

Global Trends in Food Security and Nutrition:

The importance of food system approaches to making progress



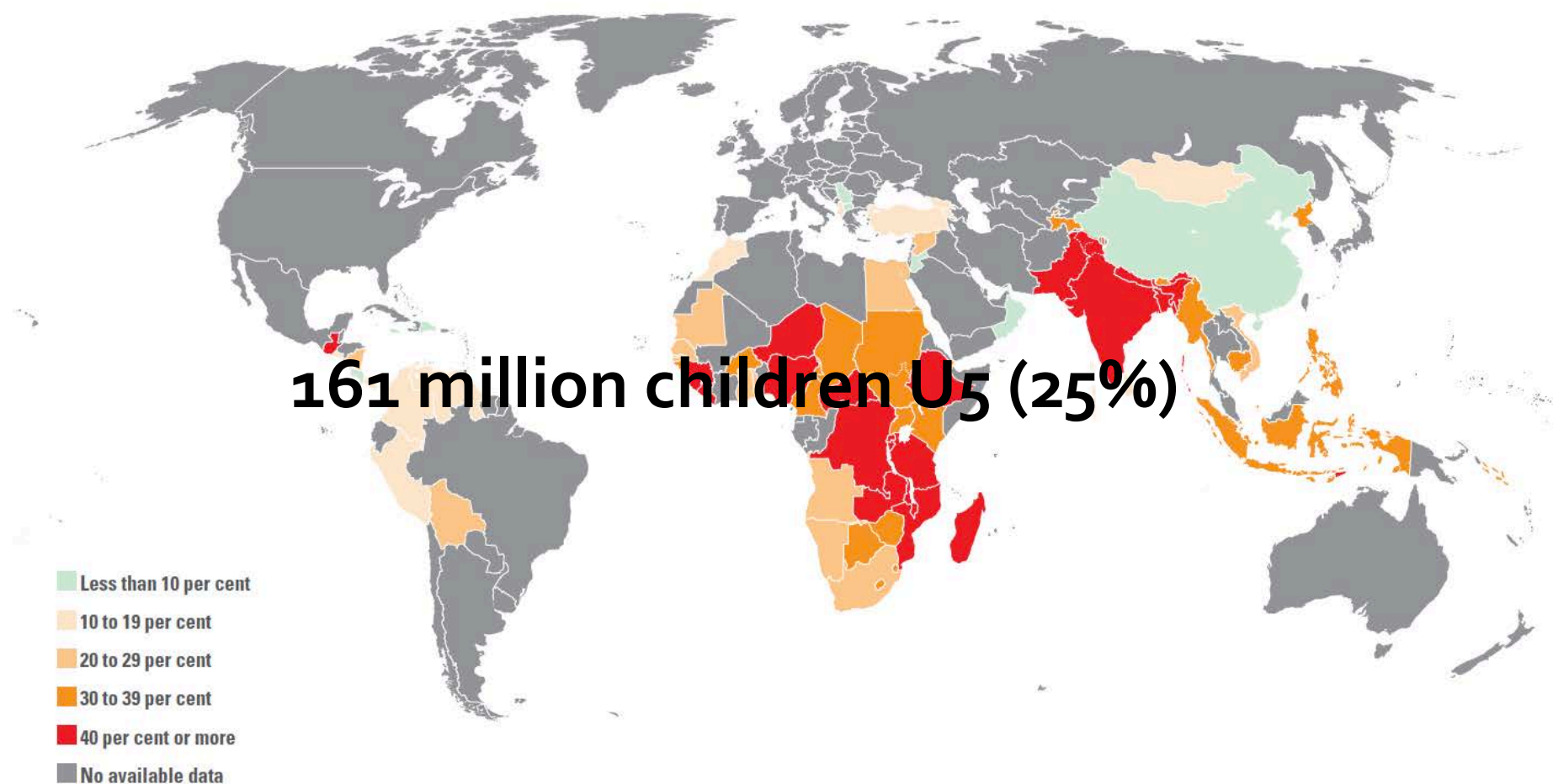
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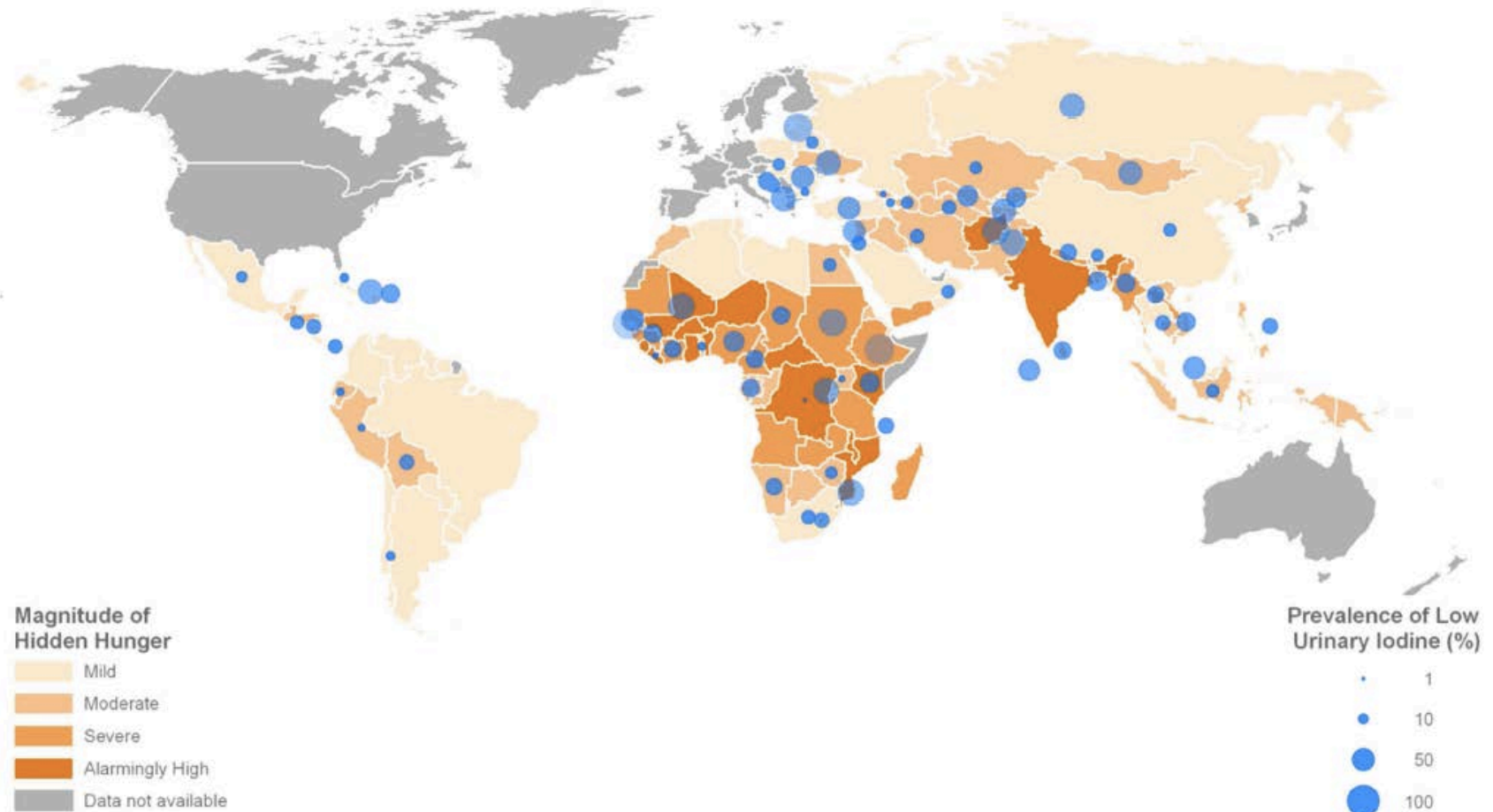
School of Advanced International Studies and the Berman School of Ethics

