



Depression and Health Over Time in a Sample of Young Adults

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The National Longitudinal Study of Adolescent to Adult Health

- Public-use data across four waves spanning from 1995 to 2008
 - 1995 $M_{\text{age}} = 16$
 - 2008 $M_{\text{age}} = 29$
- Sample size ranges from 4834 to 6504



Variables Examined

Longitudinal

- H1GH1: Wave 1 Health
- H2GH1: Wave 2 Health
- H3GH1: Wave 3 Health
- H4GH1: Wave 4 Health
- H1FSD: Wave 1 Depression
- H2FSD: Wave 2 Depression
- H3FSD: Wave 3 Depression
- H4FSD: Wave 4 Depression
- BIO_SEX: Wave 1 Sex (1 = male, 2 female)
- BIO_SEX2: Wave 2 Sex (1 = male, 2 female)
- BIO_SEX3: Wave 3 Sex (1 = male, 2 female)
- BIO_SEX4: Wave 4 Sex (1 = male, 2 female)

Cross-Sectional

- H4GH8: Wave 4 number of times fast food was eaten in past 7 days
- H4HS1: Wave 4 health insurance status (1 = no, >1 = yes)
- H4HS7: Wave 4 number of routine check-ups in past year
- H4HS8: Wave 4 number of dentist visits in past year
- H4HS9: Wave 4 number of times received psychological counseling in past year
- H4WP24: Wave 4 feeling of closeness to mother
- H4WP38: Wave 4 feeling of closeness to father



