

SUSTAINABLE FOOD CONSUMPTION IN ARAB COUNTRIES

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Healthy Earth, Healthy Food, Healthy People



IS HEALTHY EATING, HEALTHY FOR THE ENVIRONMENT?

- Agricultural production for food security
- Need for sustainable food consumption/sustainable diets for food security
- Are Arab countries consuming healthy & sustainable diets?
- Take-home message

Rising global population

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graph TD; A[Rising global population] --> B[Need more food]; B --> C[Intensive agricultural production]; C --> D[Unsustainable agro-food system<br/>- Ecosystems degradation<br/>- biodiversity loss<br/>- climate change];
```

Need more food

Intensive agricultural production

Unsustainable agro-food system

- Ecosystems degradation
- biodiversity loss
- climate change



70%

of

WATER
CONSUMPTION



34.3%

of

LAND
AREA



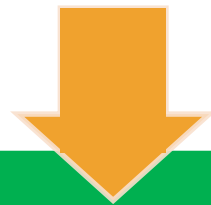
17-30%

of

GHG
EMISSIONS

Current Consumption is unsustainable

- ↑ food energy intake
- 2.5 billion people overweight and obese
 - Rising incidence of non-communicable diseases
- 2 billion people with micronutrient deficiencies
- 1 billion hungry people



Need for sustainable food consumption

UN Response

Zero Hunger Challenge

100%

