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Food and Nutrition Policy

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Policy Principles, Definitions and Frameworks

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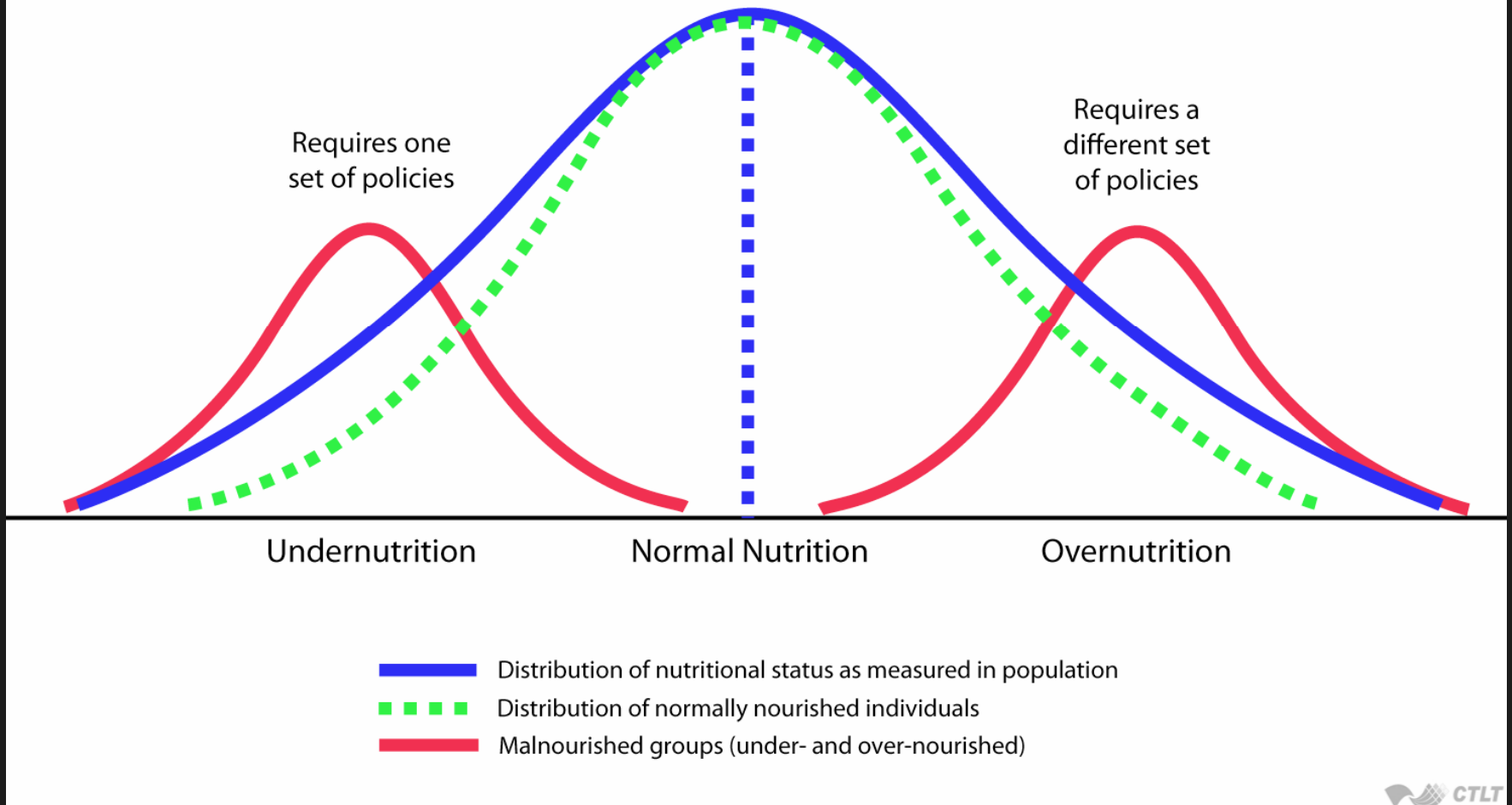
Bloomberg School of Public Health

Goals of the FNP Course

- **Identify food and nutrition problems** amenable to policy intervention
- **Define criteria** of effective food or nutrition policies
- **Critique** a specific food and/or nutrition policy with respect to its evidence-base, adequacy of implementation, nutritional impact and forces which hinder or help the implementation of the specific policy

Population Distribution

Populations with "Dual Burden" of malnutrition require guidance for staying healthy



- Distribution of nutritional status as measured in population
- Distribution of normally nourished individuals
- Malnourished groups (under- and over-nourished)

***Policy:* A statement by an authoritative body of an intent to act in order to maintain or alter a condition in society**

- **Statement:** clear, translatable, evidence-based
- **Authoritative body:** government or United Nations agency
- **Intent:** backed by legislative & regulatory components
- **Act:** inform, guide, intervene in an “enabling” economic, infrastructural, social and political environment
- **Alter:** Improve, or worsen (depends on target groups and constituencies)
- **Condition:** trade, security, education, transport; or in this course – one or more health, nutritional or dietary states
- **Society:** Defined in terms of “strata” (eg, by SES, age, gender, occupation, ethnicity, location) who stand to be unaffected/left out, gain or lose from a policy

Broad Goal of Food-and-Nutrition Policies

Food and nutrition policies are concerned with physical and economic access to food that is safe, nutritious, affordable, wholesome and culturally appropriate in adequate amounts and kind throughout the year that can prevent hunger and promote and sustain health, function and livelihood of an entire population at all stages of life.

Broad Goal of Food-and-Nutrition Policies

Addendum about structural factors

Beyond biomedical concerns, food and nutrition policies should seek to enhance a social, economic and food industry infrastructure that allows populations to make healthy decisions about foods to eat under environmentally sustainable conditions.