Main Outcomes

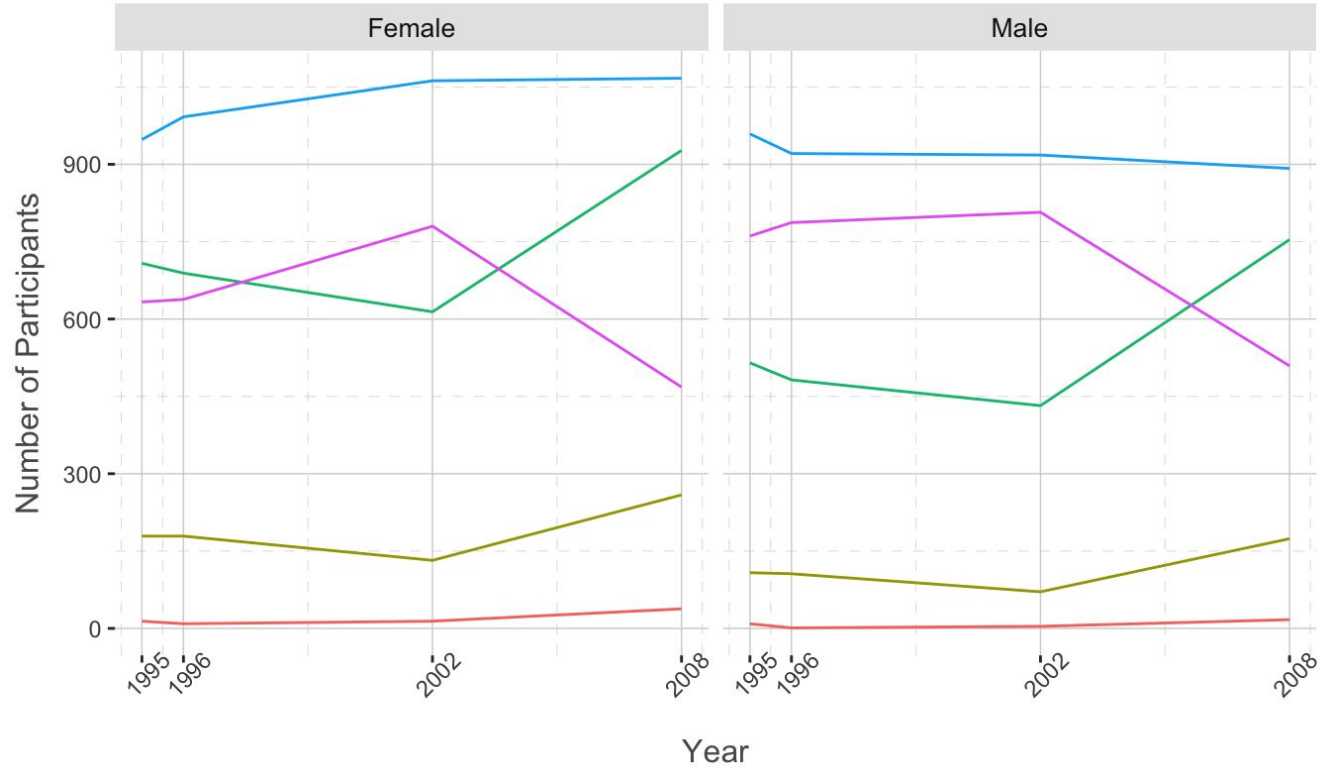
Health

- Single item asking “In general, how is your health?”
- Answered with “Poor”, “Fair”, “Good”, “Very good”, or “Excellent”
- Extremely subjective

Depression

- Varying number of items from the Center for Epidemiological Studies Depression Scale averaged into a single composite variable

