

Global ABC Company

Group 1

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Introduction

~~The domain where the data was from was not known to our team, we do not specialize in medicine, so it was hard for us to work with the data. The data was very difficult to process because of several reasons: it was too large and the file took too long to load. There were too many spaces in the data which made the graphs weird. Given that the graphs were weird, it was difficult to come up with a business case. Also, we think one needs to be from the domain and have expertise in the domain in order to work with such data. You cannot give the data to anybody and anyone and expect them to come with a 'viable' business model, because data can be misinterpreted and it is more to it that meets the eye.~~

In spite of that, we chose to work with male and female data, to find out what differences there are between them related to health and related issues.

Business Problem

~~In our business plan we concentrate on the establishment of a gym. Since~~ From the studied dataset we have received valuable information that a significant percentage of the adult population in North Carolina is overweight. Moreover, we saw that the time spent with exercise in an average adult's life is very low. We realized that only 61% of the adult population had exercised at least once during the last 30 days, which is unfortunately an extremely low result.

Our main goal is to solve the problem of overweight people, and decrease the reported rate of the average weight in pounds in North Carolina thanks to our business idea. Also, we perfectly know that active life and doing sport constantly does not only increase the level of our physical well-being but the mental well-being as well.

Furthermore, we have analyzed the economical income level of North Carolina's population. According to our studies 46,9% of the population had annual income in the previous year higher than 75,000\$. This fact is very extremely important for our business plan, since thanks to that we can create a price for our services which could be the most convenient for our customers and for our business as well.

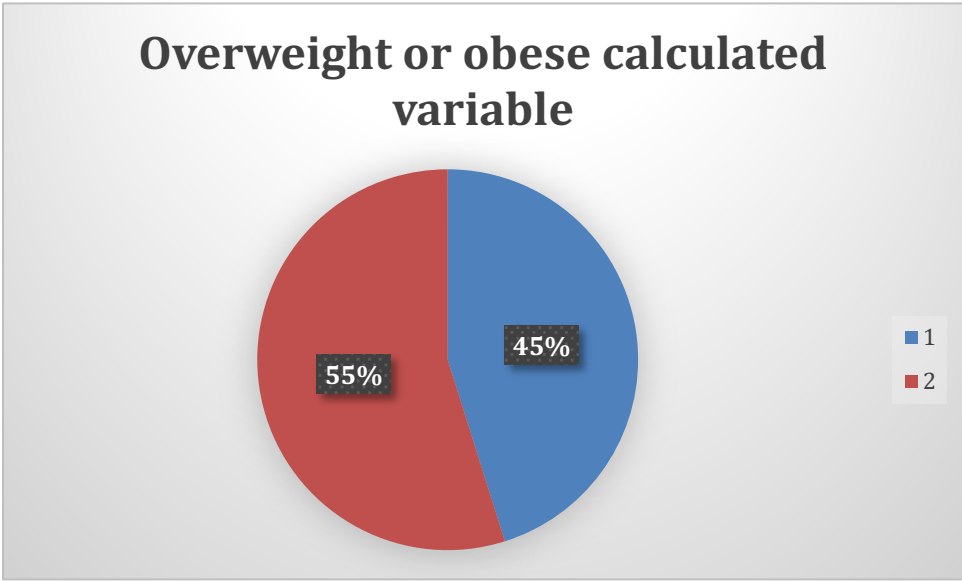
We have defined 2 hypotheses, which we study and analyze on the following pages. The stated hypotheses are:

Overweight adults in the state of Carolina do not exercise enough (Yes/No)

A gym and tailored exercising programmes for males and females would be beneficial to improve their weight index (Yes/No).