Nutrition Policies in Low Income/Developing Countries

- Direct nutrient-based interventions
 - Nutrient supplementation
 - Food fortification
 - Commercial foods (including labeling)
 - Food aid
- Nutrition education to guide high risk group behavior (eg, model of WHO/FAO/ UNICEF)
 - Exclusive breast feeding \leq 6 mo of age
 - Dietary guidelines for healthy eating
- Agricultural and trade policies that assure availability and access to nutritious food

Major Nutritional Problems that Require Policy Attention

- **Undernutrition:** chronic with acute components
- **Micronutrient deficiencies:** chronic with acute stages
- **Obesity:** chronic
- **Food insecurity:** chronic, fluxes

Reasons for Policies to Control/Prevent Undernutrition

- Reduce burden of infection
- Lower excess mortality
- Enable increased child activity
- Improve development
- Improve school performance

Root Causes of Undernutrition

Poverty

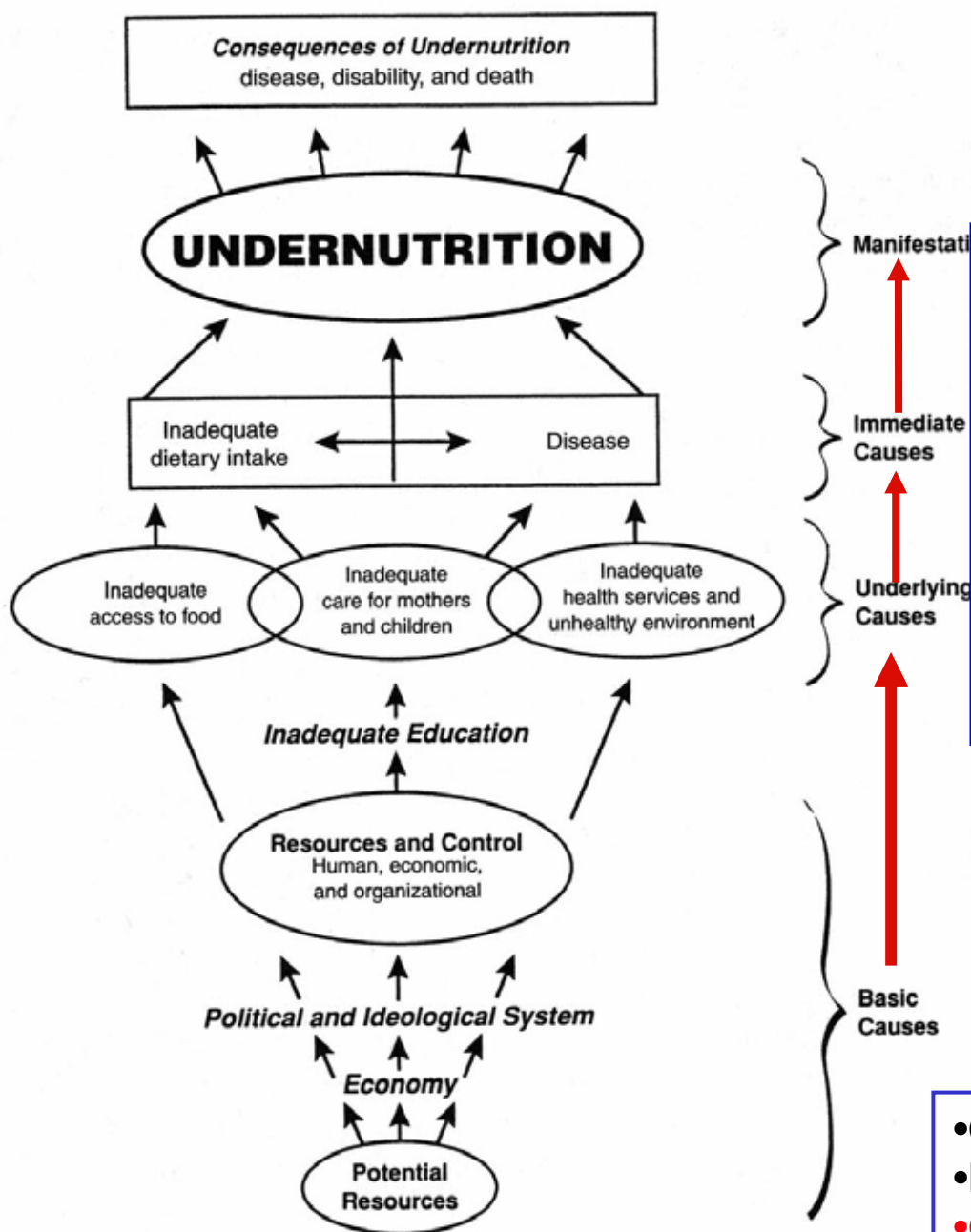
Deprivation

Social inequality

Lack of education

Population growth

ICN, Rome, 1992



- Clinical treatment protocols (eg, PEM, keratomalacia, diarrhea)
- Supplementary feeding

