

WHO Health Presentation Notes

1. Introduction

This presentation presents the results of a data analysis of WHO health data to explore the impact of stress, physical exercise, and sleep on health.

In the course of the analysis, two hypotheses were tested 1. sleeping is more important to health than exercise 2. living a stress free lifestyle has a major impact on health

2. Research Question

The underlying research question of this analysis was: “Which are the main influencing factors on health and how can we use these insights to improve it?”

3. Data

The data used for this analysis is WHO data on health, comprising data on individuals ages, weight, sleep, exercise, stress levels, amongst others.

4. Methodology

The analysis consisted of a regression with health as dependent variable, sleep, exercise and stress as independent variables.

5. Challenge: What is health?

A challenge I encountered was to determine which variable is used for health. It is generally challenging to measure health, as it consists of many factors. For the purpose of this analysis, health will be explained by excess body weight. This simplification is being made in the absence of other health indicators such as BMI.

6. Results

The regression results suggest that Exercise has a statistically significant positive relationship on health, while for Sleep and Stress no statistically significant effects were found.

7. Limitations

In general, it is difficult to measure health as it is expressed in many different aspects, which are difficult to measure. For example, health has physical aspects such as number of illnesses over time or fitness, but also mental aspects such as stress resistency or absence of psychological conditions.

Furthermore, the input factors of health are difficult to measure, as factors like genetics, sleep, nutrition, external factors, but also access to health care might influence it.

Moreover, there is a substantial risk of reverse causality, as poor health might also induce stress, limit exercises and cause sleepless nights.

8. Conclusion

This presentation discussed the effects of exercises, sleep and stress on health by means of a simple linear regression analysis. The results suggest that only physical exercise has a statistically significant effect on health. Therefore, both hypotheses need to be rejected. Major limitations of this analysis have

Table 1: Regression Results: Health \sim
Exercise + Sleep
+ Stress

	(1)
(Intercept)	246.148** (87.845)
Exercise	285.774*** (21.394)
Sleep	30.220 (20.625)
Stress	-5.357 (8.851)
Num.Obs.	100
R2	0.652
R2 Adj.	0.642
AIC	1370.7
BIC	1383.7
Log.Lik.	-680.331
RMSE	217.97
+ p <0.1, * p <0.05, ** p <0.01, *** p <0.001	

been mentioned. I thank you for your attention and am looking forward to hearing your feedback.