Johns Hopkins University

Chronic Undernutrition: Stunting



Multiple Micronutrient Deficiencies



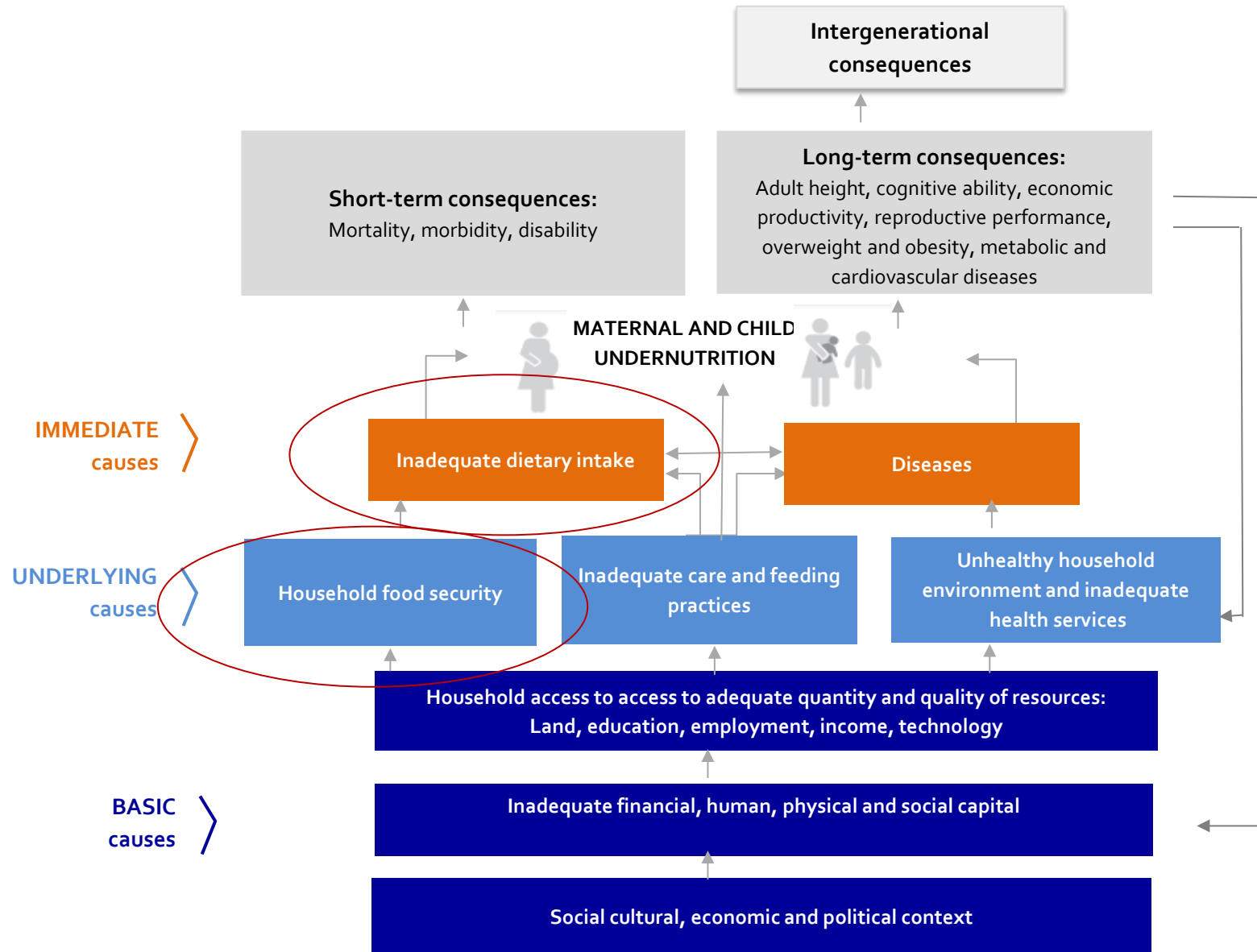
“Globesity”: Overweight and Obesity



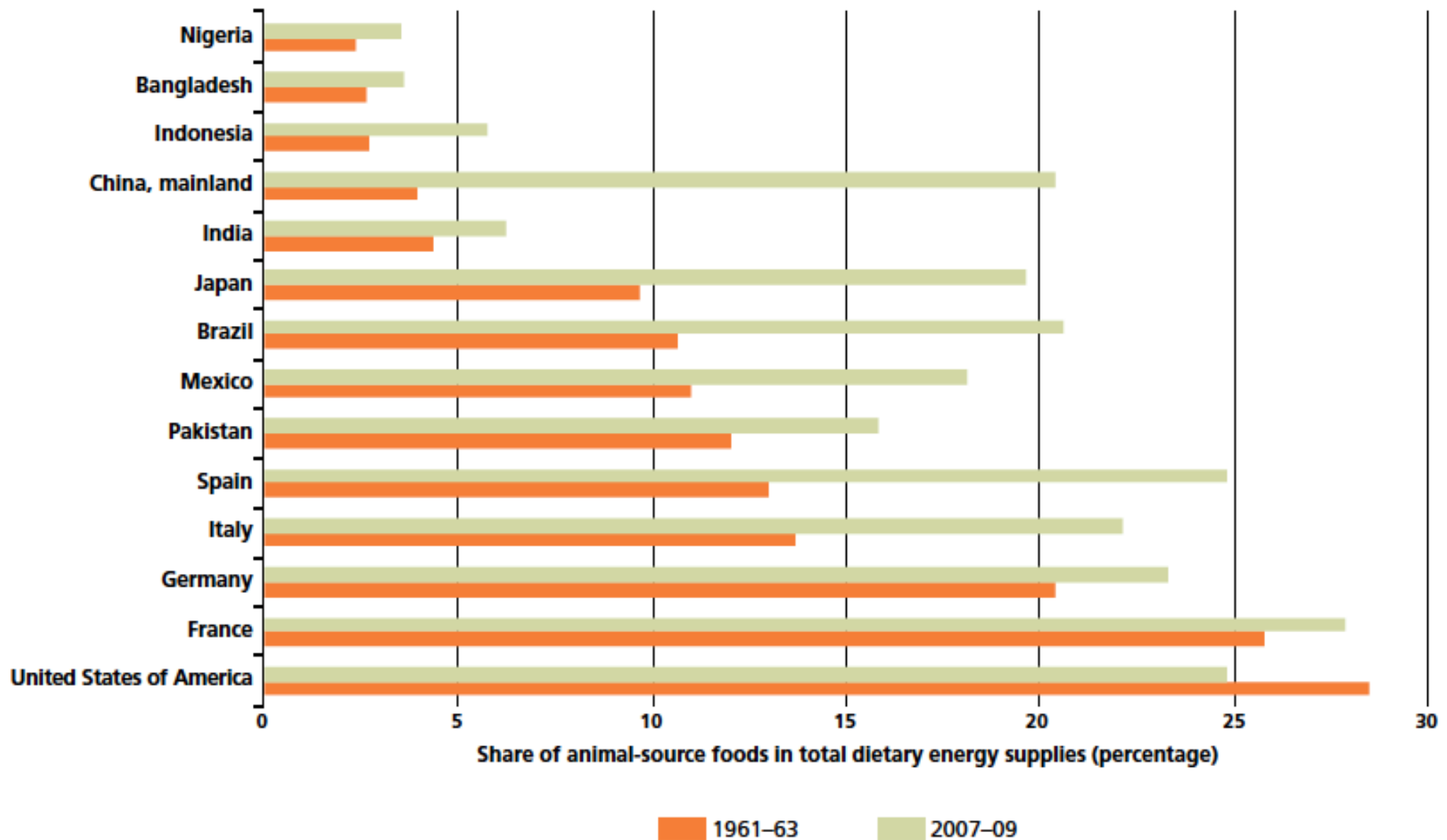
2.1 billion people are overweight or obese



