

SYNOPSIS

Nutrition__Physical_Activity__and_Obesity_Behavioral_Risk_Factor_Surveillance_System

1. Project Overview

This project analyses changes in diet, physical activity and weight of adults in various state of USA between 2011 to 2023. The data is presented in the form of a questionnaire answered by sample population and uses a combination of age, education, income, gender, race to further break these down. The answers to the questions in the data is given in percentage broken down into low and high confidence limit and its average.

2. Tools Used

- Microsoft Excel
- Power BI

3. Dataset Source: [Nutrition, Physical Activity, and Obesity - Behavioral Risk Factor Surveillance System - Comma Separated Values File - Catalog](#)

This data is supplied by Division of Nutrition, Physical Activity, and Obesity working under Centers for Disease Control and Prevention, USA

<http://medbox.iiab.me/modules/en-cdc/www.cdc.gov/nccdphp/dnpao/index.html>

Data contains:

- Year
- Location
- List of Questions asked
- Output in percentage divided into low, high and average limits
- Population Category and SubCategory

4. Steps Followed:

- Converted .csv to Excel
- Cleaned Data in Power Query by removing blanks and text formats in value columns, formatted values such as rounding percentage columns, removed columns such as age, education, sex income, race since they were already summarized under Category and SubCategory columns
- Uploaded cleaned to Power BI and created measure to calculate average values based on categories
- Created charts using line graphs, azure maps, scatter charts cards, with scroll and selection questions and toggle buttons to move forward and backward through slides

5. Key Insights:

There are 9 questions in total and data is summarised into percentage of adults who fall into these categories and also further broken down into subcategories based on age, education, income, gender and race. Below are the questions and key information.

1. Q18 Percent of adults who report consuming fruit less than one time daily
• Range between 38 to 41% across USA. 38% in 2017 and 41% between 2019-2021
2. Q19 Percent of adults who report consuming vegetables less than one time daily
• Range between 20 to 22% across USA. 20% in 2017 and 22% between 2019-2021
3. Q36 Percent of adults aged 18 years and older who have obesity
• Range between 28 to 34% across USA. 28% in 2011 and 34% between 2021-2023
4. Q37 Percent of adults aged 18 years and older who have an overweight classification
• Range between 33 to 35% across USA. 33% in 2021 and 35% between 2011-2017
5. Q43 Percent of adults who achieve at least 150 minutes a week of moderate-intensity aerobic physical activity or 75 minutes a week of vigorous-intensity aerobic physical activity and engage in muscle-strengthening activities on 2 or more days a week
• Range between 49 to 57% across USA. 49% in 2017 and 57% in 2023
6. Q44 Percent of adults who achieve at least 150 minutes a week of moderate-intensity aerobic physical activity or 75 minutes a week of vigorous-intensity aerobic activity (or an equivalent combination)
• Range between 20 to 29% across USA. 20% between 2011-2017 and 29% in 2023
7. Q45 Percent of adults who achieve at least 300 minutes a week of moderate-intensity aerobic physical activity or 150 minutes a week of vigorous-intensity aerobic activity (or an equivalent combination)
• Range between 30 to 40% across USA. 30% in 2017 and 40% in 2023
8. Q46 Percent of adults who engage in muscle-strengthening activities on 2 or more days a week
• Range between 29 to 40% across USA. 29% in 2011 and 40% in 2023
9. Q47 Percent of adults who engage in no leisure-time physical activity
• Range between 24 to 27% across USA. 24% in 2012, 2014 and 27% in 2023

