

# MEDICAL COST PERSONAL





# OUTLINE

1. Executive Summary
2. Introduction
3. Methodology
4. Result
  - 4.1. Charts
  - 4.2. Dashboard
5. Discussion
6. Conclusion

# 1. EXECUTIVE SUMMARY

- Overview about Medical Cost Personal.
- Number of people check medical and charges
- BMI rate by age categories and charges.







## 2.INTRODUCTION

- Specify number of people  
average charges, average  
bmi by sex, bmi categories  
and age categories.
- How Age affects Health  
Insurance Cost?
- Obese rate in adult people.

# 3.METHODOLOGY

- Data Collection
  - + Collecting Data from Kaggle
- Data Wrangling
  - + Duplicate column
  - + Return values with specified conditions using Case statement (SQL)
- Exploratory Data Analysis
  - + Analyze, explore data (using View)

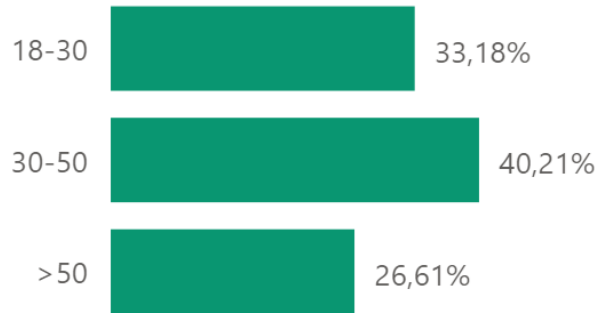


## 4. RESULT

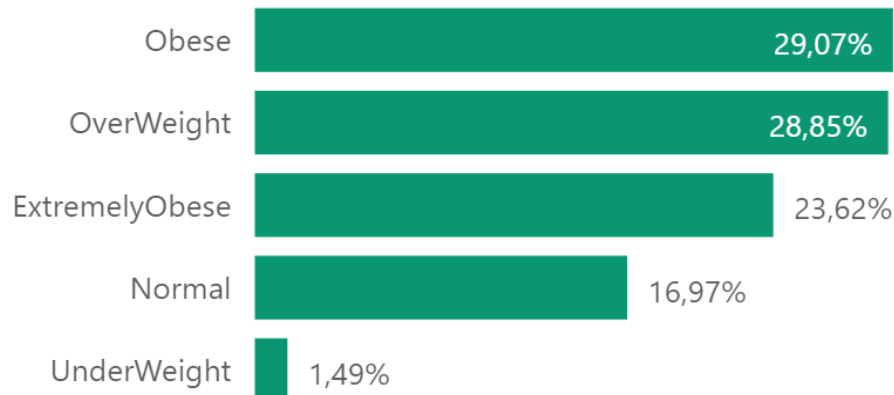
	age	age_categories	sex	bmi	bmi_categories	children	smoker	region	charges
1	19	18-30	female	27,9	OverWeight	0	yes	southwest	16884,924
2	18	18-30	male	33,77	Obese	1	no	southeast	1725,5523
3	28	18-30	male	33	Obese	3	no	southeast	4449,462
4	33	30-50	male	22,705	Normal	0	no	northwest	21984,47061
5	32	30-50	male	28,88	OverWeight	0	no	northwest	3866,8552
6	31	30-50	female	25,74	OverWeight	0	no	southeast	3756,6216
7	46	30-50	female	33,44	Obese	1	no	southeast	8240,5896
8	37	30-50	female	27,74	OverWeight	3	no	northwest	7281,5056
9	37	30-50	male	29,83	OverWeight	2	no	northeast	6406,4107
10	60	>50	female	25,84	OverWeight	0	no	northwest	28923,13692
11	25	18-30	male	26,22	OverWeight	0	no	northeast	2721,3208
12	62	>50	female	26,29	OverWeight	0	yes	southeast	27808,7251
13	23	18-30	male	34,4	Obese	0	no	southwest	1826,843
14	56	>50	female	39,82	ExtremelyObese	0	no	southeast	11090,7178
15	27	18-30	male	42,13	ExtremelyObese	0	yes	southeast	39611,7577
16	19	18-30	male	24,6	Normal	1	no	southwest	1837,237
17	52	>50	female	30,78	Obese	1	no	northeast	10797,3362

# 4.1.CHARTS

% Number of People by age\_categories



% Number of People by bmi\_categories



- There are **1338** people (**49.48%** men and **50.52%** women).
- **40.21%** among those ages **30-50** include those who were financially stable, so they pay more attention to their health.
- Most of people belong to the **over weight** group (over weight, obese and extremely obese) with **81.54%** and only **1.49%** belong to the **under weight** group.

