

AMP Ltd.

Group 3

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Introduction

The data we used covered many aspects related to the inhabitants of North Carolina, which was a good thing. On the upside though it made it extremely difficult for us to handle that amount of data, given the large number of respondents and of information collected.

To solve this issue, our team decided not to use google sheet, but excel and also we used one document at a time, making sure the final version is sent via whatsapp, so that every time we were referring to the previous version, and not having to start all over again.

Not less important, during the assignment, we realized some of us were better at some tasks and others at others. Thus, we learned from each other (peer-learning) and became a better team, using our strengths.

Business Problem

When we looked at the data, we noticed several health issues spiking and we then took a closer look at some of the variables, such as:

- Number of Days Physical Health Not Good
- Number of Days Mental Health Not Good
- Exercise in Past 30 Days
- Adults with good or better health
- Computed Physical Health Status
- Leisure Time Physical Activity Calculated Variable
- Overweight or obese calculated variable

We started from the assumption that there is a high number of people with health issues in the North Carolina area. Assumption which can turn out to be a good (profitable) business opportunity.

Business Solution

Our company's response to the health issues North Carolina inhabitants are having consists in designing a user-friendly, community-oriented product (platform/app) to prevent diseases and support the development of an overall healthier lifestyle through access to all the gyms, pools, fitness classes, health & wellness spaces, personal trainers, sport shops, bio/eco grocery stores with natural produce.

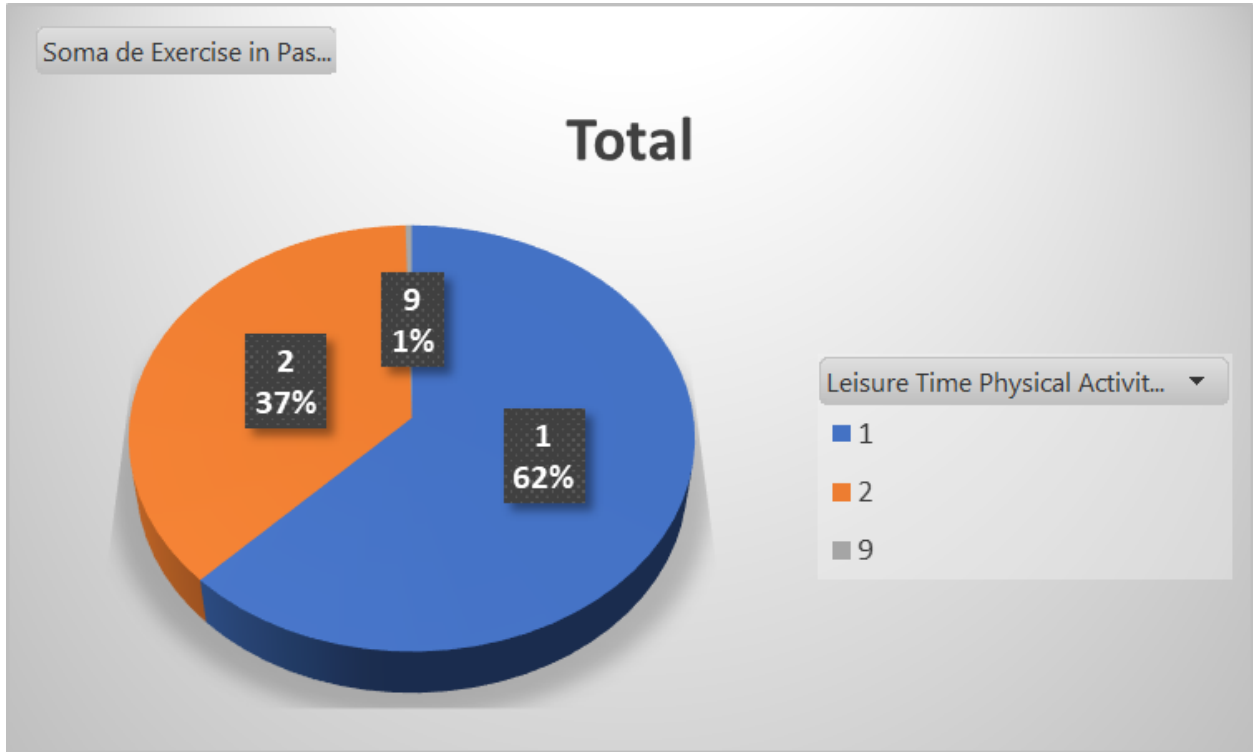
The concept behind it is to have people design a better life for themselves, with the support of the community created around the concept of healthier living. You pay for access to a support community also, not just access to the gym.

