

# What are the world's diets? Identifying common trends of food consumption around the world

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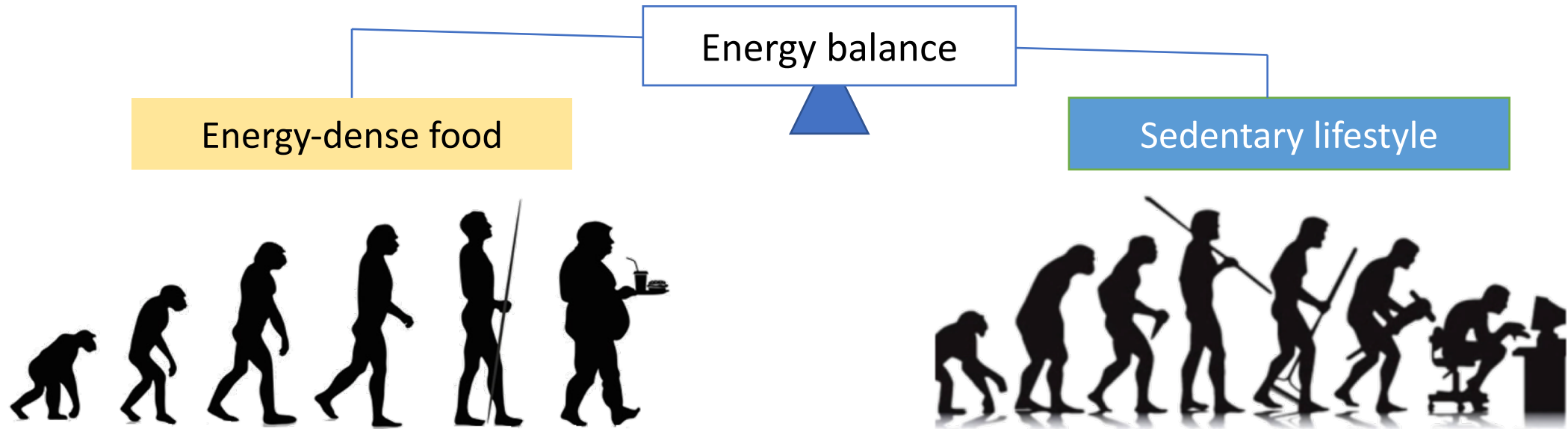
@ThaiLeBU1



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# Background

**Obesity is a global epidemic!**



This research aims to summarise the evolution of global patterns of food consumption using past trends.

# Data

- Food Balance Sheet from Food and Agricultural Organisation (FAO).
- Annual calories available for human consumption (kcal/capita/day).
- Period 1961-2013, 118 countries.

# Methods – Cluster analysis

## Problem

Is a country characterised by a single diet?

Are national diets related?