access to
adequate
food all
year round

Zero

stunted
children
under 2
years

All

food
systems
are
sustainable

100%

growth in
smallholder
productivity
and income

Zero

loss or
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Why Sustainable Food Consumption?

- **Life enhancing** for the individual, society, & planet
- **Health promoting:** safe and nutritious food (quantity & quality)
- **Accessible** to less well-off people
- **Environmentally** sound (water, soil, climate, & biodiversity)
- **Agriculture and production efficacy**

SUSTAINABLE DIETS

SUSTAINABLE DIETS AND BIODIVERSITY

DIRECTIONS AND SOLUTIONS
FOR POLICY, RESEARCH AND ACTION



“Sustainable diets are those diets with
Low Environmental Impacts

which contribute to **Food and Nutrition Security**
and to **Healthy Life** for present and future generations.
Sustainable diets are **protective and respectful of**
biodiversity and ecosystems, culturally acceptable,
accessible, economically fair and affordable;
nutritionally adequate, safe and healthy;
while optimizing **natural and human resources.”**

Source: FAO (2010)

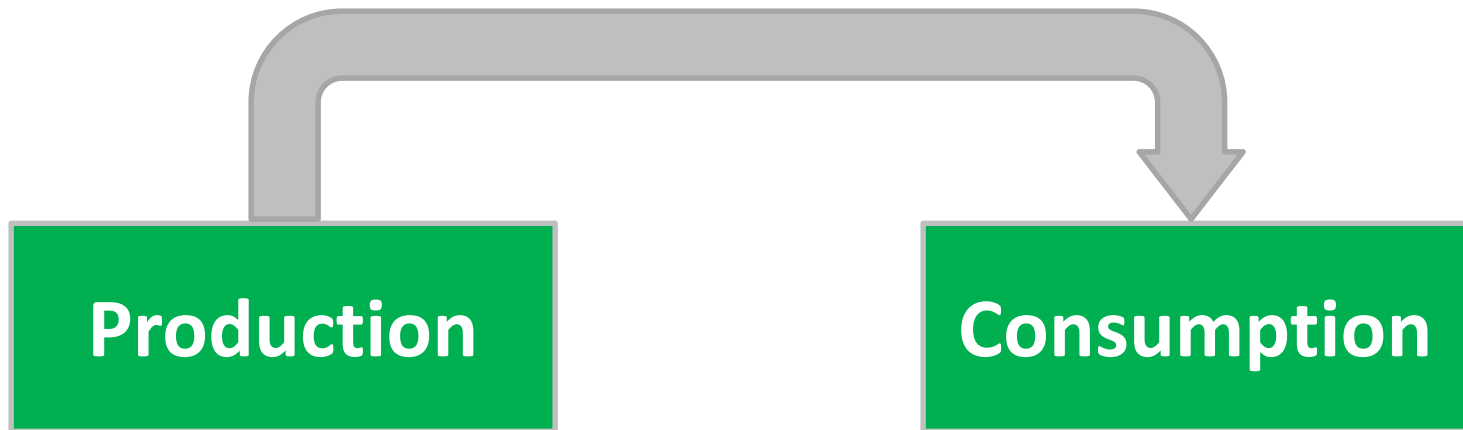
Sustainable diets

present an opportunity to successfully

**ADVANCE COMMITMENTS
TO SUSTAINABLE DEVELOPMENT
and
ELIMINATION OF POVERTY AND FOOD