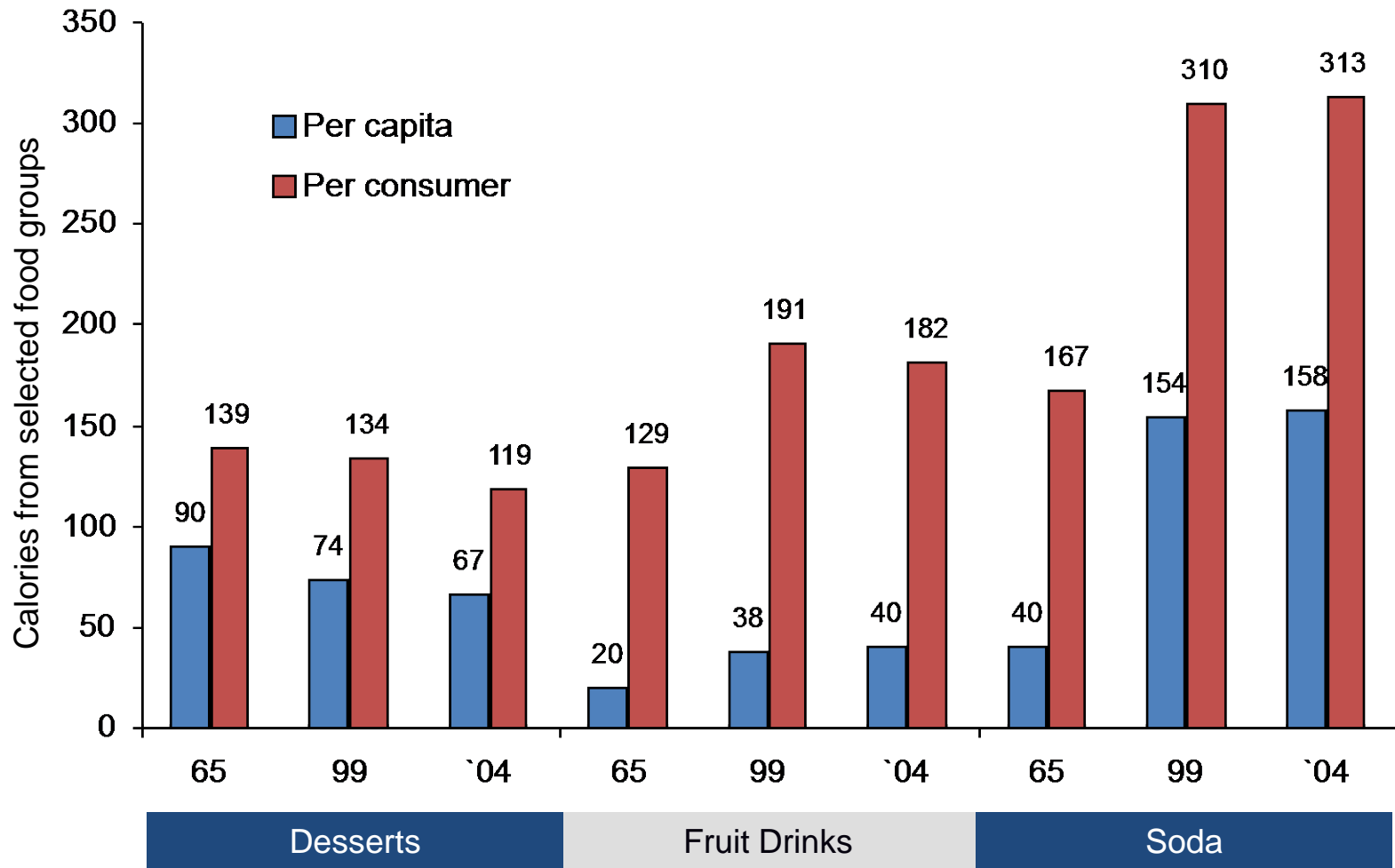
The Causes of Malnutrition are Multi-Factorial



