

Strengthening Food-based Approaches To Reduce Iron Deficiency: The FAO/WHO Global Individual Food consumption data Tool (FAO/WHO GIFT)

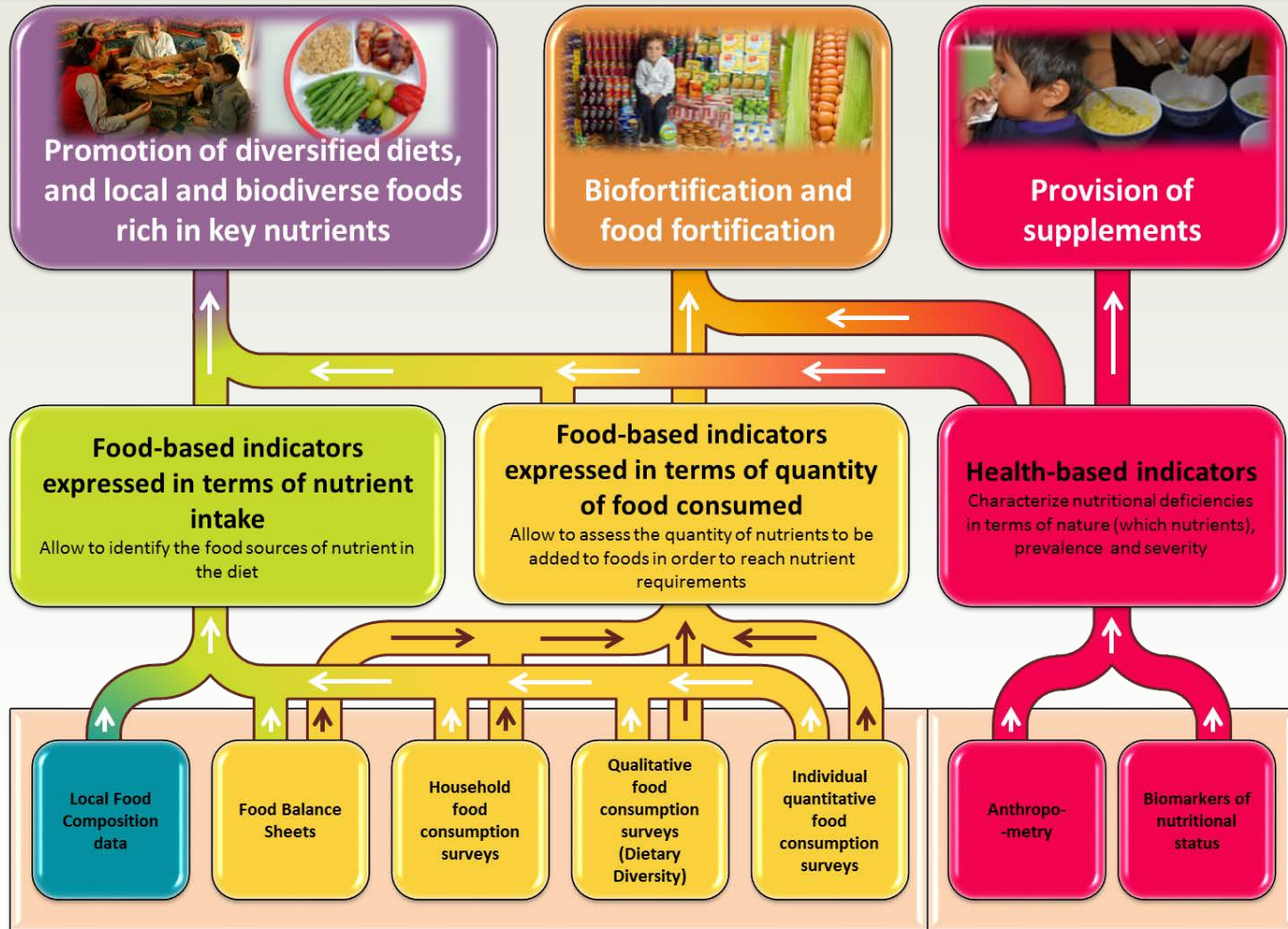
CATHERINE LECLERCQ AND VICTORIA PADULA DE QUADROS

DECEMBER 5TH, 2017

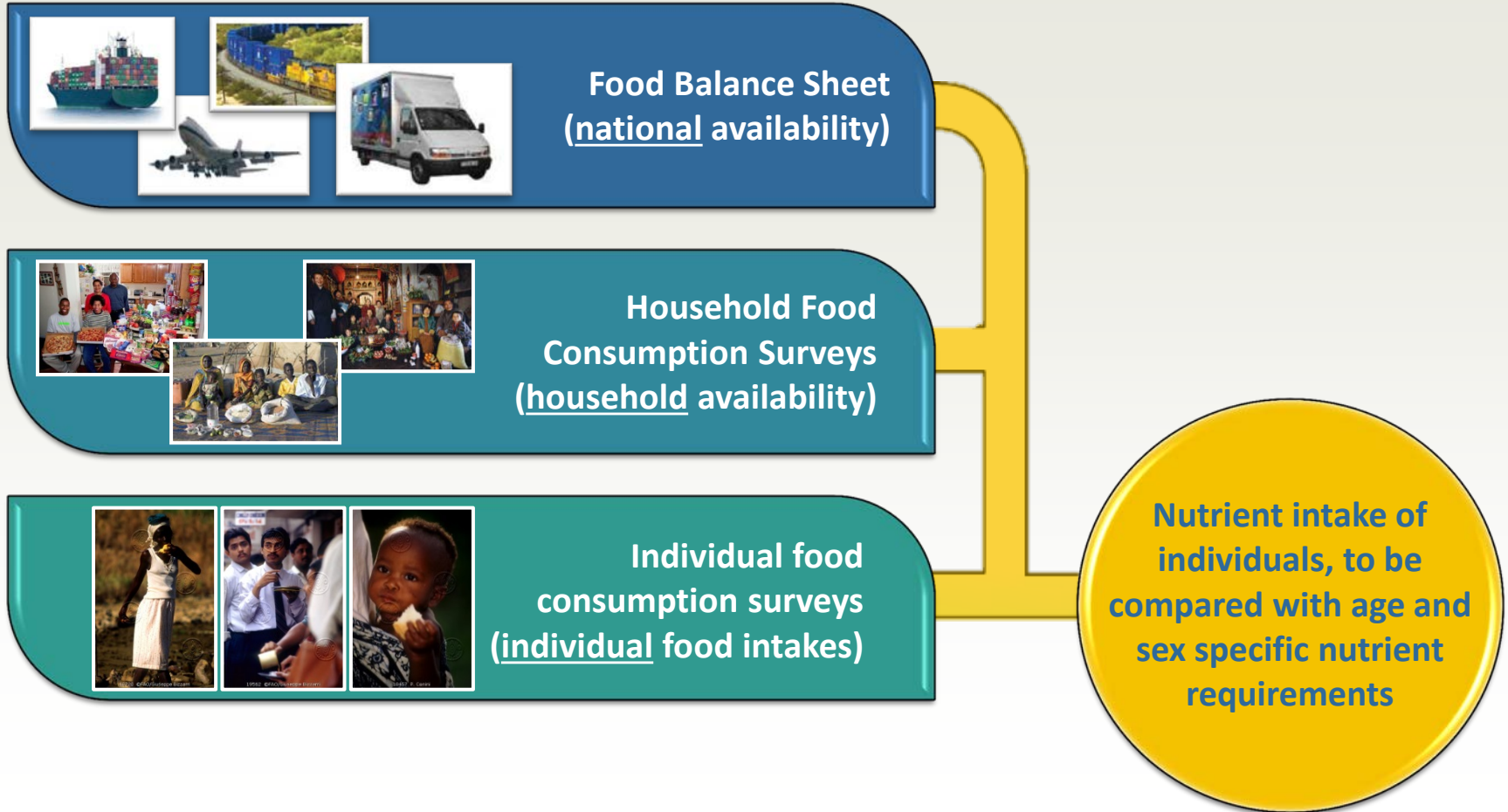


Food and Agriculture Organization of the United Nations

The theory of change: providing the data that are needed to implement food-based approaches to combat iron deficiency