INSECURITY**

THE OLD DYNAMIC:

Focused on Production



Food security = **supply** problem
Intensive agricultural production

RETHINKING THE AGRO-FOOD SYSTEM

OLD

Food security is a **supply** problem

Unsustainable intensification with a focus on **quantity**

Food losses and waste **do not really matter**

Disregard of the environment

Food systems are relatively **safe**



NEW

Accessibility and **demand**

Sustainable intensification with a focus on **quality**

Matter greatly

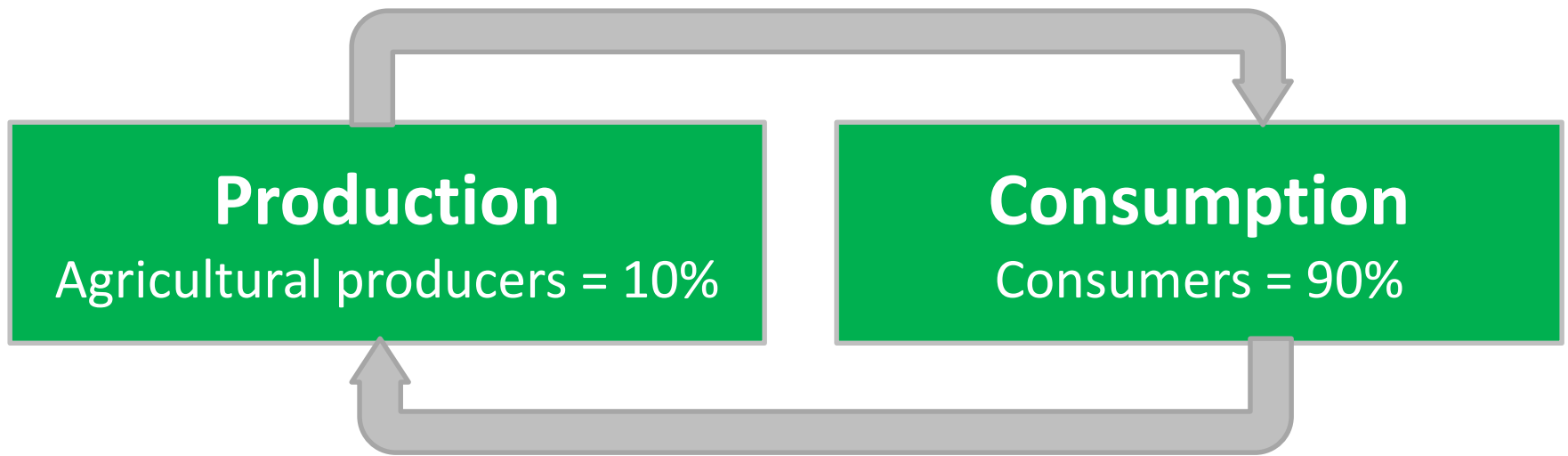
Environmental sustainability lens

At risk

CHANGES REQUIRED

- **Agriculture:** sustainable production & supply chains
- **Environment:** ↓ water consumption and food loss/waste
- **Food processing:** safe food
- **Socioeconomic development:** affordable food
- **Nutrition:** sustainable food consumption in MENA

AN IMPORTANT DYNAMIC



Nutrition
Promoting sustainable diets as driver of agriculture

Are Arab Countries Consuming Healthy & Sustainable Diets?

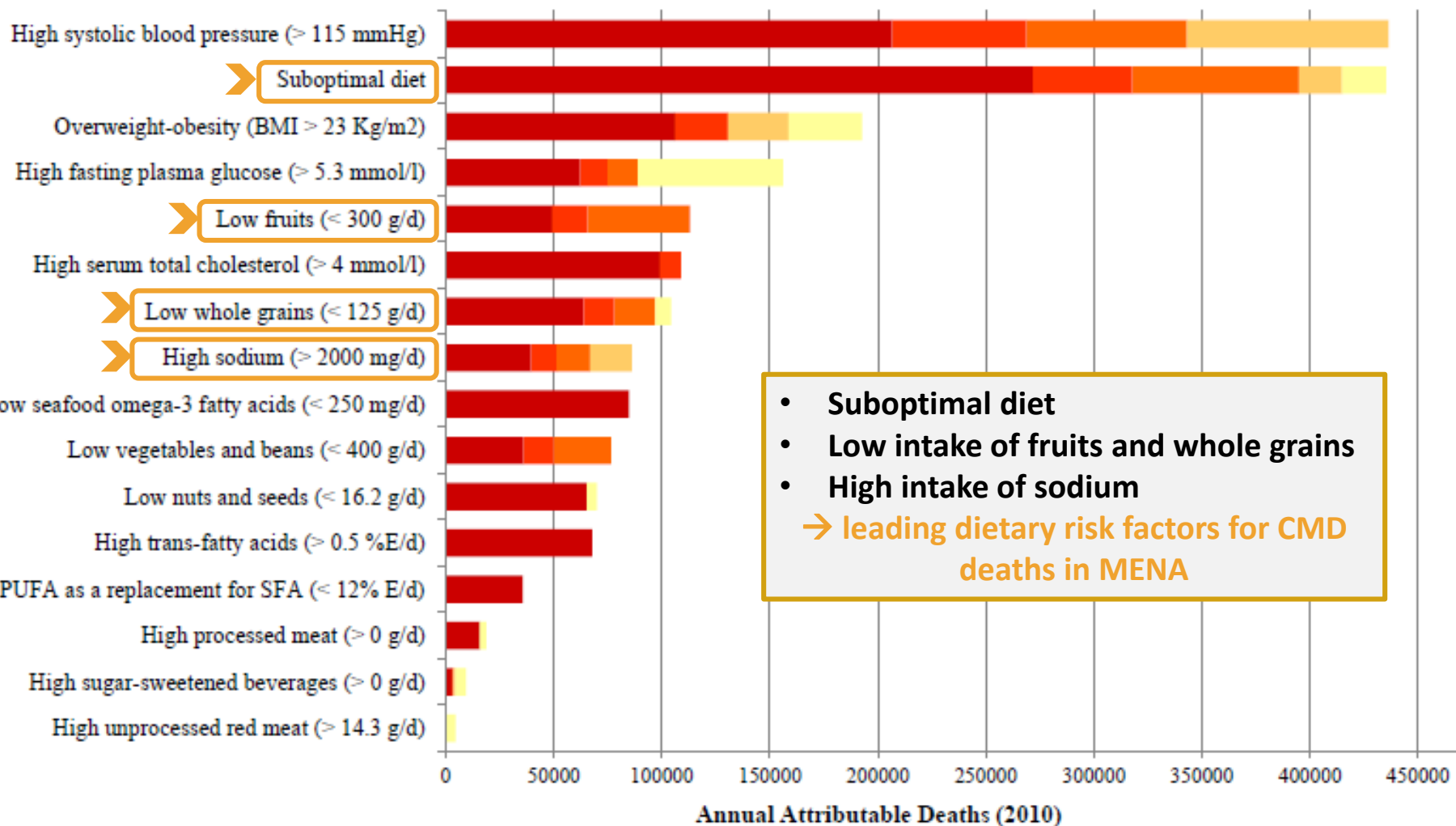
Current Food Consumption Patterns Are Strong Predictors of Chronic Disease in Arab Countries



Contribution (%) of Dietary Risk Factors to Cardio-Metabolic Disease Mortality in MENA

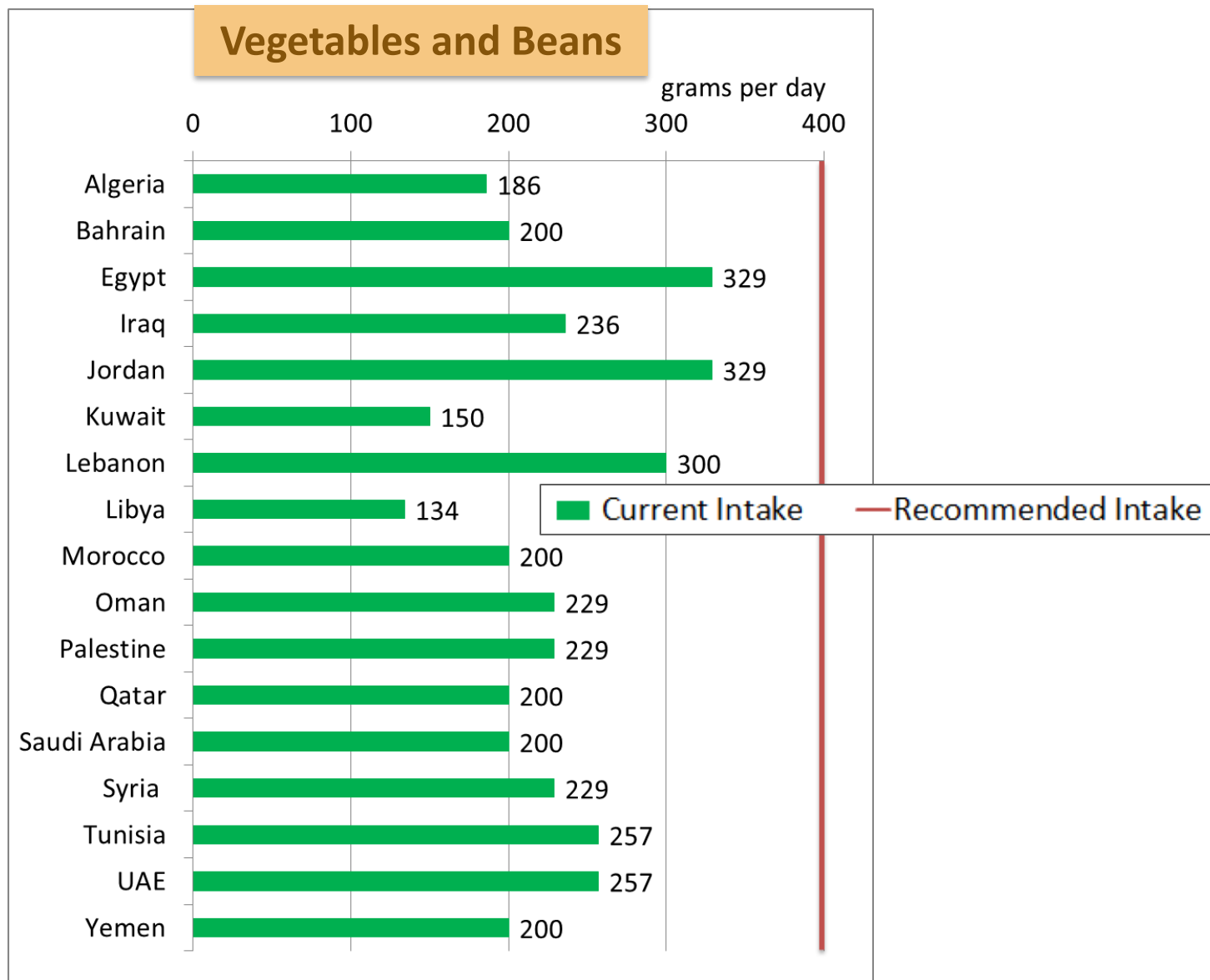
Total Adult Population