Demand for animal foods is increasing

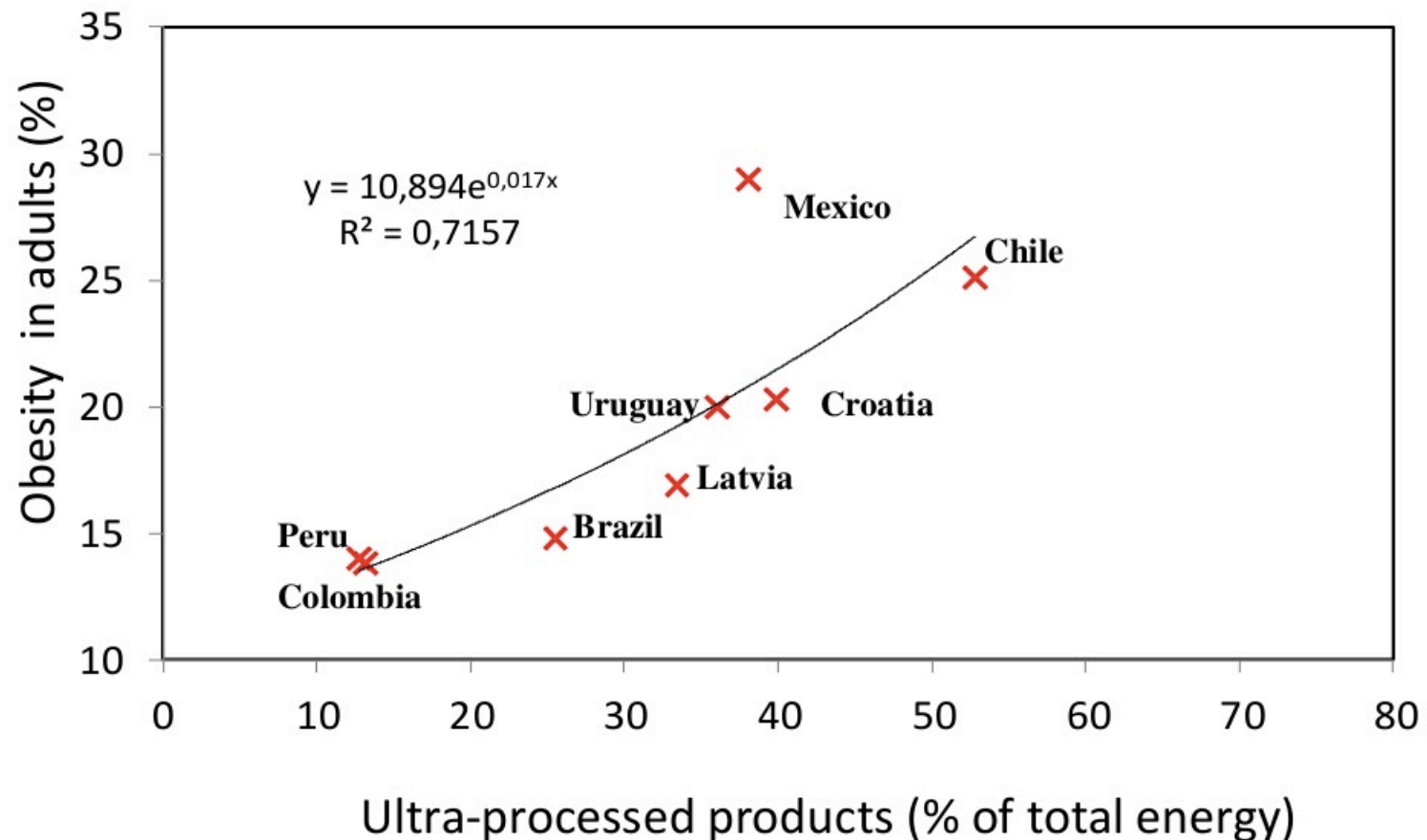


Sugar consumption from SSBs has increased

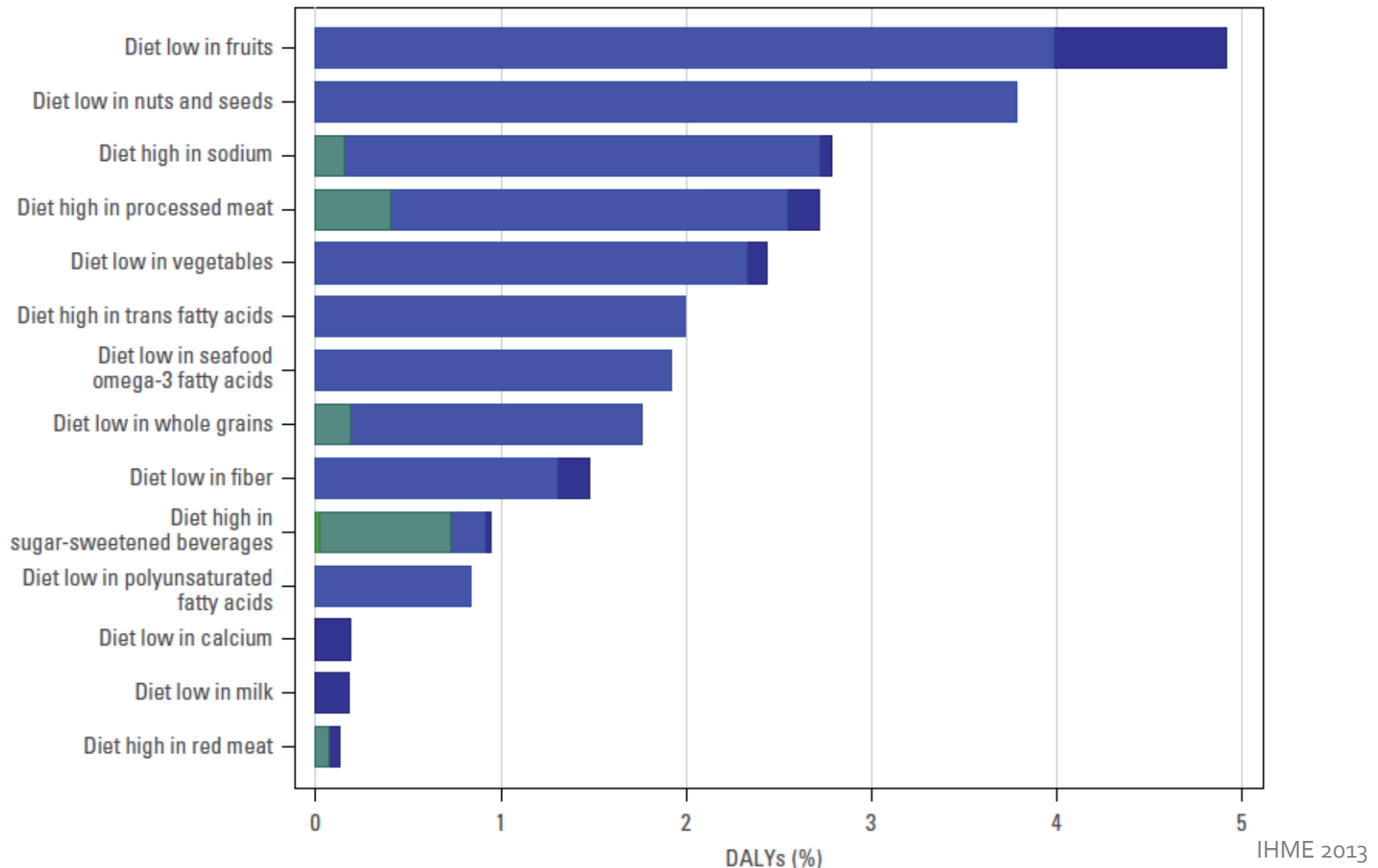


Ultra Processed Foods Are in High Demand

Dietary share of ultra-processed food consumption and obesity in middle income countries

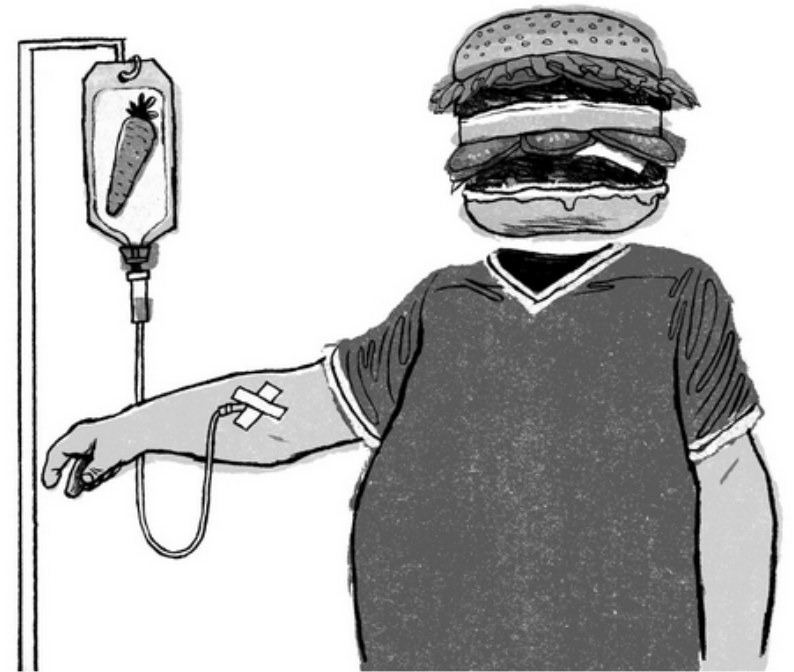


Dietary risks are the leading cause of disease burden



Dietary habits are shifting

- **Higher income countries:** increased portion sizes, away from home consumption, snacking, and caloric sweetened beverages
- **Lower income countries:** increased intake of vegetable fats (edible oils) and animal source food changes, convenience, snacking and packaged food preferences are increasing



