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The Social-Economic Status of Pregnant Women with Serious Mental Illness in the United States from 2016 to 2019


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Background:

- Prevalence of anxiety and depression in pregnancy, 12.4% and 13% respectively, in Switzerland (Cook et al., 2010)
- Data source: from the National Survey on Drug Use and Health (NSDUH) from 2016 to 2019
 - > No differences in the trends in mental health among pregnant women in the United States, from 2008 to 2014 (Salameh et al., 2020)
 - > Before the Covid pandemic
 - > Under Trump administration



Aims

- 1) What is the prevalence of serious mental illness among pregnant women from 2016 to 2019 in the United States?
- 2) What demographic and background characteristics of pregnant women are associated with their serious mental illness status?
- 3) After adjusting for the relationship between demographic and background characteristics of pregnant women, how do pregnant women with serious mental illnesses differ from those without serious mental illness in social-economic status?



Method

Aim 1: Descriptive statistics

Aim 2: LASSO Model Selection

- > Originally Chi-Square

Aim 3: Multivariate Logistic Regression

- > Outcome: pregnant woman experienced serious psychological distress in the past 30 days
- > Confounder Addressing: demographic and background variables that are significantly associated with our outcome variable
- > Predictor: income, and employment status



Data Description

- 1) Outcome of interest: **serious mental illness (SMI)**
 - a) A score (0-24) indicating the psychological distress in the past 30 days.
 - b) Classified into two groups: suffering from SMI (score ≥ 13) or not.
- 2) Predictors of interest
 - a) **Demographic characteristics:** maternal age, race/ethnicity, education, marital status, health status, education, employment, income.
 - b) **Behavior characteristics:** past-month substance use.



Descriptive Statistics

	K6<13 (N=2545)	K6>=13 (N=231)	Overall (N=2776)
Past Month Illicit Drug Use			
No	2382 (93.6%)	176 (76.2%)	2558 (92.1%)
Yes	163 (6.4%)	55 (23.8%)	218 (7.9%)
Race			
White	1372 (53.9%)	119 (51.5%)	1491 (53.7%)
Afr Am	393 (15.4%)	44 (19.0%)	437 (15.7%)
Native Am	44 (1.7%)	11 (4.8%)	55 (2.0%)
Native Hawaiian/Pacific Isl	13 (0.5%)	3 (1.3%)	16 (0.6%)
Asian	123 (4.8%)	1 (0.4%)	124 (4.5%)
1+ Race	83 (3.3%)	19 (8.2%)	102 (3.7%)
Hispanic	517 (20.3%)	34 (14.7%)	551 (19.8%)
Age Category			
18-25	1144 (45.0%)	169 (73.2%)	1313 (47.3%)
26-34	1104 (43.4%)	51 (22.1%)	1155 (41.6%)
35-49	297 (11.7%)	11 (4.8%)	308 (11.1%)
Marital Status			
Married	1418 (55.7%)	54 (23.4%)	1472 (53.0%)
Widowed	9 (0.4%)	0 (0%)	9 (0.3%)
Divorced/Separated	127 (5.0%)	14 (6.1%)	141 (5.1%)
Never married	991 (38.9%)	163 (70.6%)	1154 (41.6%)

	K6<13 (N=2545)	K6>=13 (N=231)	Overall (N=2776)
Overall Health			
Excellent	814 (32.0%)	26 (11.3%)	840 (30.3%)
Very good	976 (38.3%)	66 (28.6%)	1042 (37.5%)
Good	634 (24.9%)	89 (38.5%)	723 (26.0%)
Fair/Poor	121 (4.8%)	50 (21.6%)	171 (6.2%)
Education Categories			
< High school	327 (12.8%)	49 (21.2%)	376 (13.5%)
High school grad	677 (26.6%)	86 (37.2%)	763 (27.5%)
Some college/assoc	792 (31.1%)	81 (35.1%)	873 (31.4%)
College grad	749 (29.4%)	15 (6.5%)	764 (27.5%)
Past Week Working Status			
Employed	1506 (59.2%)	110 (47.6%)	1616 (58.2%)
Unemployed	949 (37.3%)	107 (46.3%)	1056 (38.0%)
Disabled	27 (1.1%)	8 (3.5%)	35 (1.3%)
In school/training	43 (1.7%)	4 (1.7%)	47 (1.7%)
Missing	20 (0.8%)	2 (0.9%)	22 (0.8%)
Total Family Income			
< \$20,000	520 (20.4%)	90 (39.0%)	610 (22.0%)
\$20,000 - \$49,999	889 (34.9%)	93 (40.3%)	982 (35.4%)
\$50,000 - \$74,999	391 (15.4%)	23 (10.0%)	414 (14.9%)
> \$75,000	745 (29.3%)	25 (10.8%)	770 (27.7%)