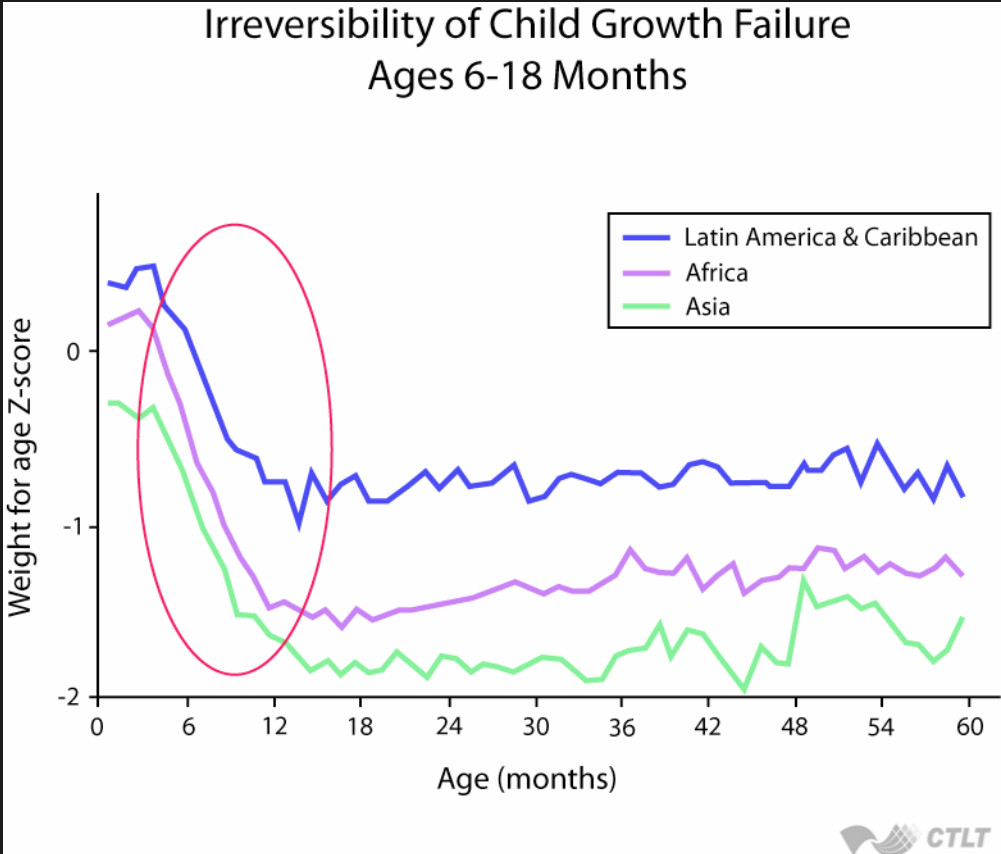
- Nutrition surveillance & surveys
- Direct nutrient provision
 - Supplementation
 - Food fortification
- Feeding programs
- Nutrition education
- Food subsidies
- Horticulture (gardens)
- Pisciculture (fish farms)
- Animal husbandry

- Education
- Equal opportunity
- Health care system
- Market access
- Food aid

- Good governance
- Economic & development plans
- Grains & livestock production
- Trade policies
- Human rights (including food & nutrition)

UNICEF Conceptual Model of the Causation of Undernutrition, Modified To Include Its Consequences

Nutrition Policies to Correct Childhood Undernutrition May Have Limited “Window of Effect”

