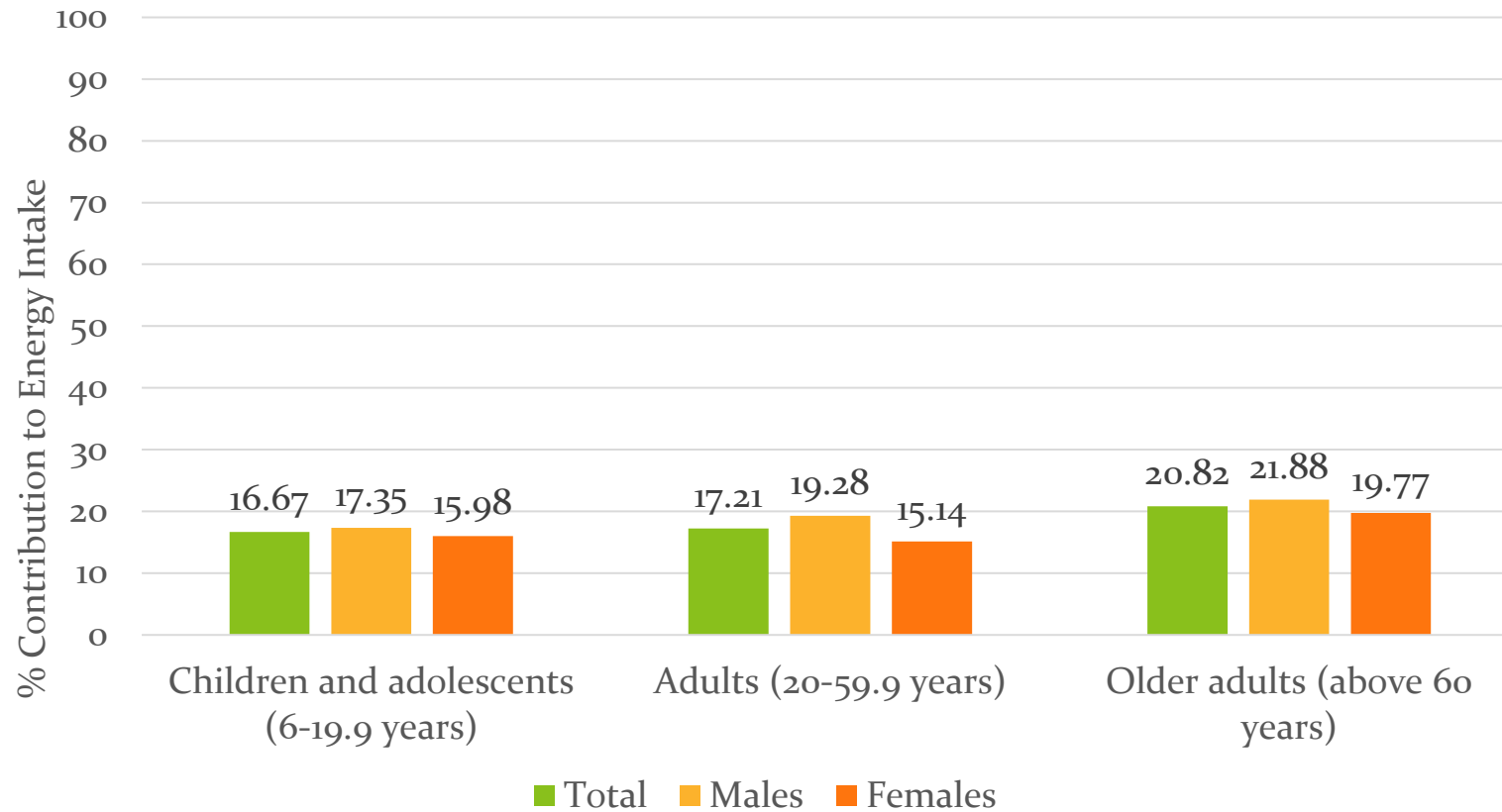


نحو رغيف خبز صحي

Lara Nasreddine, PhD
Professor of Human Nutrition
American University of Beirut

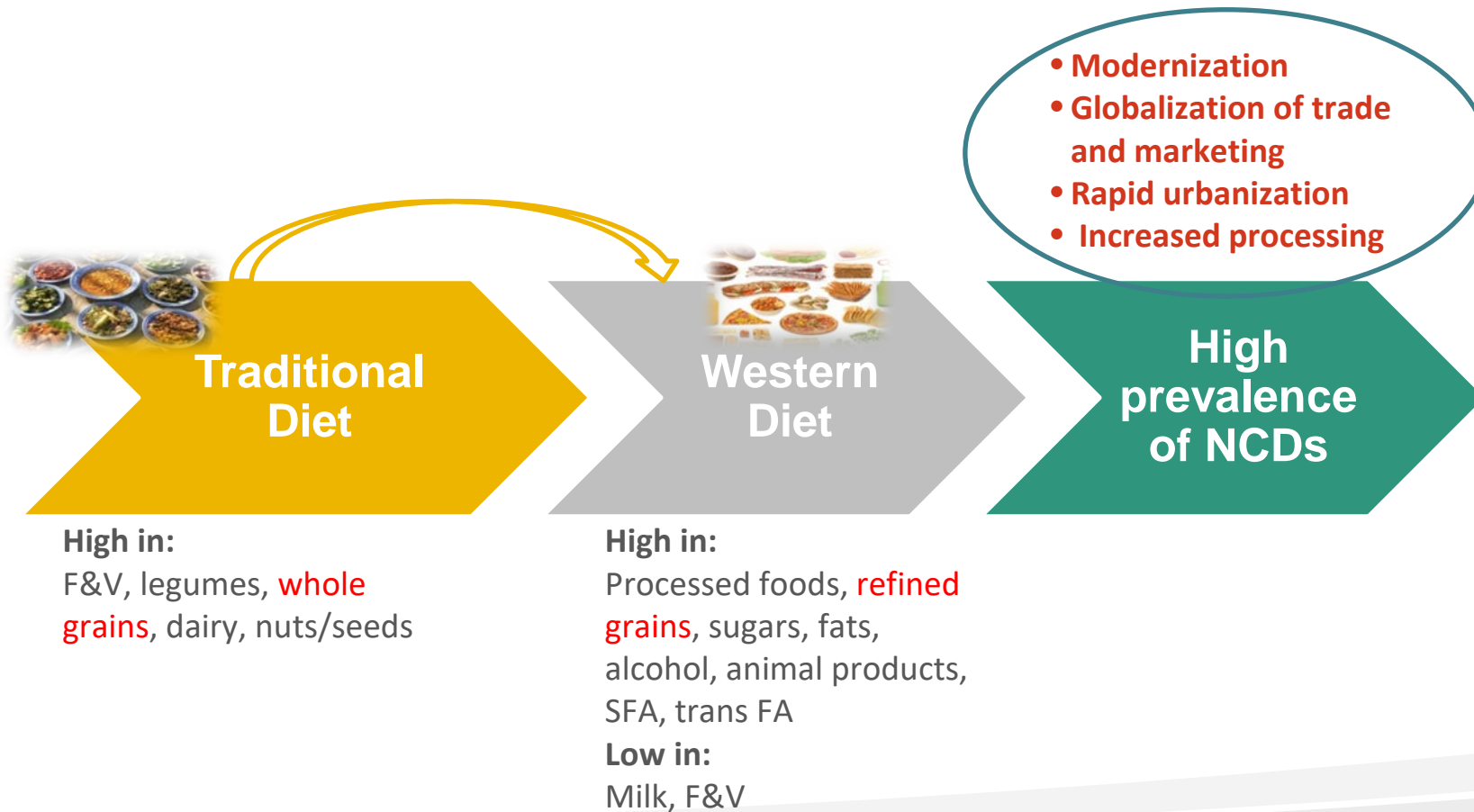
ندوة يوم الرغيف العربي 2023 تحت شعار: " رغيف خبزنا ... صحة أجيالنا واستدامة لكوكبنا
" بيت الأمم المتحدة، بيروت، الجمهورية اللبنانية، 10 تموز/ يوليو 20