Change in Health Over Time by Sex

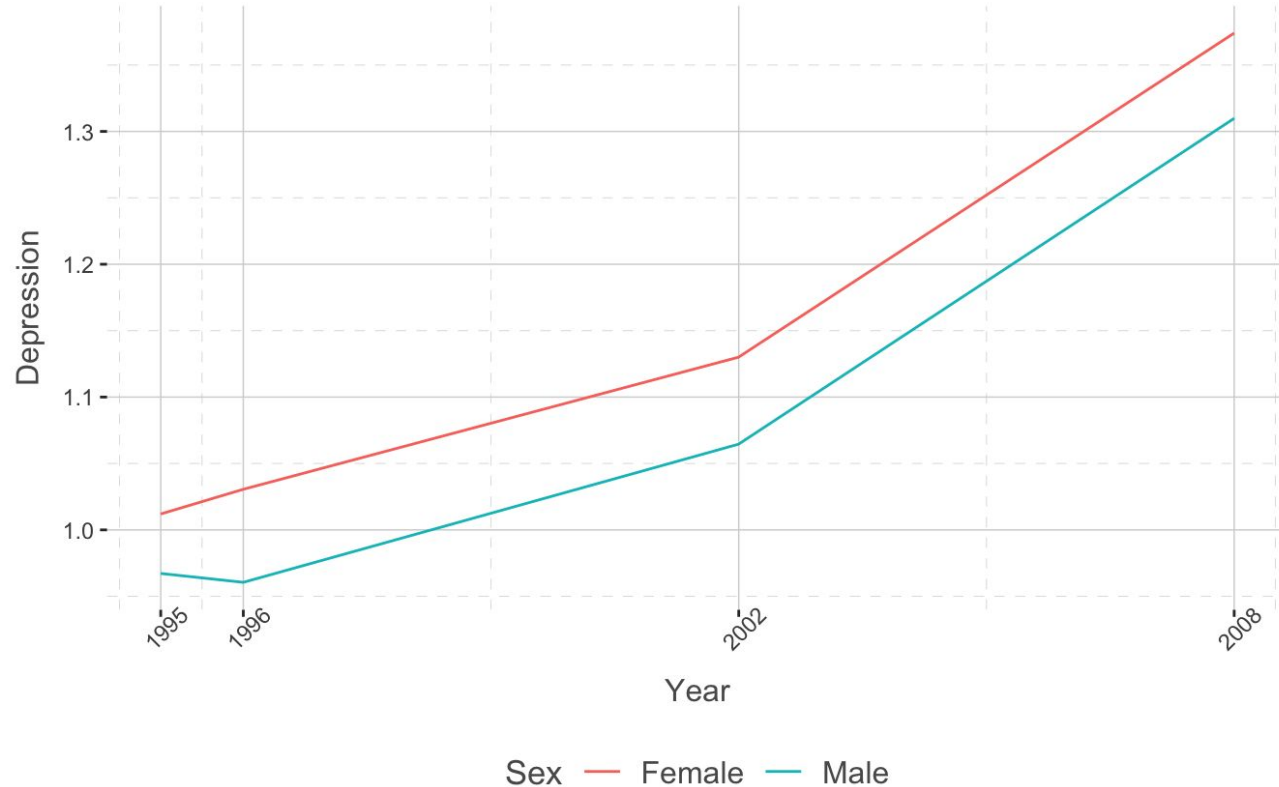


- Over time
 - ↓ Excellent
 - ↑ Good
 - ↑ Fair

Health — Poor — Fair — Good — Very good — Excellent

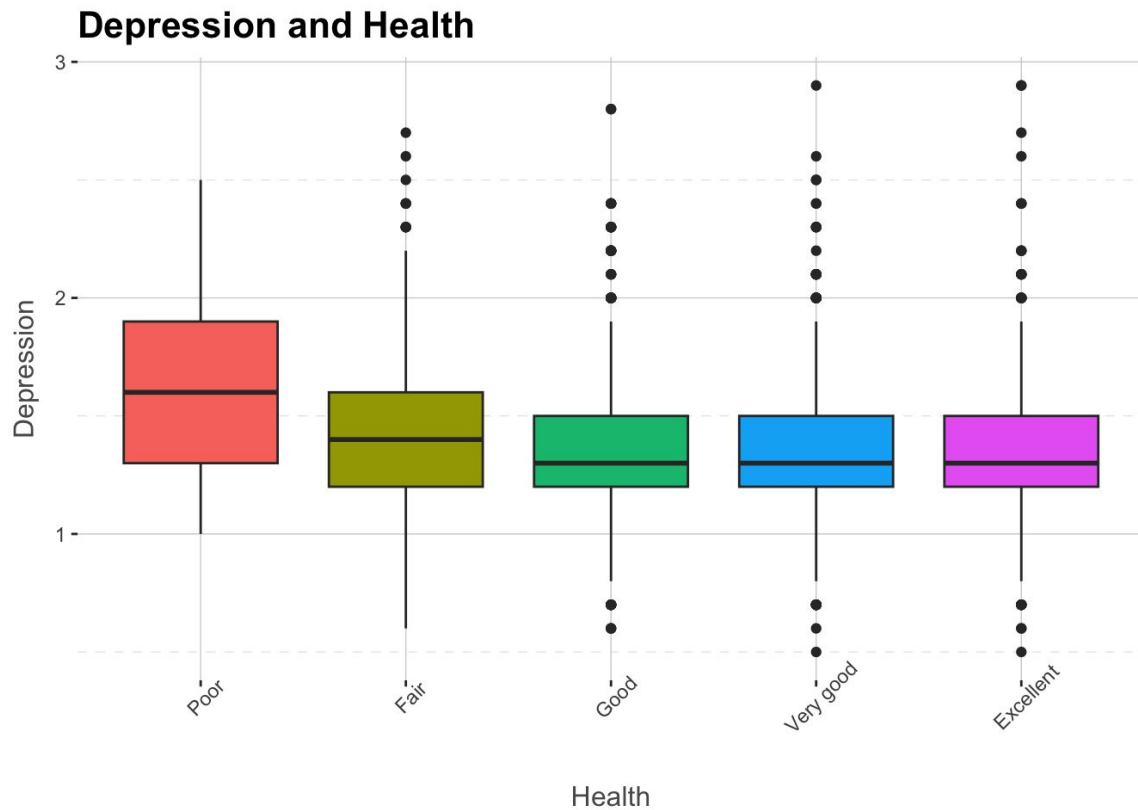
Change in Depression Over Time by Sex

Gender differences are significant at every time point



- Female = more depressed than male
- Over time
 - ↑ Depression

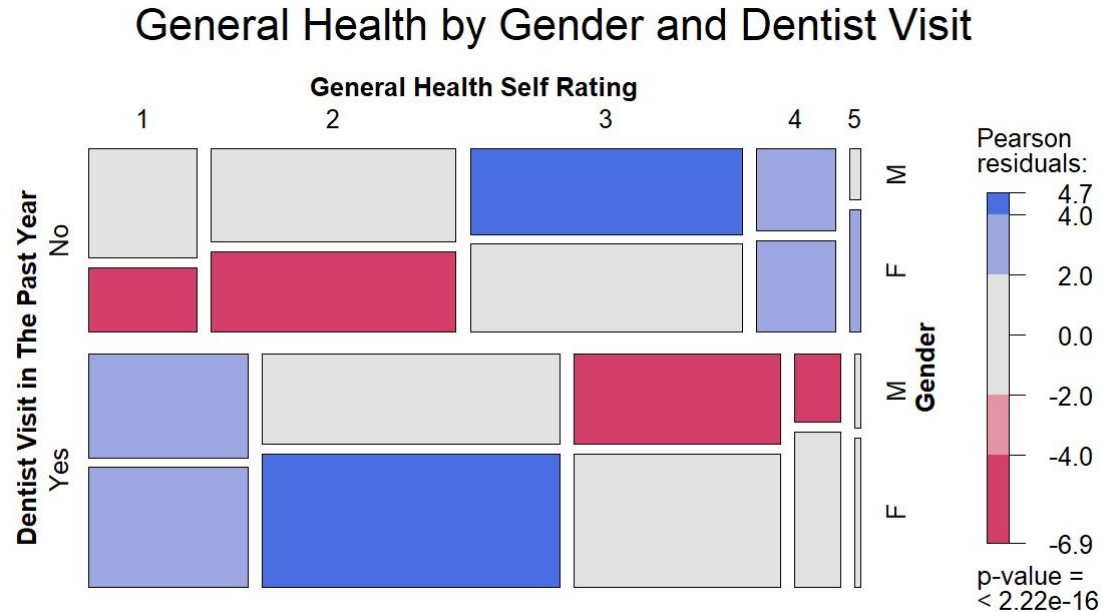
- Poor health = Most depressed
- Fair health = Next most depressed
- No difference in depression between good, very good, and excellent health



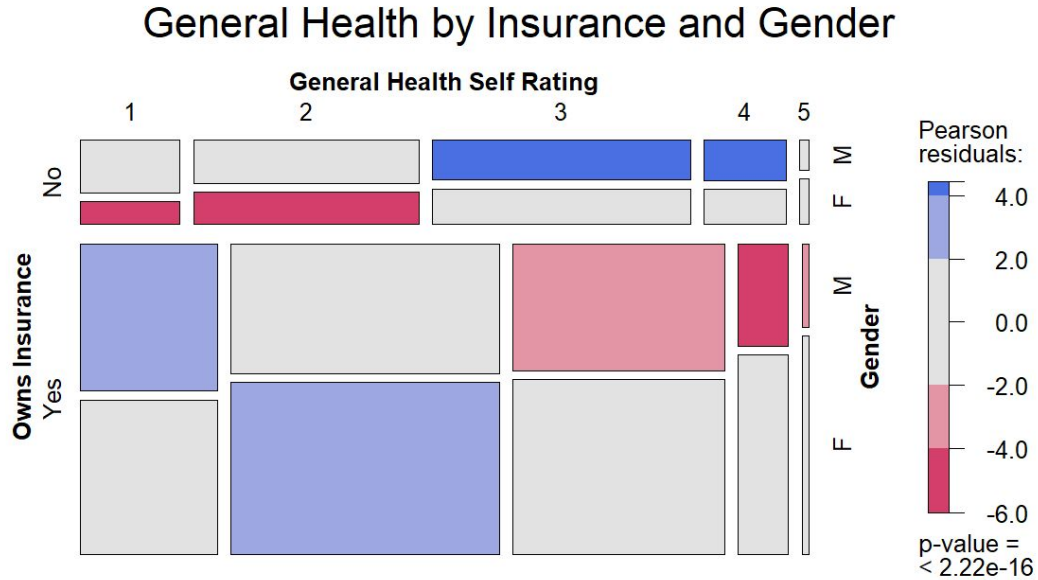
	diff	lwr	upr	p adj
Fair-Poor	-0.19395759	-0.29778842	-0.090126761	0.0000035
Good-Poor	-0.28718512	-0.38657710	-0.187793133	0.0000000
Very good-Poor	-0.30952063	-0.40868893	-0.210352326	0.0000000
Excellent-Poor	-0.29549456	-0.39601466	-0.194974454	0.0000000
Good-Fair	-0.09322753	-0.13231759	-0.054137463	0.0000000
Very good-Fair	-0.11556304	-0.15408081	-0.077045269	0.0000000
Excellent-Fair	-0.10153697	-0.14341247	-0.059661465	0.0000000

Dental Visits and Health

- Correlation between seeing a **dentist within the past year** and **worse health**
- More healthy unvisited males and unhealthy visited females
- Less healthy males and unhealthy females



