnat Bamia	0.5 starch, 2 vegetable, 1 fat	100 g (1/2 cup)	0.5 starch, 2 vegetable, 1 fat	17	3.9	4.3	122
Yakhnat Fassoulia	1,5 starch, 1 LM	100 g (1/2 cup)	1,5 starch, 1 LM	22.6	8.1	1.9	140
Yakhnat Mouloukhia	2 vegetable, 0.5 LM, 1 fat	100 g (1/2 cup)	2 vegetable, 0.5 LM, 1 fat	11.9	5.4	4.8	112

F1000Res. 2021 Jan 11:10:12. doi: 10.12688/f1000research.27461.1. eCollection 2021.

Development of a Lebanese food exchange system based on frequently consumed Eastern Mediterranean traditional dishes and Arabic sweets

Maha Hoteit [1], Edwina Zoghbi [2], Alissar Rady [2], Iman Shankiti [2], Ayoub Al-Jawaldeh [3]

Affiliations + expand

PMID: 33708377 PMCID: PMC7931253 DOI: 10.12688/f1000research.27461.1

Free PMC article

Food quantities “as reported”

Identification & characterisation of food items

Food categories:

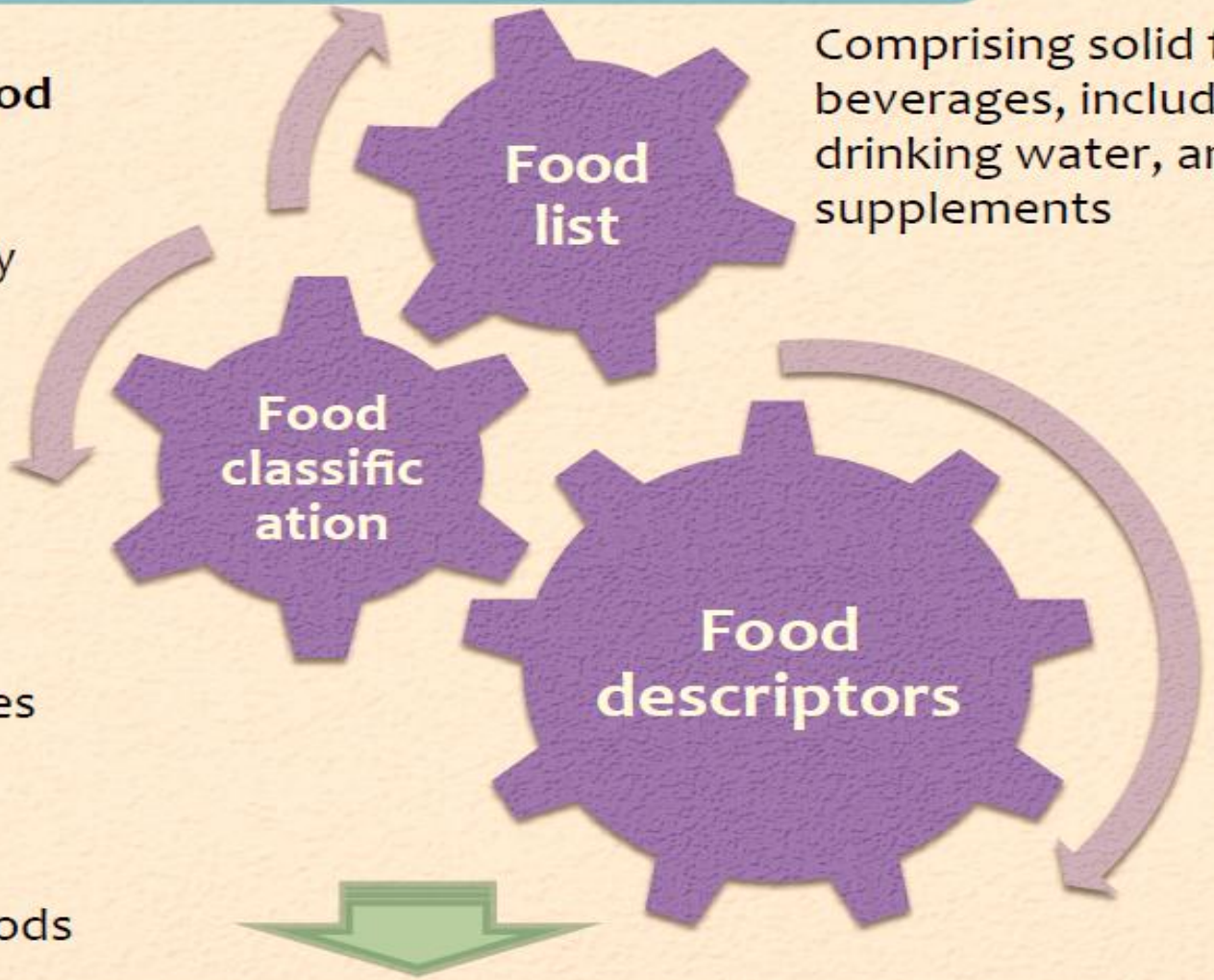
- F&V, Meat, Dairy products, etc

Food group:

- Raw primary comodity

- RPC derivatives

- Composite foods



Comprising solid foods, beverages, including drinking water, and food supplements

Additional information for a particular aspect of a food:

Examples:

- Source
- Part consumed
- Preparation method
- Source commodities
- Ingredient
- Process
- Packaging
- Brand

Food quantities “as finally consumed” .

Step 2: Implementation

Survey management | 5

- Objectives and Outcomes
- Survey organization: protocol, methods, tools, budget and statistics
- Calculation of sample size and target population
- Partnerships, communication plan ethical approval and training
- Preparation for field work

+

Implementation work | 4

- Equipment and documentation
- Data Collection per study sites
- Provision of transportation
- Data entry and backup

+

Recommendations | 6

- All major food groups should be represented
- representation of processed foods (including prepared meals)
- food list based on national food composition tables
