Healthy People 2010: National Health Goals for USA

Primary goal: increase quality and years of healthy life.

Enhancing goals:

- Promote healthy behaviors
- Promote healthy & safe communities
- Improve systems for personal & public health
- Prevent and reduce diseases & disorders

Health Promotion and Disease Prevention

10 year targets for measuring nation's health status

Government Sponsored Dietary Guidelines:

Dietary Guidelines (USDA)

- Cornerstone of Federal food, nutrition, and health policy and programs in the USA
- ABC's of health
- 10 Guidelines

Food Guideline Pyramid (USDA)

- Incorporate the Diet Guidelines to reduce the risk of chronic disease
- # of servings and sizes
- Diet composition/visual tool
- Foundation of diet is plant-derived

Non-Government Sponsored Dietary Guidelines:

American Heart Association - emphasis:

- Low cholesterol
- low salt
- low sodium (Na+)

American Cancer Society - emphasis:

- Variety
- Plant sources
- Whole grains
- Limit red meat
- Active life
- Healthy weight
- Limit alcohol

Nutrition Labels (FDA):

Nutrition Labeling & Education Act of 1990

- Mandated new food labels
- Established regulations governing nutrition and health claims for food

Nutrition Facts Panel
Independent labeling
Nutrition claims: free, low, light, reduced, etc.
Health claims

- Some are allowed on FDA regulated products

Dietary Supplements (FDA):

Dietary Supplements Health & Education Act of 1994

Pertains to vitamins, minerals, amino acids, & dietary substances to supplement the diet by increasing total dietary intake.

- Labels on supplements may make claims stating how the supplement may affect physiological structure or function in human beings.
- Must state that the claim statement has not been evaluated by the US FDA and the product is not intended to diagnose or treat any disease.

chronic disease

Development of Nutritional Disease:

Health

(1) **Diminishing Reserves**
(2) **Exhausted Reserves**
(3) **Physiological & Metabolic Changes**
(4) **Non-specific signs & symptoms**
(5) **Illness**
(6) **Permanent Damage**

Death

Assessment of Nutritional Status:

How do we determine how healthy a person is in regard to nutrition?

A	**Anthropometrics**	**height, wt, skinfold, head circumference (children)**
B	**Biochemical**	**hematocrit**
C	**Clinical**	**observation: dry skin, nails, spoon-shaped**
D	**Dietary**	**24 hour record of diet**

Anthropometrics:

Body Measurements - est. of body fat & somatic protein (muscle)
Height - evaluate growth in children, wt. status in adults & children
Weight - screen for unusual growth, obesity, under-nutrition, part of equations estimating energy needs & body comp., compared to standards and/or indiv's usual wt formula
Skin folds/fat folds - indicators of body fat (energy reserves), biceps, triceps, subscapulars, suprailliac, abdomen, thigh
Mid arm circumference + TSF = est. of somatic protein
DXA, Bioelectric impedence - strength: early detection of nutrition depletion, rapid, portable, avail., repeatable. Weakness: human error, qual. equip., calibrated, skilled practitioner

Biochemistry:

Measurement of levels of nutrients, their metabolites, substances containing the nutrient, enzymes that require the nutrient or substances that result from abnormal metabolism from a nutrient deficiency.

Strengths: Objective & quantitative. Can detect nutritional deficits long before changes in anthropometrics or clinical observations.

Weakness: May be influenced by non-nutrition factors such as disease or medication use. May diagnose deficiency but not predict impending deficiencies.

dietary fiber:

substances in plant foods that are not digested by the processes that take place in the gastrointestinal tract

lignin:

a fibrous material found in the bran layer of grains and in stems and seeds of fruits and vegetables

epidemiologic:

related to epidemiology, the study of behavior and disease across a population

triglycerides:

a major form of lipid in the diet and body; it is composed of three fatty acids bonded to glycerol, an alcohol

clinical studies:

studies in which an intervention is implemented and results are observed, usually in a blind and double-blind fashion

trans fatty acids:

fatty acids in which the double bond has one hydrogen on the opposite side of the double bond

dietary reference intakes (DRIs):

reference values that are quantitative estimates of nutrient intakes to be used for planning and assessing diets for healthy people

neoplastic diseases:

diseases characterized by the growth of new and abnormal tissue, as in cancer

recommended dietary allowance (RDA):

the dietary intake level of a nutrient needed to meet the requirement of *nearly all (97% to 98%) of the healthy population* of individuals in a particular life stage and sex

estimated average requirement (EAR):

the average requirement of a nutrient intake value that is estimated to meet the requirement of *one-half of the healthy individuals* in a life stage and gender group

tolerable upper intake level (UL):

the highest level of daily nutrient intake that is likely to pose *no risk of adverse health effects* to almost all individuals in the general population; as intake increases above the UL, the risk of adverse effects increases

adequate intake (AI):

a recommended daily intake value based on observed or experimentally determined approximations or *estimates of nutrient intake by a group (or groups) of healthy people that are assumed to be adequate* -- used when an RDA cannot be determined

differentiation:

process of acquiring individual characteristics of functions; progressive diversification

development:

the acquisition of function or progression to a more advanced stage of complexity for greater facility in function

hyperplasia:

increase in the number of cells

hypertrophy:

enlargement from an increase in cell size

senescent:

exhibiting signs of the process of growing old