■ CHD ■ Ischemic Stroke ■ Hemorrhagic Stroke ■ Other CVD ■ Diabetes



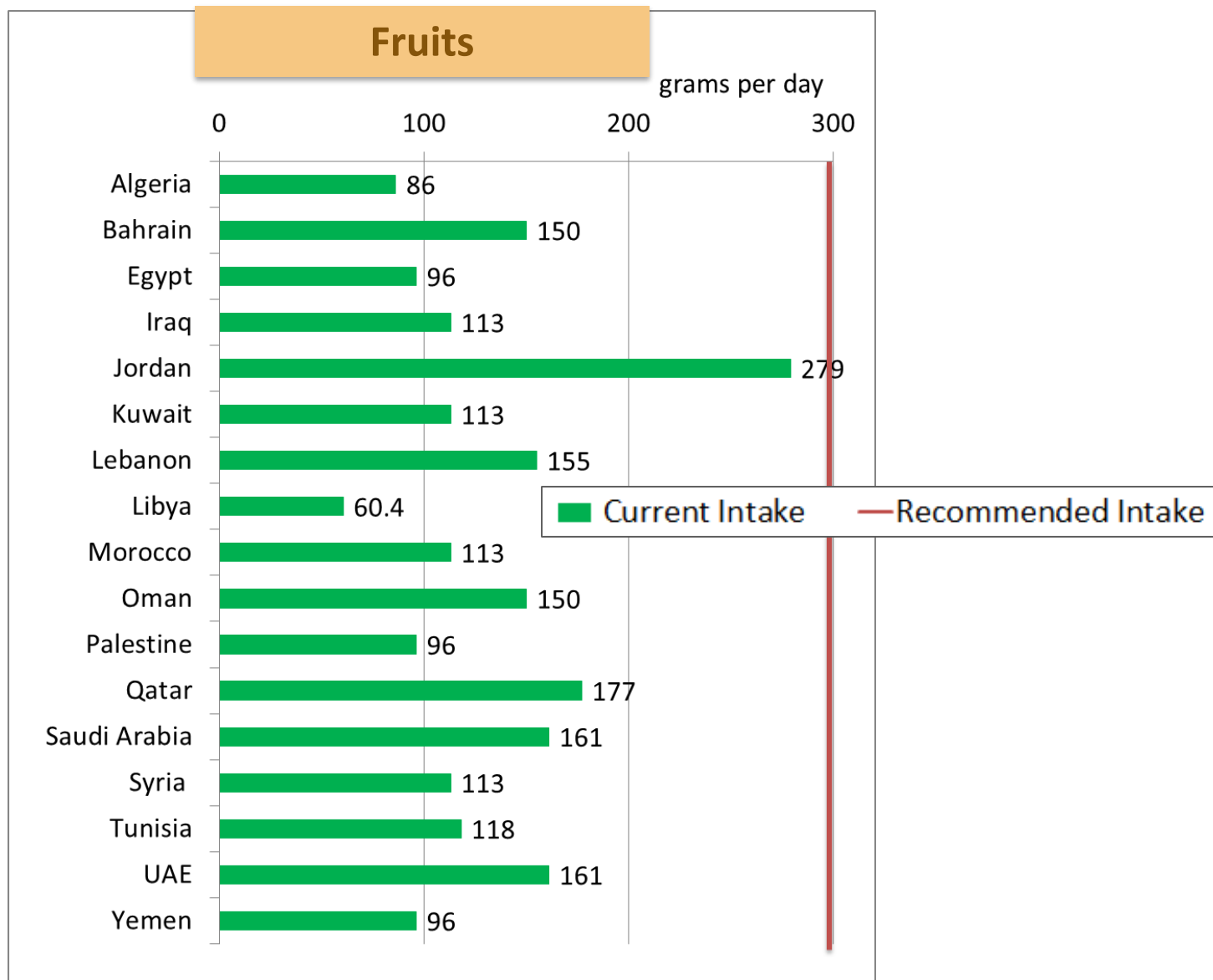
- Suboptimal diet
 - Low intake of fruits and whole grains
 - High intake of sodium
- leading dietary risk factors for CMD deaths in MENA

CONSUMPTION OF 'PROTECTIVE' FOODS



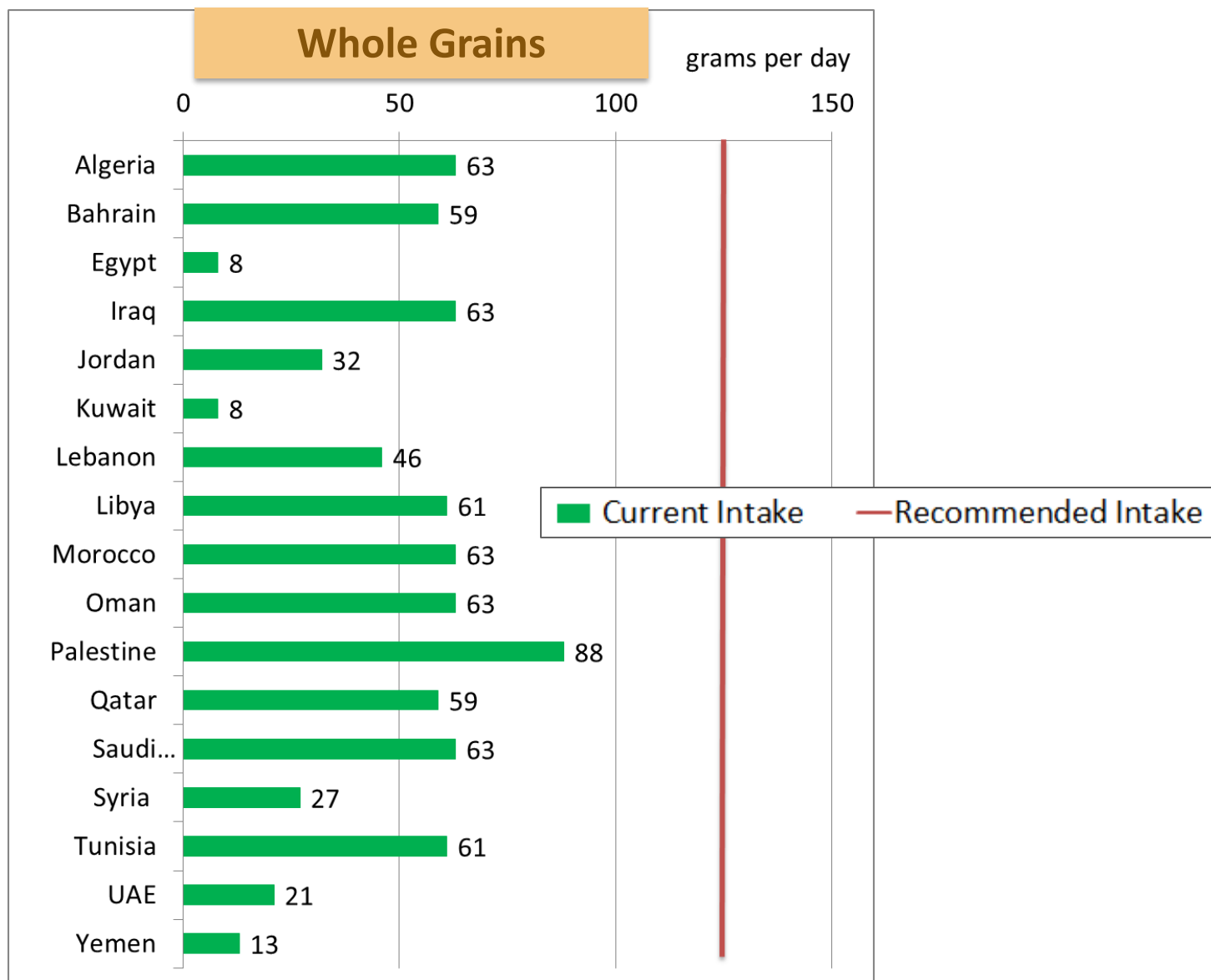
Source: Afshin et al. (2015)

CONSUMPTION OF 'PROTECTIVE' FOODS



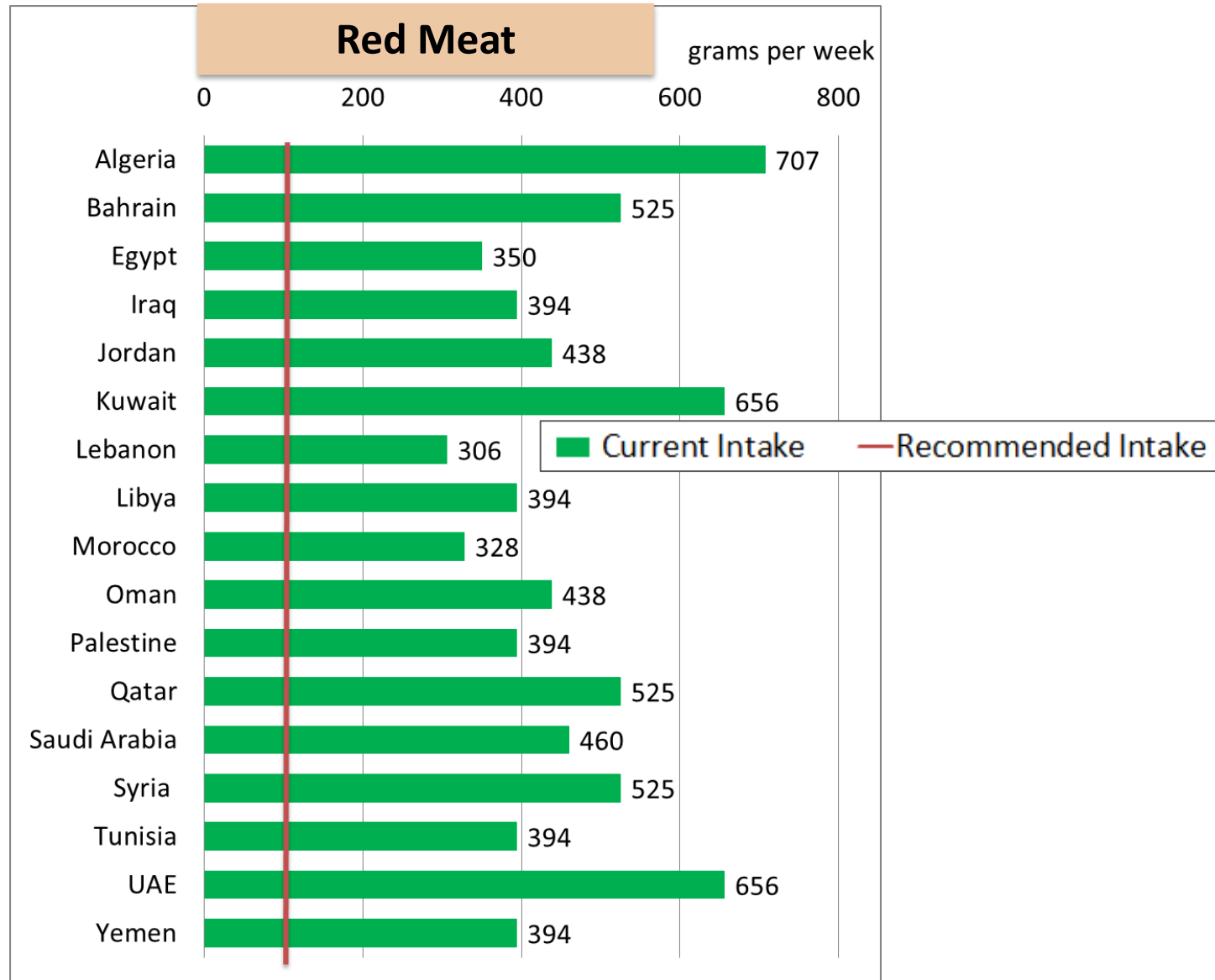
Source: Afshin et al. (2015)

CONSUMPTION OF 'PROTECTIVE' FOODS



Source: Afshin et al. (2015)

CONSUMPTION OF 'HARMFUL' FOODS



Source: Afshin et al. (2015)

PROTEIN REQUIREMENTS

Our **protein requirements** are **modest**:

- Based on individual weight: 0.8 g/kg body weight/day
- Men (average adult): 56 g/day
- Women (average adult): 46 g/day
- 1/3rd from animal protein
- 2/3rd from vegetable protein

FOODS PER DAY TO SATISFY PROTEIN REQUIREMENTS



1 small whole-grain pita: 3 g

2 boiled egg: 13 g

=

16 g



1 cup rice: 4 g

1 cup white beans: 17 g

14 g beef: 5 g

=

26 g



1 cup cereals: 2 g

1 cup milk: 8 g

7 walnuts: 4 g

=

14 g

56 g

| Country | Per capita Availability** (kg/capita/year) | Per capita Water Saved from Red Meat Reduction** (m3/capita/year) | Total Water Saved from Red Meat Reduction – 2015** (m3/country/year) |
