

Global Malnutrition Trends: A Power BI Analysis (1983-2019)

CHAPTER-3

Date	25-12-25
Project Name	Global Malnutrition Trends: A Power BI Analysis (1983-2019)

3.1. Data Collection Plan and Raw Data Sources Identified

Objectives of Data Collection

- Gather authentic and standardized data on global malnutrition indicators.
- Ensure coverage across different countries and time periods (1983–2019).
- Obtain datasets that include both nutritional and socioeconometric - economic dimensions.
- Prepare data for effective integration and visualization in Power BI.

Raw Data Sources Identified

Two major datasets were selected for this analysis:

1. Global Malnutrition Estimates Dataset

- **Description:**
Contains annual estimates of key malnutrition indicators — underweight, stunting, and overweight prevalence among children under five years old.
- **Time Range:** 1983–2019
- **Scope:** Over 140 countries and global regions.
- **Data Type:** Quantitative, cross-sectional, and longitudinal data.
- **Purpose:** To provide the main temporal and regional trends in child malnutrition.
- **File Name:** malnutrition-estimates.csv

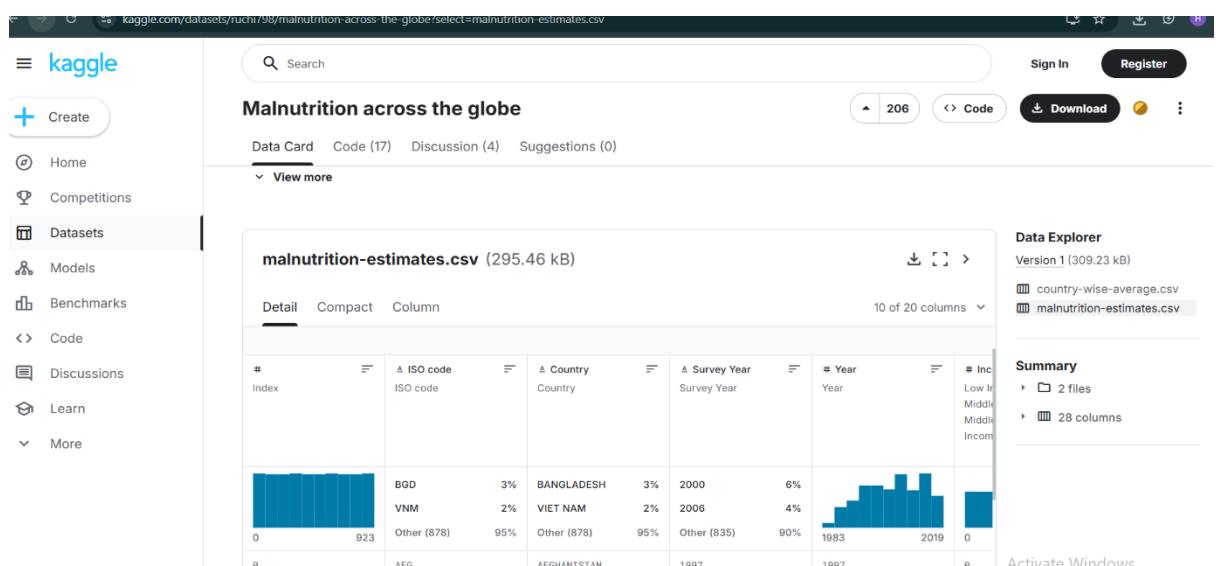
<https://www.kaggle.com/datasets/ruchi798/malnutrition-across-the-globe?select=malnutrition-estimates.csv>

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2. Country-Wise Average Dataset

- Description:** Provides country-level averages for malnutrition indicators along with income classification and regional grouping.
- Time Range:** Aggregated over available years (1983–2019).
- Scope:** Country-level summary data.
- Data Type:** Aggregated quantitative data.
- Purpose:** To enable comparative analysis between income groups and regions.
- File Name:** country-wise-average.csv

<https://www.kaggle.com/datasets/ruchi798/malnutrition-across-the-globe?select=country-wise-average.csv>



Data Collection Methodology

1. Dataset Acquisition:

- Downloaded from publicly available global health and nutrition databases (e.g., WHO, UNICEF, World Bank).
- Verified for completeness, format compatibility, and source credibility.

2. Data Validation:

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- Checked for missing values, duplicate entries, and data accuracy.
- Ensured that indicators and country codes were consistent across both datasets.

3. Data Storage:

- Stored securely in CSV format for ease of import into Power BI.
- Organized into structured folders labeled by source and year for traceability.

Data Quality Considerations

- Verification of source credibility and metadata consistency.
- Elimination of duplicate or redundant entries.
- Standardization of country names, codes, and indicator labels.
- Ensuring time-series continuity across all years of data coverage.

Outcome of Data Collection

- All relevant datasets were successfully identified, validated, and prepared.
- The data was deemed suitable for further cleaning, transformation, and integration.
- The foundation was set for the Data Preparation Phase, enabling effective visualization of malnutrition trends in Power BI.