


Longitudinal Associations Between Maternal Smoking from Pre-Pregnancy to Late-Childhood and Mental Health-Related Medical Service Utilization in Young Adulthood

A Population-Representative Cohort Study



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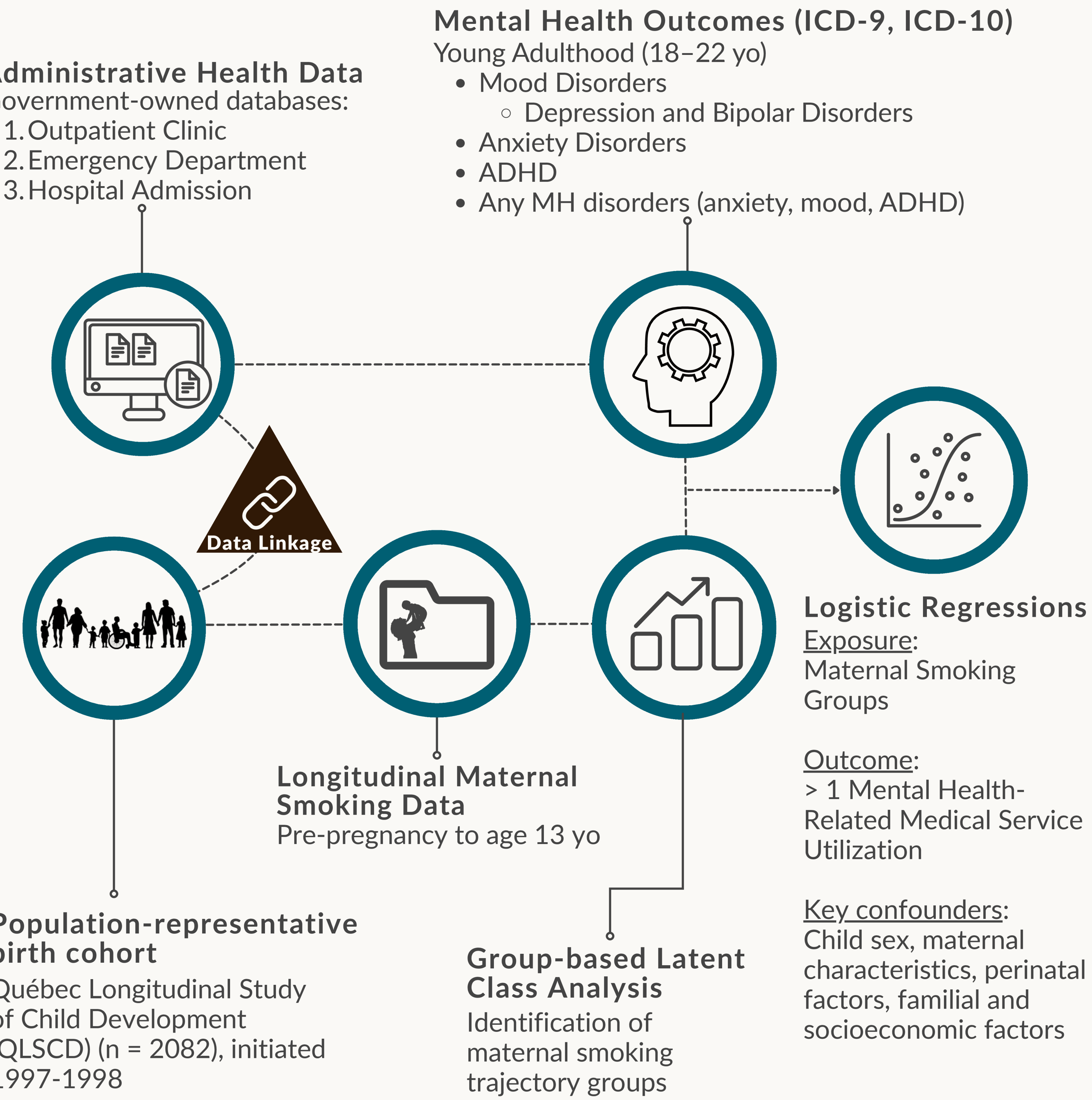
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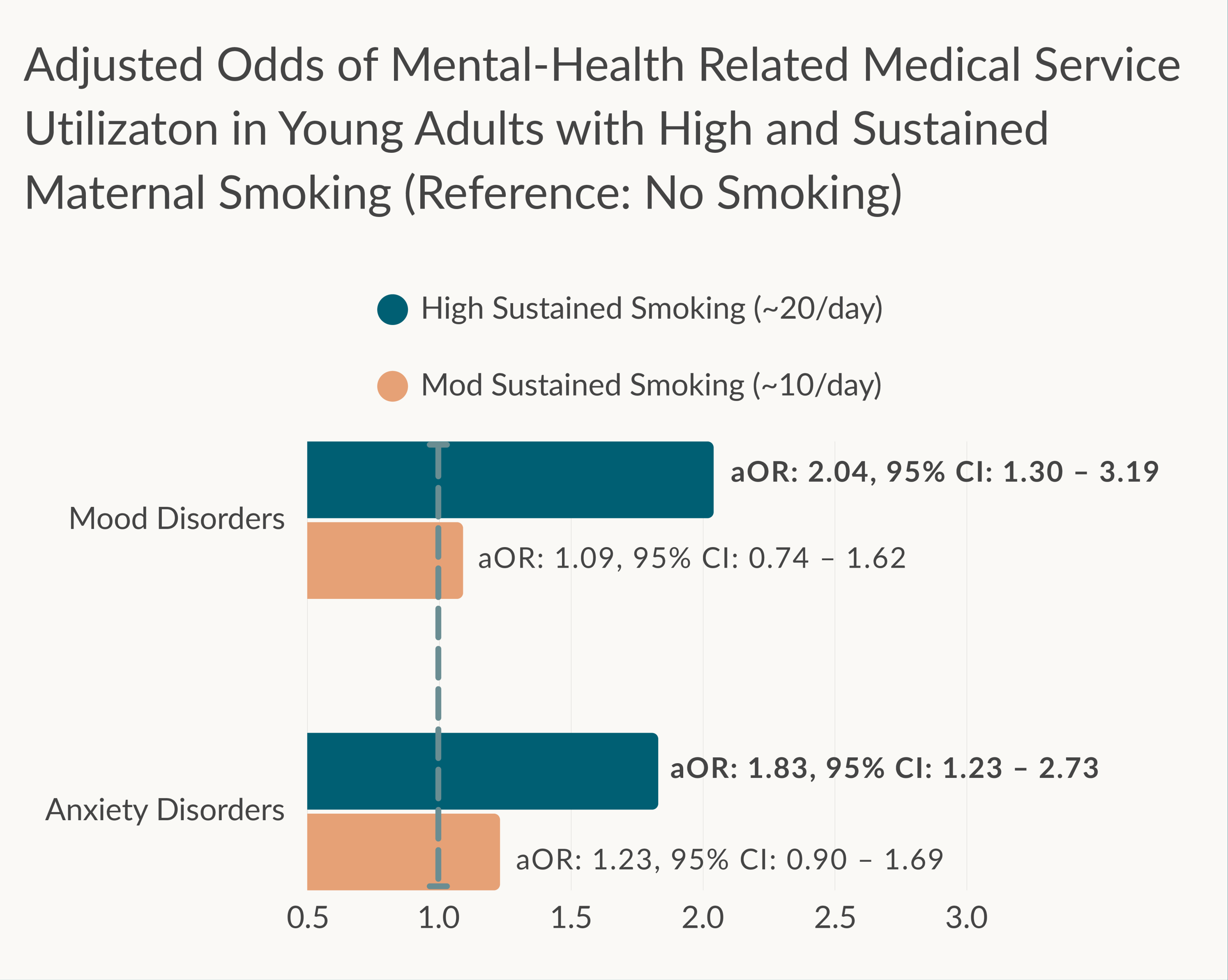
- Introduction**
- Pre & post-natal maternal smoking → adverse offspring mental health outcomes, such as ADHD, anxiety, depression
 - Very few studies have:
 - Assessed mental health outcomes through administrative health data
 - Used longitudinal maternal smoking patterns from pre-pregnancy to late childhood (13 yo) to study this association