People would engage on the platform and they would win various status-prizes/names: health promoter, brother/sister for all. The more they comment/engage, the higher the virtual prize for them.

The product is sold direct to consumer, not business to business.

Exploratory Data Analysis

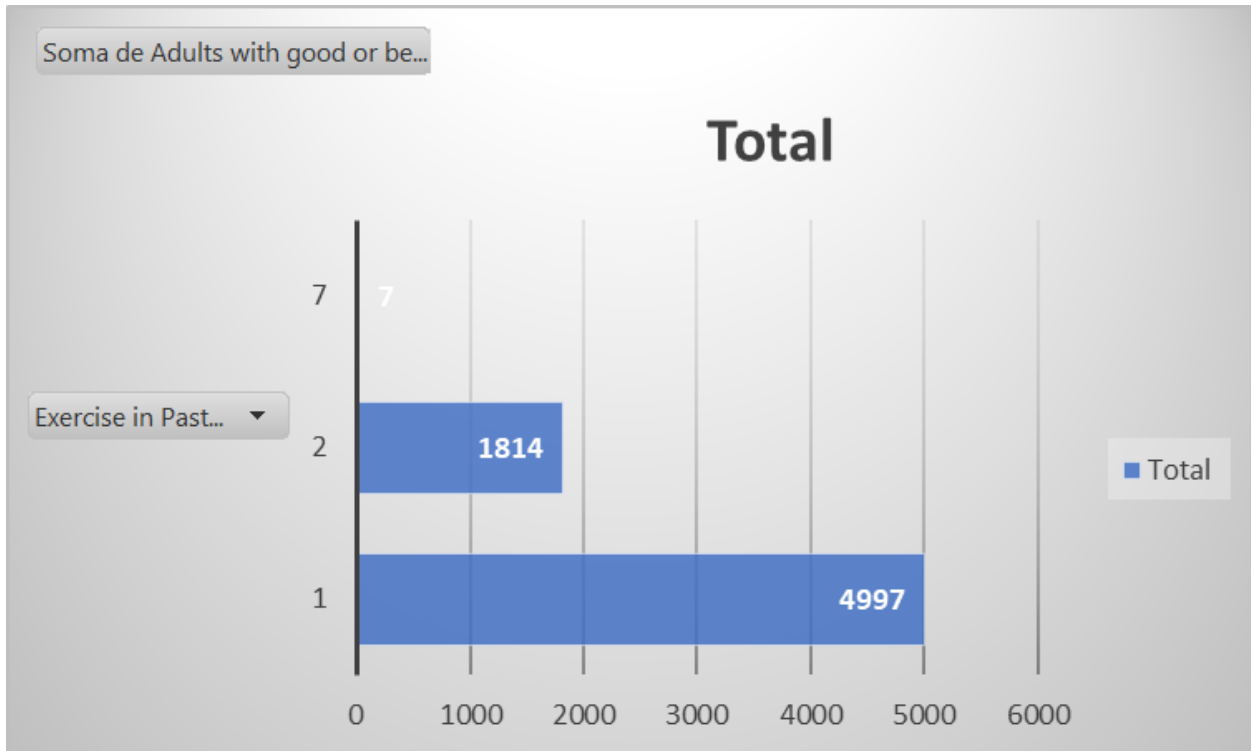
Rótulos de Linha	Soma de Exercise in Past 30 Days
1	4479 Had physical activity or exercise
2	2680 No physical activity or exercise in last 30 days
9	28 Don't know/Refused/Missing
Total Geral	7187



The first analysis we did was with the column “Exercise in Past 30 Days”: in a sample of 7.187 people, more than 60% had physical activity or exercise.