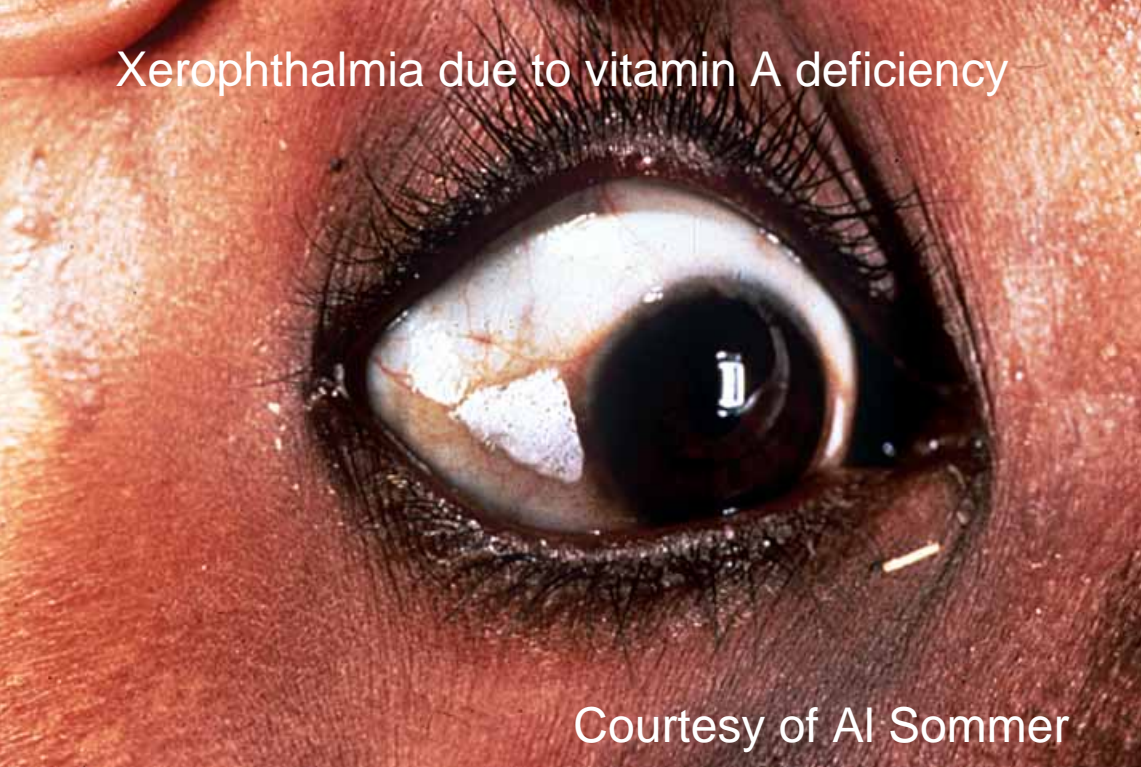


Micronutrient Deficiencies: Policy Targets

Hidden Hunger

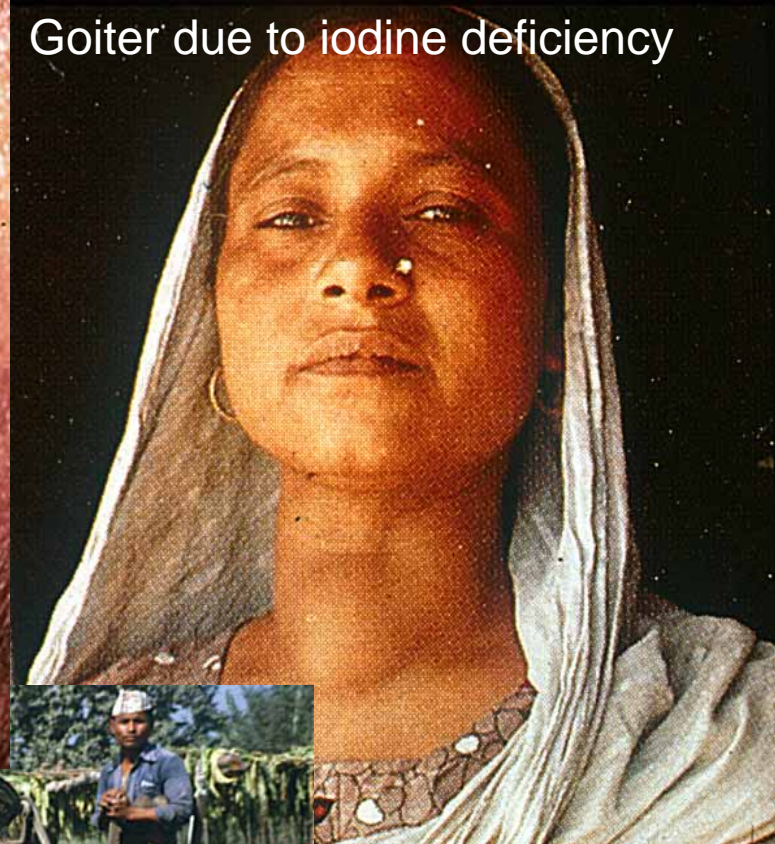
- ~2 billion people affected
- VA, iron, iodine, and zinc deficiencies
- Effects: poor growth, increased morbidity, intellectual impairment, increased mortality
- Preventable: supplements, fortification, diet change

Xerophthalmia due to vitamin A deficiency



Courtesy of Al Sommer

Goiter due to iodine deficiency



Courtesy of John
Dunn



Keith West

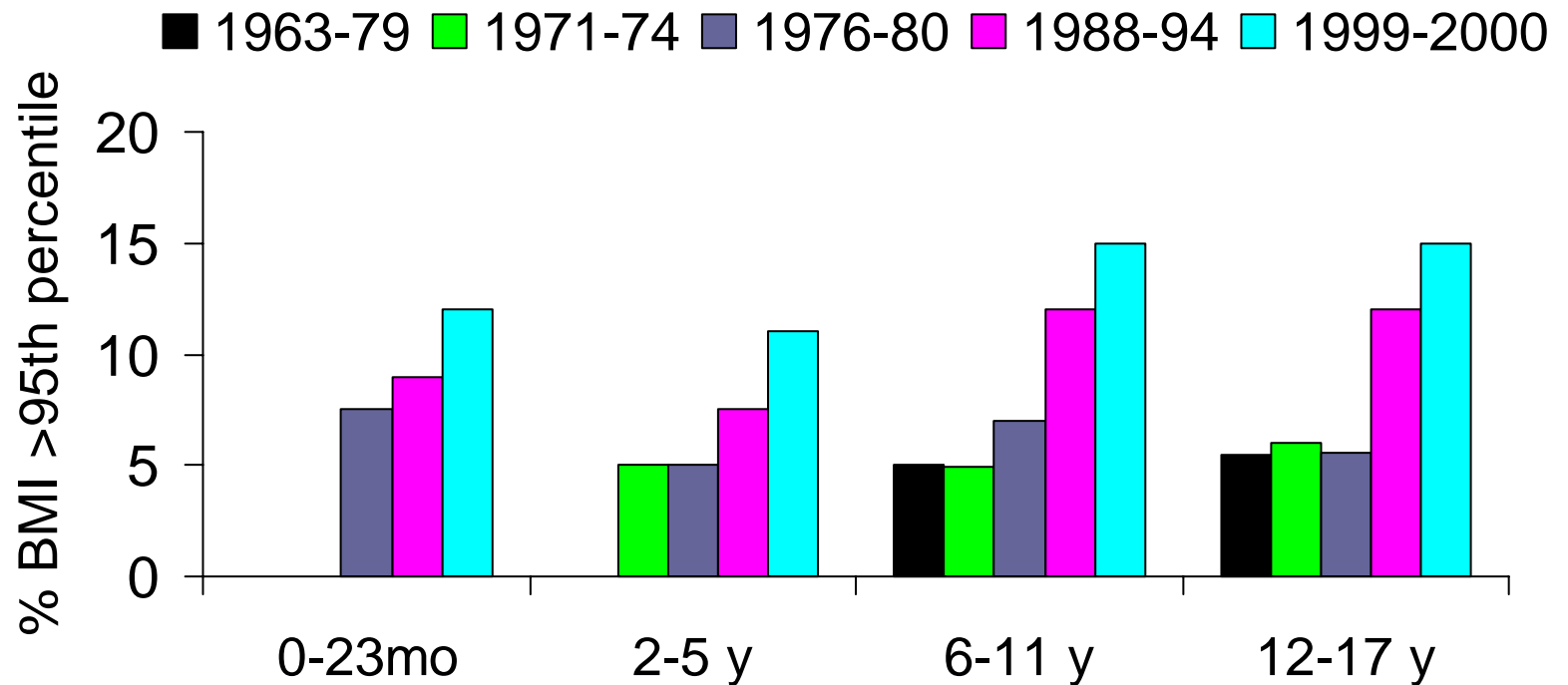
Early childhood stunting due to chronic protein energy undernutrition