Bread is a staple food in MENA countries

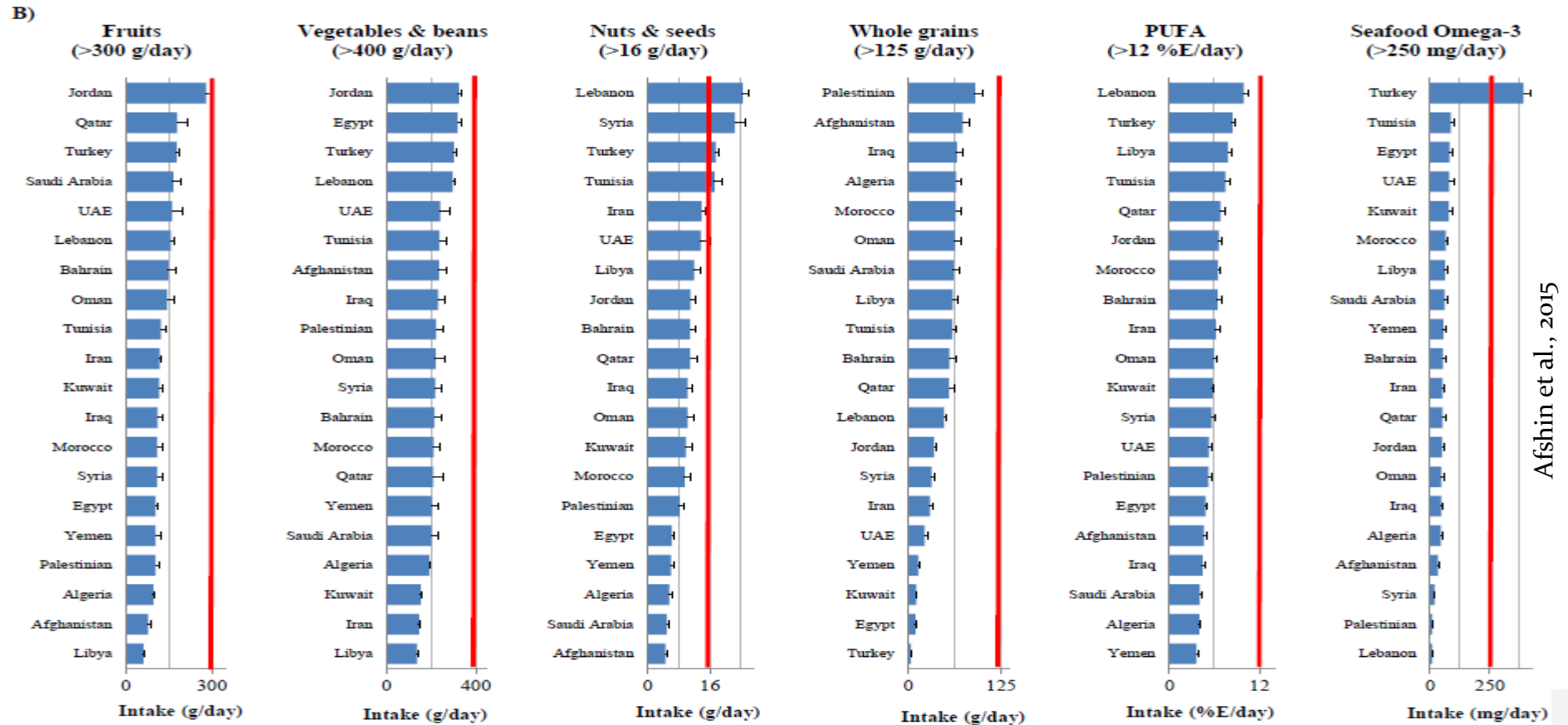


Contribution of bread to energy intake in Lebanon

Nutrition Transition in MENA paralleled by increased prevalence of NCDs

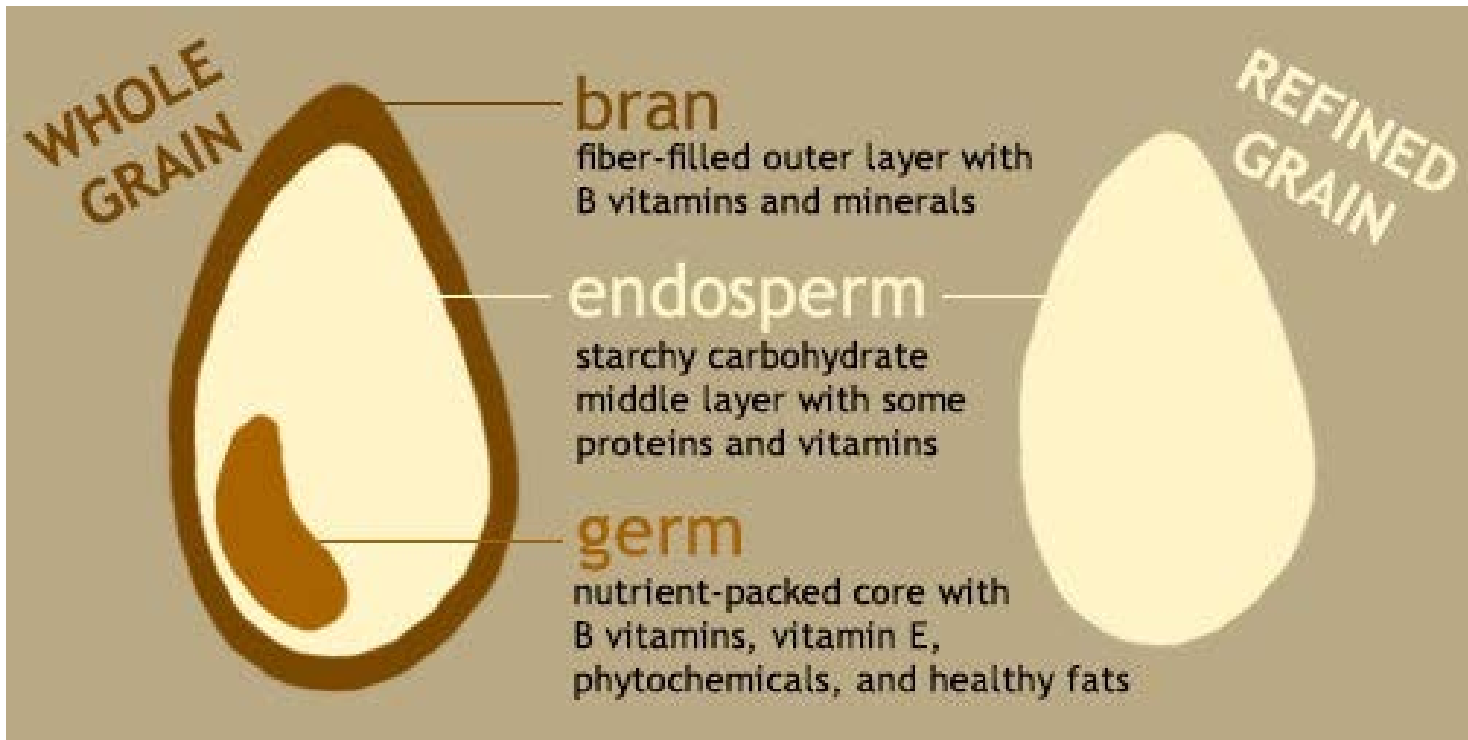


Low intake of PROTECTIVE foods in most MENA countries



Afshin et al., 2015

Afshin et al., 2015



Bran and fiber slow the breakdown of starch into glucose—thus maintaining a steady **blood sugar** rather than causing sharp spikes.