## Solution

Fuzzy clustering



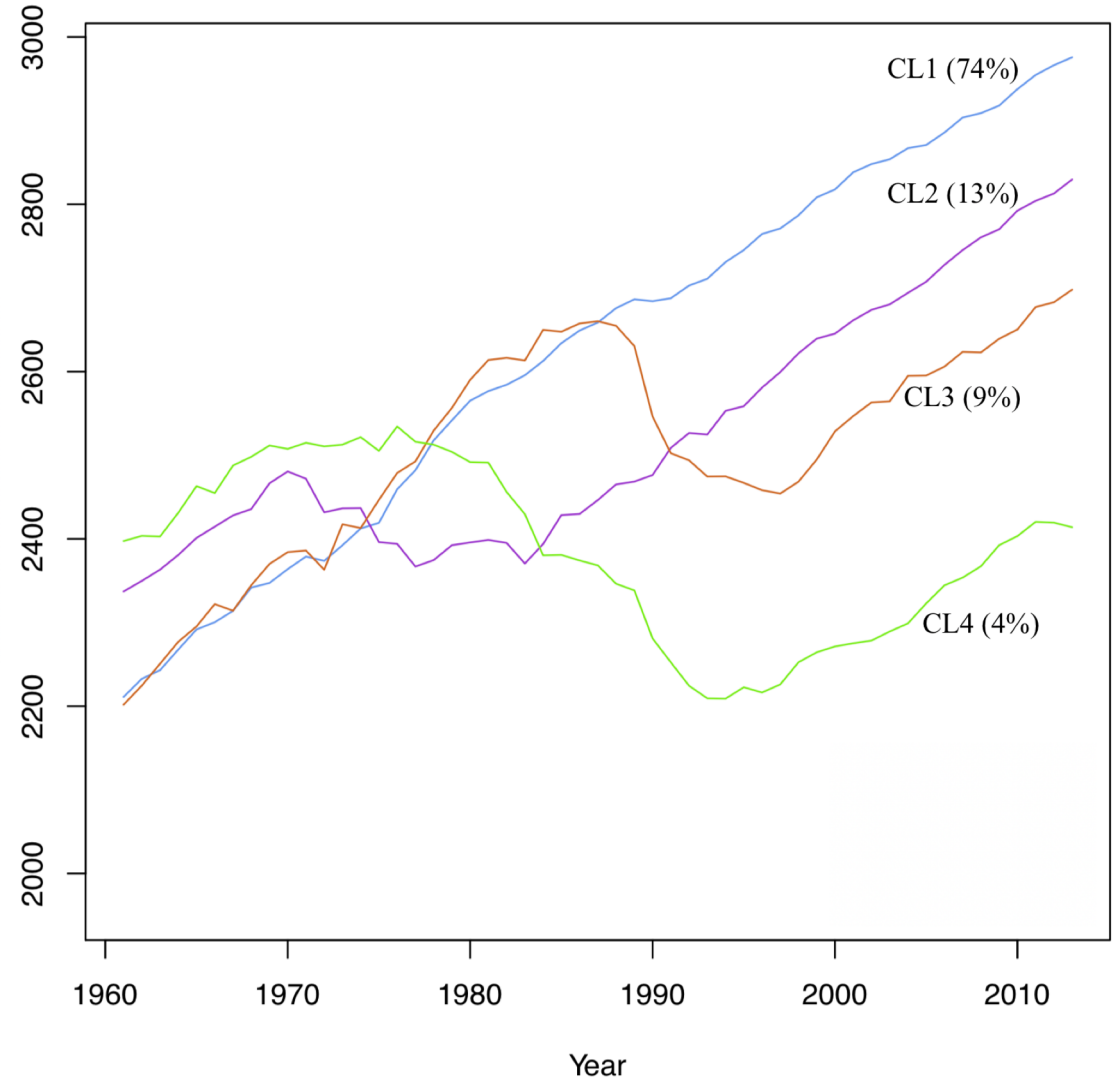
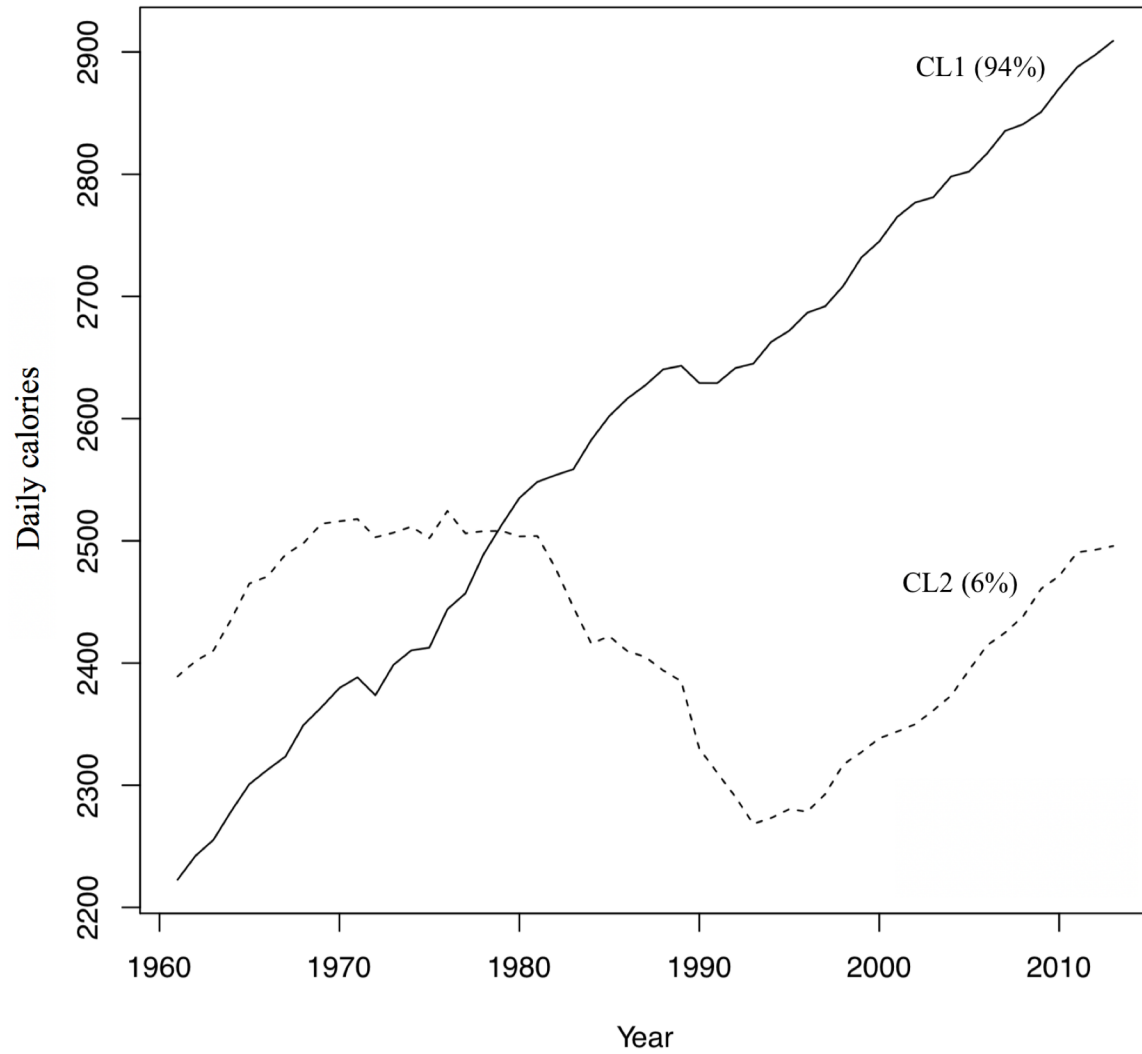
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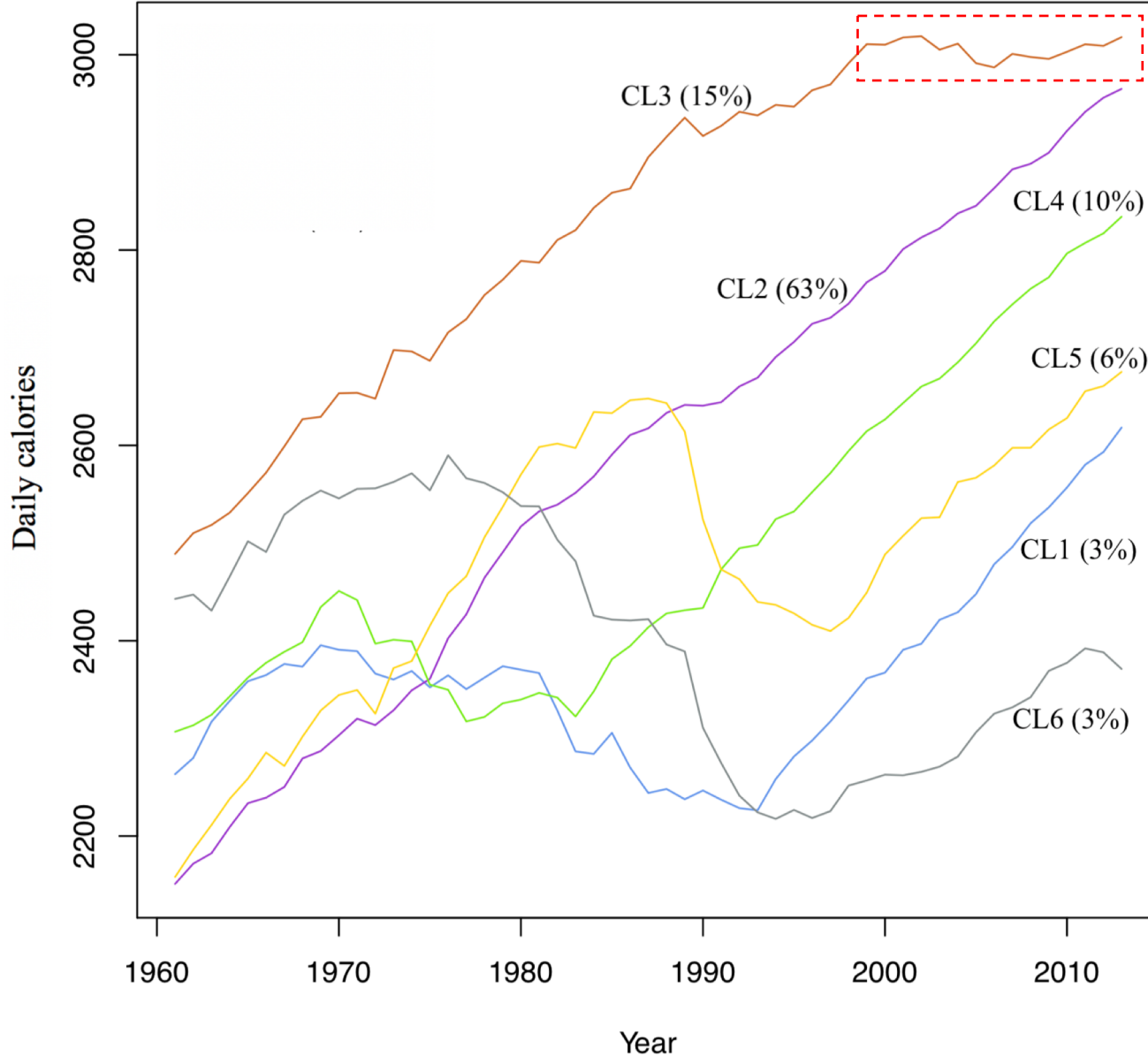


The novel combination of these methods will reveal clusters of countries with similar dietary trajectories.

# Results

Cluster analysis identifies 2, 4 and 6 clusters





- Regardless of the number of clusters, cluster analysis detects:
  - A predominant trend – monotonic rising calories.
  - A minor trend – reducing calories.
- A unique cluster (CL3) is the only to not become more calorific since 2000.
- This behavior is driven by lower consumption of animal fats, sugar and milk, but higher consumption of fish and starchy roots.

# Conclusion

- 90% of global population is on a path of consuming an ever-increasing more calorific diet with little evidence of a slowdown.
- The unceasing rise in calorie consumption can act as an early warning for the rise of obesity in populations with hitherto lower rates.
- Current attempts to improve diets are inadequate and existing efforts need to be redoubled.
- Changes towards better diets are possible.

# THANK YOU!

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