Food System Dynamics and Drivers: Need to think about other Systems

- Urbanization & changing food environments
- Climate variability & change
- Rapid degradation of natural resources
- Escalating population growth and density
- Increasing incomes
- Evolving ICT
- **Shocks to systems**

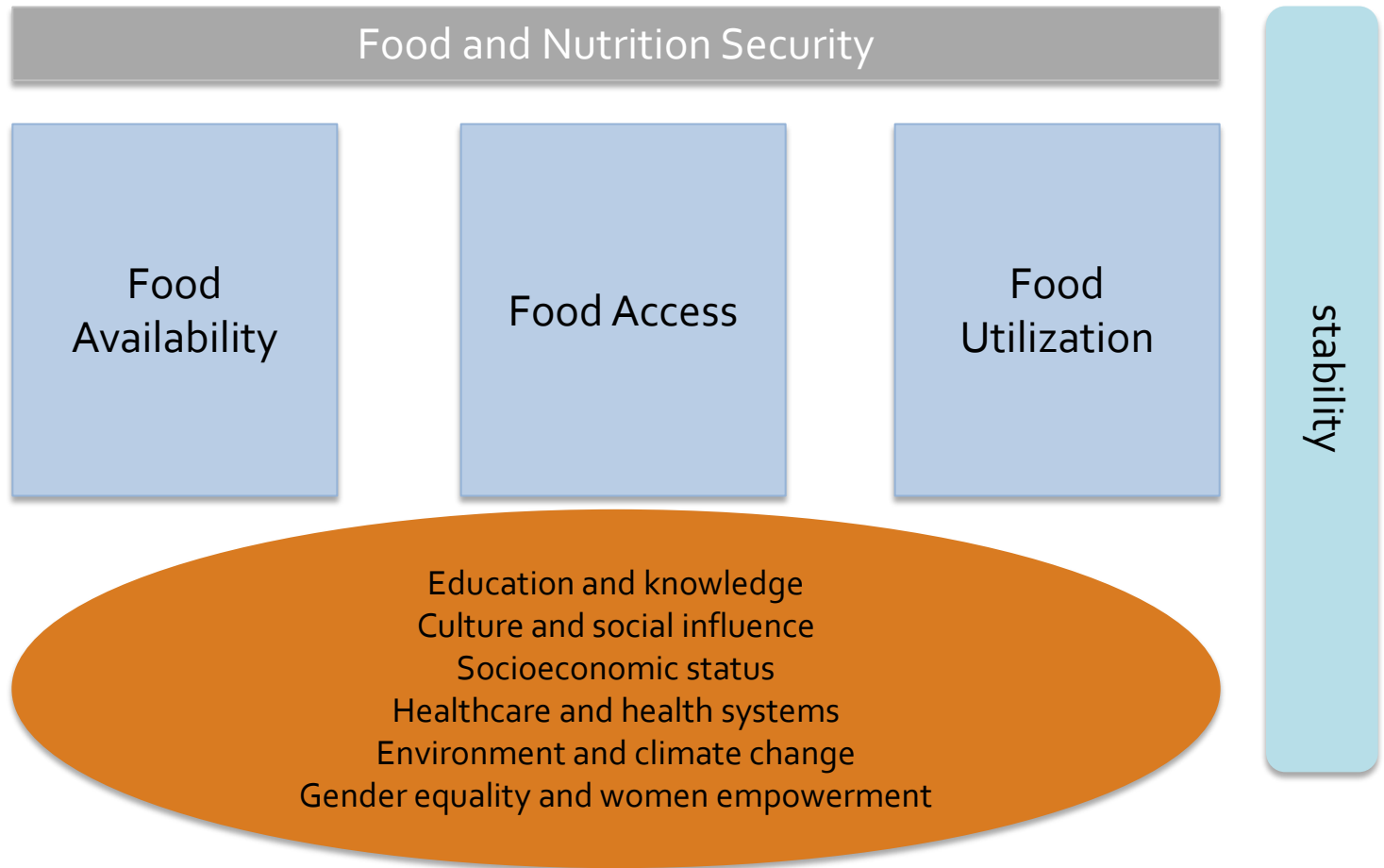
High burden of stunting – conflict countries top the list

Country	Year	Stunting prevalence (%)
Timor-Leste	2009–2010	58
Burundi	2010	58
Niger	2011	51
Madagascar	2008–2009	50
India	2005–2006	48
Guatemala	2008–2009	48
Malawi	2010	47
Zambia	2007	45
Ethiopia	2011	44
Sierra Leone	2010	44
Rwanda	2010	44
Pakistan	2011	44
Democratic Republic of the Congo	2010	43
Mozambique	2011	43
United Republic of Tanzania	2010	42
Liberia	2010	42
Bangladesh	2011	41
Central African Republic	2010	41
Nigeria	2008	41
Nepal	2011	41
Guinea	2008	40

Note: The countries in bold are profiled beginning on page 55 of this report.

Source: UNICEF Global Nutrition Database, 2012, based on MICS, DHS and other national surveys, 2007–2011, except for India.

“Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life.”

