

# **DIETARY CONSUMPTION EVALUATION**

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# DIETARY CONSUMPTION

- represents the amount of consumed food and beverages and their kind
- we can measure it quantitatively or qualitatively
- we can monitor it in individuals or in specific groups (in families)



## NUTRIENTS

- **Macronutrients** - proteins, fats, carbohydrates, (alcohol)
- **Micronutrients** - vitamins, minerals
- **Seminutrients** – fiber, phytochemicals
- **Non-nutritional components of the diet** - probiotics

# METHODS USED FOR DIETARY CONSUMPTION (DC) EVALUATION

## 1) METHODS FOR EVALUATION OF GLOBAL DC

- **Household Inventory**

- usually for one week or month (food in the start and in the end)
- food in pantry, fridge, cellar - amount and kind of food
- strengths: exact, combine nutritional and economic data
- weaknesses: does not reflect individual's consumption

- **Household accounting method**

- usually for one week or month
- how much money we spend for food and beverages
- strengths: exact
- weaknesses: only economic data, does not reflect individual's consumption



- **Household record method**

- usually for one week
- quantitative and qualitative
- retrospective or prospective
- strengths: we can record 1 week of all people in group
- weaknesses: only nutritional data, not exact



## **2) Methods for evaluation of individual DC**

### **METHODS**

#### **PROSPECTIVE**

**Precise weight record**

**Estimated record**

**Method of Double Portions**

#### **RETROSPECTIVE**

**24h Recall**

**Food frequency method**

**Dietary history method**



## PROSPECTIVE METHODS



- **Precise weight record (3 days, 7 days)**
  - we weigh the food before consumption and write it on the paper
  - strengths: more exact than recall, memory is not important
  - weaknesses: requires people's compliance, literacy, responsibility, stable living conditions...
- **Estimated record**
  - we use Photo book, 3D models, brochure with food pictures
  - strengths: more exact than recall, memory is not important
  - weaknesses: requires people's compliance, literacy, responsibility, stable living conditions...
- **Method of Double Portions**
  - the two identical portions of meal
  - strengths: exact, allows detailed chemical analysis
  - weaknesses: very difficult, long time, high level of compliance, stable living conditions, is expensive, causes inconvenience



## RETROSPECTIVE METHODS

**! Interview is very important for these methods !**

- **24h Recall**

- the most used method, interview + questionnaire
- quantitative method
- estimated (Photo book, 3D models, brochure with food pictures)
- atypical day is not good for evaluation, describe only the typical day
- use neutral non suggestive questions
- 3 specific questions: what did you eat and drink ?(bread,butter,tea)
  - what kind ... ? (white bread, fresh butter, black tea)
  - what was the amount of food ?(40,10grams,200 ml)
- strengths: easy, quick, cheap, useful in large samples
- weaknesses: less representative, depends on good memory, requires kitchen/serving literacy, not possible in children < 7 years and in very old people (demented people, Alzheimer)

- **Food frequency method (How often did you eat last week...?)**

- quantitative and qualitative method, interview + questionnaire
- strengths: covers long period, not influenced by short term changes, we can monitor the content of some nutrients
- weaknesses: reflects more people's desire than reality, less exact, not possible in children < 7 years, and in very old people (demented people, Alzheimer)

