WHAT FACTORS IMPACT MATERNAL MENTAL HEALTH OUTCOMES?

Adebisi Akinyemi February 11, 2023

BACKGROUND

Pregnancy-related mortality
has increased in the U.S. from 1987 to 2018.

Mental health conditions were the leading cause of these deaths from 2017 to 2019.

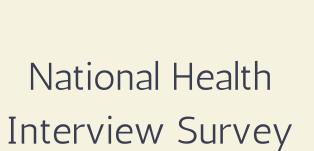
U.S. women of reproductive age have the highest rate of mental health needs

To understand causes for pregnancy - related mortality, it is vital to examine factors related to maternal mental health.

OBJECTIVE

To identify factors associated with maternal anxiety and depression.

DATASET



(NHIS) 2019-2021

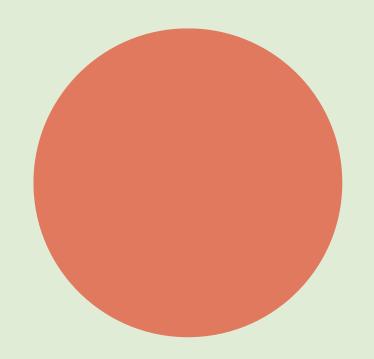
Data collected from interviews conducted every year since 1957 by the U.S.
Census Bureau.

The NHIS was redesigned in 2019.

Measured chronic conditions, functioning, health care access and use, health behaviors, and demographics

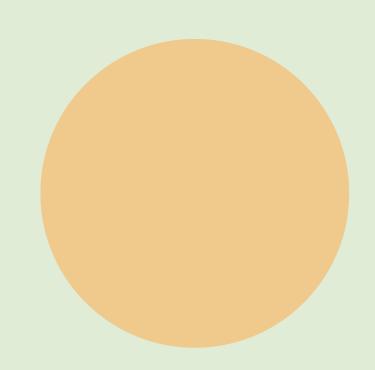
DATA CLEANING



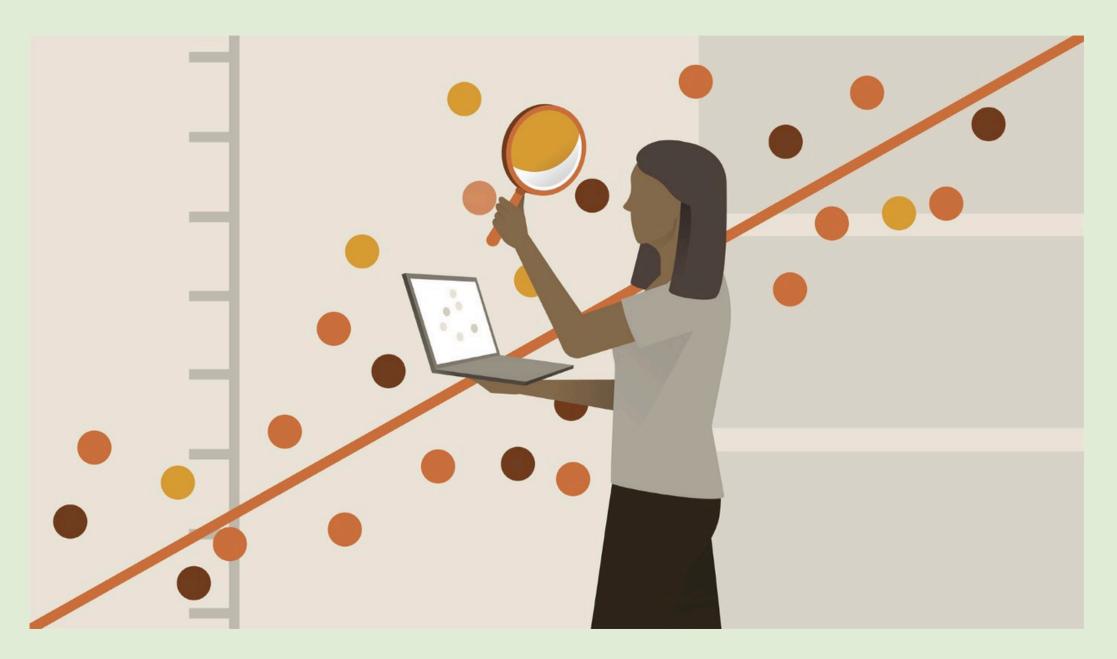


EXPLORATORY DATA ANALYSIS





STATISTICAL ANALYSIS



I built ordinary least squares (OLS) multivariate regression models to identify statistically significant predictors of maternal maternal health.

		Multivariate regression predicting maternal anxiety $(N = 927)$	Multivariate regression predicting maternal depression $(N = 927)$
RESULTS	Predictor variables	Coefficient	Coefficient
	Year	14**	07
	Received WIC benefits (12m)	17	23**
	Age	.01	.01
	Income-poverty ratio	01	.01
	Physical health	3o***	21***
	BMI	.06	05
	Education	04	.02
	Race	.38**	.16
	Marital status	20	12
	US born	44***	16
	Health insurance (12m)	06	32*
	Sexual orientation	34	51**
	Received required medical care (12m)	26	42 ^{**}
	Currently pregnant	.18	.25
	Food security	44***	27**
	* p < .05, ** p < .01, *** p < .001	$R^2 = .12$ F(911, 15) = 8.35***	$R^2 = .16$ F(911, 15) = 11.33****

KEY TAKEAWAYS

Average maternal anxiety decreased over time and as physical health and food security declined.

Maternal anxiety was greater on average for non-white and foreign-born mothers.

Average maternal depression decreased as physical health and food security decreased.

Maternal depression was greater on average for heterosexual women and those who did not receive WIC benefits, required medical care, or have health insurance in the last 12 months.

BROADER IMPACT

Identify mothers at greater risk for pregnancy-related mental health conditions.

Ascertain potential factors on which to intervene to improve pregnancy-related mental health.

Decrease healthcare costs and ensure more effective allocation of health resources.

Promote public health and reduce pregnancy-related mortality.

CONCLUSIONS

To improve maternal mental health and reduce pregnancy-related mortality, practitioners should account for mothers':

- Race
- Physical health
- Nativity
- Food security
- Sexual orientation
- Access to WIC benefits, health insurance, and required medical care

