

# Food-Based Dietary Guidance

Janet C. King, Ph.D.

Director

Western Human Nutrition Research Center

USDA/ARS

San Francisco, CA 94129

# **Dietary Guidance**

- **Define the message**
- **Translate into food behaviors**
- **Communicate to consumers**
- **Evaluate the impact**

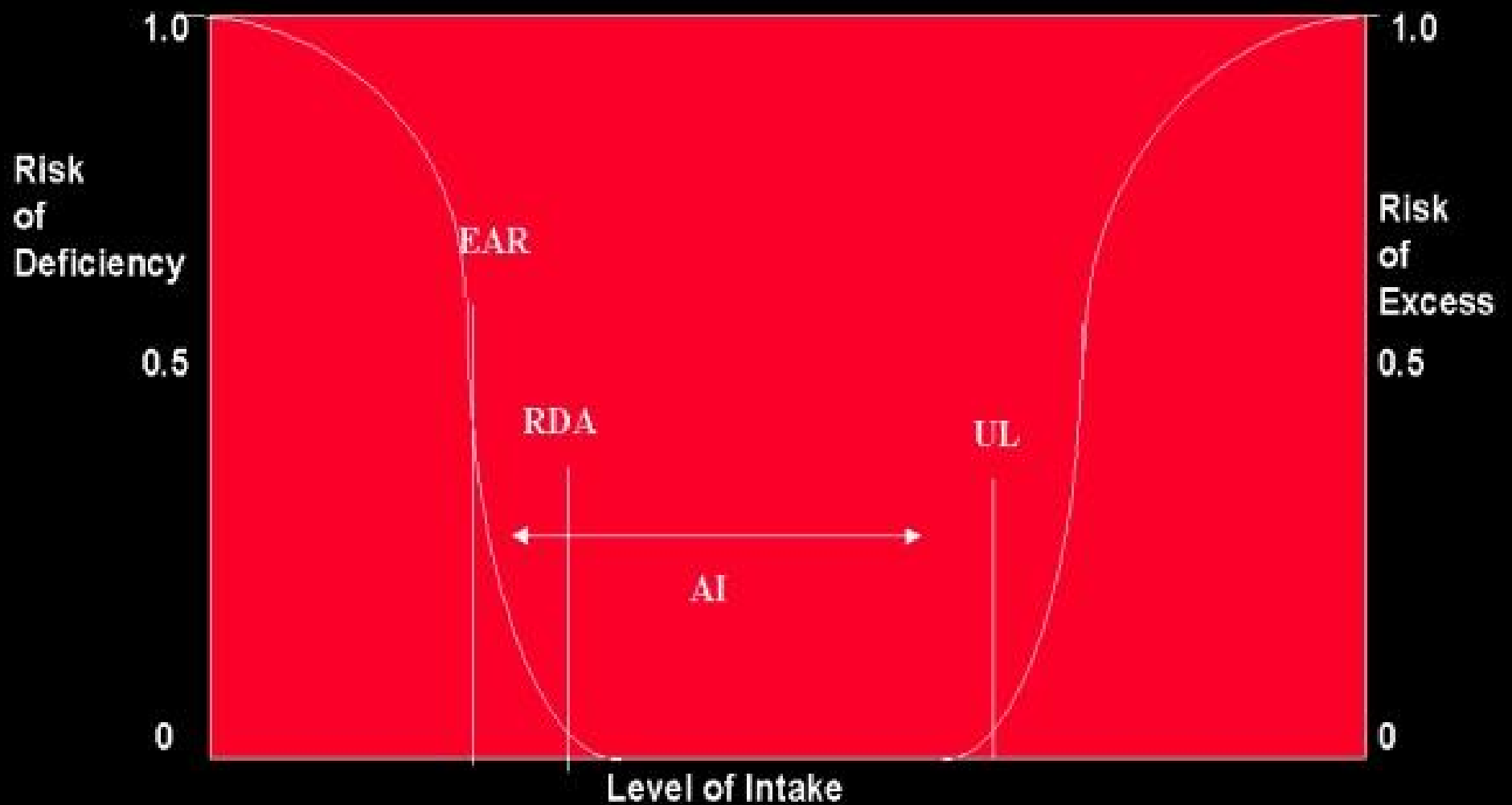
# **U.S. Nutrition Policy: Basis of Dietary Guidance**