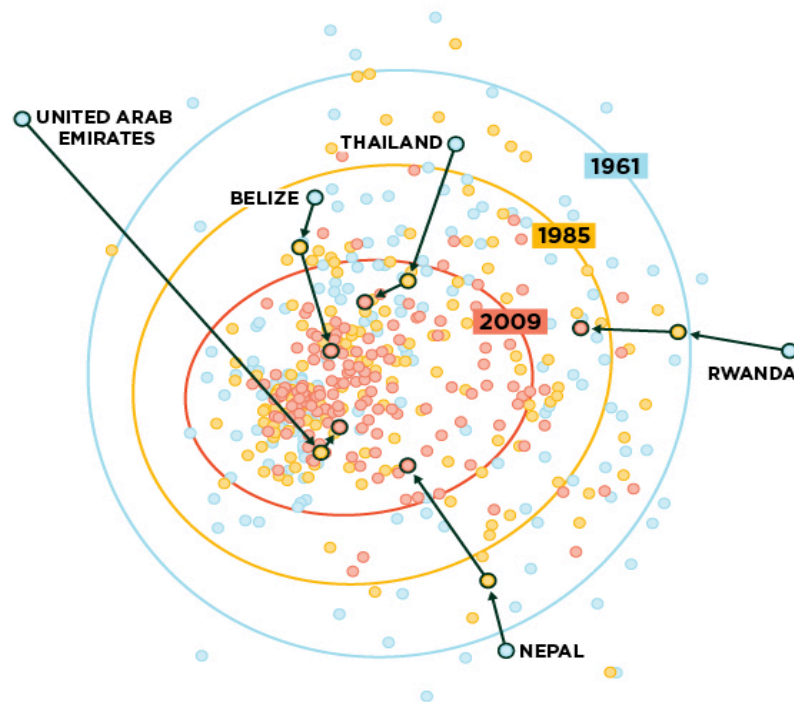


Improve the Quality of What is Available

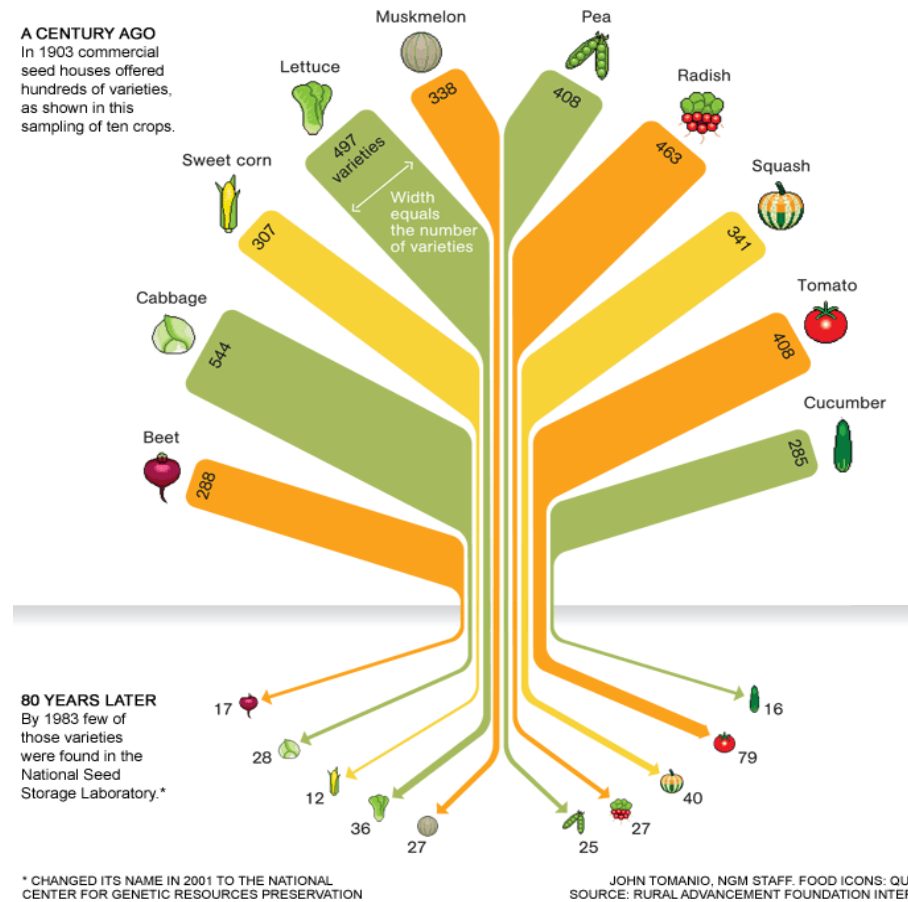
A study of the world's countries finds that over the last 50 years, diets have become ever more similar.

Each country's food supply composition in contribution to calories in:

● 1961 ● 1985 ● 2009



Source: Khoury et al. 2014. Proc. Natl. Acad. Sci. USA.



Source: Khoury et al 2014 PNAS; National Geographic 2011

Integration of Agriculture, Environment and Rural/Urban Development



Improving multi-functional landscapes

Conserving and sustainable use of ecosystems and biodiversity

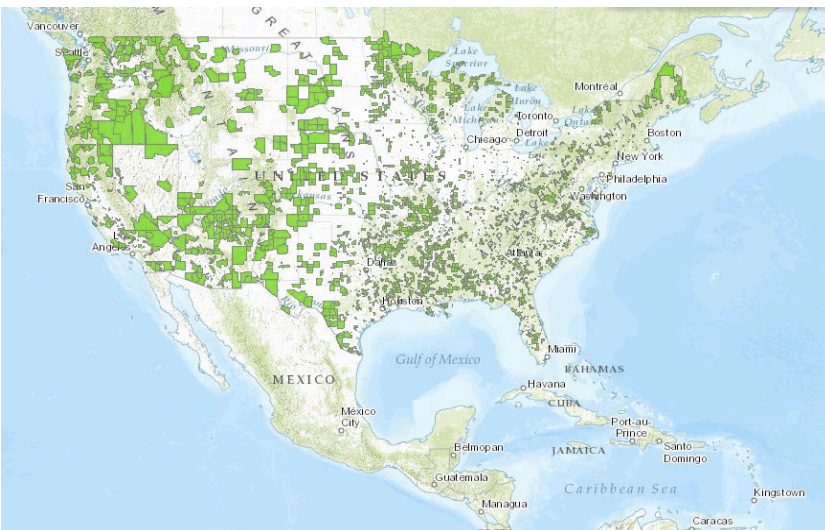
Engaging women

Super vegetables

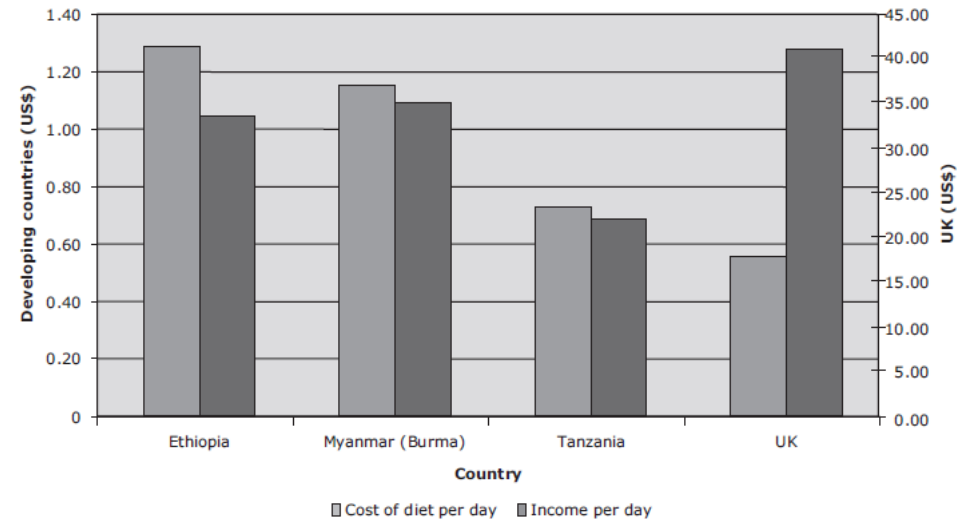
Long overlooked in parts of Africa, indigenous greens are now capturing attention for their nutritional and environmental benefits.

Increase Accessibility to Nutritious Foods

Food Deserts

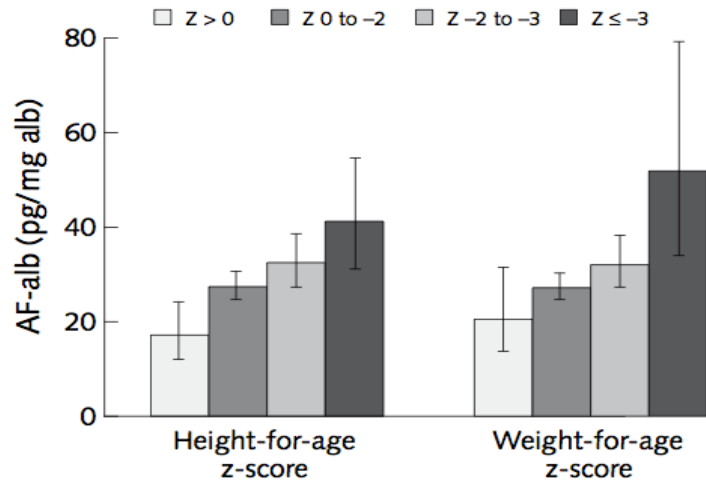


Cost of Diets



- Popup markets and local markets
- Incentives to informal food sellers – street carts, bodegas, kiosks [vouchers]
- Link farmers to local social services – schools, clinics, etc.
- Food prices
- Increasing incomes...