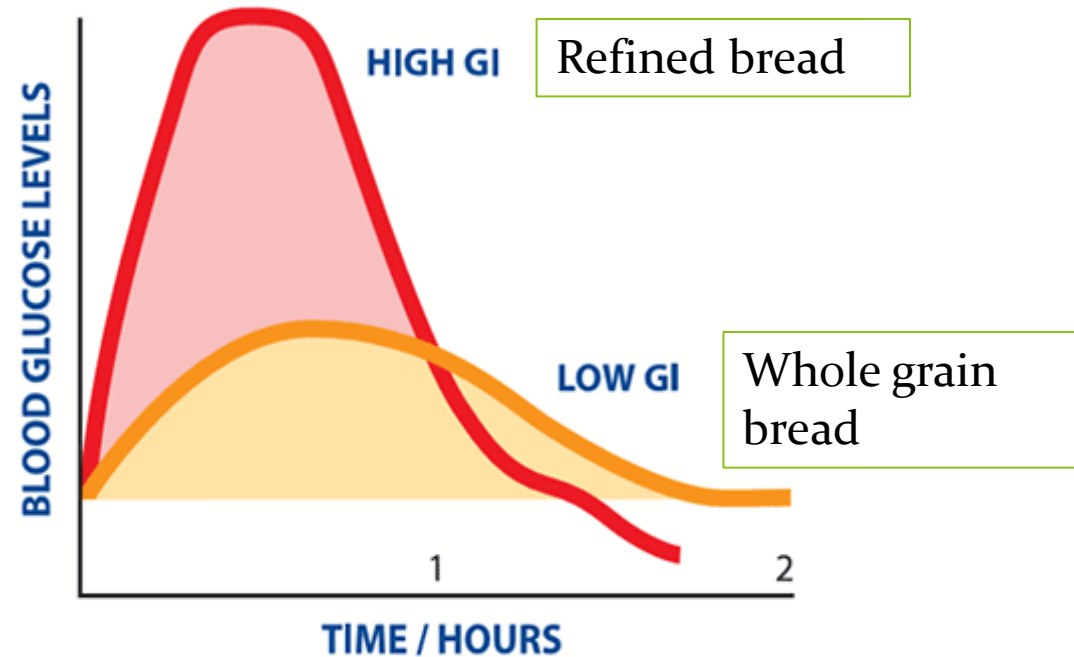
Fiber helps lower cholesterol as well as move waste through the digestive tract.

Fiber may also help prevent the formation of small blood clots that can trigger heart attacks or strokes.

Phytochemicals and essential minerals such as magnesium, selenium and copper found in whole grains may protect against some cancers.

Glycemic Index

Whole grain bread is not the same as bread enriched with bran



The amount of carbohydrate in the reference and test food must be the same.

Switching to whole grain bread is an opportunity to improve public health and curb the escalating burden of NCDs

SR and meta-analyses provide evidence that whole grain intake is associated with a reduced risk of coronary heart disease, cardiovascular disease, diabetes, total cancer, and mortality from all causes

Refined bread is poor in micronutrients

Fortification of flour with micronutrients:

- Numerous countries fortify flour with micronutrients such as iron and folate (refined flour)