Obesity as a Major Public Health Problem & Policy Target



Courtesy of Benjamin Caballero

Overweight trends in the United States among infants and children



Health Consequences of Obesity

- Cardiovascular disease
- Hypertensive disorders
- Diabetes
- Impaired quality of life
- Premature death

Food Insecurity

➤ Policy Goal: Assure that all people at all times have both physical and economic access to sufficient food to meet their **dietary needs** in order to lead a healthy and productive life.” (USAID, 1995)

Quantity and Quality,

Availability, Access and Utilization

Basic Premises (some)

- Nutrition problems affect health & quality of life
- The problems can be sufficiently identified and quantified so as to deal with them
- Food policies directly affect nutrition, but often fail to explicitly integrate nutrition priorities
- Nutrition priorities need to be on the national policy agenda to safeguard citizenry
- Food & nutrition policies when implemented can *safely improve* nutrition in populations
- Political, economic and social commitments can be harnessed to devise policies, and implement and sustain programs

The “5 Ws” of Policymaking: Defining the Food & Nutrition Problem

- **What** is the nutritional condition and how severe is it?
- **Who** has it ? (at-risk)
- **Where** is the problem of public health importance?
- **When** does it occur?
- **Why** does it occur?

Defining the Problem: **What?**

What is the nutritional condition and how severe is it?

- Famine
- Undernutrition (UN)
- Micronutrient deficiency (MND)
- “Hunger” (H)
- Food insecurity (FI)
- Poor child growth (PCG)
- Dietary imbalance (DI)
- Overweight (Ow)
- Obesity (O)

Defining the Problem: What?

What is the nutritional condition and how severe is it?

- How is it measured?
 - Status?
 - Diet?
 - Food availability or access?
 - Other evidence?
- How severe?
 - Cutoffs?

Severity: % < indicator cutoffs...

- Famine: weather, crop prod, market prices, popn movements, FEWS
- UN: wt for ht, wt for age
- MD: serum level, enzyme activity, clinical signs
- H/FI: meal demands met
- PCG: mean tracking < 5%ile
- DI: RDAs, nutrient densities
- Ow/O: BMI, body composition

Defining the Problem: **Who?**

Who has the condition?

- High risk or target groups? Defined by...

- Age/lifestage
- Sex
- Ethnicity/tribe/race/nationality
- SES criteria
- Occupational group

- Preschool children
- School aged children
- Adolescents
- Pregnant women
- Lactating women
- Fetus/infants
- Older age groups



Male
1-year old
boy in
Bangladesh

His
Twin
sister



Photos: Keith West

Defining the Problem: Who?

Who has the condition?

- High risk or target groups?

Defined by...

- Age/lifestage
- Sex
- **Ethnicity/tribe/race/nationality**
- SES criteria
- Occupational group

- Native Americans
- Karen tribe (Thailand)
- Aborigines (Australia)
- Manangis (Nepal)
- Harijans (S Asia)
- Immigrant groups

Defining the Problem: Who?

Who has the condition?

- High risk or target groups?

Defined by...

- Age/lifestage
- Sex
- Ethnicity/tribe/race/nationality
- **SES criteria**
- **Occupational group**

- Groups below “poverty line” (UK, USA)
- “Food insecure” groups
- Tea estate, garment workers (S Asia)
- Food for work beneficiaries
- Migrant workers/families
- Day laborers
- Unemployed



Courtesy of Parul Christian

“Who” may also be segments of populations in certain high risk “life stages” for policies to effectively address; eg, women of reproductive age in poor countries.

Defining the Problem: **Where?**

Where does the nutritional condition occur? Does it *cluster by location*?

- Region?
- Altitude?
- Development level?
- Rural vs urban?