|-----------------------|---|--|---|
| Algeria | 9.1 | 59.73 | 2,427,235,077 |
| Bahrain | 27.8 | 350.49 | 476,564,790 |
| Comoros | N/A | N/A | N/A |
| Djibouti | 22.3 | 264.81 | 238,241,950 |
| Egypt | 12.7 | 116.04 | 9,829,450,112 |
| Iraq | 2.0 | (49.89) | (1,784,573,493) |
| Jordan | 18.5 | 206.78 | 1,590,079,196 |
| Kuwait | 14.5 | 144.19 | 516,698,581 |
| Lebanon | 11.1 | 90.73 | 458,491,537 |
| Libya | 29.2 | 371.78 | 2,348,557,374 |
| Mauritania | 70.6 | 1,012.97 | 4,133,142,591 |
| Morocco | 11.2 | 93.10 | 3,161,191,946 |
| Oman | 13.3 | 125.49 | 521,745,614 |
| Palestine | 7.7 | 39.34 | 178,944,216 |
| Qatar | 24.3 | 295.38 | 694,301,005 |
| Saudi Arabia | 8.3 | 47.46 | 1,418,887,088 |
| Somalia | 15.2 | 155.05 | 1,724,615,689 |
| Sudan | 56.6 | 796.39 | 31,547,590,087 |
| Syria | 10.8 | 86.88 | 1,934,334,254 |
| Tunisia | 11.9 | 103.23 | 1,159,832,663 |
| UAE | 59.1 | 835.84 | 8,004,922,725 |
| Yemen | 4.4 | (12.82) | (327,464,172) |
| Arab Countries | | | 70,252,788,832 |

Source: * AOAD (2012) and ** authors' calculations

REDUCING MEAT CONSUMPTION

Arab Countries

- Red meat consumption: 306-707 g/week
- Red meat availability: 16.4 kg/capita/year (excluding Comoros)

 Recommended intake: 5.2 kg/capita/year

Reducing red meat consumption to recommended level:

- Nutritious diet
- Reduction in virtual water footprint

Per-capita reduction: ~500 l/day

Reduction for Arab countries: >70 billion m³/year

Water Footprint of Selected Foods

1 orange



80 L

1 tomato



50 L

30 g peanuts



119 L

1/2 cup chickpeas



339 L

1 slice bread



40 L

45 g cheese



143 L

1 cup milk



255 L

1 egg



196 L

90 g chicken



389 L

90 g beef



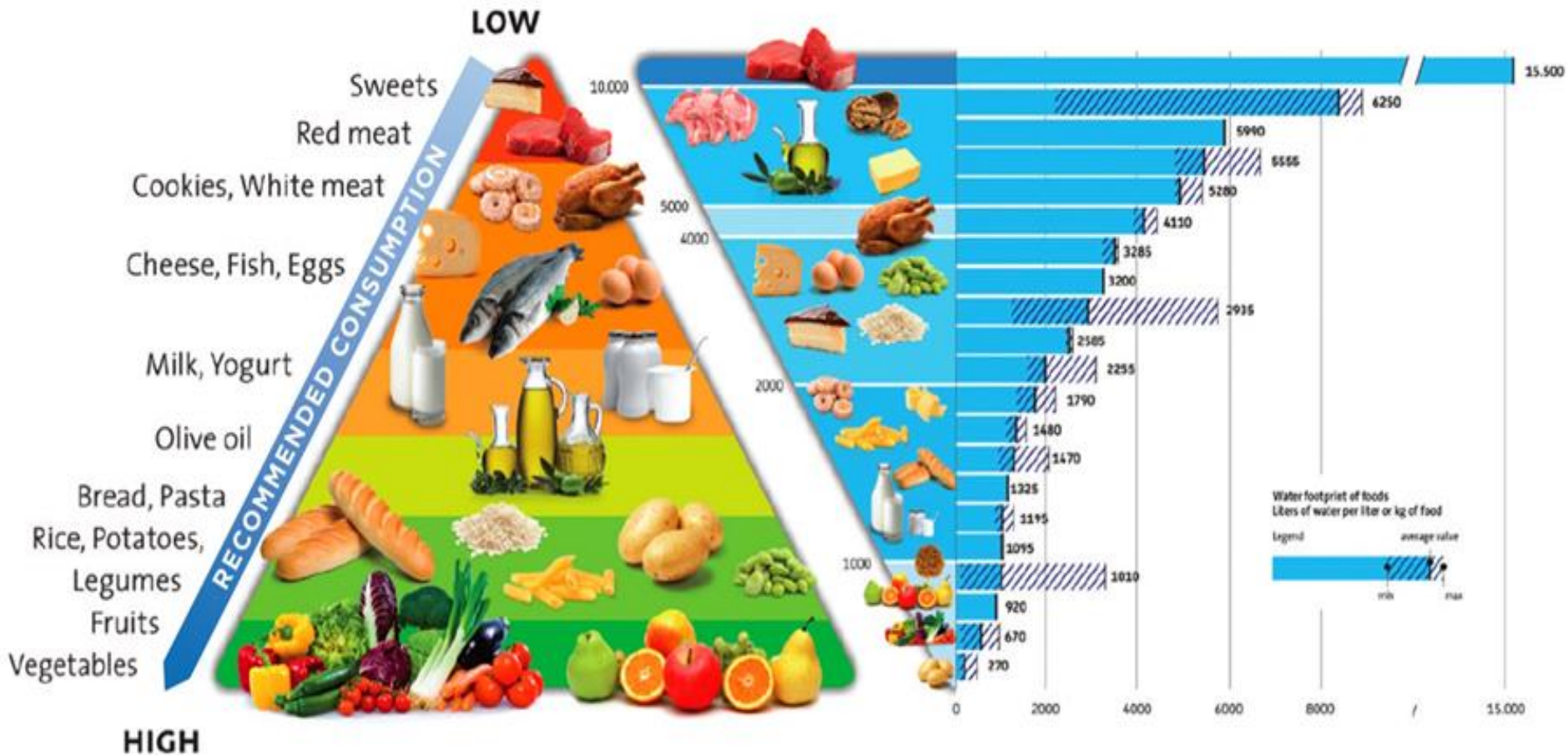
1387 L

1 hamburger

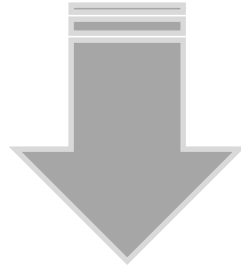


2400 L

Water Footprint of 'Protective' Foods is LOWER than that of 'Harmful' Foods



POLICY RECOMMENDATIONS FOR SUSTAINABLE FOOD CONSUMPTION IN ARAB COUNTRIES

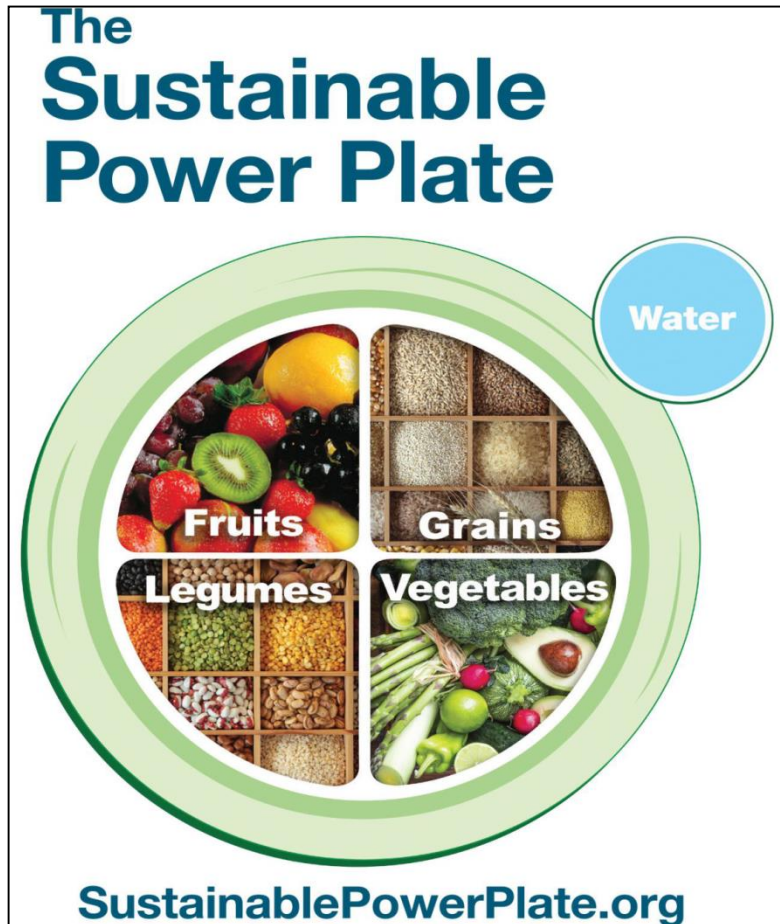


Revise existing food-based dietary guidelines (FBDGs)
to promote sustainable diets in Arab countries

How?

- ✓ Learn from earlier efforts in Europe & USA
- ✓ Learn from ongoing joint efforts by FAO & CIHEAM

EXAMPLE FROM USA



“A diet higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in calories and animal-based foods promotes personal health and is associated with less environmental impact than the current U.S. dietary patterns.”

Scientific Report of the 2015 Dietary Guidelines Advisory Committee

UK'S GREEN FOOD PROJECT:

Guidelines for Sustainable Healthy Diet

