Malnutrition and Food Systems in South-East Asia: Emerging Trends

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Disclaimer
1. Malnutrition
Malnutrition Trends in SEA

Regional Prevalence and Numbers of Stunting, Underweight, and Overweight (1990-2014)

Source: Joint Child Malnutrition estimates
UNICEF- WHO-WB
Nutritional Situation in SEA

PREVALENCE OF ADULT OVERWEIGHT AND OBESITY, 2014 (%)

- Overweight (BMI ≥ 25)
  - Female: 28
  - Male: 21
  - Both sexes: 24

- Obesity (BMI ≥ 30)
  - Female: 8
  - Male: 4
  - Both sexes: 6

Source: WHO 2015.
Notes: BMI = body mass index. n = 11. Data are population-weighted means.
Trends in the number of obese and severely obese people by region
Malnutrition Trends:
Example from Indonesia

Figure 5: Prevalence Rate of Overweight and Obesity across Different Wealth Groups in 1993, 1997, 2000, 2007, and 2014

Source: Aizawa and Helble, ADBI working paper, 2016
Summary Malnutrition Trends in SEA

- The same individual can be affected by multiple forms of malnutrition simultaneously.

- Under-nutrition is reducing but remains a public health concern despite economic gains; overweight & obesity are still lower than under-nutrition but increasing more rapidly than under-nutrition is decreasing:
  - Wasting is above the threshold of public health significance (5%) in 8 out of 10 ASEAN Member States (not Brunei Darussalam and Singapore).
  - The prevalence of stunting is still high (Lao People's Democratic Republic, Malaysia, Indonesia) or very high (Lao People's Democratic Republic, Cambodia, Myanmar, and Indonesia).
  - Some ASEAN Member States have exceptionally high rates of overweight/obesity in children under five, for example, Thailand (11%). Overweight and obesity for children and adults are increasing in all ASEAN Member States.

- All population groups are affected (rich, poor; children, adults, esp. women).
  - Obesity is not only a problem of the urban rich, but also rural poor.
  - Wasting, stunting, MND’s are not only the problems of rural poor, but also urban rich.

- All SEA countries are affected by at least one form of malnutrition, most countries have multiple problems, incl. Double Burden of Malnutrition.
2. Food Systems & Malnutrition

The rise of obesity and nutrition-related noncommunicable diseases in the context of persistent undernutrition places a greater emphasis than ever on the centrality of food systems as a driver of nutrition outcomes.

Key finding 1, GNR 2015, Chapter7
Food Systems & Malnutrition

Inputs into production
- Seeds, agrochemicals, technology and credit, land, water, etc.

Food production
- Crop production, horticulture, fish, meat, dairy, etc.

Primary food storage and processing
- Crushing, canning, freezing, etc.

Secondary food processing
- Manufacturing highly processed foods (e.g., snack foods)

Food distribution, trade and transport
- Imports, exports, transportation by truck, etc.

Food retailing and catering
- Street vendors/hawkers, supermarkets, schools, etc.

Food promotion and labelling
- Advertising, health claims, nutrition labelling, etc.

Accessibility

Affordability

Acceptability

Food consumption and diets
# The Different Food Systems

<table>
<thead>
<tr>
<th>FOOD SYSTEM OUTCOME</th>
<th>FOOD SYSTEM 1 INDUSTRIAL (High Productivity &amp; Urbanization)</th>
<th>FOOD SYSTEM 2 MIXED (High Productivity &amp; Lower Urbanization + Emissions)</th>
<th>FOOD SYSTEM 3 TRANSITIONING (Urbanization same as System 2 but lower productivity)</th>
<th>FOOD SYSTEM 4 EMERGING (Lower urbanization &amp; productivity than Systems 1-3)</th>
<th>FOOD SYSTEM 5 RURAL (Lowest urbanization &amp; productivity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Diversity and Reliable Availability</td>
<td>Diverse diets, high packaged processed foods and animal protein.</td>
<td>Diverse diets, balanced in protein sources.</td>
<td>Diverse diets with high fresh food and protein intake.</td>
<td>Less diverse, range of processed foods, high fresh foods.</td>
<td>Least diverse, low animal and other protein.</td>
</tr>
<tr>
<td>Food Accessibility</td>
<td>Low budget share spent on food; stable prices.</td>
<td>Low budget share spent on food; stable prices.</td>
<td>Moderate budget share spent on food; higher price volatility.</td>
<td>High budget share spent on food; highest price volatility.</td>
<td>High budget share spent on food; high price volatility.</td>
</tr>
</tbody>
</table>