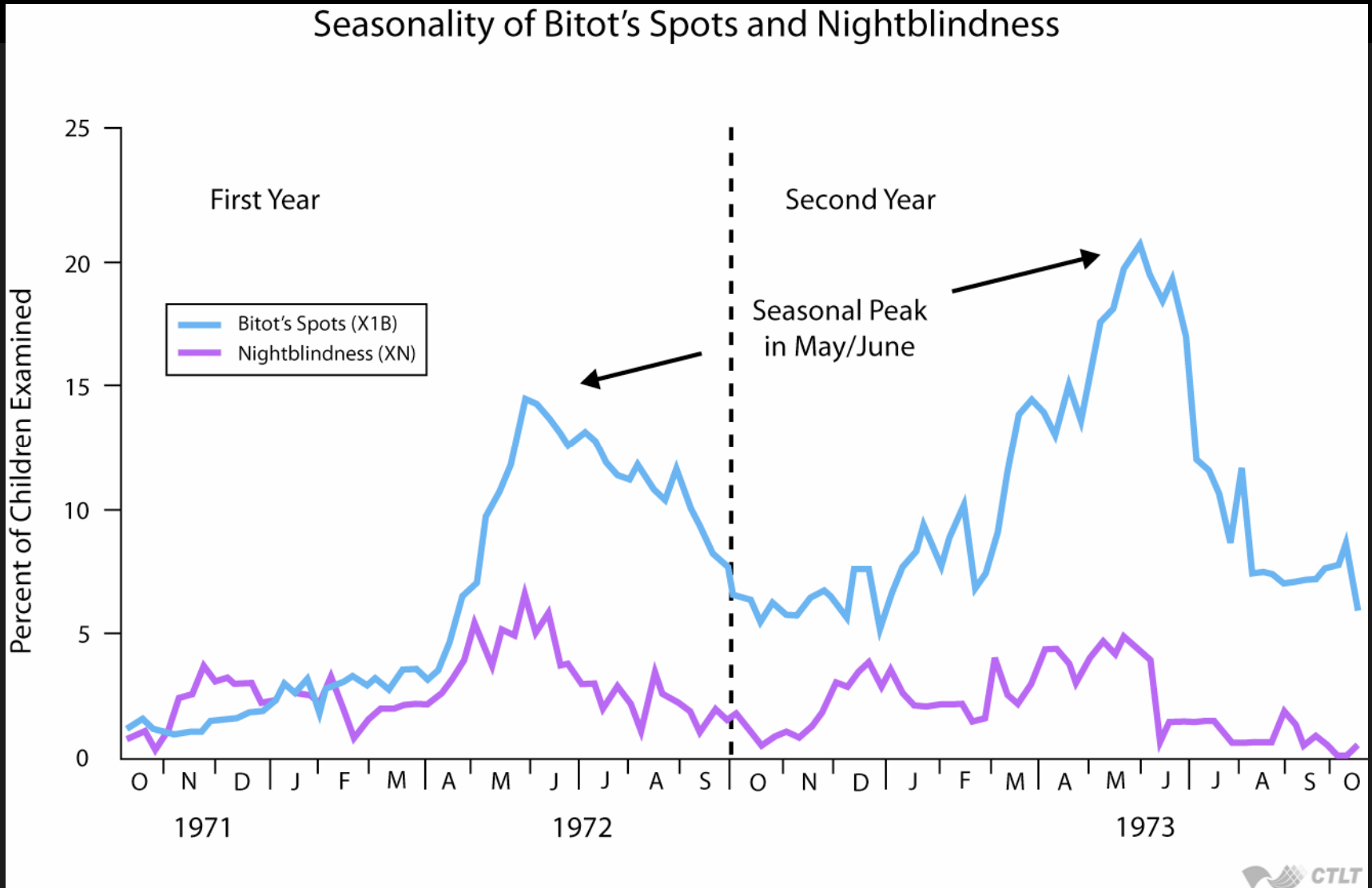
- Far West Hills of Nepal - chronic food shortage
- Central/north Ghana and NE Brazil where VA deficiency exists
- Ecuador highlands with iodine deficiency
- Inner cities, Native American reservations & Micronesia are at high risk for obesity

Defining the Problem: **When?**

When is the condition most likely to occur?

- Is the problem sporadic?
 - Is it cyclic?
 - Is it triggered by conflict?
 - Does it *cluster* by season?
 - Does it show a long time trend?
- Wasting in pre-harvest season in Bangladesh
 - Drought or flood seasons
 - High “food insecurity” at end of month in US
 - Steadily increasing trend toward obesity in US
 - “Nutrition transition” in many developing countries
 - Economic collapse (eg, 1930s in US, 1998 in Indonesia; long recoveries)
 - Dutch Winter Famine of 1944 (imposed, short term)

Seasonality of Bitot's Spots and Night Blindness



Adapted by CTLT from Sinha and Bang, Lancet 1973

The “5 Ws” apply to many co-existing conditions in a population...

- **What?** Many concurrent nutrition problems and food security inequities of varying severity and importance...
- **Who?** ...affecting populations across life stages, SE conditions and multiple cultural origins
- **Where?** ...throughout a country, in some areas more than others (eg, periurban/urban vs rural)
- **When?** ...year round or during seasonal peaks
- **Why?** Presumes we know causes – biologic, social, economic, cultural, political and (increasingly) structural or “external”

Questions Facing Food & Nutrition Policies

- **Why** should something be done?
- **What** should be done and who decides?
- **Can** a policy address the cause(s)? Or limit the extent of malnutrition? Directly? Indirectly? Presumes knowledge of causal paths and specificity of effects; “evidence-based”
- **Is** there sufficient political will?
- **How** is the policy to be implemented? Nationally? Locally? Through what sectors?
- **How** can evolved interventions be legislated? regulated? Facilitated?
- **How** will implementation be monitored?