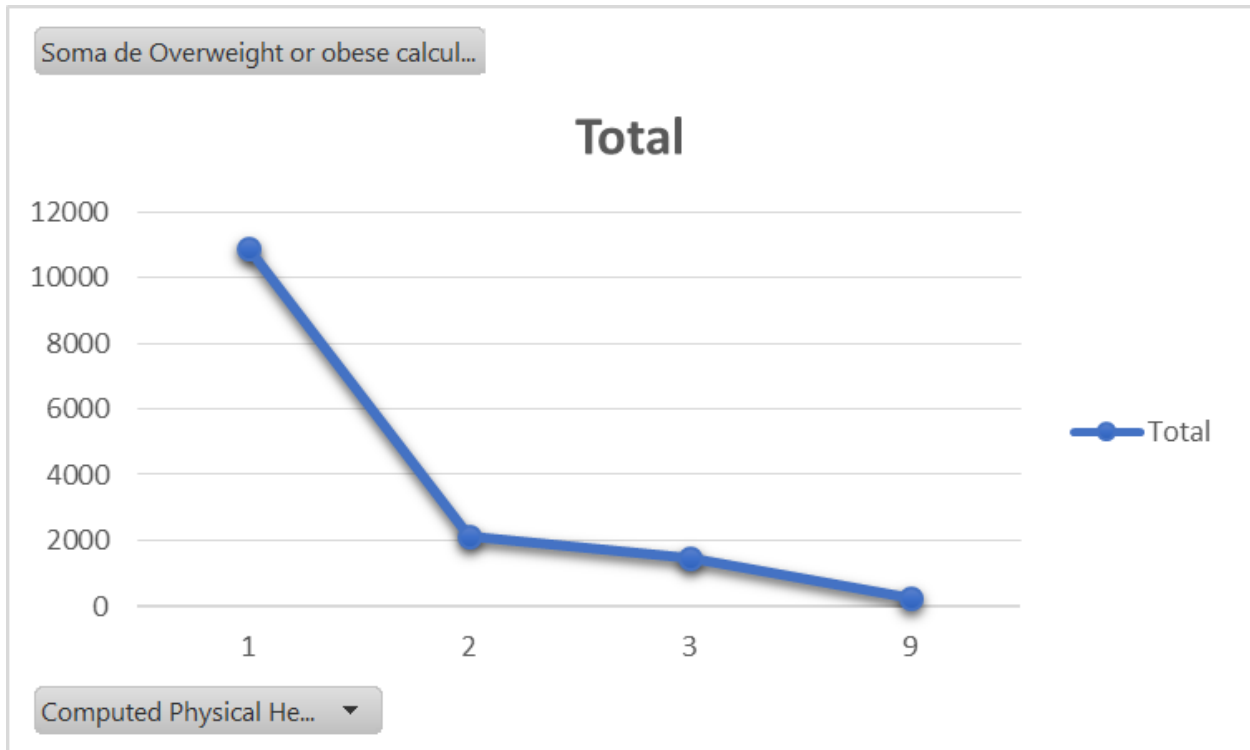
Rótulos de Linha ▾ Soma de Adults with good or better health

1	4997 Yes
2	1814 No
7	7 Don't know
Total Geral	6818



The second one was “Adults with good or better health”: in a sample of 6.818 answers, more than 70% said they were in exemplary health.

Rótulos de Linha	Soma de Overweight or obese calculated variable
1	10867 Zero days when physical health not good
2	2131 1-13 days when physical health not good
3	1490 14+ days when physical health not good
9	238 Don't know/Refused/Missing
Total Geral	14726



Finally, in our third pivot table, we also chose to analyse “Overweight or obese calculated variable”: in a sample of 14.726 answers, almost 80% said they have zero days without the health not good.

All these numbers show us we are dealing with “good data”, and our business comes to engage the “bad data” to become more and more healthier.

Percentage of respondent by column	
Had physical activity or exercise	62,32%
Adults with good or better health	73,29%
Zero days with health not good	73,79%

Normal Distribution

We create a normal distribution to show another variable present in our chosen columns: *"Number of Days Mental Health Not Good"*. In our opinion, such a variable supports our hypothesis that the NC inhabitants could use our product to improve their life, both mentally and physically. As you can see, almost half of the month days people say/declare they haven't been in good health not good.