Data that can be used to assess the nutritional adequacy of the diet



Dietary assessment methods allowing a multipurpose use of quantitative data on food intakes



Quantitative Dietary record

Qualitative Food Frequency Questionnaire

Quantitative 24-hours recall

Semi-quantitative Food Frequency Questionnaire



Qualitative 24-hours recall

Qualitative 24-hours recall through food list questionnaire



Dietary assessment methods allowing a multipurpose use of quantitative data on food intakes



Quantitative
Dietary record

~~Quantitative Food
Frequency
Questionnaire~~

Quantitative
24-hours recall

~~Semi-quantitative
Food Frequency
Questionnaire~~



~~Quantitative
24-hours recall~~

~~Qualitative 24-hours
recall through food
list questionnaire~~



FAO/WHO GIFT Dissemination platform



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English

FAO/WHO GIFT | Global Individual Food consumption data Tool



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Welcome to the FAO/WHO GIFT dissemination platform!

This platform aims at supporting policy makers, program planners, NGO staff and many other stakeholders in taking informed decisions at country, regional and global level in the area of nutrition and food safety. FAO/WHO GIFT makes publicly available existing quantitative individual food consumption data from all countries around the world, collected through both large nationwide surveys and small scale surveys. The platform provides food-based indicators in the field of nutrition and food safety as well as microdata.



FAO/WHO GIFT Dissemination platform – www.fao.org/gift-individual-food-consumption/en/

Contact: fao-who-gift@fao.org

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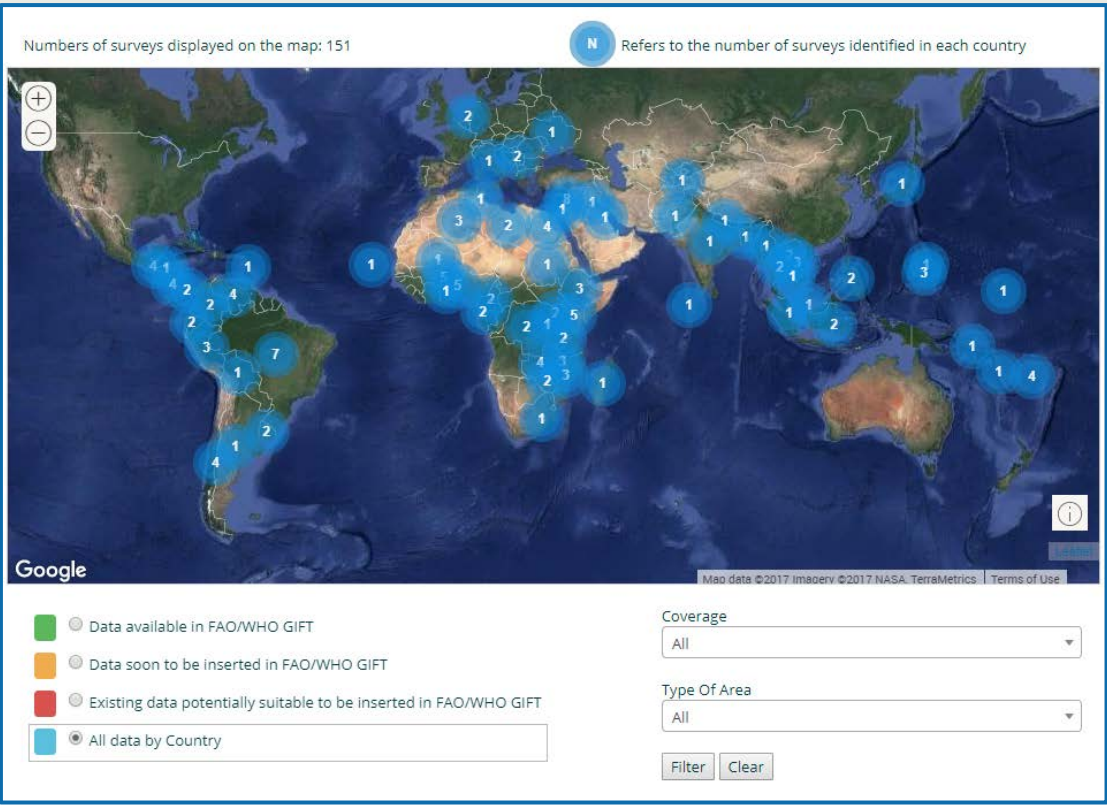


The platform provides an inventory of existing quantitative individual food consumption datasets worldwide

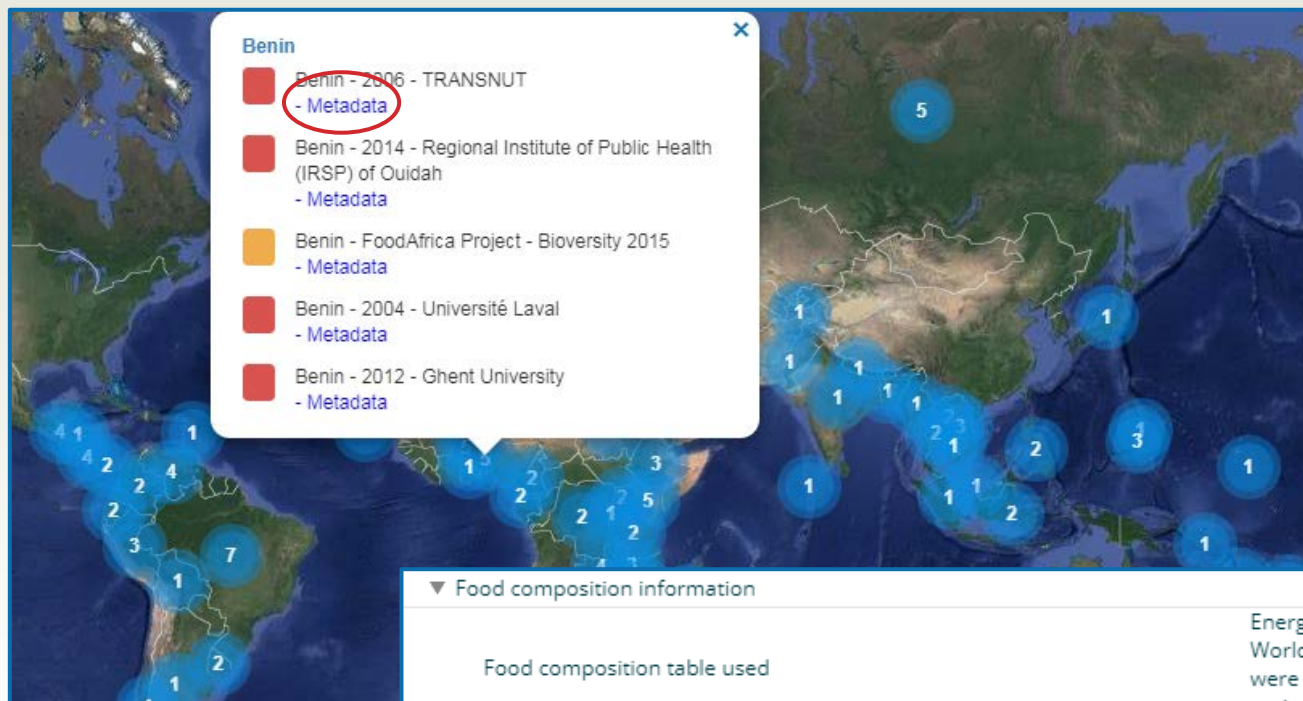
FAO/WHO GIFT | Global Individual Food consumption data Tool English