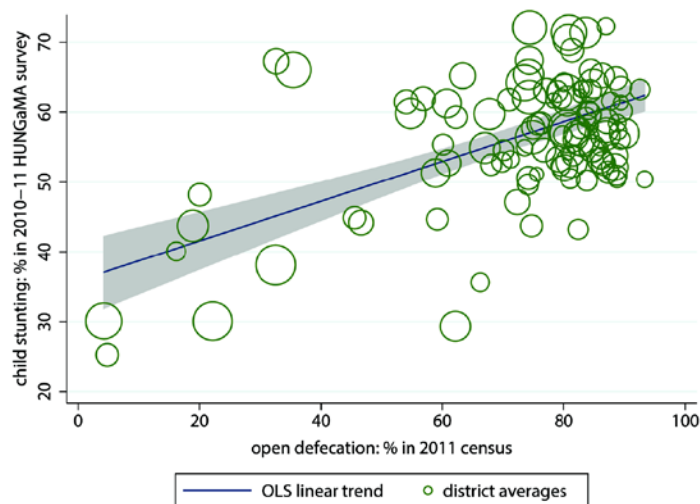
Optimize Utilization of Nutrients: Farm to Flush



Improve food safety

Minimize infectious disease burden

Avoid environmental enteropathy

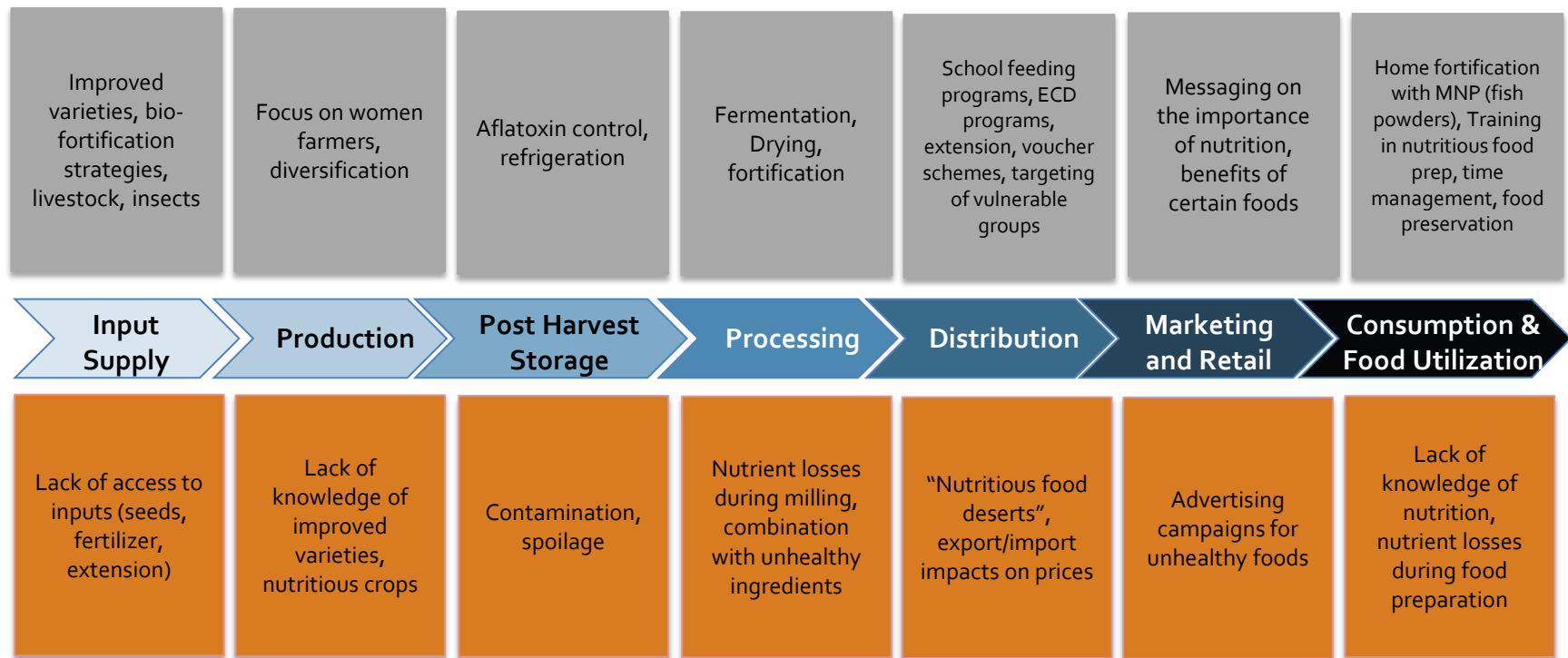


Integration of WASH, Health & Food Systems



Promote Entry Points, Avoid Exit Points for Nutrition: Need for Innovation in FVCs

Maximize Nutrition “Entering” the Value Chain



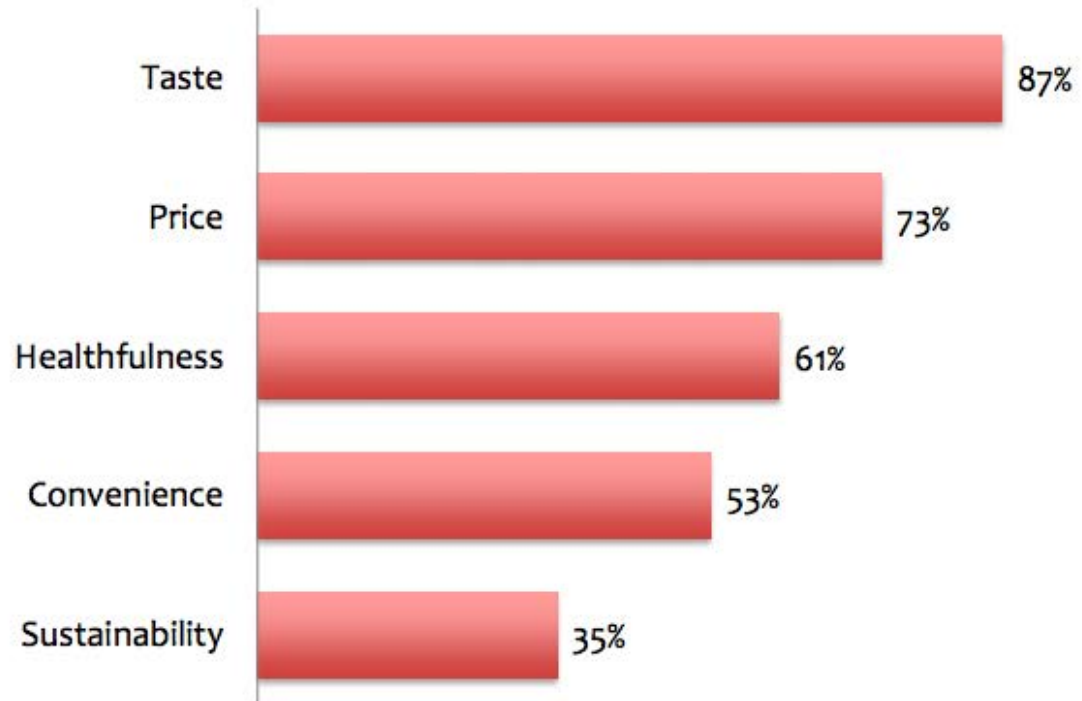
Minimize Nutrition-“Exiting” the Value Chain

The Holy Grail: Changing the Demand



Thinking About Behavior Change: Choice and Preferences

All (n=1,057)



The Connectivity of the Food Environment

CORPORATE CONNECTION



Each situation is different:
Know your local epidemiology



Who to Engage?