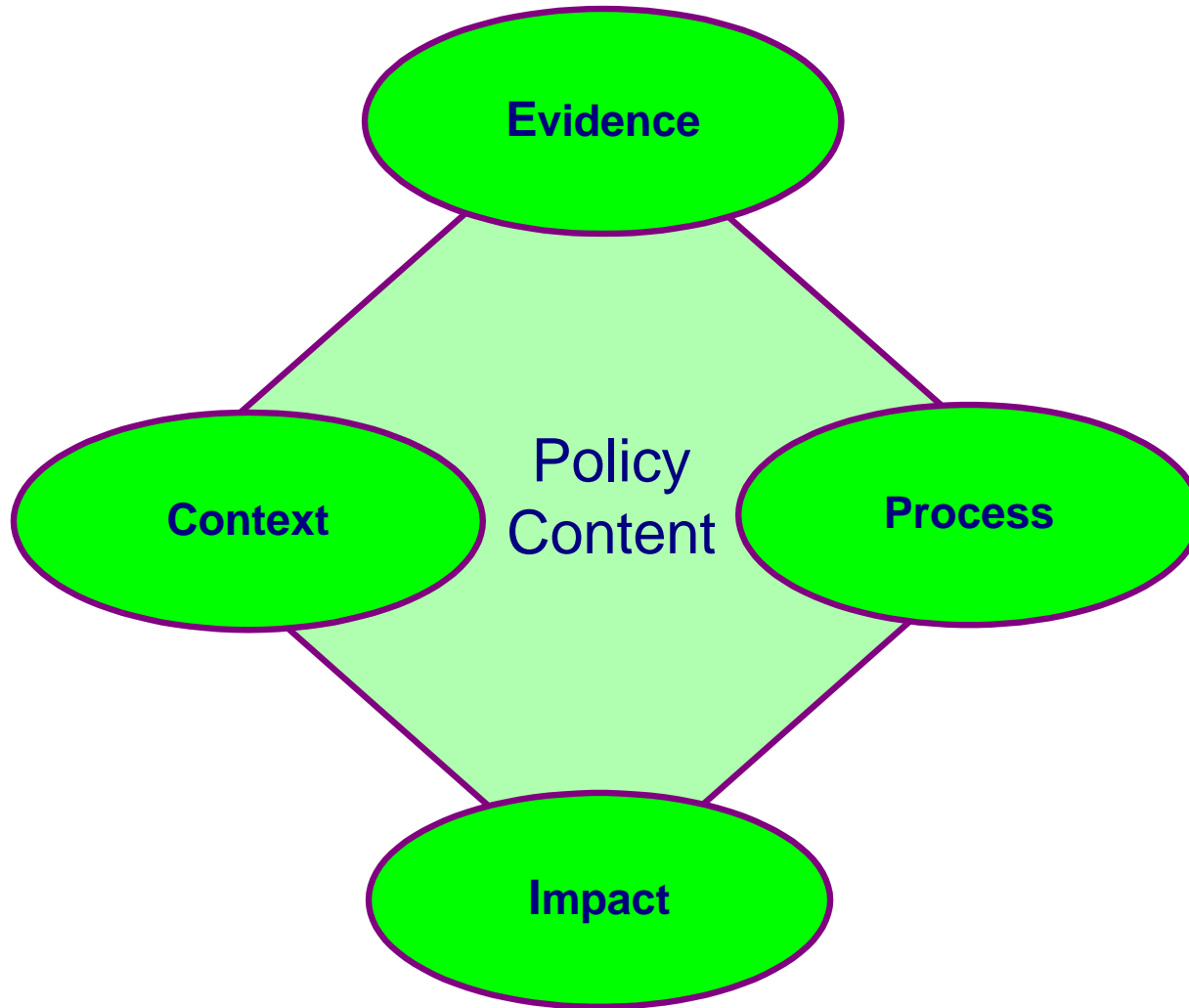
Questions Facing Food & Nutrition Policies

- **What** is expected impact of a policy? Nutritional? Economic? Political? Short-term? Long-term?
- ...among **whom**? **Which** groups of *recipients and other stakeholders* will benefit? Will not benefit?
- ...by **what** nutritional, health, economic, political indicators? Cutoffs? Using what evaluation designs?
- ...measured over **what** period of time? **How** frequently?
- **How** will the programs driven by the policy be funded? Subsidies? Market-borne? New taxes? Class action suits won?! Other “externalities”? International aid?
- **What** are the “opportunity costs” of the policy?

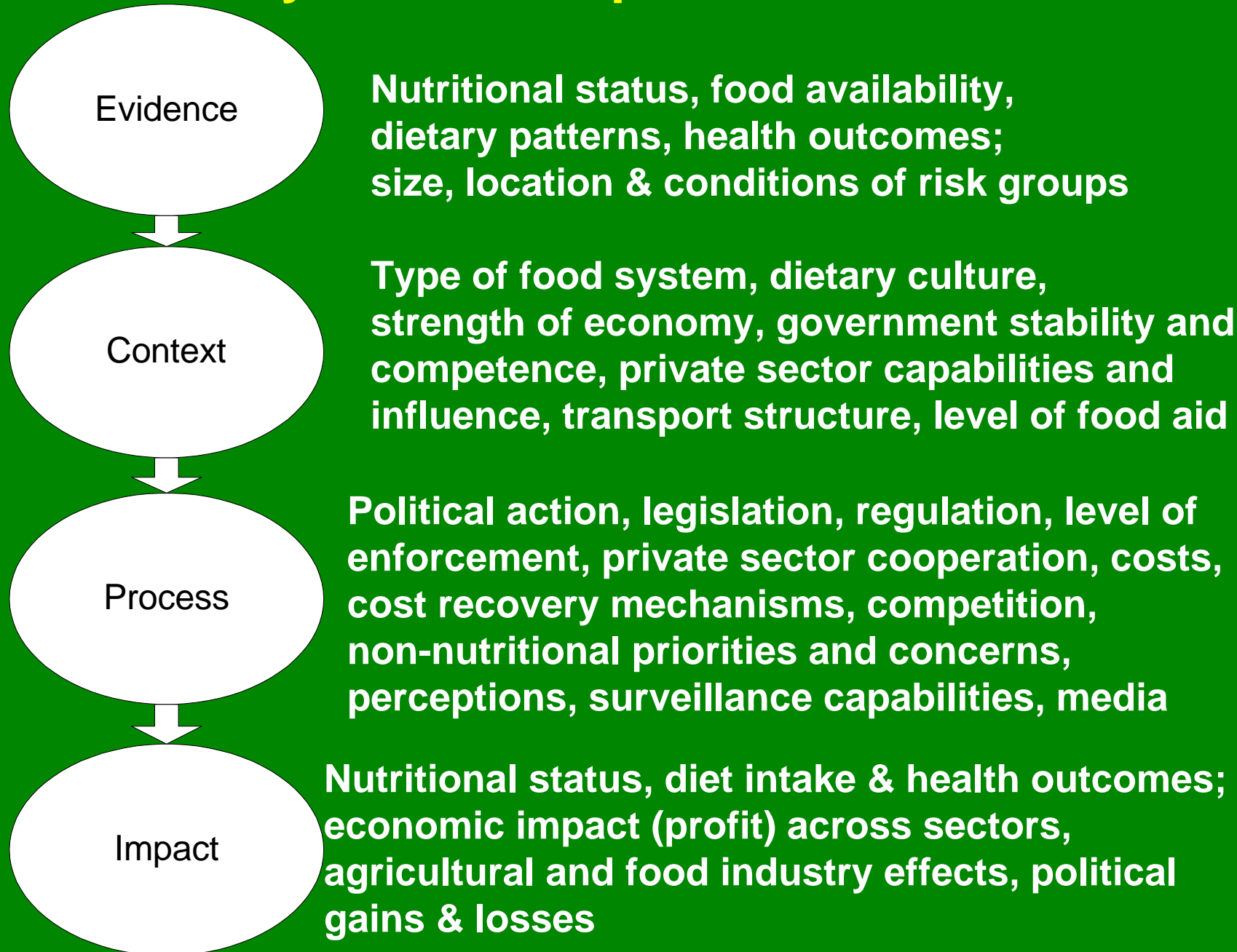
Sundry Observations...