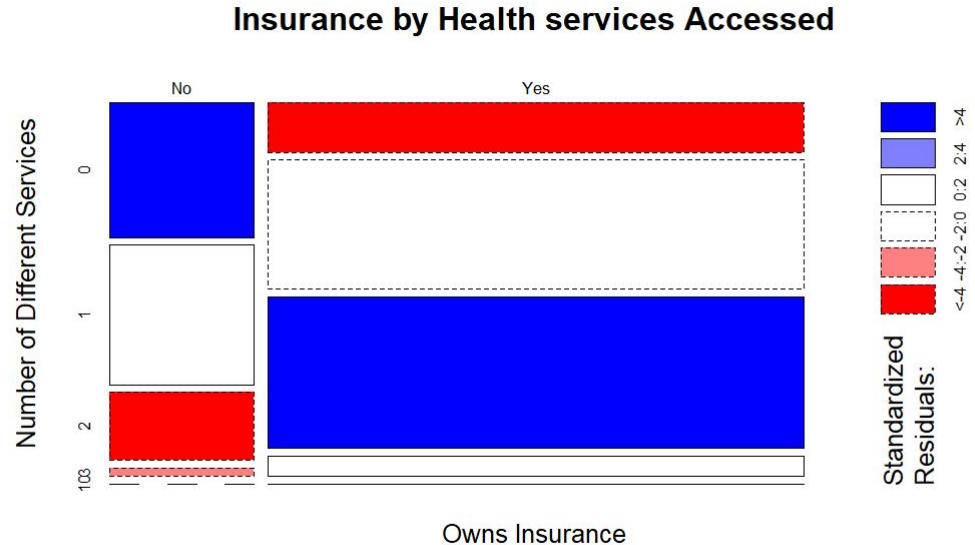
Insurance and Health



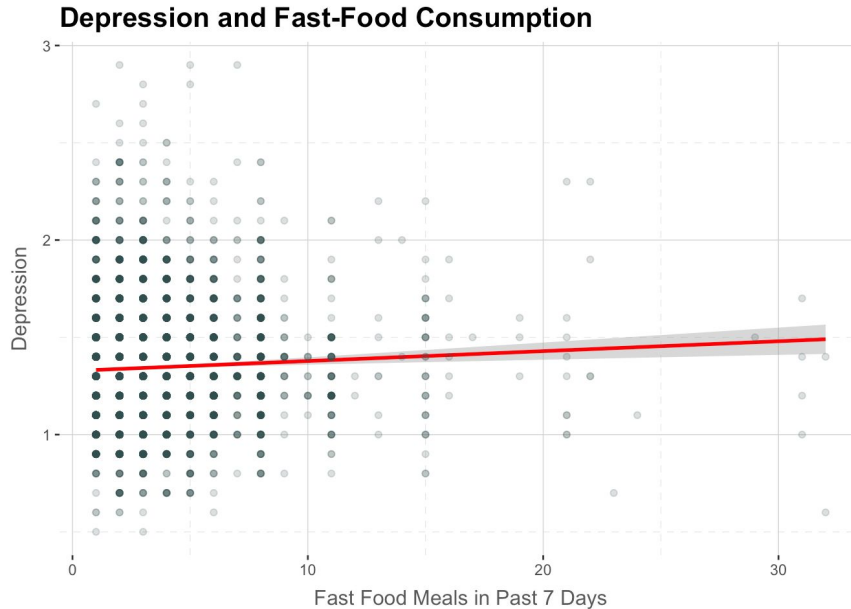
- Correlation between **owning insurance** and having **worse health**?
- Healthy males without insurance seen more than expected
- Unhealthy males with insurance and unhealthy females without insurance seen less than expected

Insurance and Health Services

- Strong correlation between **owning insurance** and seeing **>1** type of health service
- Strong correlation with **not owning insurance** and seeing **<1** type of service