OBJECTIVE
To examine how different trajectories of maternal smoking – from pre-pregnancy to the child’s 13 yo – are associated to mental health-related medical service utilization in young adulthood (18–22 yo)

Methods



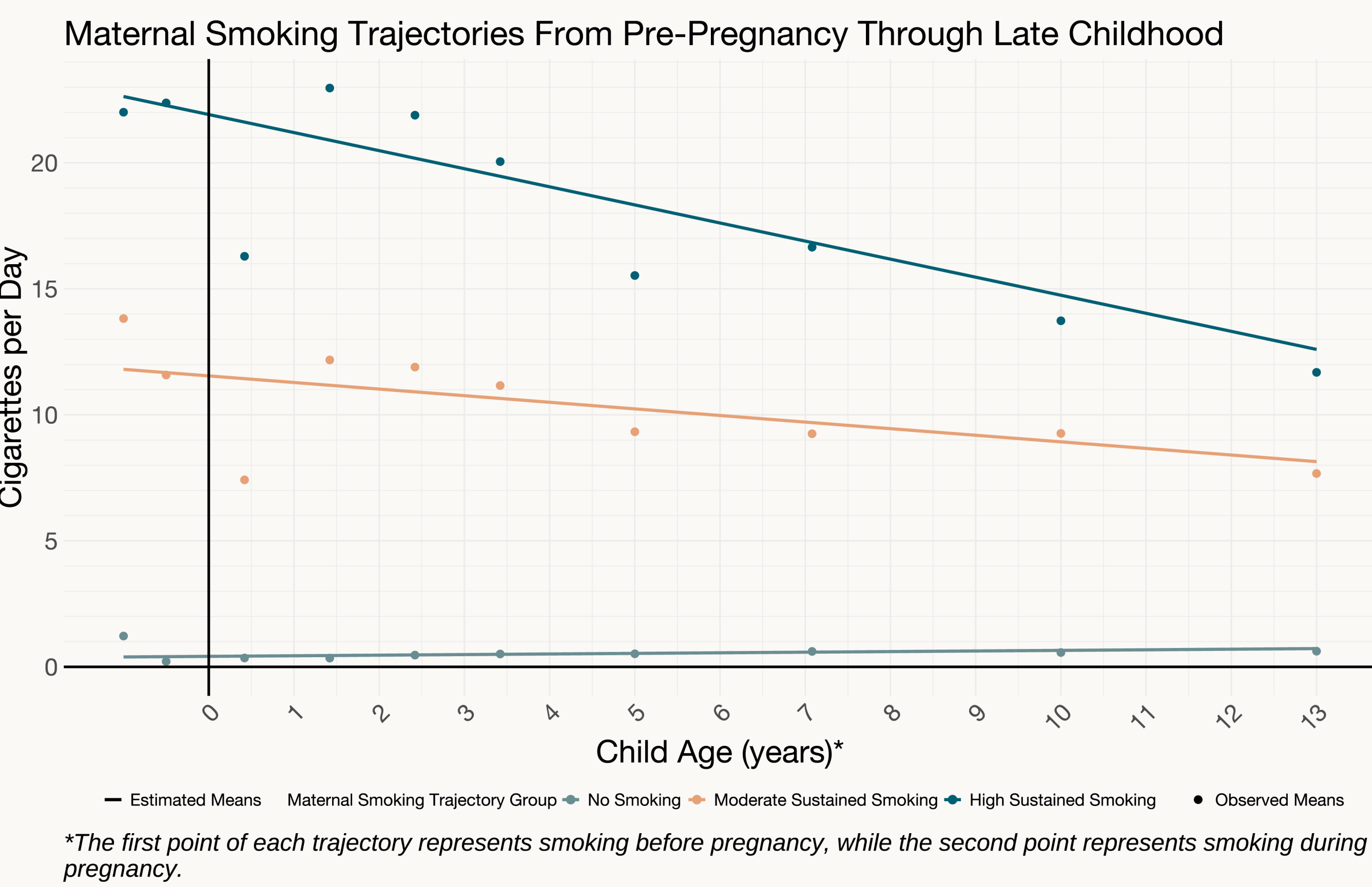
High and sustained maternal smoking **doubles** the odds of **Mood** and **Anxiety Disorders** in young adults using healthcare services, compared to no smoking.