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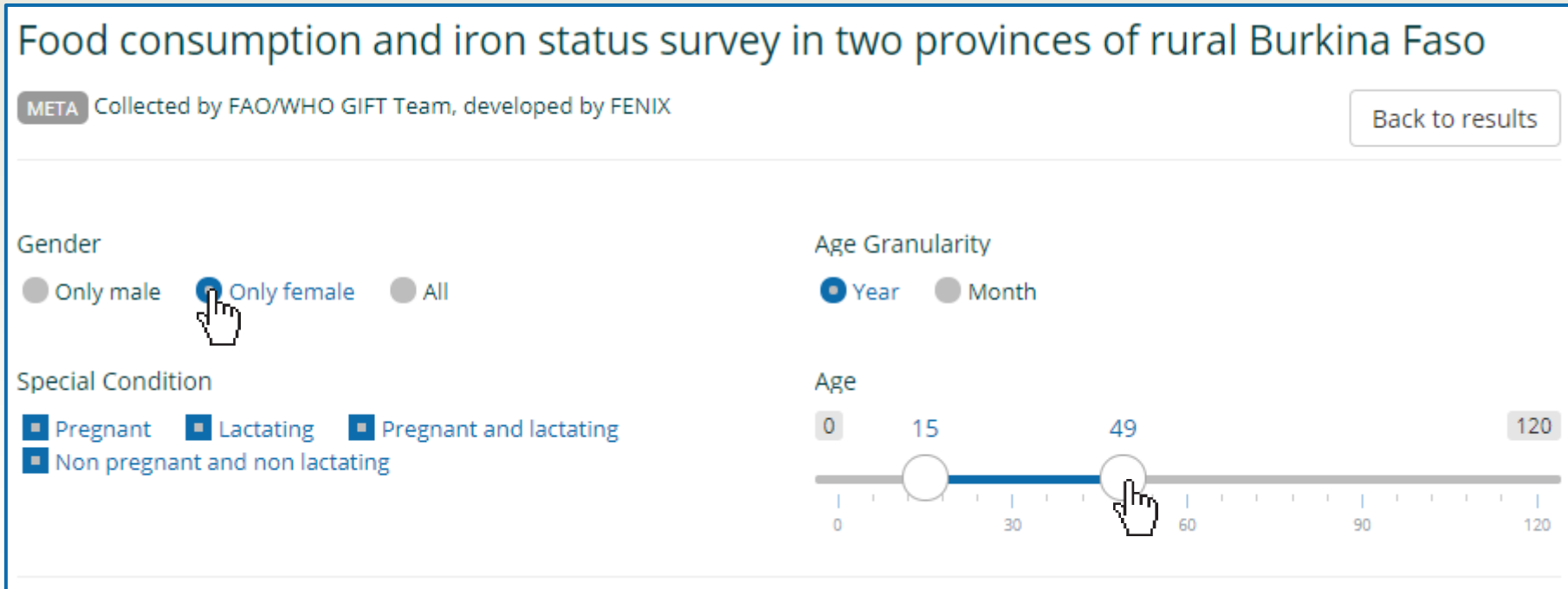


Each survey contains a metadata that indicates if the information on iron intake was collected

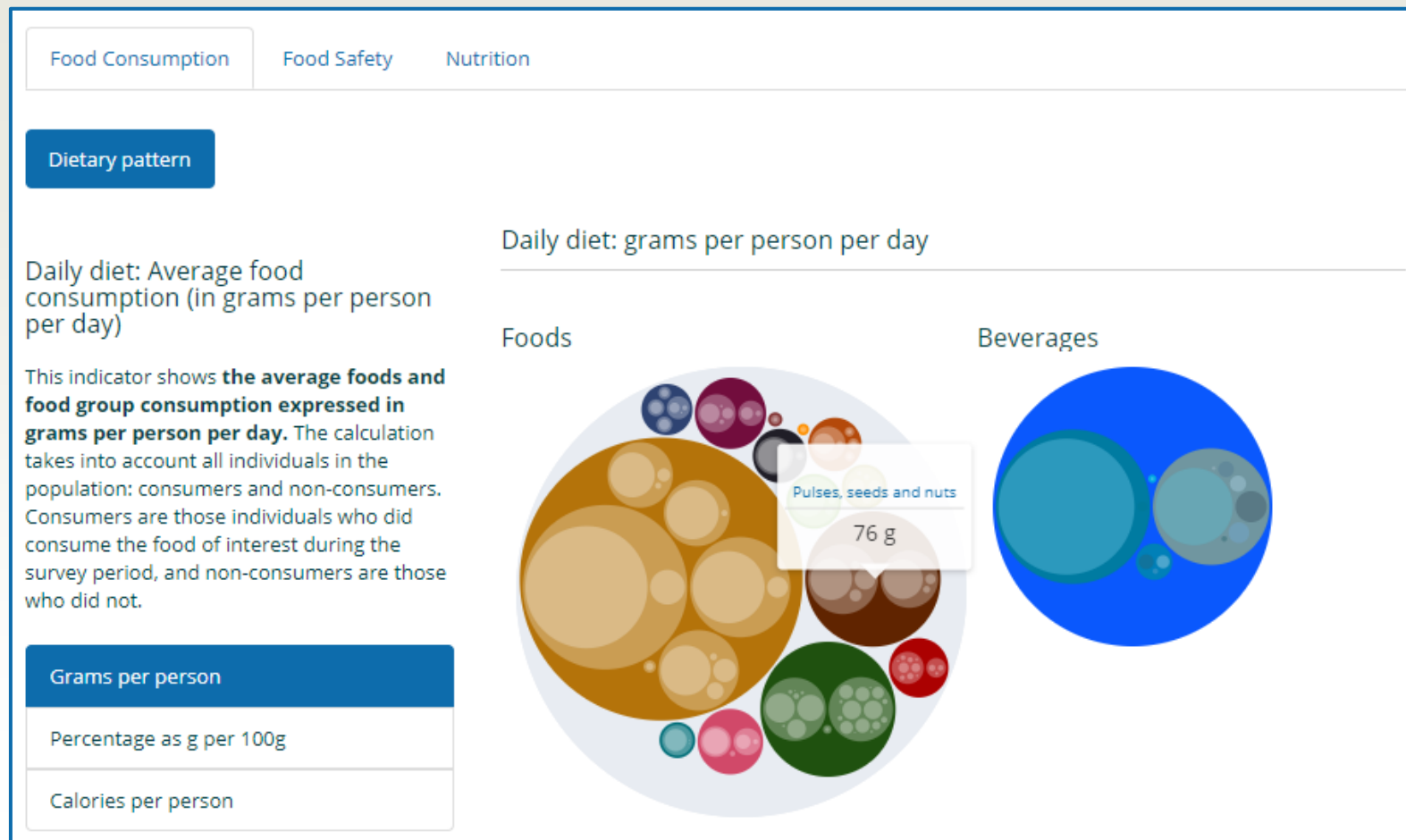


▼ Food composition information	
Food composition table used	Energy and nutrient intakes were computed with WorldFood Dietary Assessment System and additional data were derived from other food composition tables of the region, in particular from Mali and Nigeria.
Macronutrients and dietary components available in the dataset	Total energy, Total protein, Total fat, Dietary fiber
Macronutrients and dietary components available in the dataset - details	
Micronutrients available in the dataset	Calcium, Iron, Zinc, Vitamin A, Vitamin C, Vitamin B6 (Pyridoxine), Vitamin B12 (Cobalamin), Vitamin B1 (Thiamin), Vitamin B2 (Riboflavin), Vitamin B3 (Niacin), Vitamin B9 (Folate)