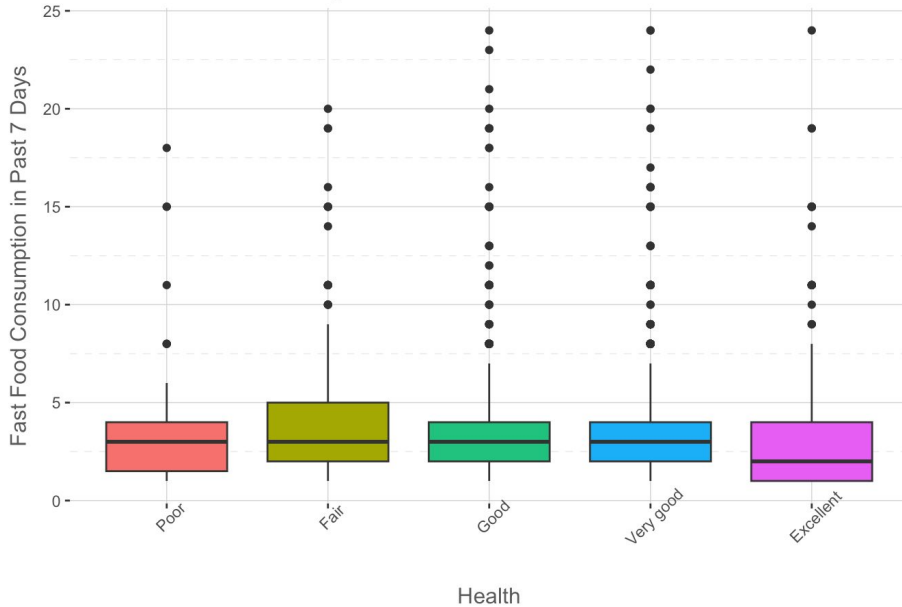


Depression and Fast Food Consumption



- Observe slightly positive relationship
- More data points for ≤ 10 meals
 - Relationship not strong
 - Almost zero correlation

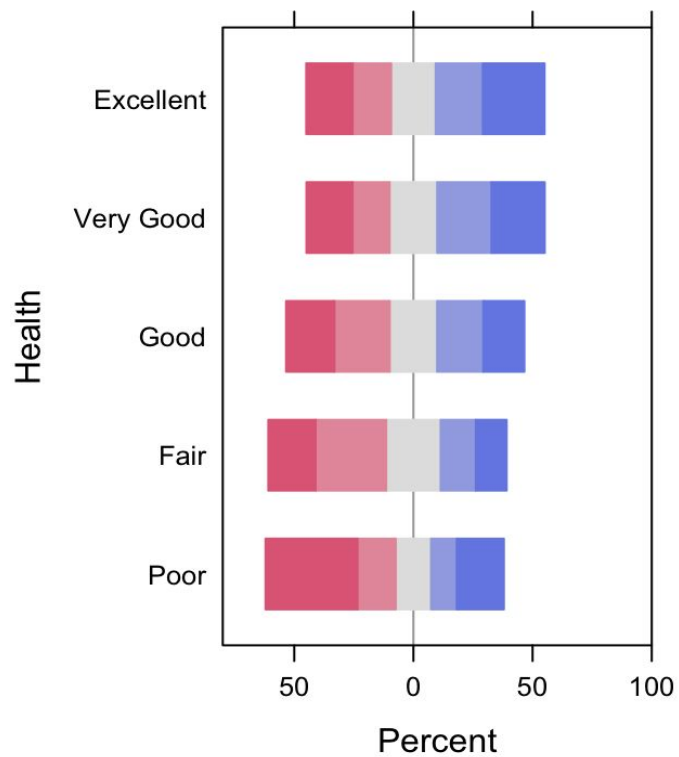
Fast Food Consumption and Health



##	diff	lwr	upr	p adj
## Fair-Poor	0.05548222	-0.9851865	1.09615092	0.9998995
## Good-Poor	-0.30353838	-1.2990337	0.69195694	0.9207359
## Very good-Poor	-0.49275809	-1.4859930	0.50047680	0.6573742
## Excellent-Poor	-0.78677686	-1.7937156	0.22016187	0.2065432
## Good-Fair	-0.35902060	-0.7529436	0.03490236	0.0936913
## Very good-Fair	-0.54824031	-0.9364154	-0.16006519	0.0011126
## Excellent-Fair	-0.84225908	-1.2642662	-0.42025200	0.0000005
## Very good-Good	-0.18921971	-0.4314996	0.05306014	0.2069482
## Excellent-Good	-0.48323848	-0.7766828	-0.18979414	0.0000701
## Excellent-Very good	-0.29401877	-0.5797008	-0.00833677	0.0400378