Scan for full study details

- Study strengths and limitations**
- Adds to the limited body of research using mental health outcomes from administrative health data
 - Models adjusted for key confounders, including maternal mental health, socioeconomic status, perinatal factors, and family characteristics
 - Administrative data may underreport mental health disorders
 - Potential for unmeasured confounding remains
- Clinical and research implications**
- Smoking cessation interventions during pregnancy and early childhood may help prevent unfavourable mental health outcomes in offspring
 - There is a critical need to investigate genetic and environmental mechanisms underlying the observed associations



Association Between Maternal Smoking Groups from Pre-Pregnancy Through Late Childhood (age 13) and Mental Health-Related Medical Service Utilization in Young Adulthood (Ages 18-22) (n = 2082)

		Unadjusted Odds Ratio (OR) and Adjusted Odds Ratio (aOR)*			
	n (%)	OR (95% CI)	P-value (un-adjusted)	aOR (95% CI)	P-value (adjusted)*
Any Mental Health Disorders (Mood, Anxiety, ADHD)					
No Smoking	440 (72.7%)	1 (reference)	NA	1 (reference)	NA
Moderate Sustained Smoking	100 (16.5%)	1.28 (0.98 - 1.66)	0.07	1.11 (0.84 - 1.47)	0.46
High Sustained Smoking	65 (10.7%)	1.99 (1.42 - 2.78)	<0.001	1.74 (1.21 - 2.49)	<0.001
Mood Disorders					
No Smoking	170 (69.4%)	1 (reference)	NA	1 (reference)	NA
Moderate Sustained Smoking	40 (16.3%)	1.24 (0.86 - 1.80)	0.24	1.09 (0.74 - 1.62)	0.67
High Sustained Smoking	35 (14.3%)	2.41 (1.60 - 3.65)	<0.001	2.04 (1.30 - 3.19)	0.002
Anxiety Disorders					
No Smoking	280 (71.0%)	1 (reference)	NA	1 (reference)	NA
Moderate Sustained Smoking	70 (18.0%)	1.39 (1.04 - 1.86)	0.03	1.23 (0.90 - 1.69)	0.19
High Sustained Smoking	45 (11.4%)	1.96 (1.35 - 2.84)	<0.001	1.83 (1.23 - 2.73)	<0.001
ADHD					
No Smoking	140 (77.8%)	1 (reference)	NA	1 (reference)	NA
Moderate Sustained Smoking	20 (11.1%)	0.83 (0.53 - 1.32)	0.43	0.78 (0.48 - 1.27)	0.32
High Sustained Smoking	20 (11.1%)	1.30 (0.77 - 2.22)	0.33	1.23 (0.70 - 2.17)	0.47

*Adjusted for child’s sex, maternal age and maternal depressive symptoms (5 months post -partum), alcohol and drug use during pregnancy, prematurity, birth weight, socio -economic status and family immigration status .

Notes. The sum of categories does not equal the total sample size because frequencies are rounded to the nearest multiple of 5. Data were compiled from the final master file of the Québec Longitudinal Study of Child Development (1998 –2005), ©Gouvernement du Québec, Institut de la statistique du Québec.