Mean: 14

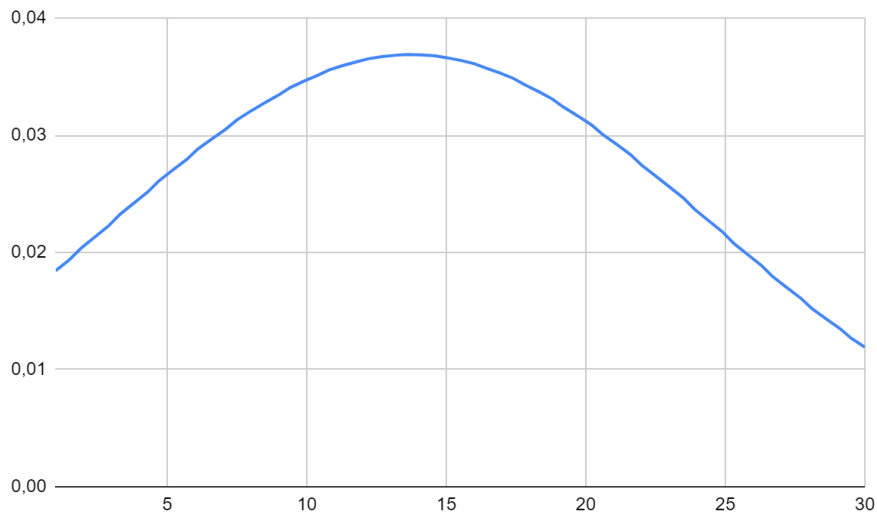
Standard Deviation: 11

Raw Score: 62

$$Z = (X - \mu) / \sigma$$

$$Z = (62 - 14) / 11$$

$$Z = 4.36364$$



Target Market

Our target market consists of men and women of all ages, from rural areas, who are experiencing various health issues, be it mentally or physically. They are interested in gaining a better life, but are not sure where to start.

Providing adequate sample sizes for smaller geographically defined populations of interest, many states, such as North Carolina, sample disproportionately from strata that correspond to sub-state regions. That is one of the reasons we chose to discuss rural areas.

In Metropolitan counties, the weighted percentage é 85,23; and in Nonmetropolitan counties, the weighted percentage is 14,77.

Curiously, North Carolina is the most industrialized state in the south of the country, being the biggest tobacco producer in the rural area. The covid-19 pandemic and the government's responses to it have had worldwide extraordinary effects. For example, cigarette sales in the United States increased for the first time in two decades. According to data from the US Federal Trade Commission, the index was only 0.4%, but has already resulted in an increase of 8 million more cigarettes sold in wholesalers and retailers across the country - from 202.9 billion in 2019, to 203.7 billion in 2020.

As far as the inhabitants of North Carolina are concerned, it is important to address how important it is to stay in shape, to maintain good health so that if such a virus attacks you, your body is better prepared to deal with it. Second of all, a community is essential in dealing with such a crisis.

Our product responds to both these needs: it creates a community of people who wish to lead a better life, from all points of view, and who are currently experiencing various issues related to their health. Our expectation is that being part of a strong community, using gamification strategies, our clients will react better to the incentives and will be more willing to attend classes regularly and improve their life.

Conclusion

1. Data can be very tricky :)
2. It requires specially trained staff to handle it, especially when a considerable amount of data is at stake.
3. (*personal insight*: Smaller businesses are more likely to succeed if they respond to needs/problems that they can have easier access to.

We feel that

- A. Knowing such a survey exists implies at least an university level type of knowledge
 - B. Handling this amount (reading, sorting it) data requires an expert
 - C. Knowing which data to choose/observe and further analyze requires an expert
 - D. Smaller companies do not have/can't afford such experts.
 - E. Bigger companies/wealthier individuals, like in our case/investment funds etc. have access to this knowledge and are able to support the business development of initiatives based on such data.)
4. Data can also be manipulated and presented in a way that it matches ones' objectives.