- Differed Groups:
 - “Fair” and “Excellent” ($p < .001$),
 - “Fair” and “Very good” ($p = .002$),
 - “Excellent” and “Good” ($p < .001$)
- Possible explanations
 - “Poor” group => unable to get fast food
 - “Excellent” group => low frequency as expected
 - Fast food culture
 - Participants are young

Health by Closeness to Mother



Weaker relationship
with mother



Poorer health

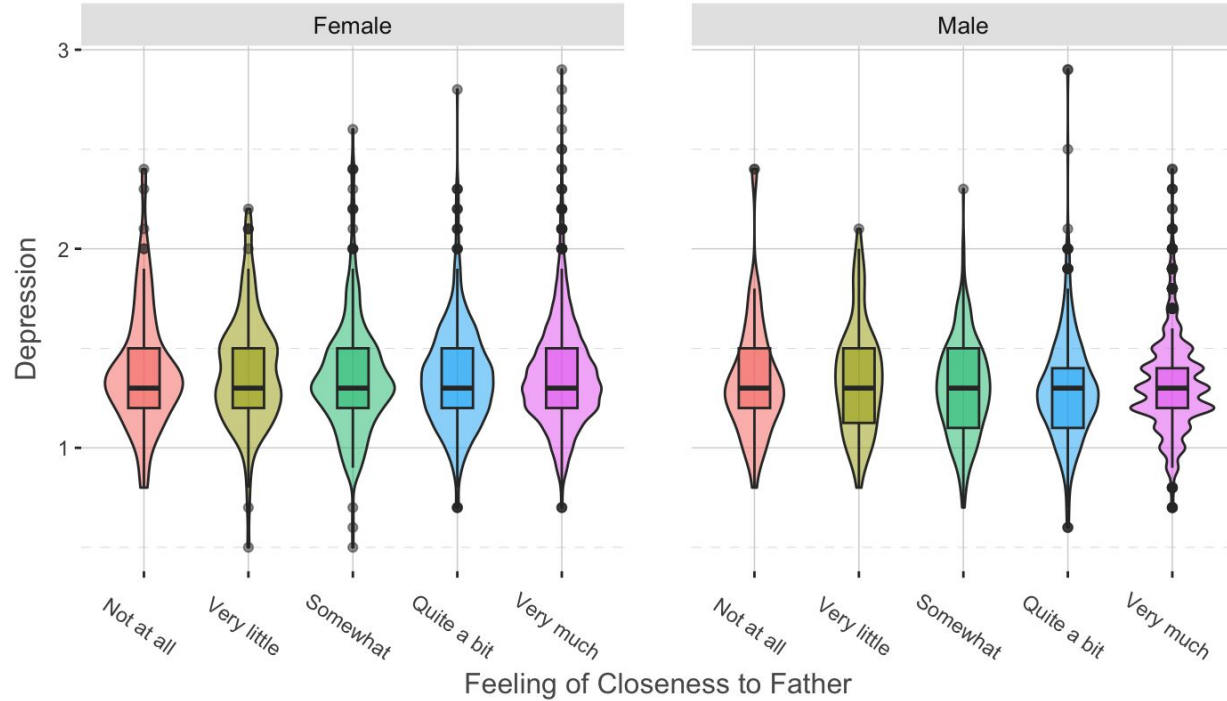
Stronger
relationship with
mother



Better health

Depression by Gender and Closeness to Father

- Women:
 - No difference in depression by closeness to father
- Men:
 - Close relationships with father = less depression





Conclusion

- As people age, they perceive their **health as worse** and are **more depressed**
- The people with **worst health** are **most depressed**
- Those **without** health insurance perceive themselves as **healthier**
 - But those without health insurance **see medical professionals less**
- There is a slight, **positive relation between fast-food consumption and depression**
- People with fair and good health eat the most fast-food
 - Although **those with poor health may not be able to get fast-food**
- Those closest with their parents are **less depressed** and have **better health**



Future Research

- Why does depression increase as we age?
- Why is there a sex discrepancy for depression?
- Why do those who don't have health insurance perceive themselves as healthier?
- Have delivery apps given those with the worst health more access to fast-food?
- What kinds of close relationships connect depression and health?
 - Do friendships have as strong an effect?
 - Do romantic relationships have an even stronger effect?
 - Or is there just something unique about a parental relationship?