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PREDICTIONS IN MENTAL ILLNESS

AT RISK

SOURCE

▸ Objective is to predict debilitating depression and anxiety, and to identify contributing factors.

▸ Tools will be 700+ survey questions from 26,000+ U.S. respondents.

▸ 90 Questions ultimately used regarding living conditions to societal factors lifestyles.

700+
questions

26k
respondents

UTILITY CONTEXT
WHAT THIS REPORT IS AND IS NOT

‣ It is *not* a guidebook for how to avoid or heal mental illness.

‣ it is *not* investigating relative happiness.

‣ Solely to predict certain mental illnesses based on external factors, and to spotlight factors for potential investigation.

‣ Predicting mental illness provides the tools to determine where to allocate resources for the to best alleviate those illnesses.

MODEL PREDICTIONS

'Unwell' defined as self-identified having activity limited by depression, anxiety, or other emotional mental illness, and 'well' as having no such limitation.

ACTUALLY UNWELL

72%
Correctly identified as 'unwell'

VS

Incorrectly identified as 'well'
28%

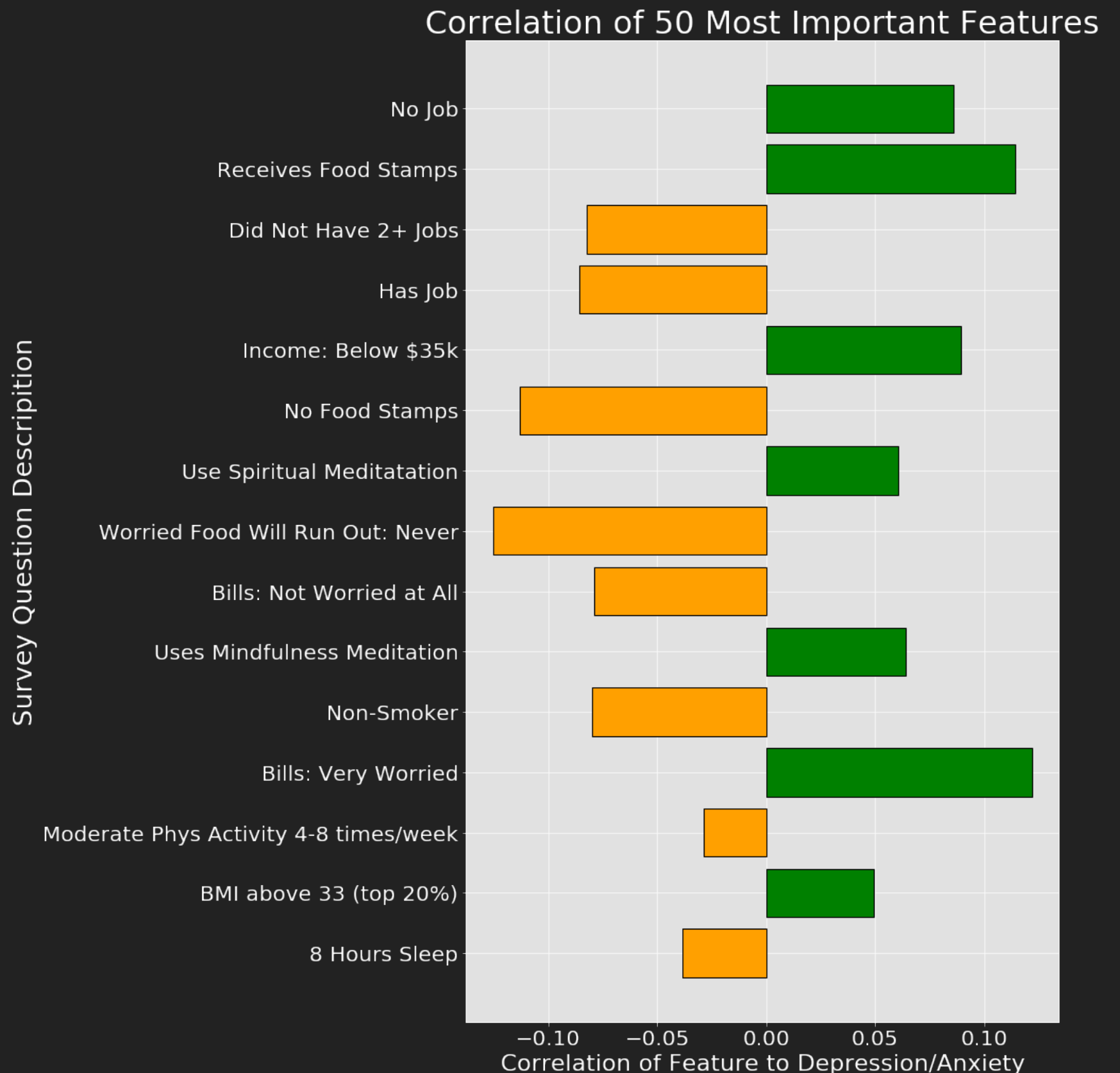**ACTUALLY WELL**

75%
Correctly identified as 'well'

VS

Incorrectly identified as 'unwell'
25%

TOP FIFTEEN

▸ Correlation is not causation.

▸ These provide the means to identify, not to attribute.

▸ Primary driving features are economic. Some health factors.

Correlation of 50 Most Important Features

Survey Question Description (y-axis)

Feature	
No Job	(green)
Receives Food Stamps	(green)
Did Not Have 2+ Jobs	(orange)
Has Job	(orange)
Income: Below $35k	(green)
No Food Stamps	(orange)
Use Spiritual Meditatation	(green)
Worried Food Will Run Out: Never	(orange)
Bills: Not Worried at All	(orange)
Uses Mindfulness Meditation	(green)
Non-Smoker	(orange)
Bills: Very Worried	(green)
Moderate Phys Activity 4-8 times/week	(orange)
BMI above 33 (top 20%)	(green)
8 Hours Sleep	(orange)

Correlation of Feature to Depression/Anxiety (x-axis: −0.10, −0.05, 0.00, 0.05, 0.10)

CONCLUSIONS

▸ Debilitating depression and anxiety linked with economic factors, particularly poverty.

▸ Predictive modeling pinpoints a quarter of the population for risk, and identifies almost 3/4 of ill individuals.

▸ These tools allow decision-making personnel to most precisely allocate mental illness intervention resources where they will be most effective.

ONGOING ANALYSIS

▸ Deeper research into individual features to determine depth of correlation and cause vs. effect.

▸ Dive more into bipolar, schizophrenia, and other illnesses to ascertain similar data for similar reasons.

▸ Perform similar research for other nations to see if results are similar.

PREDICTION PRECEDES POLICY

THANK YOU!