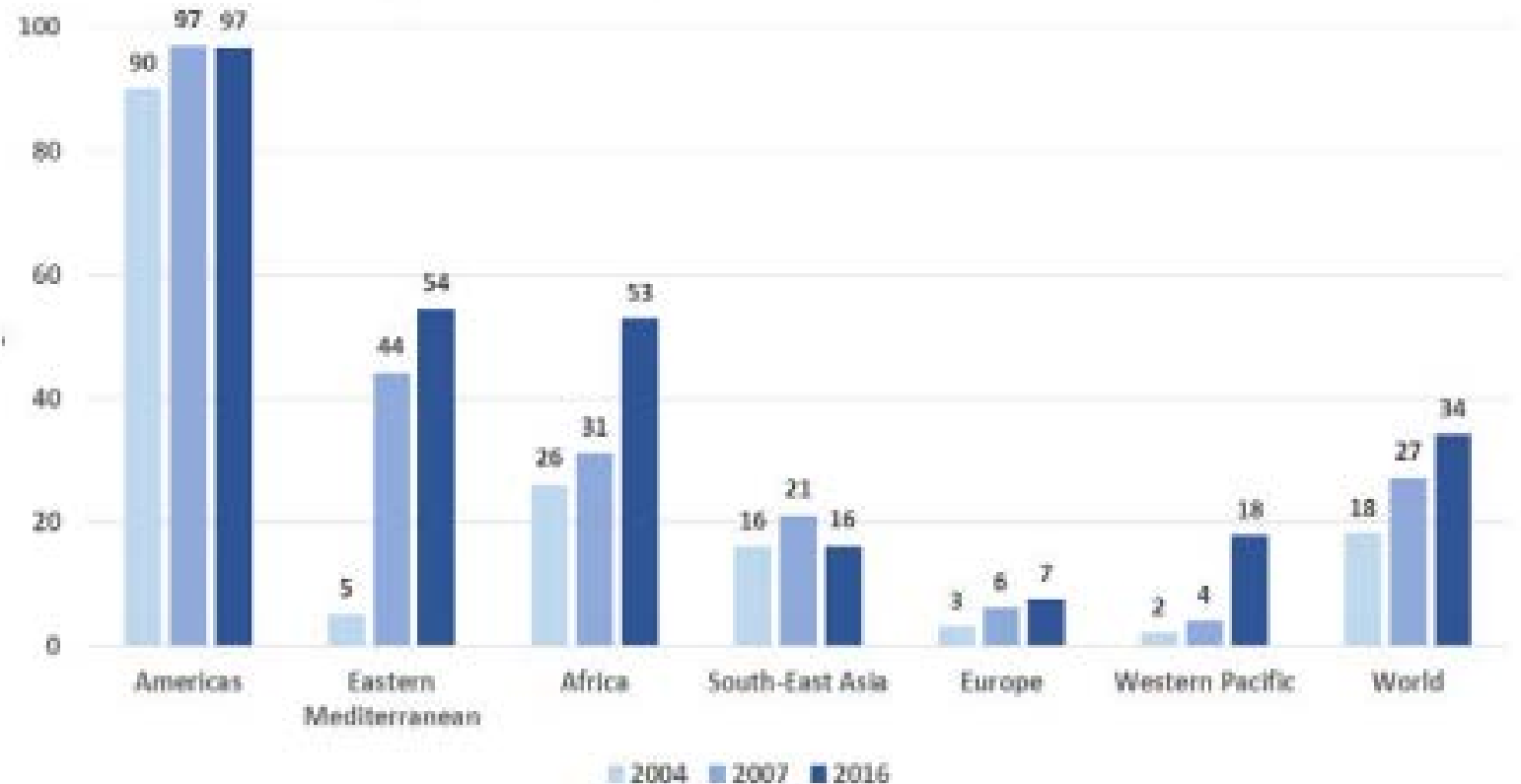
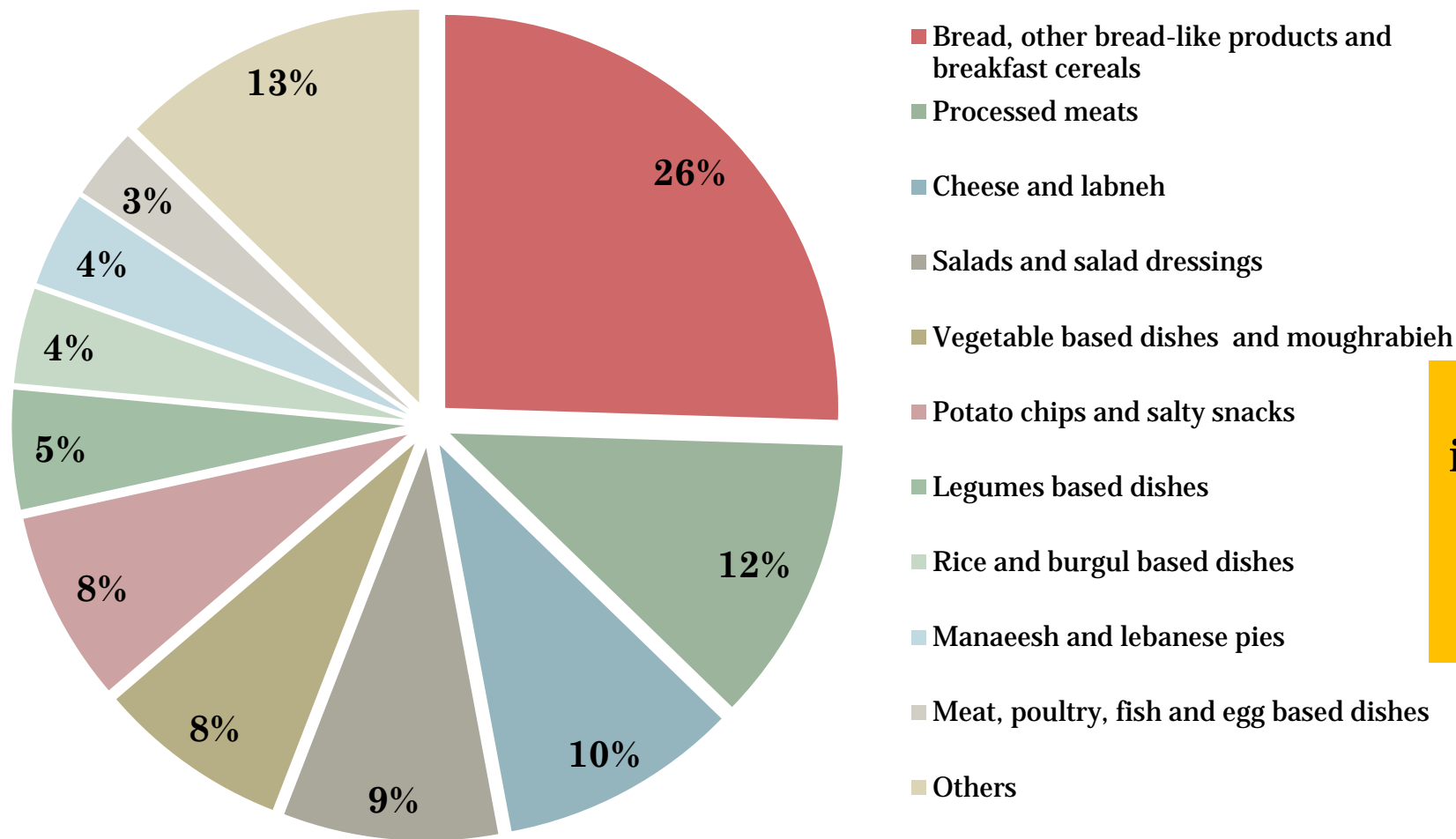


Fig. 8 Percentage of industrially milled wheat flour that is fortified, by WHO Region (Source: Food Fortification Initiative www.ffinetwork.org)

Whole grain flours are usually not fortified because whole grain flour retains the wheat's original vitamin and minerals, and is thereby considered adequately nutritious

But as consumption of whole grains increases, countries may consider fortifying whole grain flours: adding zinc and iron compounds to counter the effect of phytates

Major food group contributors to sodium intake (Lebanon)



Bread is a high contributor to salt

Several countries in the region have reduced the salt content of bread via legislation

* **Other** (pizza and past based dishes, processed poultry, Sweets, Kishk, tahini and falafel based dishes, Gravies, sauces and butter, Soups, Potato based dishes, Milk and milk based products)

Opportunities

- Switching to whole grain breads (wheat or other whole grains)
- Breads that incorporate nutritious innovative components such as legumes (e.g. chickpea flour)
- Lower salt varieties: affordable, accessible
- Fortification (?)

Thank you