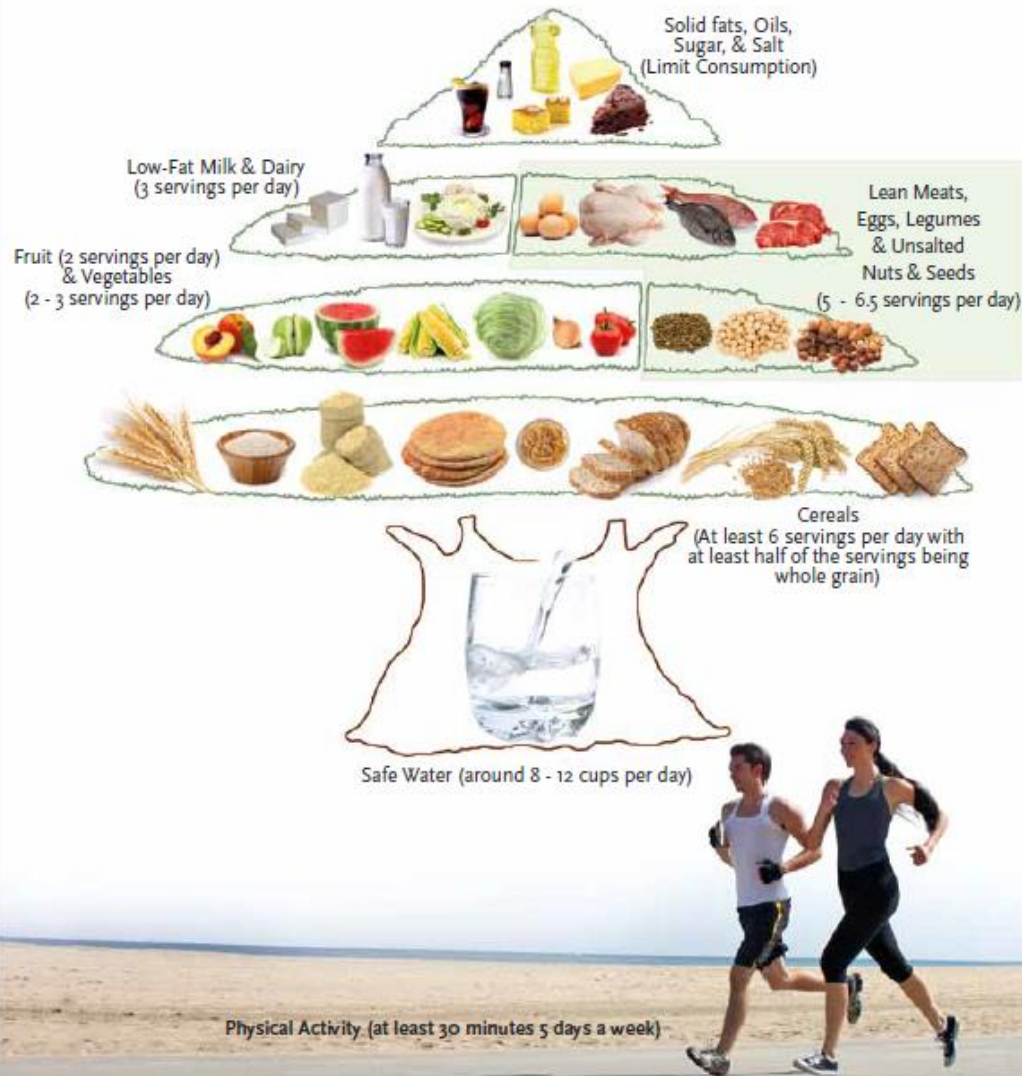
1. Eat a varied balanced diet to maintain a healthy body weight.
2. Eat more plant based foods, including at least five portions of fruit and vegetables per day.
3. Value your food. Ask about where it comes from and how it is produced. Don't waste it.
4. Moderate your meat consumption, and enjoy more peas, beans, nuts, and other sources of protein.
5. Choose fish sourced from sustainable stocks. Seasonality and capture methods are important here too.
6. Include milk and dairy products in your diet or seek out plant based alternatives, including those that are fortified with additional vitamins and minerals.
7. Drink tap water
8. Eat fewer foods high in fat, sugar and salt



FOOD-BASED DIETARY GUIDELINES

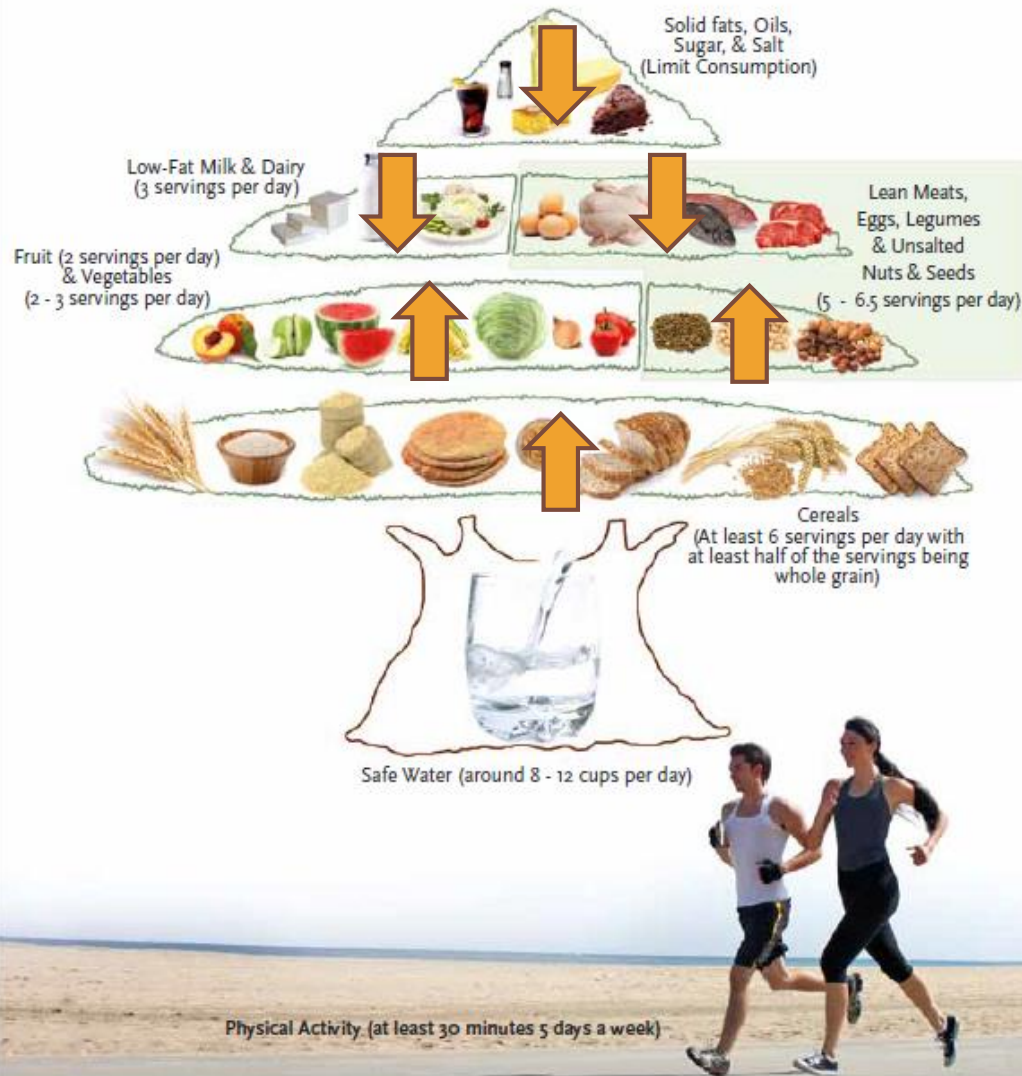
DRAFT

THE LEBANESE CEDAR FOOD GUIDE



The cedar food guide at the beginning of this manual provides a graphic illustration of the food groups and the recommended intakes from each for Lebanese adults, to ensure a varied and balanced diet providing 2,000 calories (equivalents of a serving of each of the five food groups are relayed in Table 3.1 page 16). It also provides a graphic illustration of the recommendations on safe water consumption and engagement in physical activity for improving general health. The recommended intakes from each of the five food groups and the serving equivalents for each group are adapted from recommendations of the United States Department of Agriculture (USDA MyPlate, 2011).

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CONCLUSION

Sustainable Diets add to **nutritional adequacy**:

Access and affordability of foods

Environmental sustainability

Cultural acceptability

TAKE-HOME MESSAGE

MORE consumption of

PLANT-BASED FOODS

(fruits, vegetables, legumes, whole grains, nuts, seeds)

LESS consumption of

RED MEAT & PROCESSED MEAT

**A diet that is better for the
Health of Our Planet...**

**is often a diet that is better for
Our Health**

Thank You



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Healthy Earth, Healthy Food, Healthy People