- **Dietary Reference Intakes/RDAs**
- **Dietary Guidelines for Americans**

# **Dietary Reference Intakes: A new paradigm**

- **Based on a specific indicator of nutrient requirements**
- **Uses functional indicators associated with risk reduction for chronic disease when sufficient data exists**
- **Establishes recommendations for individuals**
- **Proposes four different standards for each life-stage/gender group**

# Dietary Reference Intakes



## **Limitations of DRIs**

- **One nutrient considered at a time**
- **Requirements determined for a single, specified function**
- **Based primarily on short-term studies**
- **Requires translation for consumers**

## **Dietary Guidelines for Americans**

- **Eat a variety of foods**
- **Balance food you eat with physical activity -- maintain or improve your weight**
- **Choose a diet with plenty of grain products, fruits and vegetables**
- **Choose a diet low in fat, saturated fat, and cholesterol**
- **Choose a diet moderate in salt and sodium**
- **If you drink alcoholic beverages, do so in moderation**

# **Dietary Guidelines for Americans**

Describes food choices for:

reducing the risk of chronic disease

*helping to meet the RDAs*



# **Tools for the Consumer**

- **Food Labels**
- **Food Guide Pyramid**

# **Food Guide Pyramid**

- **educational tool for food choices**
- **foundation for a good diet**
- **structure for 'eating right'**
- **stems primarily from dietary guidelines**

# Modified Basic Four Food Guide

- **Journal of Nutrition Education. 1978.**  
JC King, SH Cohenour, CG Corruccini, P Schneeman
- **Goal: Provide a guide for food choices that assures 'adequate' intakes of the 1974 RDAs**

# **Development of Modified Basic Four**

- **Identified nutrients low in U.S. diets:**  
Mg, Fe, Zn, Vitamin E, and Vitamin B6
- **Constructed food groups rich in those nutrients:**  
Dairy products, animal protein foods, legumes and nuts,  
dark green vegetables
- **Added food groups to balance the diet:**  
Vitamin C-rich fruits and vegetables, whole grain products,  
fats and oils.
- **Developed a Linear Programming Model:**  
Identified servings needed from each food group to  
supply RDAs

# **Modified Basic Four Food Guide**

**2 svg. Dairy Products**

**4 svg. Protein Foods**

**2 svg animal protein**

**2 svg legumes and nuts**

**4 svg. Fruits and Vegetables**

**1 svg vitamin C-rich**

**1 svg dark green**

**2 svg other**

**4 svg. Whole grain cereal products**

**1 svg. Fat and/or Oil**

# **Modified Basic Four:**

## **Adjustments for Special Preferences/Needs**

- **No Meat**
- **No Dairy**
- **No Legumes**
- **Low Cost**
- **Adolescents**
- **Pregnant and lactating women**

**Need:**

**Simple tool for evaluating  
total diet quality**

# Healthy Eating Index

- **Partial index of total diet quality**
- **Measures degree to which a person's diet conforms to the Food Guide Pyramid and the Dietary Guidelines**



# Healthy Eating Index

- Score of 0-10 assigned to 10 dietary components:

Grains

Total fat

Vegetables

Saturated fat

Fruits

Cholesterol

Milk

Sodium

Meat

Variety

- Average score reflects total diet quality

# **Food-based Dietary Guidelines: Criteria**

- **Integrate DRIs and Dietary Guidelines**
- **Tool for evaluating total diet quality**
- **Basic structure can be modified for:**
  - cultural food patterns
  - food preferences
  - specific individual nutritional needs
  - changes in food supply