

# Is there a role for Dietary Supplements in Nutrition and Health?

**International Alliance of Dietary /Food Supplement Association  
Sponsored Session**

# Framing the Issues: Is there a role for dietary/food supplements in nutrition and health?

{ Johanna Dwyer D.Sc, RD  
Schools of Medicine and Friedman School of  
Nutrition Science and Policy, Tufts University

# { Then

## ↳ Public health:

Communicable diseases  
of mothers and children

## ↳ Nutrition:

Dietary deficiency  
disease

# { Now

## ↳ Public health:

Chronic disease & obesity  
across lifespan

## ↳ Nutrition:

Deficiency, excess, and  
imbalances

Health problems have  
changed over the past 100  
years<sup>5</sup>

**Nutrition education**

**Fortification/ enrichment**

**Nutrient containing dietary  
/food supplements**

**Many ways to enhance the  
⁶ healthfulness of diets today**



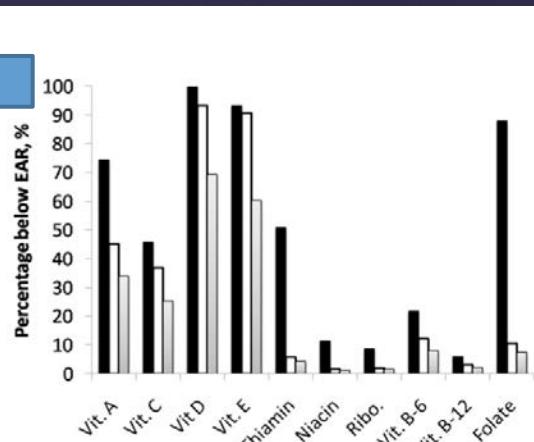
Foods first, supplements  
only when food based  
solutions fail

Supplements most effective when they focus on specific nutrient gaps in diets

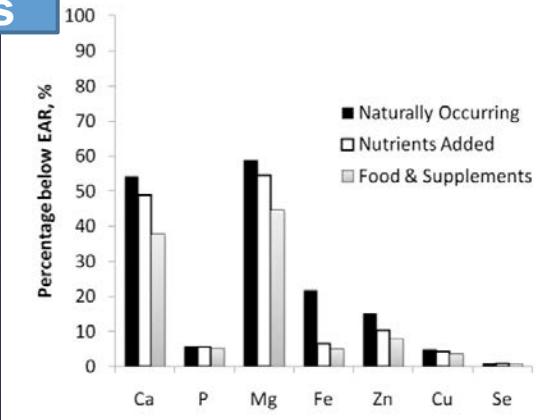
# Advantages of specific nutrients as supplements

- Rapid, reasonable, economic and specific targeting of deficient subgroups
- Increase nutrient but not energy density of intakes
- Need no massive changes in food supply
- Need some , but often modest nutrition educational efforts

## Vitamins



## Minerals



Supplements helped beyond foods alone in decreasing percent of US population below the Estimated Average Requirement (EAR) for some but not all nutrients Fulgoni et al JN 2011

Specific nutrient  
supplements have been  
helpful in lower income  
countries as well

# Advantages of specific nutrients as supplements

- ❑ Can improve dietary quality adherence for key nutrients lacking
- ❑ Decrease risks if specific deficiencies present
  - ❑ vitamin D, B-12, folic acid, calcium, iron,
- ❑ May help decrease risk of some chronic <sup>12</sup>degenerative diseases

# Limitations of nutrient supplements

¶ Cost

¶ Volitional- adherence is required

¶ Formulations may not be appropriate for the nutrient gaps/risks present

¶ Inability to reach some populations at risk

# Limitations of nutrient supplements

- ☒ Little gained if intakes already in normal range and already sufficient
  - ☒ Ex. Iron to iron replete pregnant women
- ☒ Some nutrients are difficult to supplement for technical or taste reasons
  - ☒ Potassium, iron, fiber
- ☒ Some dietary problems not amenable to supplementation
  - 14 ☒ Saturated fat, sodium, excess energy intakes, others

# ISSUES



Need

Ability to reach  
population in need

Cost

Rational public health policy  
on supplements needed

# How are dietary supplements defined?

{ Issue #1

- Nutrients
- Herbs
- Botanicals
- Non- nutrient , non-mineral ingredients
- Others
- Traditional & Complementary Medicines (TCM)

Many different definitions of  
dietary / food supplements

# What is the role of single vs multi- nutrient supplements?

{ Issue #2

# Do non-nutrient bioactives in supplements have a role in health?

{ Issue #3

# Should non-nutrient bioactives be allowed in supplements?

{ Issue #4



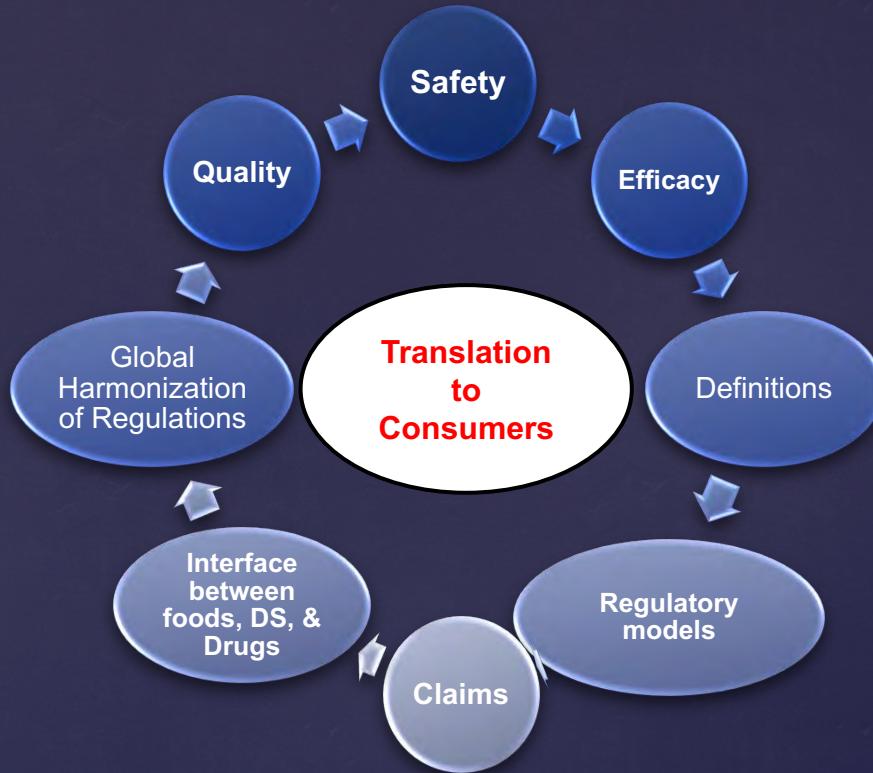
Essential elements all  
dietary/ food supplements

How can we  
harmonize regulations  
across countries in an  
increasingly global  
marketplace?

{ Issue  
5

# How can we foster more research on supplement science?

{ Issue #6



# Enhancing supplement science and regulation is challenging

# Is there a role for Dietary Supplements in Nutrition and Health?

- **From challenges of the past to opportunities of the future: Evolution of the field of nutrition** *Andrew Shao Chair IADSA Scientific Council*
- **Dietary/food supplements in health promotion:** illustrations of the benefits and risks of research *Jeffrey Blumberg Tufts*
- **Regulation of dietary /food supplements:** a global view *Simon Pettman Exec.Dir IADSA*
- **Discussion :** *Silvia Franciscato Cozzolino U Sao Paulo, Ricardo Uauy U Chile and U London*

# Thank you!