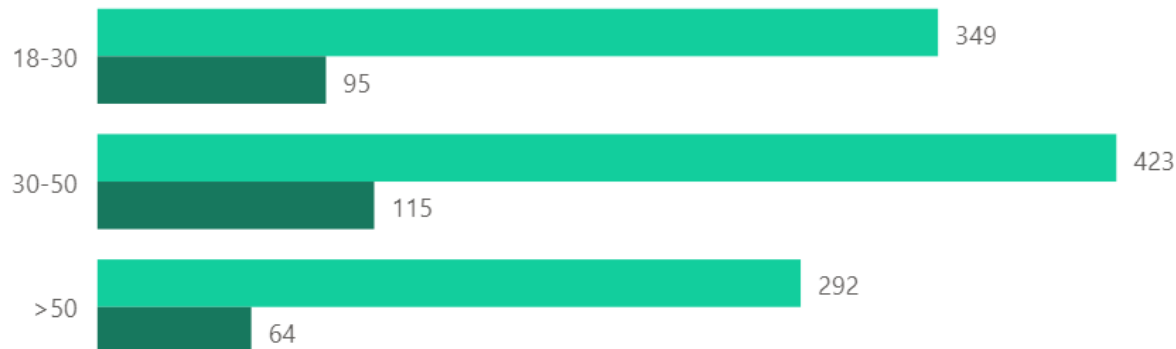
# 4.1.CHARTS

Average Charges by bmi\_categories



Number of People by age\_categories and smoker

smoker ● no ● yes



- Average BMI of men higher than women. Men also tend to have higher smoking rate than woman (**58% & 42%**).
- Average charges increase with BMI category levels (from under weight to extremely obese).
- For people aged **18-50**, they have higher prevalence of smoking than people **over 50** (**77% & 23%**)