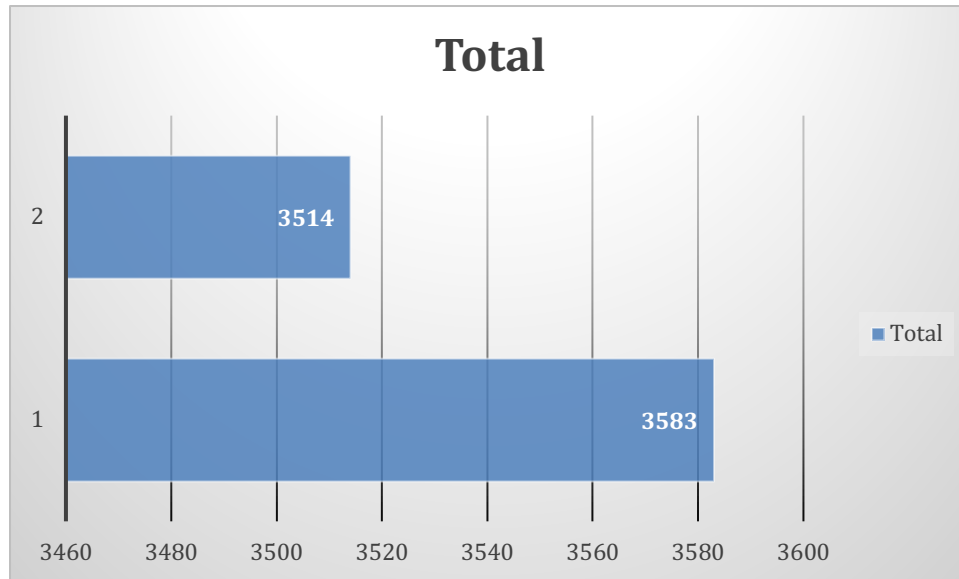
Business Solution

In our business plan we concentrate on the establishment of a gym. From the data gathered it was noted that the problem of overweight affected both men and women in North Carolina. However men were found to be more obese than women as shown on the chart.



This graph shows that, even we have more male responses, female overweight or obese calculated variable is higher (55% x 45%).

Even the difference is small; more men visit the doctor for a check-up than women. As we can see in the graph:



Percentage of respondent by Gender	
Female	48%
Male	50%

Table 1.1 - Label of the table

The proposed solution for the problem of obesity are:

1. Regular exercise

Regular physical exercise is obviously a major key solution to both men and women in order to reduce their body weight. People who are overweight or have obesity should do regular physical activity when they begin their healthy eating plan. Being active may help you use calories. Regular physical activity may help you stay at a healthy weight.

2. Drug treatment

People with obesity are encouraged to visit doctors in order to get drug prescriptions and follow up to ensure that the fats in the body are removed and the body becomes back to a normal weight.

3. Change the eating habit

Changing the eating and physical activity habits and lifestyle is difficult, but with a plan, effort, regular support, and patience, you may be able to lose weight and improve your health.

Exploratory Data Analysis

In our gym, we want to involve man and woman to have a better life. Here we put other relevant information to pay attention and demand a better life for all our customers:

Rótulos de Linha	Soma de Exercise in Past 30 Days
1	3015 Male
2	3517 Female
Total Geral	6532

Rótulos de Linha	Soma de Overweight or obese calculated variable
1	4872 Male
2	5921 Female
Total Geral	10793

Rótulos de Linha	Soma de Length of time since last routine checkup
1	3583 Male
2	3514 Female
Total Geral	7097

Soma de How Much Time Do You Sleep	Rótulos de Coluna	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	20	Total Geral
1		10	54	272	790	3138	5138	6224	936	630	33	240	28	16	20				17530 Male
2		16	84	280	1000	3462	5299	7656	1215	640	44	324	13	15					20051 Female
Total Geral		4	26	138	552	1790	6600	10437	13880	2151	1270	77	564	13	28	15	16	20	37581