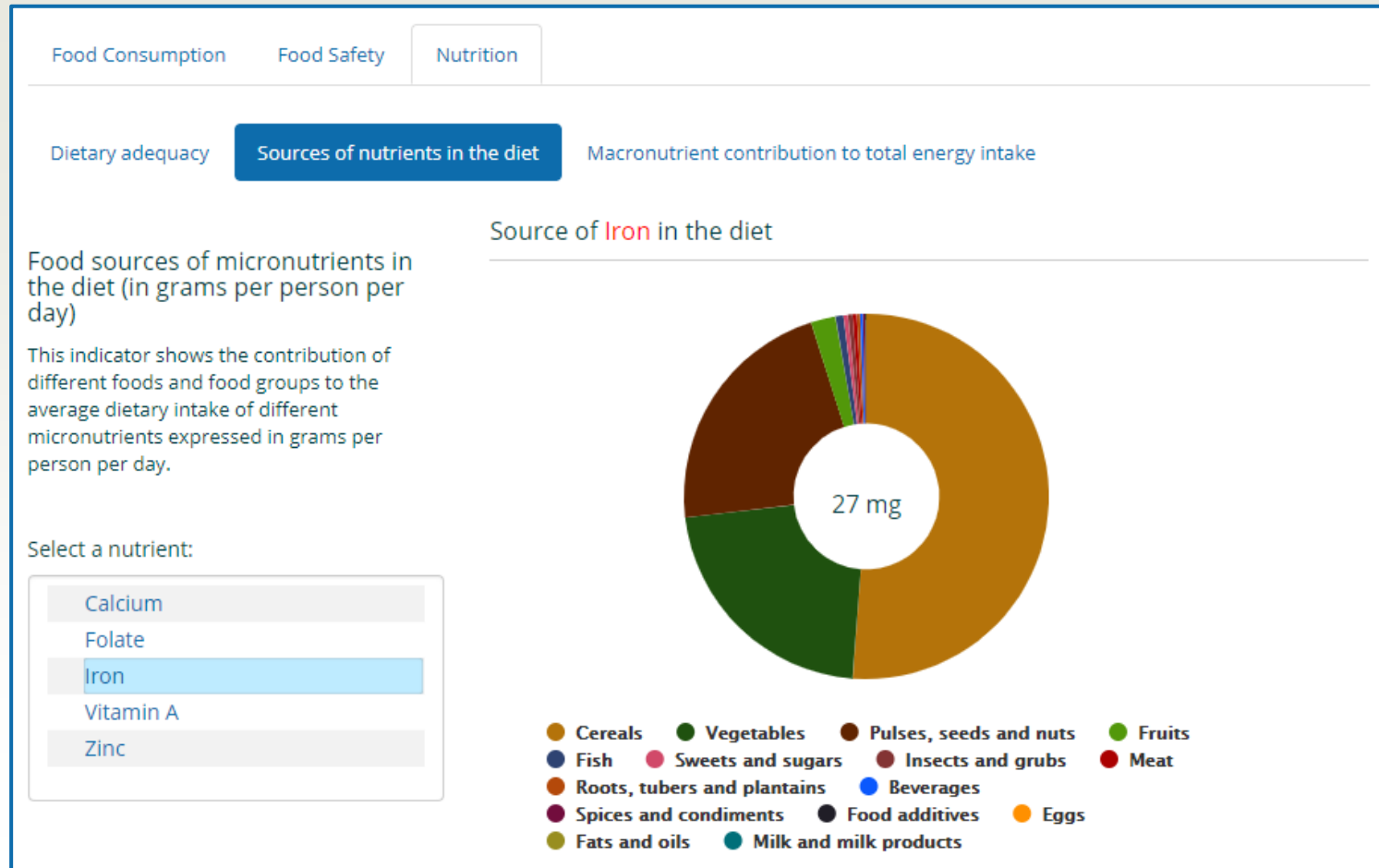
The end user can select the population group that is at risk of iron deficiency



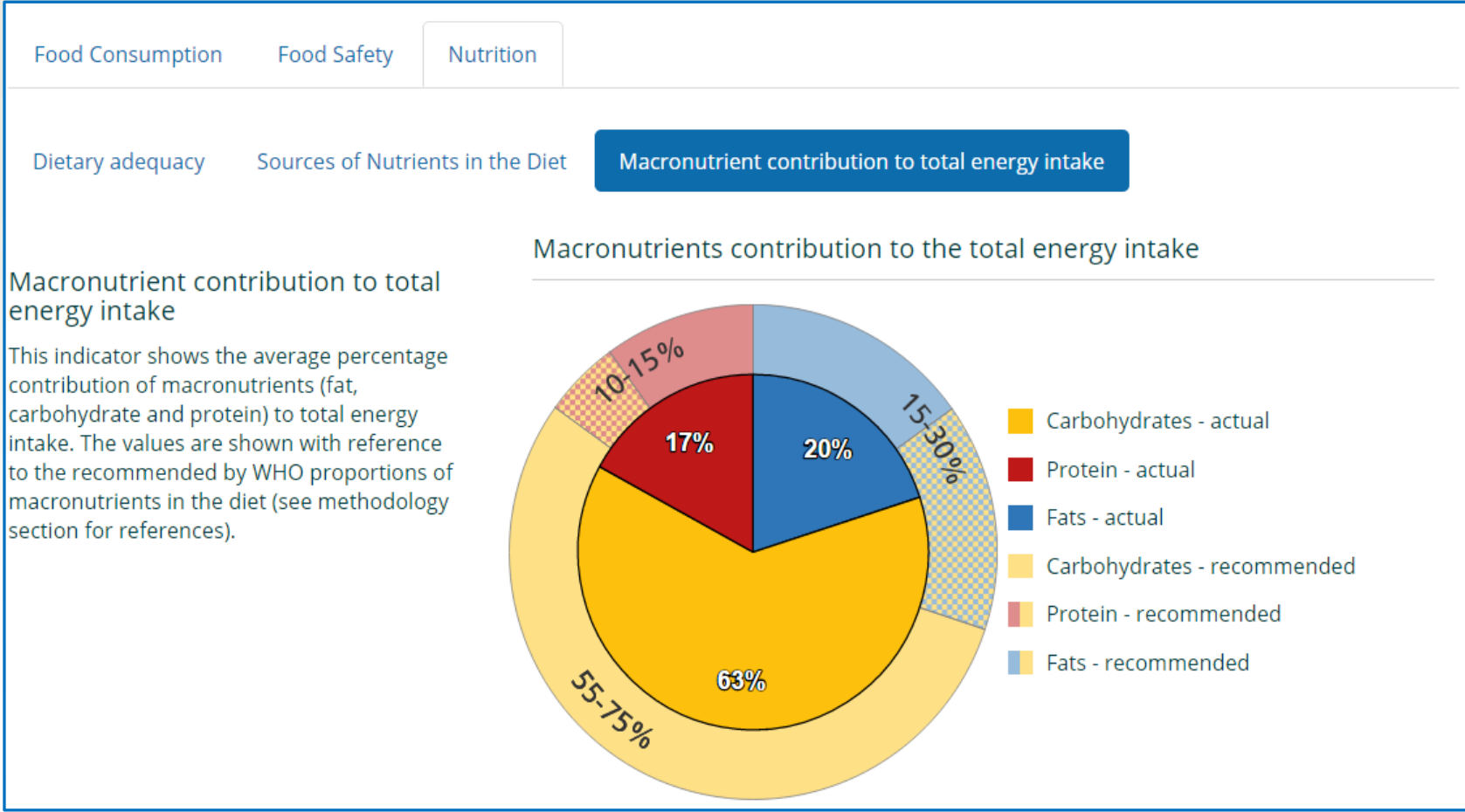
Food consumption patterns are described through average food consumption