Same questions are answered based on the below categories and subcategories

Categories

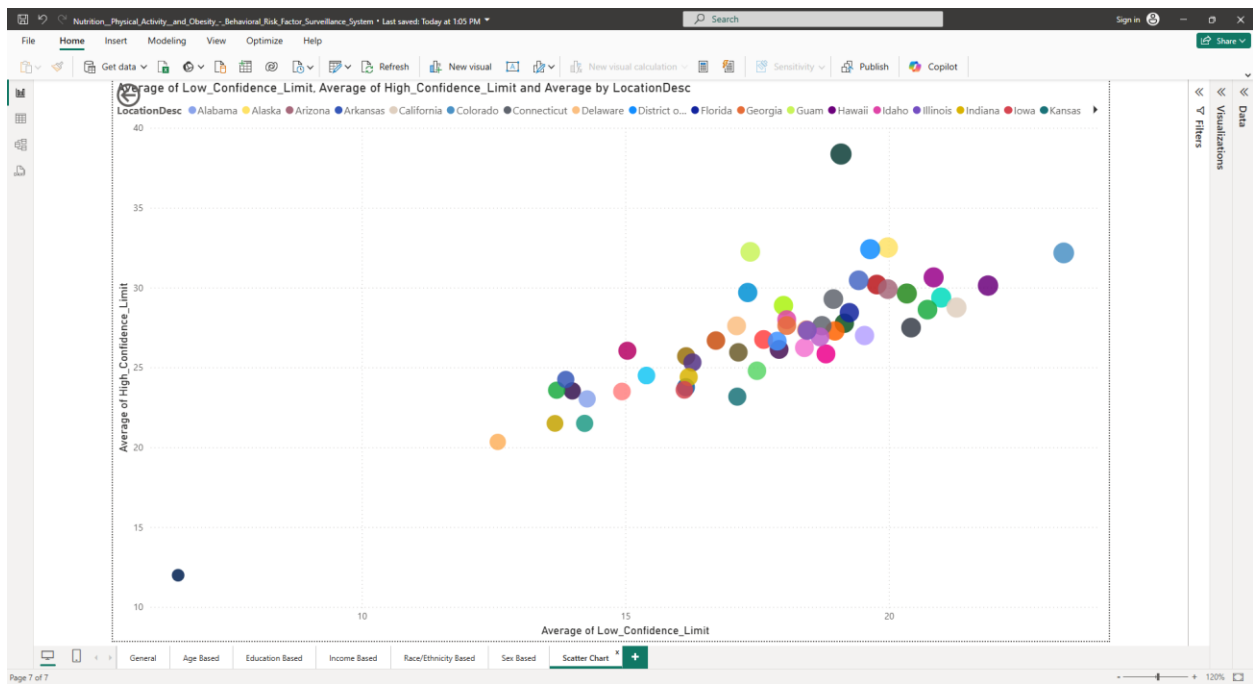
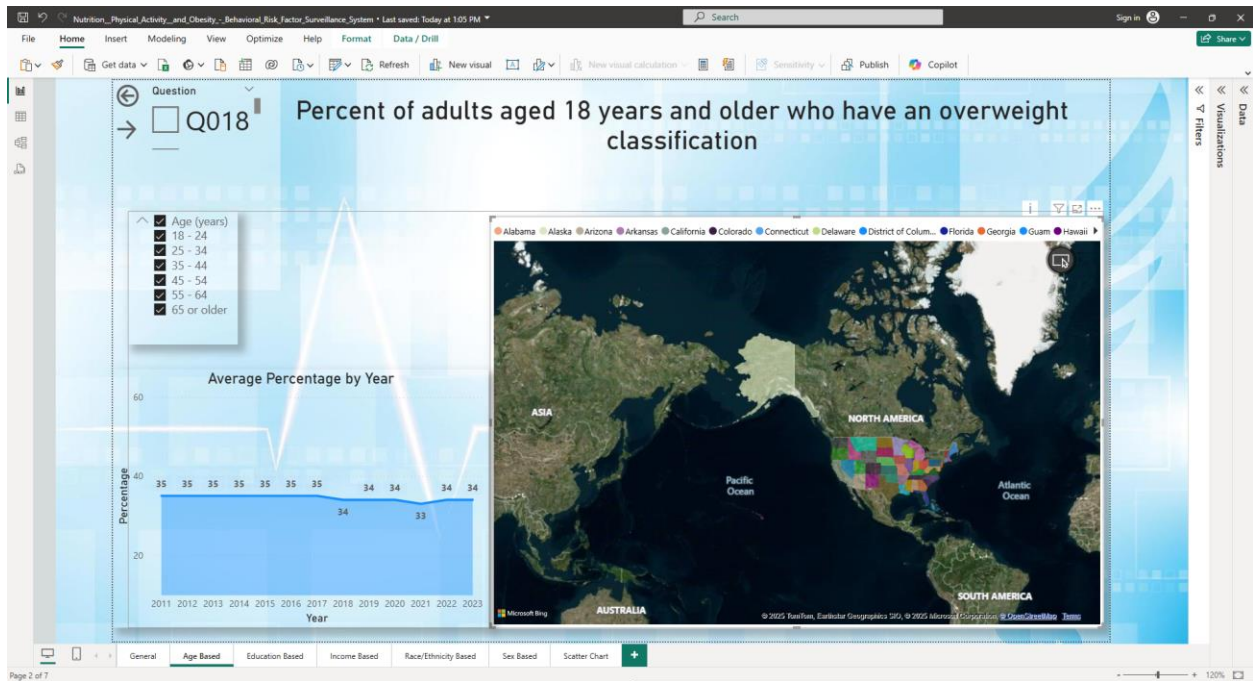
Race/Ethnicity
Sex
Age (years)
Income
Education

Subcategories

Less than \$15,000	18 - 24
\$15,000 - \$24,999	25 - 34
\$25,000 - \$34,999	35 - 44
\$35,000 - \$49,999	45 - 54
\$50,000 - \$74,999	55 - 64
\$75,000 or greater	65 or older
College graduate	American Indian/Alaska Native
High school graduate	Asian
Less than high school	Hawaiian/Pacific Islander
Some college or technical school	Hispanic
	Non-Hispanic Black
	Non-Hispanic White
Male	2 or more races
Female	Other

Scatter Plot shows a very close correlation between the limits.

6. Screenshots



7. Files Included

Processed data in excel

Nutrition__Physical_Activity__and_Obesity_-_Behavioral_Risk_Factor_Surveillance_System
- ABK.xls

Visualization in Power BI

Nutrition__Physical_Activity__and_Obesity_-_Behavioral_Risk_Factor_Surveillance_System.pbix

8. How to Use

Open the .xls file to view process data

Open the .pbix file to view power bi data