



Global Smoking Trend
Over the Years
(1980-2012)

How has the smoking trend changed over years?



Searching for Information

Institute for Health Metrics and Evaluation



Total Consumption

Number of Smoker Prevalence among PPL

Per Smoker Per Day

Gender

Countries

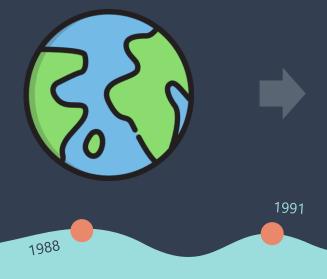
Age

Distribution

Trend

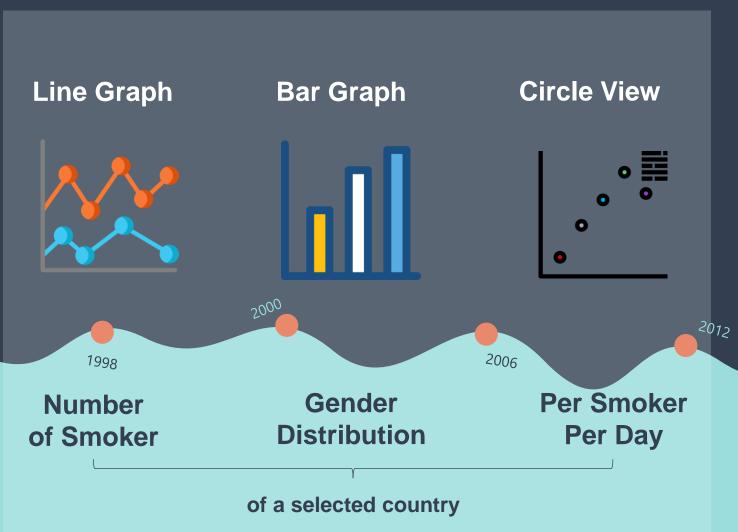
Envision Ways to Answer





Total Consumption

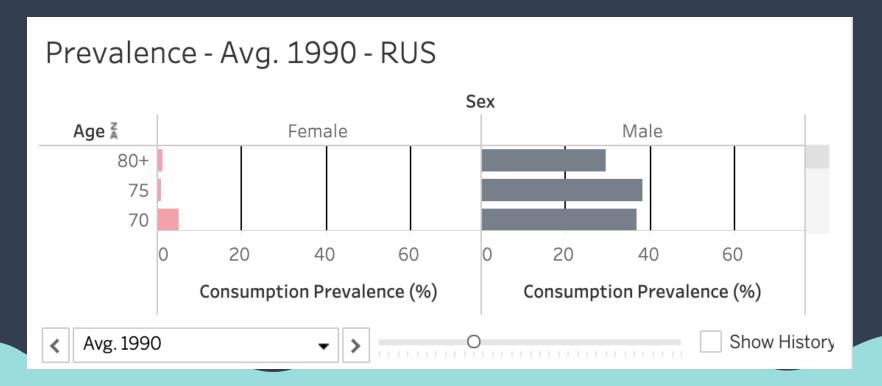
1980



Total consumption

Interactive geographical map that allows users to hover over for more details, and either click or use the dropdown menu to focus on one country



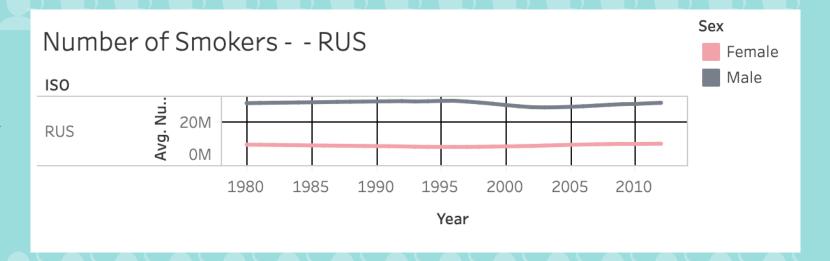


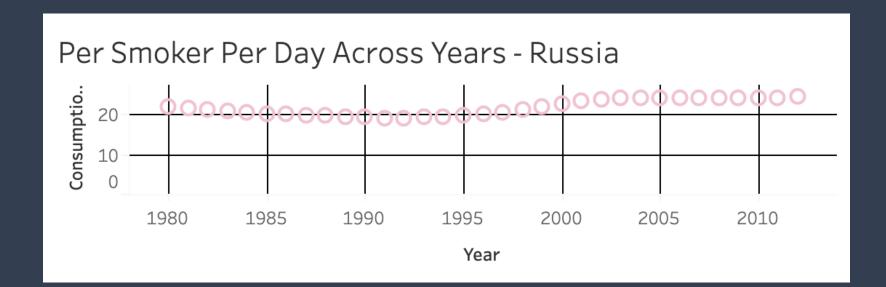
Smoking prevalence

A bar graph that allows users to filter by year to see female and male smoker distribution of a selected country.

Number of smokers

Line graph that allows
users to see the number
of smokers in one
country and gender
distribution.





Tobacco consumption
per smoker per day
A circle view to see the
trend of tobacco
consumption per
smoker per day of a

selected country.

Tell a story

United States:

- Decrease in the number of smokers
- Decrease in tobacco consumption per smoker per day, but a small increase between 1990-1995
- A large increase in the smoking prevalence among children & teenagers aged 10-20 between 1991-1996
- Another increase in the smoking prevalence among teenagers aged 15-20 after 2010



- Increase in the number of male smokers
- Huge increase in tobacco consumption per smoker per day
- Huge differences in smoking
 prevalence between male and female
 (guessing not related to developed or
 developing because Japan shows a similar
 pattern to China.)



Usability Test Summary

Perspectives	Feedback	Good	Not so good
Functioning & Readability	Elements work and readable.	No crush. Titles, labels on axis and tooltips for details.	Reaction is slow. (Online version) Need definition for "prevalence".
Aesthetic Design	The style is clear and fresh.	Colors look comfortable.	Grey resembles grids, which might be confusing.
Interactive Design	Playing is fun.	The animation in the prevalence part helps me see the trend.	The buttons are confusing. I prefer all the controls are in a certain area in the visualization.
Answering the question	Crystal clear.	I can easily see the trends concerning different ages, gender and nationality over the years.	It would be better if the map zooms out after I select a country. Other charts are small to see everything in sight.

The example user has zero experience with Tableau.

Challenges

- Build connections between different datasets.
- Transform the datasets in order to visualize the data in Tableau.
 - Handling large amounts of data shuts down my laptop often. (6k → 200k → fail → tried → gave up)
- Simultaneously show trends changing over the years paired with other factors.
- Tableau is not flexible enough compared to D3 for us.
- Online collaboration.

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