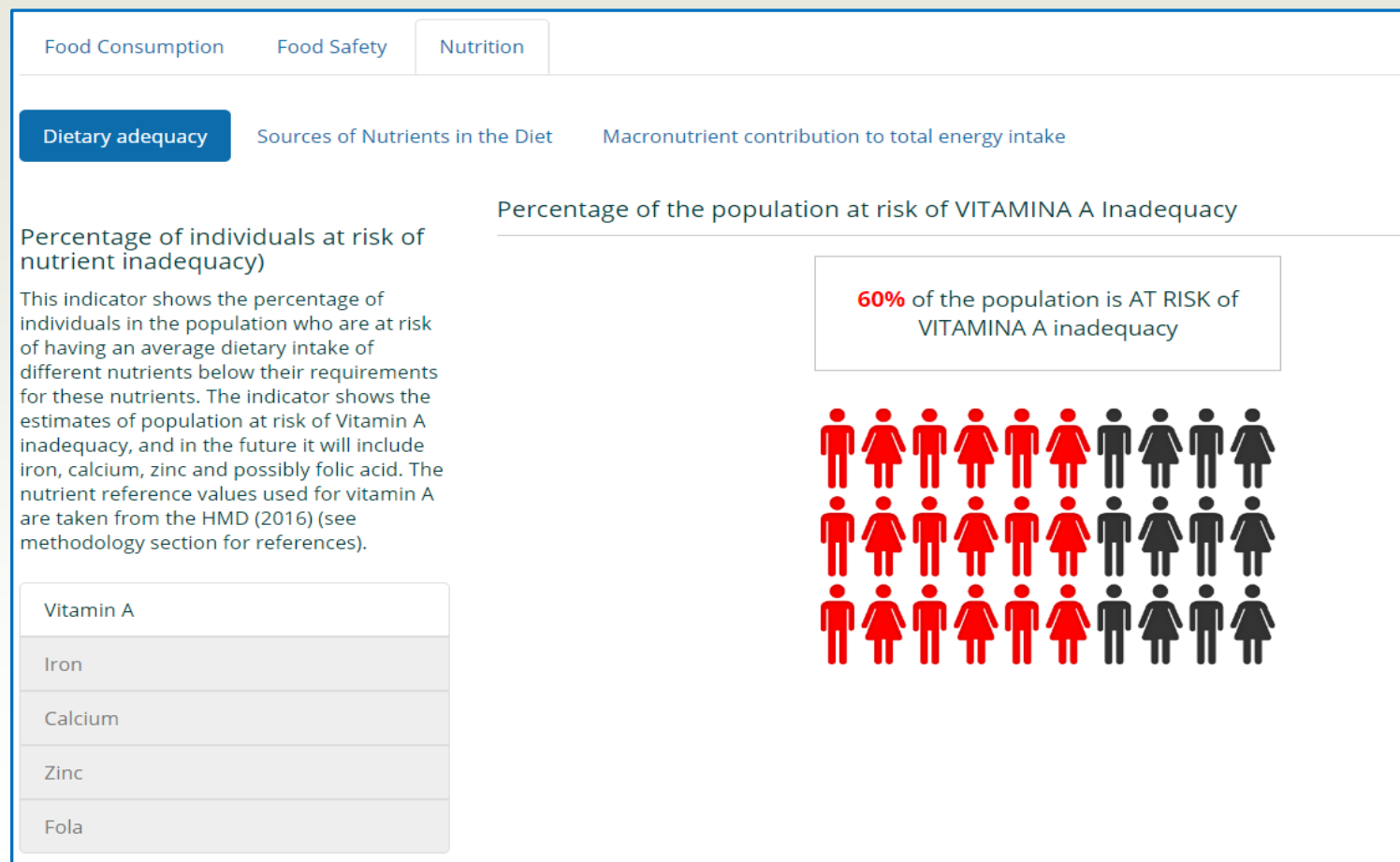
The main sources of iron and other key micronutrients are identified



The overall adequacy of the diet is assessed through macronutrient contribution to total energy intake



The proportion of the population at risk of micronutrient deficiency is estimated



High consumption of specific foods allows the assessment of dietary exposure to food chemicals

Daily portion

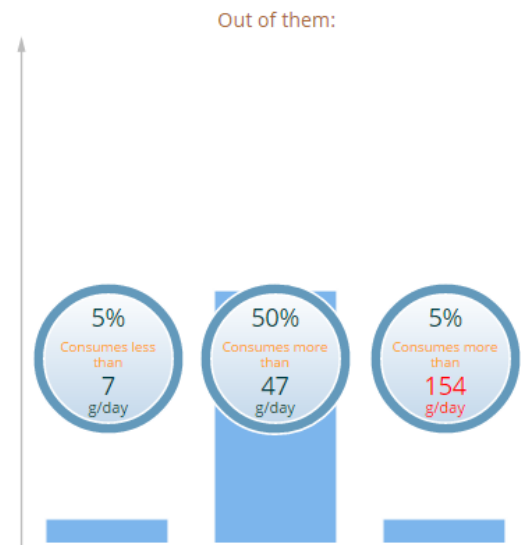
Acute food consumption:
Percentage of consumers and daily portions size among consumers on consumption days (in grams per person per day)

This indicator shows the percentage of individuals in the population who consumed the food or food group of interest during the survey period (consumers), and the average daily foods and food group consumption expressed in grams per person per day among these individuals calculated based on the consumption days only. Consumption days are those days on which the food of interest was consumed.

Select a food:

- > Cereals
- > Roots, tubers and plantains
- > Pulses, seeds and nuts
 - > Nuts and seeds and products based on them
 - Pine nut kernels and