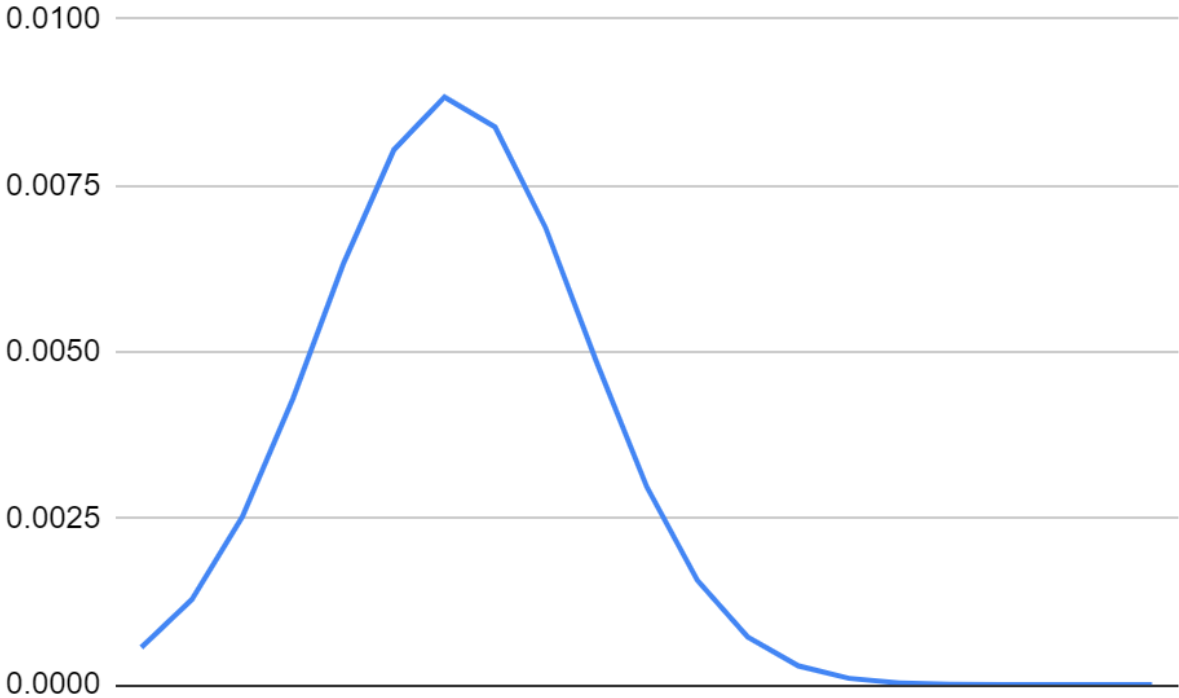
At this last analysis, we can see that the average of sleeping is 7 hours. According to Raj Dasgupta, assistant professor of clinical medicine in the division of pulmonary medicine, critical care and sleep medicine at the University of Southern California's Keck School of Medicine, sleep needs are very individualized.

Nevertheless, the general recommendation – the “ideal” – is to get seven to nine hours of sleep a night.

Normal Distribution

Here, we did a normal distribution with another data that we found relevant: Reported Weight In Pounds.

(1 P = 0,453592 KG)



Summary of calculations:

<https://docs.google.com/spreadsheets/d/1EV22TUPvJgV2nEM1jpYBpJgN9rEbmJW7kTG7lhqiaFM/edit#gid=1413025344>

Reported Weight In Pounds*	Mean	184,3556769	
200	Standard Deviation	113,542397	
195	Minimum	77	
145	Maximum	422	
120	Difference	345	17,25
205			
123	77	0.0005614542002	
168	94.25	0.001281020111	
180	111.5	0.002525124079	
125	128.75	0.00430025947	
160	146	0.00632691152	
190	163.25	0.00804218434	
128	180.5	0.008831641847	
175	197.75	0.008379035609	
201	215	0.006868023713	
130	232.25	0.004863564707	
190	249.5	0.00297551931	
140	266.75	0.00157273666	
235	284	0.0007181818244	
135	301.25	0.0002833335297	
161	318.5	0.00009657099286	
194	335.75	0.00002843679083	
140	353	0.000007234351942	
202	370.25	0.000001590024604	
220	387.5	0.0000003019209288	
230	404.75	0.00000004952993472	
190	422	0.000000007019843898	

*The column shows few answers about Reported Weight in Pounds in the document, but in the spreadsheet it shows more than five thousand answers.

Target Market

Our target are overweight adults in the state of Carolina, both male and female.

With all the data we've analyzed, we know that a lot of people need help, like an environment where they can exercise and still meet other people in the same situation.

Therefore, in addition to trying to provide this (after all, there are hundreds of gyms in the city), we want people to feel welcomed and have the power to change their lifestyles in a healthier way.

Conclusion

It was difficult to work with this data, because we are not from the field. It is easier to work with the data when we have the expertise from the field. Otherwise, given data to anybody can be dangerous and lead to flawed conclusions and plans.

In spite of that, again, we realize that we have to know how to deal with the difficulties that appear in life, often the unpredictable, as this can not only affect our health but also our perception of everyday events.