Food Systems:
Their role in improving the sustainability of diets and addressing the double burden

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1. Diets are not necessarily healthy

Source: Global Burden of Disease, IHME, Slide Courtesy of Ashkan Afshin, University of Washington
Sub-optimal diets are significant risk factors of disease

Development Initiatives GNR 2018. Bristol, UK.
2. Diets are less sustainable

Trade-offs: Is a Cardio-Protective Diet Sustainable?

3. Diets are transforming, in inequitable ways

Source: Popkin and Drewnowski 1993; Popkin 2016
Diets can be costly

Countries in which consumers spend less than 15% of income on food expenditures

- Denmark
- Germany
- Austria
- Australia
- Ireland
- Canada
- Switzerland
- United Kingdom
- Singapore
- USA

% Share of Consumer Expenditures on Food

Countries in which consumers spend more than 30% of income on food expenditures

- Nigeria
- Kenya
- Cameroon
- Kazakhstan
- Algeria
- Philippines
- Pakistan
- Guatemala
- Azerbaijan
- Turkmenistan

% Share of Consumer Expenditures on Food

What actions can shift diets?

• There is no one simple measure that can successfully shift diets at the national or global scale. Rather, a constellation of different approaches and strategies, operating across scales and supply chains, and targeted at different people and organizations will be required.
  • Fiscal measures.
  • Regulatory and trade interventions.
  • Voluntary and industry approaches.
  • Interventions focusing on the context, defaults and norms of consumption.
  • Information and education raising approaches.
Food Systems and Food Environments

Food Supply Chains

- Food production and input supply
- Storage and distribution
- Processing and packaging
- Retail and marketing

Food environment

- Food density - spatial density of foods on offer
- Food prices - price per standard unit
- Product properties - quality and safety, convenience, and diversity
- Vendor properties - type of retail outlet or access point, opening hours, payment methods accepted, etc.
- Food messaging - promotion, advertising, and information about food

Personal Filters

- Economic - income and purchasing power
- Cognitive - information and knowledge
- Aspirational - desires, values, and preferences
- Situational - home and work environment, mobility, location, time resources

Outcomes

- Nutrition and Health
- Economic
- Social
- Environmental

1. Care.

The challenge of avoiding catastrophic climate breakdown requires “rapid, far-reaching and unprecedented changes in all aspects of society.”

*IPCC, 2018*
2. Commit to the Global Goals... and Anticipate Trade-offs

The 17 SDGs

Source: International Council for Science 2017
3. Institute policies that touch food system entry points

Source: World Cancer Research Fund International
Policies are not being scaled

Source: Popkins and Hawkes 2016 Lancet Diabetes & Endo
4. Maximize entry points, minimize exit points for nutrition

**Net increase of nutrition along the value chain**

*Maximize nutrition “entering” the food value chain*

- **Input Supply**
  - Improved varieties, bio-fortification strategies
  - Focus on women farmers, diversification, extension, insects
  - Lack of access to inputs (seeds, fertilizer, extension)

- **Production**
  - Aflatoxin control, refrigeration
  - Fermentation, drying, fortification, product reformulation (reduce salt, sugar, unhealthy fats)
  - Nutrient losses during milling, combination with unhealthy ingredients
  - Contamination, spoilage

- **Post Harvest Storage**
  - School feeding programs, voucher schemes, targeting of vulnerable groups
  - Messaging on the importance of nutrition, benefits of certain foods
  - Advertising campaigns for unhealthy foods

- **Processing**
  - Home fortification with MNP (fish powders), training in nutritious food preparation, time management, food preservation

- **Distribution**
  - “Food deserts”, export/import impacts on prices and availability

- **Marketing and Retail**
  - Lack of knowledge of nutrition, nutrient losses during food preparation, addition of salt, sugar, unhealthy fat

**Maximize nutrition “exiting” the value chain**

Dietary, technological change on farms, and reductions in food loss and waste are critical to reduce environmental impacts of our food system on the planet.

Individuals, industry or state?

• **Don’t leave it to the individual:** There is a lack of evidence for individuals taking action, and attitude-action gaps are evident. Public understanding of the environmental impacts of food is low.

• **Don’t leave it to industry goodwill or enlightened self-interest:** Some in the food industry are acting but their efforts alone are not enough.

• **Governments need to govern:** Policy makers need to create a strong regulatory and fiscal framework, and international trade needs to reflect the importance of sustainable healthy diets.
In Summary

• **The malnutrition burden is massive:** diets are major contributors to that burden and we need significant action across food systems now.

• **Environmental impacts are significant:** food systems and diets are also contributing.

• **There are many policy actions that can be taken:** global goals to national food policies that span value chains, food environment and consumer demand.

• **Composite approaches are needed:** No one approach will do everything. A mix of regulatory, fiscal, voluntary and other approaches is required.

• **Consumption matters:** Sustainable healthy eating patterns must be taken seriously.

• **Lack of evidence is no excuse for inaction:** action generates evidence.

• **A whole food system approach is needed:** While there are health and environmental win-wins there can be trade-offs too as seen with the different health and environmental impacts. There will also be food system trade-offs, and the different interests of different stakeholders need to be recognized.
EAT-Lancet Commission on Food, Planet, Health

• The Commission is delivering the first full scientific review of what constitutes a healthy diet from a sustainable food system, and which actions can support and speed up food system transformation.

• Report will be out January 2019
INTERNATIONAL SYMPOSIUM ON
Understanding the Double Burden of Malnutrition for Effective Interventions

THANK YOU!