Daily portion on days of consumption: NUTS AND SEEDS AND PRODUCTS BASED ON THEM

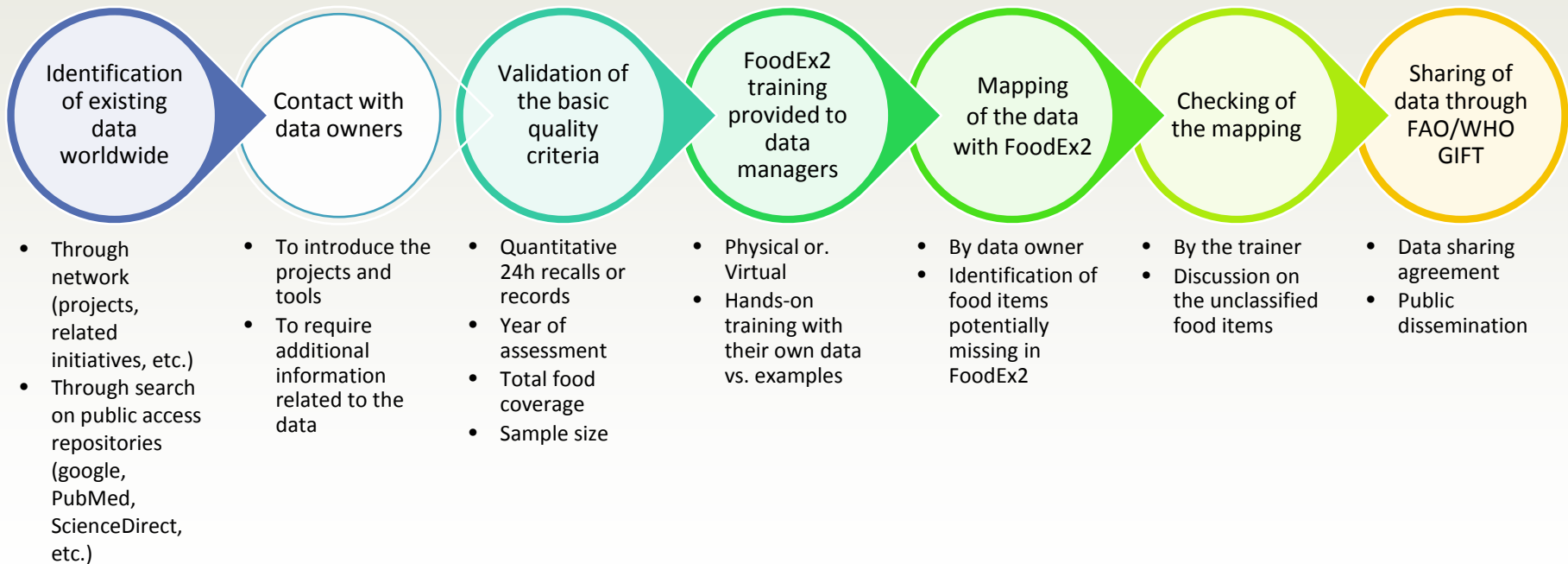


Microdata and metadata describing the datasets can be downloaded by the end user

Results				
Title	Sample Size	Region	Year	
HarvestPlus Reaching End Users (REU) Orange-Fleshed Sweet Potato (OFSP) Project	452	Uganda	2007	Download Metadata
HarvestPlus Bangladesh Bio-fortified Rice Project - Baseline Dietary Survey	475	Bangladesh	2007	Download Metadata
Philippines - 2003 - FNRI/HarvestPlus	1205	Philippines	2003	Download Metadata
Food consumption and iron status survey in two provinces of rural Burkina Faso	960	Burkina Faso	2010	Download Metadata

Showing 1 to 4 of 4 rows

Harmonisation of individual food consumption data at global level



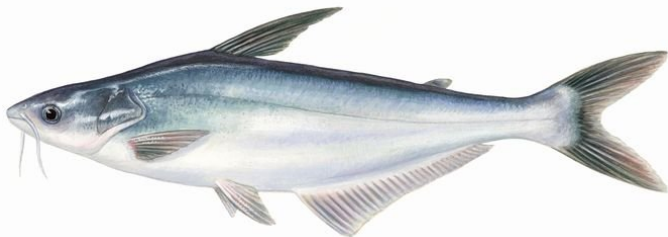
What is FoodEx2?

FoodEx2 is a comprehensive system allowing classification and description of foods at the same time

developed by the European Food Safety Authority (EFSA)

- ◆ The same food item can be referred to in different ways
- ◆ FoodEx2 is a concrete proposal for a common language across databases worldwide

UK: “16-382 – Pangasius”



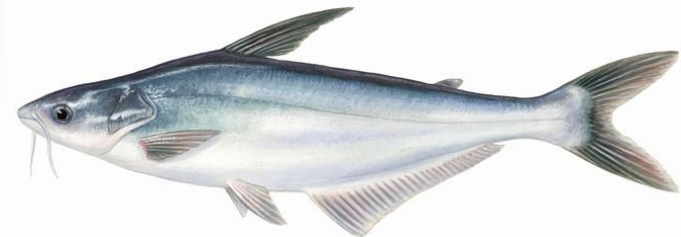
FoodEx2:

=

A0F8N

(Pangas catfishes)

ASEAN: “AAG217 -
Striped catfish”



Food description with FoodEx2

- ◆ FoodEx2 allows us to precisely describe the food as consumed through facets

UK: “16-382 – Pangasius”



ASEAN: “AAG217 - Striped catfish”



FoodEx2:

=

A0F8N
(Pangas catfishes)

BUT

≠

A0F8N#F20.A07QV

Pangas catfishes, PART=With skin

A0F8N#F20.A07QR

Pangas catfishes, PART=Without skin

Upgrade of FoodEx2 at global level

- ◆ Initiated in 2014 in collaboration between EFSA, FAO and WHO
- ◆ Addition of food items not consumed in Europe

Insects	Flowers
Ants (Uganda)	Banana flower (Bangladesh)
Termites (Uganda)	Kapok flower (Burkina Faso)
Mayflies (Burkina Faso)	Roselle flower (Burkina Faso)

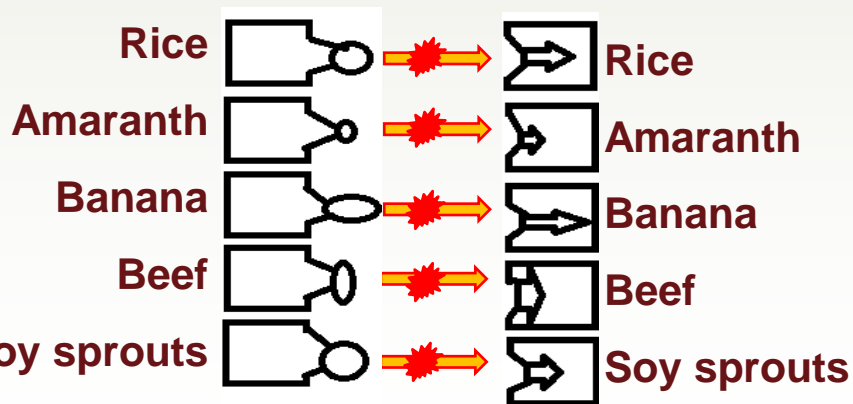


Matching with food composition data

When different coding systems are used food matching has to be done manually:

Food consumption data:

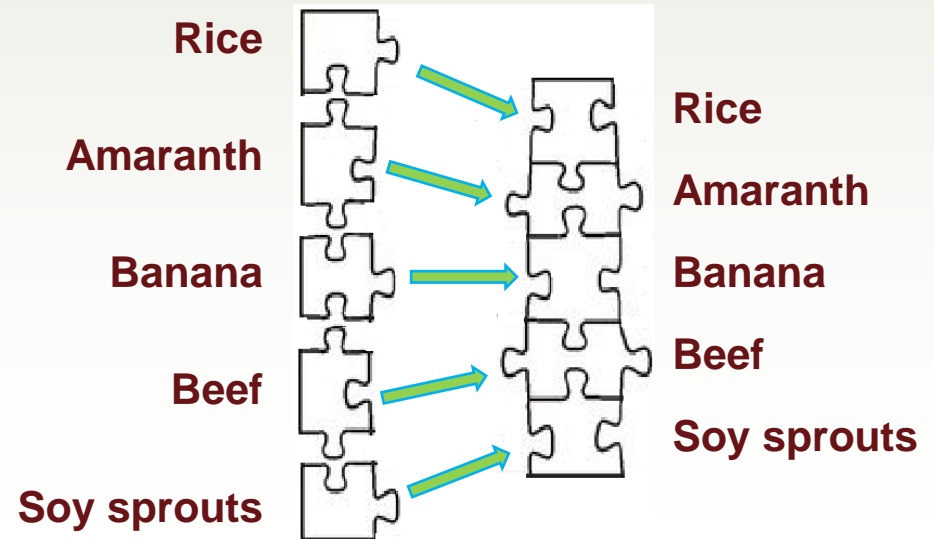
Food composition data:



When one coding system is used, large part of the matching can be automatized:

Food consumption data:

Food composition data:



FoodEx2 Browser

EFSA Catalogues Browser 1.0.0

File View Tools About DCF log in

8.12 FoodEx2 Matrix

Search

Search current Search dictionary

- Banana flavour [A06KL]
- Banana flowers [A0DEM]
- Banana flowers - acuminata cultivars [A0DEL]
- Banana flowers - balbisiana cultivars [A0DEK]
- Banana flowers - paradisiaca cultivars [A0DEJ]
- Banana passionfruits [A0DRA]
- Bananas and similar- [A04JS]
- Candied fruit, bananas [A01PV]
- Common banana [A01LC]
- Common banana - acuminata cultivars [A0DQM]
- Common banana - paradisiaca cultivars [A0DQK]
- Dried bananas [A01MJ]
- Dwarf bananas [A01LD][DISMISSED]
- Juice, mandarin-banana [A03AX]
- Nectar, banana [A03BE]
- Plantains [A01LE]
- Plantains - acuminata cultivars [A0DQJ]
- Plantains - paradisiaca cultivars [A0DQG]
- Soft drink, banana flavour [A03FB]

Choose: Hierarchies Facets View options: Hide deprecated terms Hide not in use terms Hide terms codes

- Grains and grain-based products [A000]
- Vegetables and vegetable products [A00FJ]
- Starchy roots or tubers and products thereof, sugar plants [A00ZR]
- Legumes, nuts, oilseeds and spices [A011X]
- Fruit and fruit products [A01BS]
 - Fruit used as fruit [A04RK]
 - Citrus fruits [A01BT]
 - Pome fruits [A01DG]
 - Stone fruits [A01GE]
 - Berries and small fruits [A01DT]
 - Miscellaneous fruits (generic) [A01HD]
 - Miscellaneous fruits with edible peel [A01HE]
 - Miscellaneous fruits with inedible peel, small [A01JS]
 - Miscellaneous fruits with inedible peel, large [A01LA]
 - Avocados and similar- [A0DQP]
 - Bananas and similar- [A04JS]
 - Common banana [A01LC]
 - Dwarf bananas [A01LD][DISMISSED]
 - Plantains [A01LE]
 - Mangoes and similar- [A0DQF]
 - Papayas and similar- [A0DQE]
 - Granate apples and similar- [A0DQC]
 - Cherimoyas and similar- [A04JT]
 - Guavas and similar- [A01LN]
 - Pineapples and similar- [A0DPV]
 - Breadfruits and similar- [A04JV]
 - Durians and similar- [A0DPR]
 - Soursops and similar- [A0DPQ]
 - Other Miscellaneous fruits with inedible peel, large [A01LV]
 - Processed fruit products [A01ML]
- Meat and meat products [A01QR]
- Fish, seafood, amphibians, reptiles and invertebrates [A026T]
- Milk and dairy products [A02LR]
- Eggs and egg products [A031E]
- Sugar and similar, confectionery and water-based sweet desserts [A032F]
- Animal and vegetable fats and oils and primary derivatives thereof [A036M]
- Fruit and vegetable juices and nectars (including concentrates) [A039K]

Term naming and definition

Type of term Level of detail

Term code

Term extended name

Displayed as:

Scope notes and links

The group includes any type of common bananas or dessert bananas, which are high in sugar and usually eaten without cooking, as fruit. They include all the dessert cultivars of *Musa acuminata* non-hybrid groups (*Musa* AA, AAA, and AAAA Groups) and also hybrids (*Musa* x *paradisiaca* AB, AAB, ABB, AB BB, AAAB, AAB B Groups). The part consumed/analysed is not specified. When relevant, information on the part consumed/analysed has to be reported with additional facet descriptors. In case of data collections related to legislations, the default part consumed/analysed is the one defined in the applicable legislation.

en.wikipedia.org - google.co.uk

Implicit attributes:

Label	Value
Common names	Cavendishes
Common names	Dessert banana
GEMSCode	FI0327
matrixCode	P0163020-001
foodexOldCode	A.01.000626



Achievements

- ◆ **Identifying information needs: webinars with potential users**
 - ◆ December 2016: 16 webinars involving 83 potential end users
 - ◆ January to March 2017: 11 webinars involving 90 end users
- ◆ **Harmonizing information:**
 - ◆ Upgrade of the FoodEx2 food categorization and description system to global level
 - ◆ Support to data owners to harmonise their datasets with FoodEx2 (physical and on line trainings)
- ◆ **Sharing data:**
 - ◆ development and publication of the FAO/WHO GIFT dissemination platform

FAO/WHO GIFT official launch to data providers and users



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World Health
Organization



» Now open to data providers and users

<http://www.fao.org/gift-individual-food-consumption>



Food consumption



Food safety



Nutrition

The FAO/WHO inter-agency team currently developing FAO/WHO GIFT

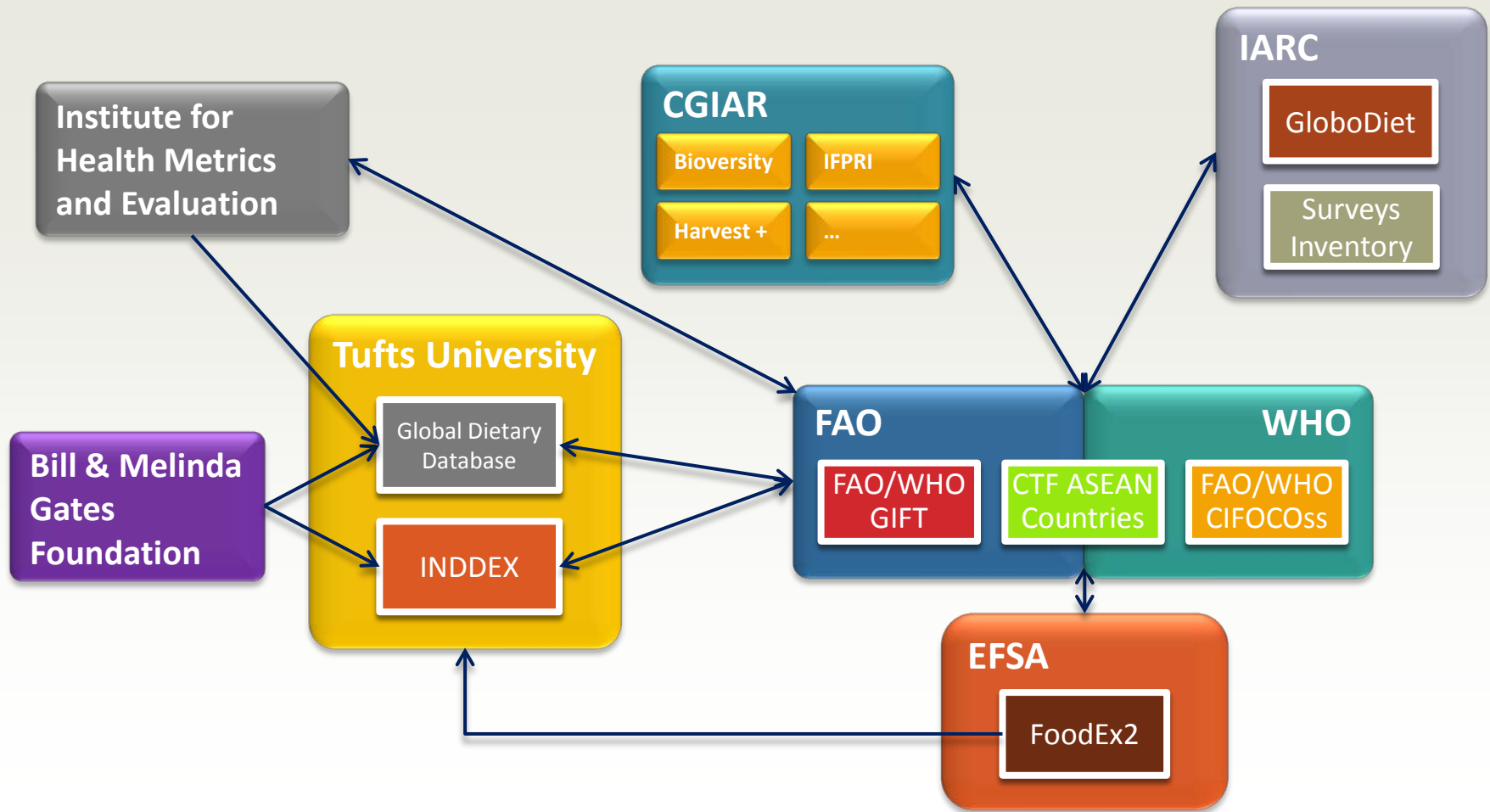
FAO:

- ◆ Nutrition and Food Systems Division (ESN)
- ◆ Information Technology Division (CIO)
- ◆ Statistics Division (ESS)
- ◆ Food Safety and Quality Unit (AGFF)

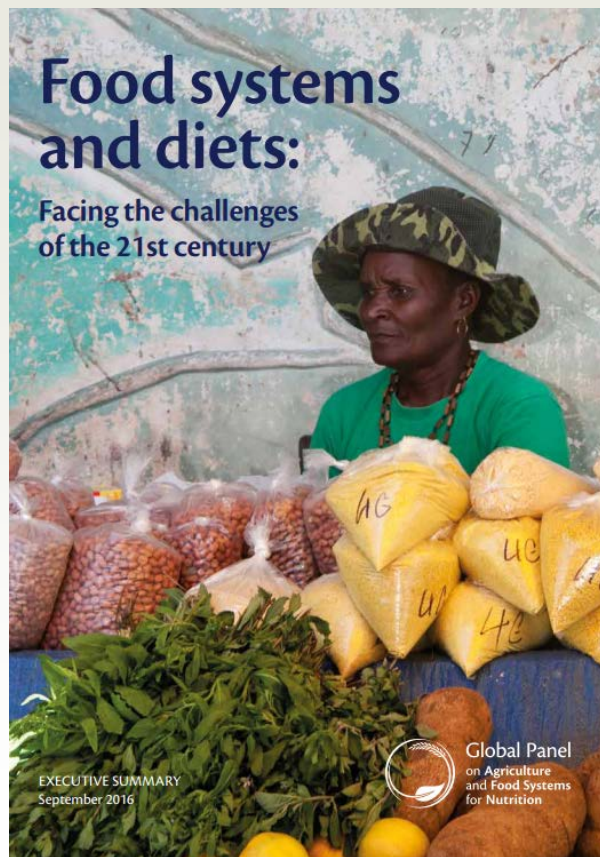
WHO:

- ◆ Department of Food Safety and Zoonoses (FOS)
- ◆ Department of Nutrition for Health and Development (NHD)

Projects and collaborations overview



They feel the need for FAO/WHO GIFT !



Box 3: Research priorities

Research on food, agriculture and nutrition must be refocused on achievement of healthy diets

The international and national agricultural research communities should play a strong leadership role in promoting research that addresses productivity, profitability, sustainability and nutritional goals at the same time. A 'high-quality diet' lens must guide a rebalancing of funding allocations across the food system.

Metrics for diet quality and the food system need to be modernized

They are also needed to enable policy makers to monitor the implications of dietary choices for the future of the environment.

More and better data

Effort is urgently needed to substantially improve the quantity and quality of dietary data. Few national governments collect the data required to inform decision makers about what people actually eat and the UN has no functioning global

dietary database. Recent efforts to gather data such as the Global Dietary Database (GDD) and FAO/WHO GIFT (FAO/WHO Global Individual Food Consumption data Tool), being developed by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO), should be built upon.

Many other indicators for the food system also need to be collected, for example on food quality and safety to help policy makers understand the links between food systems and actual nutritional outcomes.

More and better evaluation

Policy makers need to be able to assess the effect that specific interventions and policy actions have on diet quality and to determine how they could be improved. For example, recent work to track changes in the purchases of sugar-sweetened beverages in Mexico following imposition of a new tax, sheds important light on consumer choices in a changing food environment.

They feel the need for FAO/WHO GIFT !

COMMENT



A woman feeds her malnourished child in the Democratic Republic of the Congo.

A new global research agenda for food

Lawrence Haddad, Corinna Hawkes and colleagues propose ten ways to shift the focus from feeding people to nourishing them.

Around 57 of the 129 countries that have data on undernutrition and obesity are struggling with both¹. Everywhere, the consumption of vegetables, legumes, fish, nuts, seeds and fruits is much below that recommended by the World Health Organization (WHO). Meanwhile, people are consuming too much fat, processed meat, salt and sugary drinks.

Global food systems are failing to keep us all fed, let alone healthy. How food is grown, distributed, processed, marketed and sold determines which foods are available, affordable and desirable. These factors have a crucial role in the quality of people's diets, and hence play a vital part in health.

Diet is the number one risk factor in the global burden of disease². Poor diets are

responsible for more of the global burden of ill health than sex, drugs, alcohol and tobacco combined. In the next few decades, food systems will be under further stresses from population and income growth, urbanization, globalization, climate change and increasingly scarce natural resources.

Although 795 million people are undernourished and lack essential vitamins and mineral³, obesity is behind many of the chronic diseases that are sweeping the globe, from type 2 diabetes to heart disease. One in three people is malnourished. Almost one-quarter of children under five have stunted growth, with diminished physical and cognitive capacities. Across Africa and Asia, the impact of undernutrition on gross domestic product is 11% annually⁴. At the same time,

2 billion adults worldwide — more than 1 in 4 — are overweight or obese.

This is not a problem that countries can overcome through growth or development. As economies expand, many social factors improve, but the quality of diets does not. Hunger and famine have fallen substantially, thanks to rapid poverty reduction and rising agricultural productivity. But progress remains too slow in many respects. Moreover, middle- and low-income countries are now following the well-worn, highly damaging path from undernutrition to obesity.

The efforts required from the international community are equivalent to those marshalled to tackle HIV/AIDS, malaria and smoking. In particular, urgent interdisciplinary research is needed to support concerted

One of the 10 priorities: “**Make more data on diets widely available.** It is currently difficult to compare diets across cultures, geographies and time. This has hampered a global consensus on what constitutes a healthy diet. **A pilot project — the FAO/WHO Global Individual Food consumption data Tool (FAO/WHO GIFT; see go.nature.com/faogift) — aims to answer some elements, but has too few resources to be truly effective.** The project needs a larger team to collate many more national surveys and develop guidelines for future surveys. “

Haddad, L. *et al.* *Nature*, 2016

In the area of individual food consumption data we are working towards....

Harmonizing



Sharing



How to reach these two goals?



through a snowball effect...

Our team in the Nutrition and Food System Division at FAO Head Quarters



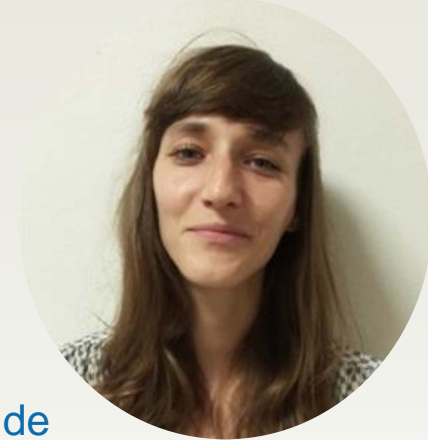
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Doris
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