Nutrition Education in the Anthropocene*

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*the current geological age, viewed as the period during which human activity has been the dominant influence on climate and the environment.
A World of Agreement: Temperatures are Rising

Global Temperature Anomaly (°C)

1.0 –

0.5 –

0.0

-0.5 –

-1.0 –


NASA Goddard Institute for Space Studies
Berkeley Earth
Japanese Meteorological Agency
NOAA National Climatic Data Center
Met Office Hadley Centre/Climatic Research Unit
The Uninhabitable Earth
Life After Warming
David Wallace-Wells
Extinction Rebellion
“These three pandemics—obesity, undernutrition, and climate change—represent The Global Syndemic that affects most people in every country and region worldwide.”
Top 10 global causes of deaths, 2016

<table>
<thead>
<tr>
<th>Cause</th>
<th>Deaths (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ischaemic heart disease</td>
<td>9.5</td>
</tr>
<tr>
<td>Stroke</td>
<td>6.7</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease</td>
<td>5.3</td>
</tr>
<tr>
<td>Lower respiratory infections</td>
<td>3.2</td>
</tr>
<tr>
<td>Alzheimer disease and other dementias</td>
<td>3.0</td>
</tr>
<tr>
<td>Trachea, bronchus, lung cancers</td>
<td>2.2</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>2.6</td>
</tr>
<tr>
<td>Road injury</td>
<td>2.4</td>
</tr>
<tr>
<td>Diarrhoeal diseases</td>
<td>2.1</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Cause Group
- Communicable, maternal, neonatal and nutritional conditions
- Noncommunicable diseases
- Injuries

Dietary Intakes Compared to Recommendations

2015-2020 US Dietary Guidelines

From Chapter 2 in: https://health.gov/dietaryguidelines/2015/guidelines/
Nutrition Education Framework: Revised

- Relevant Science
- Economic, Social, Environment Sustainability
- Nutrients, Food, Diets, Health
- Communication & Education
- Eating Environments
- Nutrition Education
- Personal Factors
- Food-related Behavior
- Policy, Systems and Environments
- Human Health
- Planetary Health
SNEB Position Paper: Sustainability in Dietary Guidance

Position of the Society for Nutrition Education and Behavior: The Importance of Including Environmental Sustainability in Dietary Guidance

Donald Rose, PhD¹; Martin C. Heller, PhD²; Christina A. Roberto, PhD³

ABSTRACT

It is the position of the Society for Nutrition Education and Behavior that environmental sustainability should be inherent in dietary guidance, whether working with individuals or groups about their dietary choices or in setting national dietary guidance. Improving the nutritional health of a population is a long-term goal that requires ensuring the long-term sustainability of the food system. Current environmental trends, including those related to climate change, biodiversity loss, land degradation, water shortages, and water pollution, threaten long-term food security and are caused in part by current diets and agricultural practices. Addressing these problems while producing more food for a growing population will require changes to current food systems. Dietary choices have a significant role in contributing to environmental impacts, which could be lessened by consuming fewer overconsumed animal products and more plant-based foods while reducing excess energy intake and the amount of food wasted. Discussion of sustainability within governmental dietary guidance is common in many countries, is consistent with previous US guidelines, and is within the scope of authorizing legislation. Dietary choices are a personal matter, but many American consumers are motivated by a concern for the environment and would welcome sound advice from credentialed nutrition professionals. More opportunities are needed for developing such interdisciplinary knowledge among nutritionists.

Key Words: agriculture, climate change, dietary choice, dietary guidance, environment (J Nutr Educ Behav. 2019; 51:3—15.)

Accepted July 13, 2018.
The Health Belief Model

Modifying Variables

Perceived Seriousness

Perceived Susceptibility

Perceived Benefits vs. Perceived Barriers

Perceived Threat

Self-Efficacy

Cues to Action

Likelihood of Engaging in Health-Promoting Behavior
Current Intakes versus Planetary Health Diet

The EAT-Lancet Commission on Healthy Diets From Sustainable Food Systems
Knowledge and Skills

- Diet Principle: local and seasonal
- Local oils?
- What is seasonal and local?
- What is a salad in winter?
Knowledge and Skills

• Make it yourself!
• What can be made at home?
• Reduce plastic in waste stream
Knowledge and Skills

• Avoid ultra-processed foods
• Avoid fast food
• Diet principle: whole, minimally processed foods
• Transform the food system

https://food-guide.canada.ca/en/
Policy: Food Labeling that Includes Pounds of GHG per serving?

<table>
<thead>
<tr>
<th>Food Type</th>
<th>GHG Emissions (Pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEEF</td>
<td>3</td>
</tr>
<tr>
<td>LAMB</td>
<td>2</td>
</tr>
<tr>
<td>SHELLFISH</td>
<td>1</td>
</tr>
<tr>
<td>PORK</td>
<td>4</td>
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<tr>
<td>POULTRY</td>
<td>5</td>
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<tr>
<td>FISH</td>
<td>6</td>
</tr>
<tr>
<td>MILK</td>
<td>7</td>
</tr>
<tr>
<td>EGGS</td>
<td>8</td>
</tr>
<tr>
<td>BROCCOLI</td>
<td>9</td>
</tr>
</tbody>
</table>
Concentration, Power, Control ≠ Food Justice, Health, Sustainability
Call to Action: Collaboration for Change