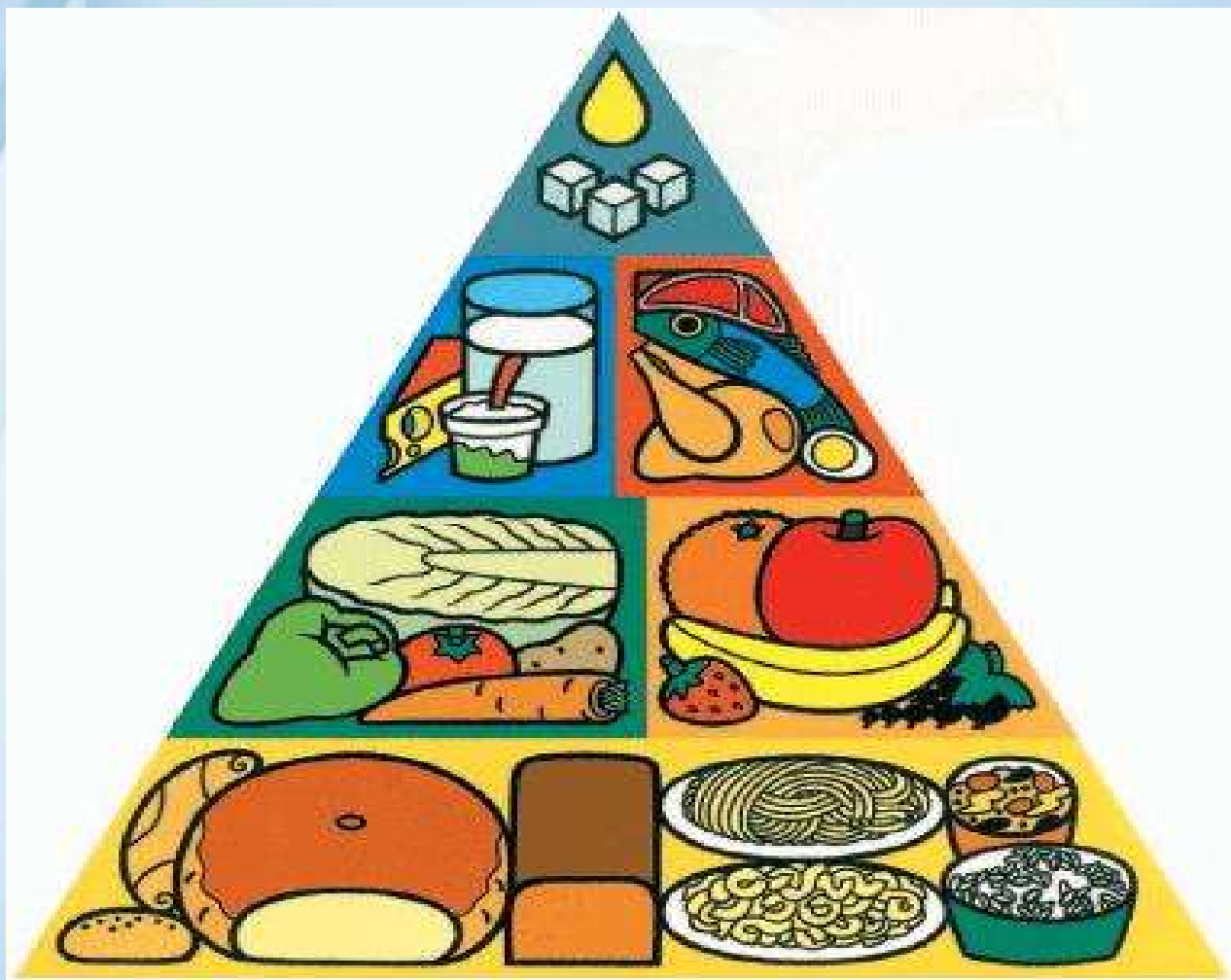
- **Dietary history method**

- very necessary is interview
- use this method after usual medical anamnesis
- we usually ask people about some period - mainly last 6-12 months
- usual topics are: dietary consumption, food you like or dislike, groups of food you eat, amount of usual portions, food combinations.....
- strengths: covers long period, cheap, easy
- weaknesses: less exact, not possible in children < 14 years and in very old people (demented people, Alzheimer)



# FOOD PYRAMIDE

quantitative and qualitative method used after record or recall methods



## **NUTRITIONAL SCORE** **(by World Health Organisation)**

- sometimes we use it after the 24 - hour recall
- very quick method
- each answer is one point
- the maximum is 10 points
- for more details look at the sheet (recall and pyramid)



**Thank you for your attention**