# 4.2. DASHBOARD

## MEDICAL COST PERSONAL DASHBOARD

Sex

All

age\_categories

All

BMI Categories

All

Smoker

All

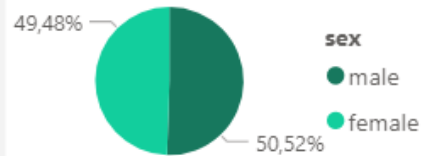
Children

All

region

All

Number of People by sex



1338

Number of People

\$13,27K

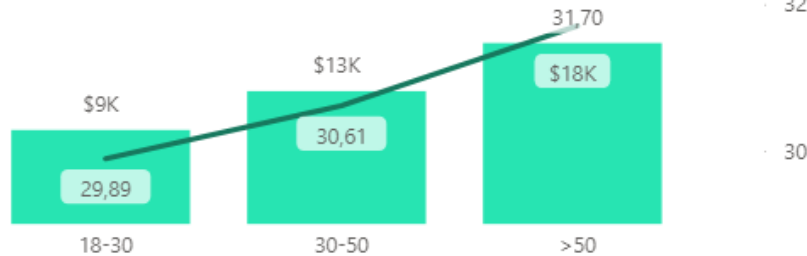
Average Charges

30,66

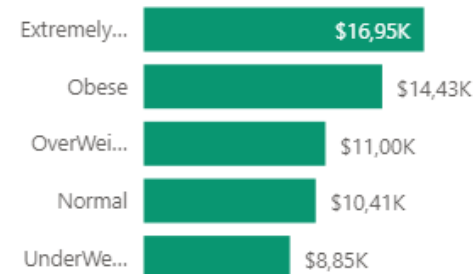
Average BMI

Average Charges and Average BMI by age\_categories

Average Charges



Average Charges by bmi\_categories

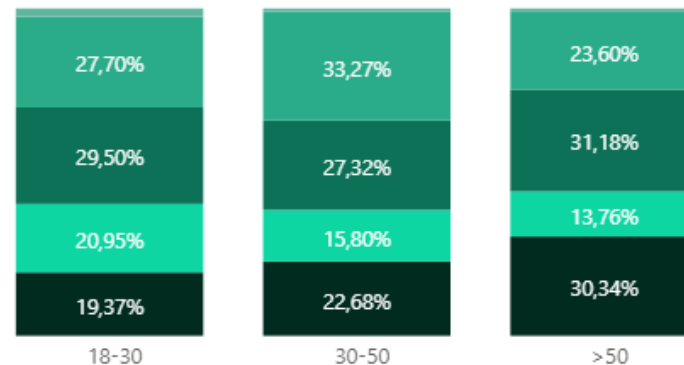


Average BMI by sex



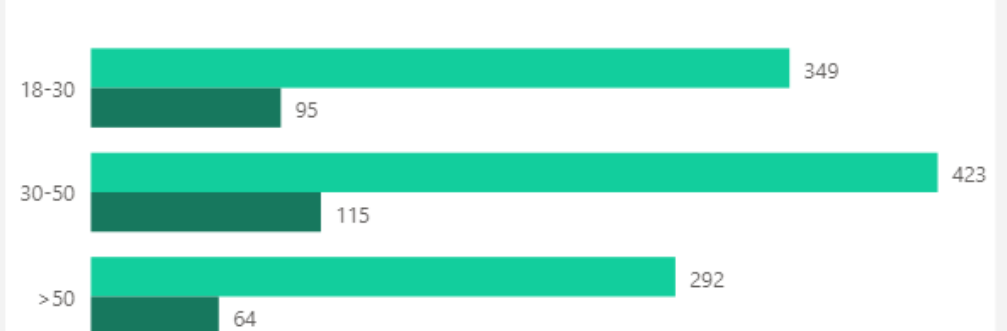
% Number of People by age\_categories and bmi\_categories

bmi\_categories



Number of People by age\_categories and smoker

smoker



## 5. DISCUSSION

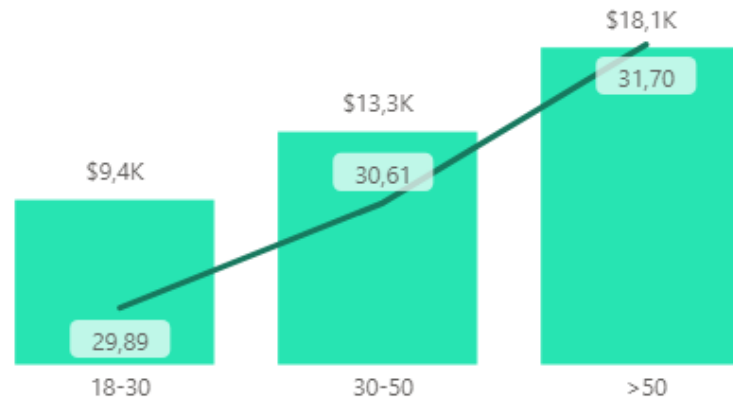
- How Age affects Health Insurance Cost?
- Obese rate in adult people.



# 5. DISCUSSION

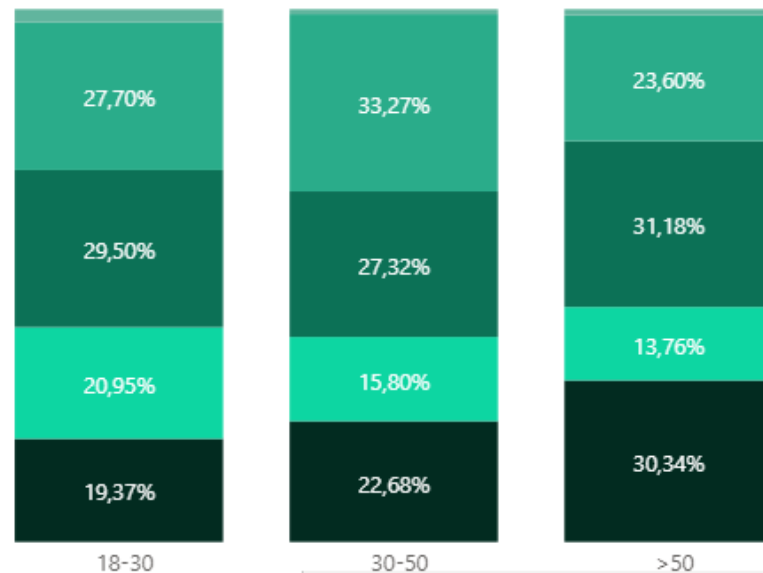
Average Charges and Average BMI by age\_categories

● Average Charges ● Average BMI



% Number of People by age\_categories and bmi\_categories

bmi\_categories ● ExtremelyObese ● Normal ● Obese ● OverWeight ● UnderWeight



- Average charges and average BMI increase with age categories. For people **over 50**, average charge was **\$18.1K**, compared to those aged **18-30** it doubles, just **\$9,4k**. It means the older you are, the higher your medical quotes.
- The obesity prevalence (extremely obese, obese, over weight) was **76.12%** among adults aged **18-30**, **83.27%** among adults aged **30-50** and **85,12%** among adults aged **50 and older**.
- Nowadays, people are so busy and they use fast food so much and lazy to workout. This is one of the reasons make them easily get diseases like obesity or heart disease.





## 6. CONCLUSION

- The biggest factor that influences your health insurance quote will be your age.
- The highest obesity prevalence was 85,12% among adults aged 50 and older.