- Those in need will never be the only policy beneficiaries; maybe not even the major ones!
- Developing, building constituencies, passing and implementing policy is a slow, “herd” process. Changing policy is usually just as slow.
- **The Ideal:** Policy emerges from a critical mass becoming aware of problems and involved, driven by evidence, converging with political commitment, resources and know-how across divergent sectors and groups of “stakeholders”.
- Policies may emerge that are less driven by evidence but by food economics, political agendas and industry via globalization

Food and Nutrition Policy Diamond



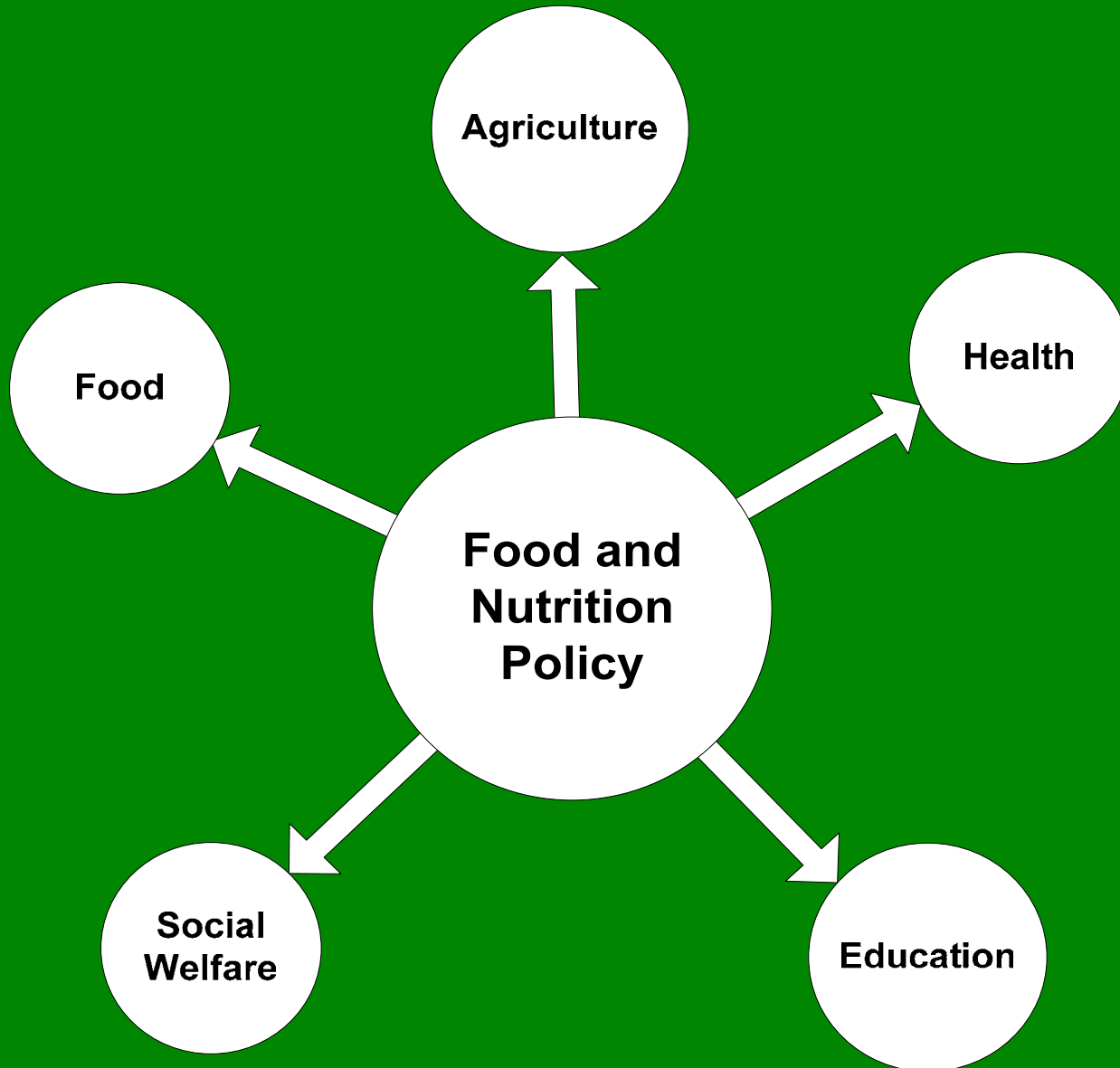
Policy Content depends on...



Ideally, Food & Nutrition Policies should have

- Clear statement of goals (sometimes occurs)
- Quantifiable benchmarks (often not)
- Orderly, well-defined process (usually not)
- Sufficient funding to implement (sometimes)
- Stakeholder recognition, cooperation and defined expectations (rarely)
- Evaluation process (eventually... sometimes)

Nutrition Policies: Integrated with Other Sector Policies



Nutrition Policies: "Stakeholders"