- **Primary age school kids:** Entry point to change tastes
- **Adolescent girls:** Social justice models: teenagers define the issues and solve the problems
- **Parents (both men + women):** Income generators and caretakers of children
- **Elderly:** Engage grandmothers – trusted and respected
- **Movements:** Great on advocacy, poor on science. Build an informed grassroots movement
- **Champions?**

Creating Champions

- Hollywood, Bollywood, Nollywood!
- First Ladies – Michelle Obama's Lets Move is worthy
- Athletes – Imagine if we got LeBron James to talk about nutrition...
- Our own "Ice bucket" challenge?



Accountability & Good Nutrition Governance

Ethical and moral issue: how do we hold governments and other actors accountable for ensuring our food system is healthy, safe and equitable?

- **Policies:** Integrate environment goals into national dietary guidelines (Sweden, Brazil)
- **Taxes:** junk food, soda tax
- **Bans:** Ban “bad” foods/ingredients (ie trans fats), but ensure no harm...
- **Labels:** Easy to understand labeling and ingredient list system to better inform consumers
- **Protect:** Mandate to ensure citizens don’t go hungry – better social protection and food safety net mechanisms
- **Trade-offs and “Doing No Harm”:** Consider trade-offs of food policies [palm oil, grass fed beef etc]

Global Change: The Post 2015 Agenda

Global goals do matter

SDG2, 12 relate to food, agriculture, nutrition, & sustainability

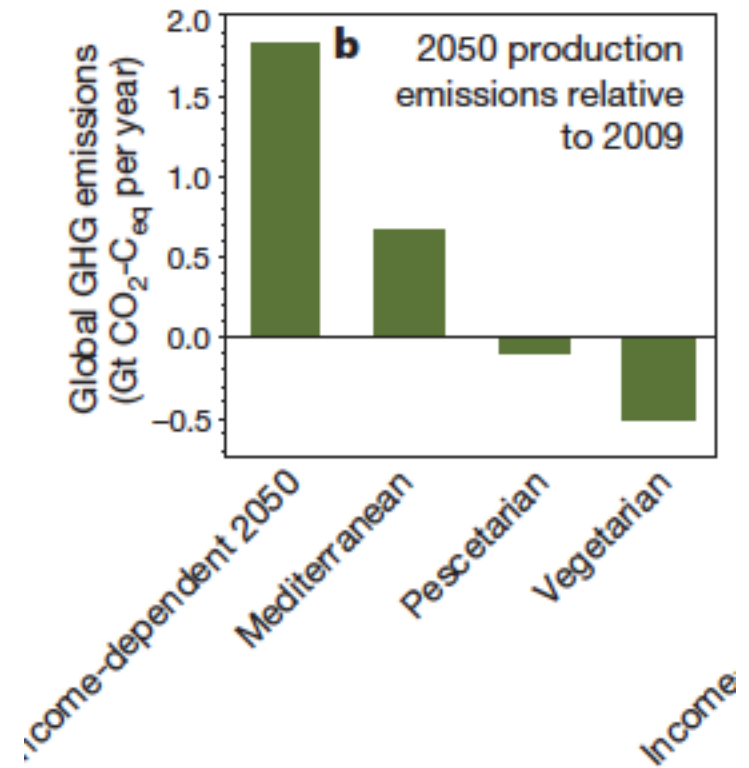
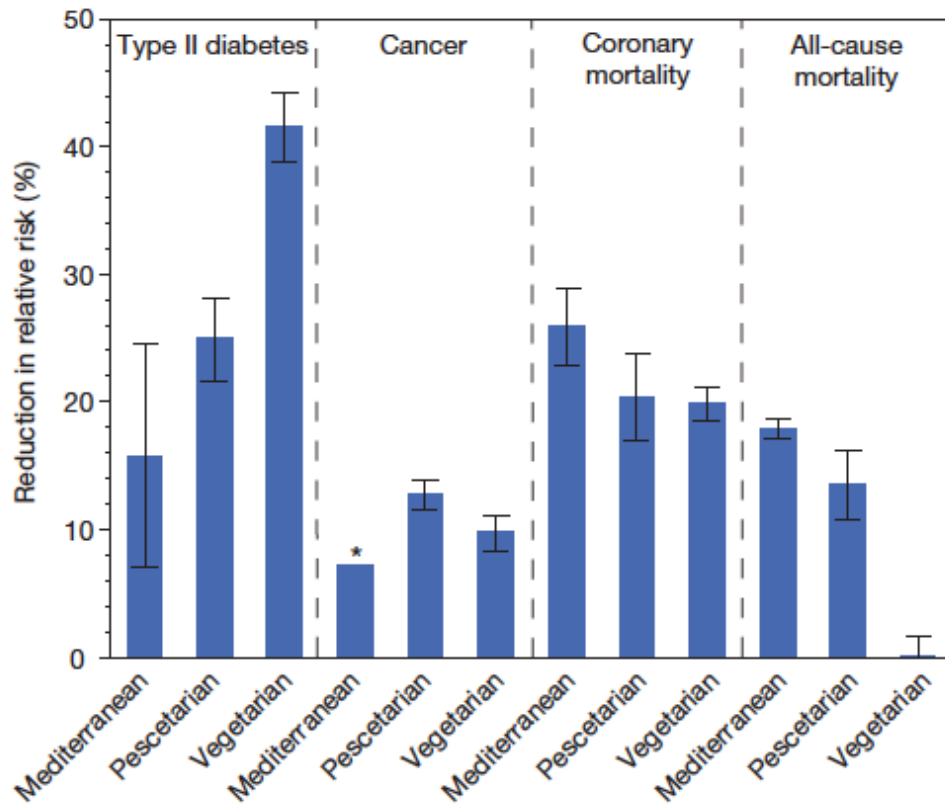
What indicators are essential?

GOAL 1 END POVERTY
GOAL 2 END HUNGER
GOAL 3 WELL-BEING
GOAL 4 QUALITY EDUCATION
GOAL 5 GENDER EQUALITY
GOAL 6 WATER AND SANITATION FOR ALL
GOAL 7 AFFORDABLE AND SUSTAINABLE ENERGY
GOAL 8 DECENT WORK FOR ALL
GOAL 9 TECHNOLOGY TO BENEFIT ALL
GOAL 10 REDUCE INEQUALITY
GOAL 11 SAFE CITIES AND COMMUNITIES
GOAL 12 RESPONSIBLE CONSUMPTION BY ALL
GOAL 13 STOP CLIMATE CHANGE
GOAL 14 PROTECT THE OCEAN
GOAL 15 TAKE CARE OF THE EARTH
GOAL 16 LIVE IN PEACE
GOAL 17 MECHANISMS AND PARTNERSHIPS TO REACH THE GOALS



On Sustainability

“The future is certain but the end is always near...”



Sustainable Diets

"I already don't understand what I am supposed to eat, now you want me to think about the planet's health too?"

In High Income Countries

- Easy messages
- "Eat real food. Mostly plants. Not too much." -- Pollan
- Minimize food waste
- Don't just watch cooking on TV, cook in your own kitchen...
- Edible insects?

In Low Income Countries

- Fuel efficient cookstoves & ware
- Minimize food loss
- Agro-processing to enhance nutrients, preserve foods for storage

Thank you!

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