

Nutrition transition and rising prevalence of overweight and obesity



Nutrition Transition

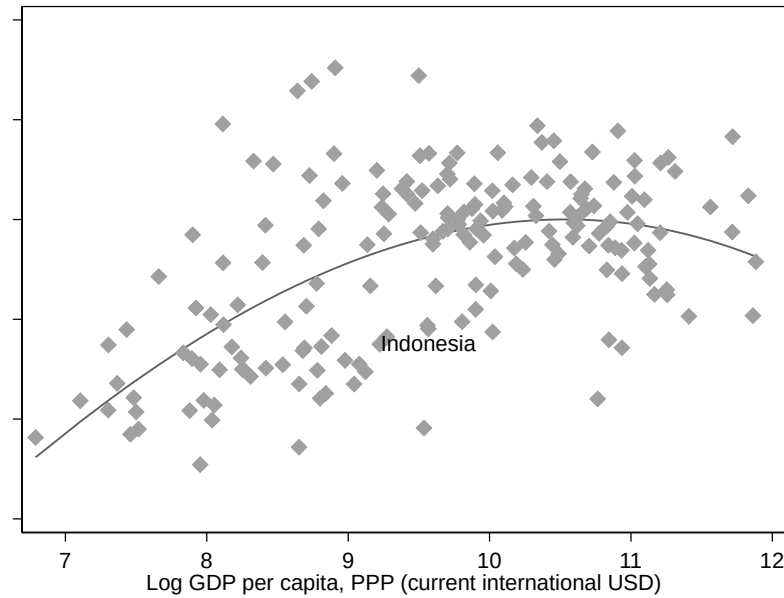


Main contribution to the global burden of chronic disease

- **Shift in dietary patterns and physical activity** levels associated with urbanization and industrialization (Popkin, 1993)
 - Linked to **a rise in obesity** – the major risk factor for non-communicable diseases (NCDs) and a major cause of mortality and death worldwide
 - Obesity is **a major risk factor for noncommunicable diseases (NCDs)** => a considerable **economic burden** to society (treatment, productivity, mortality) (Popkin et al., 2020; Okunogbe et al., 2021; Hendarto, 2019)
 - Obesity prevalence is **on a rise globally** and is forecasted to reach 1 billion adults by 2030 (World Obesity Federation, 2022)
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Obesity Prevalence Worldwide

Relationship between GDP and adult overweight and obesity, 187 countries in 2022



Note: GDP p.c. - current international USD converted by factor (WDI, 2025). Adult (18+) overweight ≥ 25 kg/m² (WB Health Nutrition and Population Statistics, 2025). Latest publicly available data.

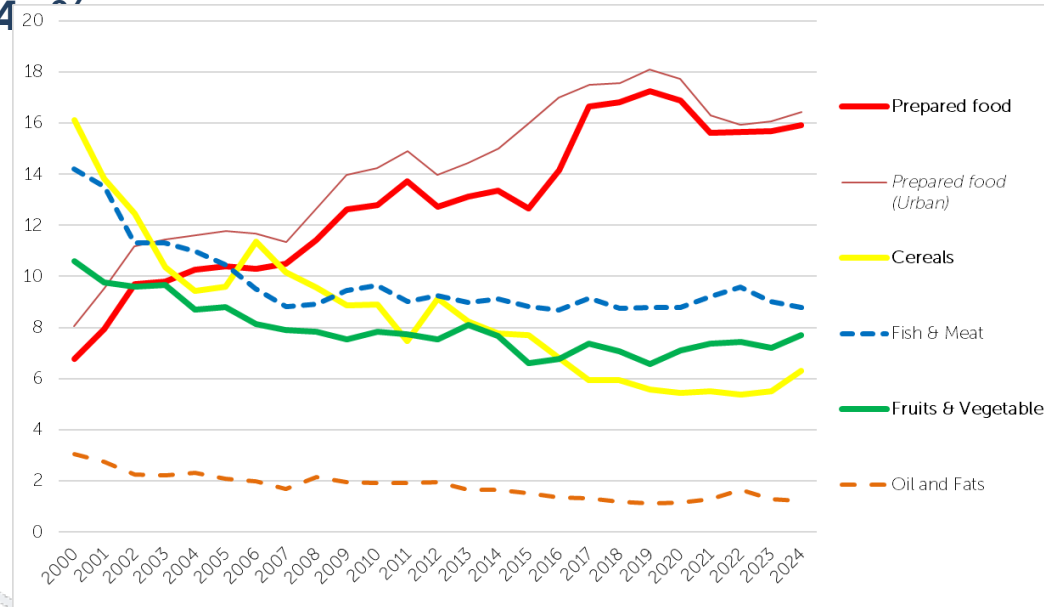
Rapid Transitions in Indonesia

Nutrition, Anthropometric and Epidemiological Transitions:

- Early nutrition transition - growing income => ▲calorie intake, ▼physical activity
- **Relatively low** obesity rate: The aggregate picture may mask dynamics and within country heterogeneity (Wahidin et al., 2024)
- Double Burden of Malnutrition - 38% of adults and 20% of children 5-12 y.o. are overweight, 22% of children under 5 y.o. are stunted (WB Health Nutrition and Population Statistics, 2025; Indonesian Health Survey, 2023)
- Shift in morbidity and mortality from CDs to **NCDs**:
 - Unhealthy diets and high BMI - **top contributing risk factors** (GBD 2021 Risk Factors Collaborators, 2025)
 - Overweight and obesity prevalence has **doubled** over last 15 years from 18% to 38%, alongside significant **changes in dietary patterns**

Shifting Dietary Patterns

Monthly Average Expenditures per Capita by Commodity Group in 2000-2024



Source: Badan Pusat Statistik (2025), own calculations.

Note * Prepared food includes packaged food and various types of convenience foods (ready-to-eat products), frozen foods, mixes and snacks.

Lessons Learned

- **High healthcare financing risks given the high costs of NCDs**
- Importance of **screening, monitoring, and management of NCDs' risk factors** (smoking, diet, PA, BMI), but the evidence on the efficiency of the recent programs (*Posbindu, Pandu, Prolanis*) is limited (Wahidin et al., 2024)
- Need for **environmental interventions** to tackle overweight and obesity
 - New governmental school meal programs - **increase focus on nutritional quality**
 - **Attention** to informal street **food vendors**, driving consumption of prepared foods and drinks high in sugar, fat and calories
- **Ability of universal health coverage to adjust to changing nutrition patterns?**