Source: Investments for Healthy Food Systems, UNSCN, 2014
The Different Food Systems: Change in Consumption of processed foods

**FIGURE 7.3** Change in processed food retail sales by food system type, 2000–2014

- **ALL PACKAGED FOODS**
- **BAKED GOODS**
- **SAVORY SNACKS**
- **DRIED PROCESSED FOODS**
- **READY MEALS**
- **FROZEN PROCESSED FOODS**

Source: GNR 2015
NCD’s in SEA

METABOLIC RISK FACTORS FOR DIET-RELATED NONCOMMUNICABLE DISEASES, 2008 (%)

- Raised blood pressure
- Raised blood glucose
- Raised blood cholesterol

<table>
<thead>
<tr>
<th>Category</th>
<th>Raised Blood Pressure</th>
<th>Raised Blood Glucose</th>
<th>Raised Blood Cholesterol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both sexes</td>
<td>39</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Male</td>
<td>41</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Female</td>
<td>39</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: WHO 2014.
Notes: n = 11. Data are population-weighted means.
Infant and Young Child Feeding practices – Breastfeeding (0 – 6 m)

Figure 13: Early Initiation of breastfeeding and exclusive breastfeeding in ASEAN Member States

<table>
<thead>
<tr>
<th>Country</th>
<th>Early Initiation Breastfeeding (%)</th>
<th>Exclusive Breastfeeding (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunel (2012)</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>Myanmar (2009/10)</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Malaysia (2006)*</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Cambodia (2010)</td>
<td>63</td>
<td>65</td>
</tr>
<tr>
<td>Philippines (2009)</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Indonesia (2010, 2012)</td>
<td>34</td>
<td>49</td>
</tr>
<tr>
<td>Thailand (2012)</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Lao PDR (2011/12)</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td>Viet Nam (2013)</td>
<td>27</td>
<td>24</td>
</tr>
</tbody>
</table>

Infant and Young Child Feeding practices — Complementary Feeding (6 - 23 m)

Figure 14: Minimum Dietary Diversity, Minimum Meal Frequency and Minimum Acceptable Diet in children aged 6-23 months in ASEAN countries

Summary

• Most of the food systems in SEA most probably in rural, emerging & transitioning.

• In these food systems, it is expected that the high levels of under-nutrition will be accompanied by increasing level of overweight.
3. Nutrition friendly Policy Options
Policy mapping and policy options

Figure 2: How agricultural and food system policies link to diet quality as a measure of good nutrition, including policy options:

**MARKET AND TRADE SYSTEMS**
Exchange and movement of food
Policy options include:
- Trade Policy
- Infrastructure
- Investment
- Agribusiness Policy

**FOOD TRANSFORMATION AND CONSUMER DEMAND**
Food processing, retail and demand
Policy options include:
- Labelling Regulation
- Advertising Regulation
- Fortification Policy

**CONSUMER PURCHASING POWER**
Income from farm or non-farm sources
Policy options include:
- Work Guarantee Schemes
- Cash Transfers
- School Feeding
- Consumer Subsidies

**FOOD ENVIRONMENT**
**DIET QUALITY**
Diversity - Adequacy - Safety

**AGRICULTURAL PRODUCTION**
Production for own consumption and sale
Policy options include:
- Agriculture Research Policies
- Input Subsidies, Extension Investments
- Land and Water Access
Political Economy of Food Systems: Power and Politics

• Industrial food systems, based in industrial agriculture
  – Objective: make cheap food widely available
  – Highly consolidated: horizontal, vertical, global

• Lock-in:
  1: Path Dependency
  2: Export Orientation
  3: Expectation of Cheap food
  4: Compartamentalised Thinking
  5: Short-term thinking
  6: ‘Feed the World’ Narrative
  7: Measures of success
  8: Concentration of Power
4. Main conclusions
Conclusions

• Urgent need to prioritise nutrition actions in SEA, incl. through nutrition ‘friendly’ food systems.

• Promotion of healthy diet expected to contribute to reduction of both under- & over-nutrition.
5. References & Background Reading
References


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