- Foods that are fortified, or have the potential to be should be listed separately
- Micronutrient rich foods should be listed individually
- Adoption of a food classification system (GEMS, EFSA....)

+

Seasonality matters 💪 | 1

- quantities, food prices and dietary patterns

+

Lebanese Experience 2023-2024

Valid Lebanese FFQ
Food propensity questionnaire
24HDR

450 children ≤5 years
400 growing child (6-9 years): ongoing
470 adolescents (10-19 years)
460 adults (19-64 years)
600 elderly (≥65 years): ongoing
560 pregnant women (18-49 years)

	Code	White bread			
		Daily	Weekly	Monthly	g/d
1	X3	12	84	360	360
2	X1	1	7	30	30
3	x7	2	14.000	60.000	60
4	x8	0.714	5	21.429	21.42
5	X4	4	28	120	120
6	X10	4	8	120	120
7	X14	4	8	120	120
8	X11	2	14	60	60
9	X15	5	35	150	150
10	X13	0	0	0	0
11	X12	4	8	120	120
12	X9	2	14	60	60
13	x5	4	28.000	120.000	120
14	X2	6	42	180	180
15	x6	8	56.000	240.000	240
16	X16	16	112	480	480
17	x138	6	42	180	180
18	x145	4	28	120	120
19	X38	0	0	0	0
20	x152	2	14	60	60
21	x129	8	56	240	240
22	x158	8	56	240	240
23	x153	6	42	180	180
24	x156	1	7	30	30
25	x151	1	7	30	30
26	x155	2	14	60	60


рахмат
danke
謝謝
ngiyabonga
spas
teşekkür ederim
Баярлалаа
mersi
kia ora
barka
welalin
tack
mahalo
tapadh leat
спасибо
faafetai lava
vinaka
спасибі
blagodaram
dank je
misaotra
matondo
paldies
grazzi
kiitos
dankie
thank you
gracias
хвала
nanni
nandri
dhanyavad
asante
manana
bedankt
mauruuru
köszönöm
akun
dankon
aċiū
obrigada
tenki
enkosi
bayarlalaa
gràçie
hvala
djiere dieuf
tau
mochchakkeram
murakoze
dziękuję
дякую
mamnun
chokrane
chnorakaloutioun
gratias ago
gràcies
sulpáy
taiku
go raibh maith agat
sobodi
děkuji
obrigado
sagolun
sukriya
kop khun krap
arigatô
takk
dakujem
trugarez
mèsi
didi madloba
najis tuke
ありがとう
tanemirt
grazie
kam sah hamnida
rahmat
terima kasih
rahmet
diolch
dhanyavadagalu
shukriya
mercé
мерси
ευχαριστώ
شكرًا لك
তোমাকে ধন্যবাদ
감사합니다
xièxie
merci