



# Nutrition and health

## Objetive

The project consists of answering a series of business questions formulated through BI tools (QlikSense).

## Phases of the project

1. Understand business: what is wanted and what is needed.
2. Understand the data.
3. Ask business questions.
4. Canvas model.
5. Entity-Relationship Model.
6. UML model - data normalization.
7. Snowflake Model - Denormalization.
8. Spatial Distribution-Table Controls.  
Visualizing the business questions.

## Data

- Data obtained from the website of WorldBank:<https://data.worldbank.org/data-catalog/health-nutrition-and-population-statics>.
- 345 indicators on nutrition and health from around the world (263 countries).
- Period of time between 1960 and 2016.
- Indicators classified in 11 fields according to their theme: economy, work force health facilities, education, STD, malaria and tuberculosis, immunization, reproductive health, population health, population dynamics and nutrition.

## Model Entity-relation of the database

Three Entities: Country, Population and Diseases.

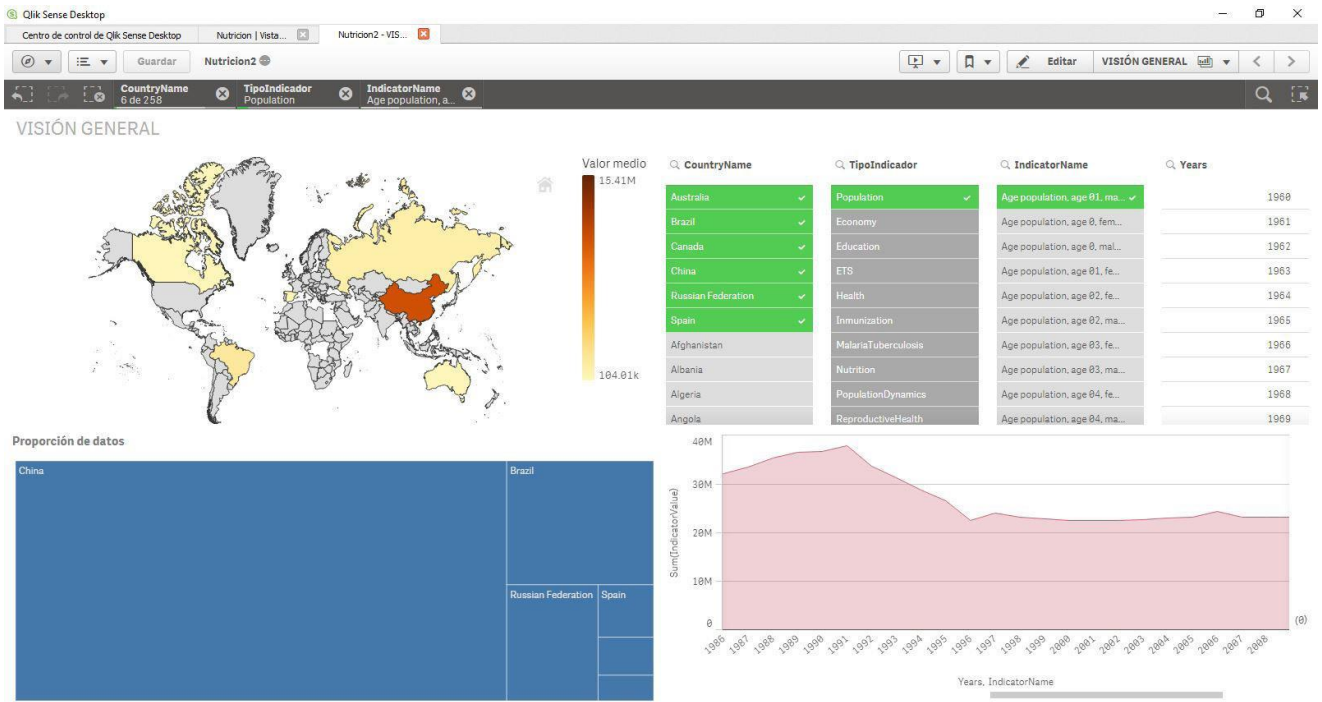
Atributos que definen Entidades:

- Country: code, name and geographical location. Población: age, sex and number of births.
- Disease: STDs, viruses and parasites.

## Business Questions

- Use of condoms and children born with HIV and how it develops over time.
- Which countries have a high consumption of iodized salt and how it develops over time.
- Subtypes of viruses for antiretroviral therapy and severity of disease related to the price of antimalarials.
- Types of crops related to vitamin A and GMO.
- Profitability of growing GMO.
- International legislative framework GMO.

# Dashboards



The BI tool used is QlikSense

The objective is for the client to have a general dashboard and other specific tables of each subject to facilitate the interaction and response to the business questions posed.

