

OBJECTIVE

- Evidence is mounting on suboptimal maternal health, pointing to a relation with access to care, possibly mediated by insurance coverage status (1,2).
- In this study, we assessed the association between insurance coverage and pregnancy-related outcomes in hospital admissions among pregnant women over the course of three years.

METHODS

- This retrospective cohort study used discharge medical record abstract and billing data in Maryland from 2017-2019.
- The diagnosis was identified through the International Classification of Diseases tenth revision-Clinical Modification diagnostic codes.
- We built logistic regression models to identify factors associated with hospital admissions with adverse pregnancy-related outcomes (either mortality or miscarriage), considering different types of primary insurance coverage (Medicare, Medicaid, commercial insurance, or self-pay, donor, and other), and controlling for age, residency status, race, nature of hospital admissions, major hospital service assigned, and comorbidity (high-risk pregnancy, hypertension, and diabetes).

RESULTS

- Half of the admissions among pregnant women were covered by Medicaid, and about 44% by commercial insurance.
- Pregnant women with Medicare coverage (66 per 10,000 admissions) or without health insurance (53 per 10,000 admissions) were more likely than pregnant women with commercial insurance (22 per 10,000 admissions) to have admissions with adverse pregnancy-related outcomes.
- After controlling for demographic and clinical covariates, admissions for pregnant women without insurance coverage were more likely to result in adverse pregnancy-related outcomes than admissions for women with commercial insurance (OR=1.94, 95%CI: 1.40 - 2.67, p<0.001).

Expected primary payer	Number of admissions with adverse outcome	Total Number of admissions	Univariate model		Multivariable model	
			crude OR (95%CI)	p-value	adjusted OR (95%CI)	p-value
Medicare	8	1,207	2.98 (1.47 - 6.05)	0.054	0.85 (0.42 - 1.76)	0.6698
MD Medicaid	323	104,212	1.39 (1.17 - 1.65)	0.020	0.86 (0.72 - 1.04)	0.13
Commercial	206	92,225	1		1	
Self-pay/Other	50	9,372	2.40 (1.76 - 3.27)	0.032	1.94 (1.40 - 2.67)	<.0001

Table 1: Associations between insurance coverage and maternal mortality and miscarriages among hospital admissions of pregnant women from 2017 to 2019

- Between 2017 and 2019, out of 207,016 hospital admissions among pregnant women ages 14-45 in Maryland, 587 resulted in maternal mortality or miscarriage (28 per 10,000 admissions).

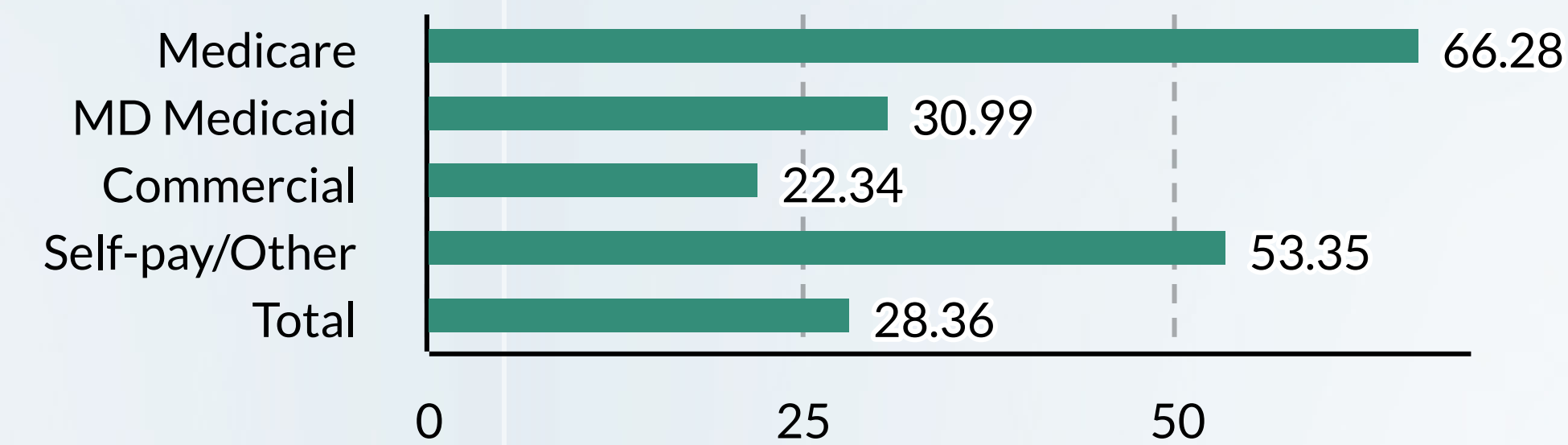


Figure 1: Number of admissions with maternal mortality or miscarriage per 10,000 hospital admissions by primary payers

CONCLUSION

Our analysis highlights the association between type of insurance coverage, and hospital admissions with pregnancy-related outcomes, namely maternal mortality or miscarriage, possibly suggesting the need for stepped up approaches for prenatal care, customized to populations by type of insurance.

References

- Declercq E, Zephyrin L. Maternal Mortality in the United States: A Primer [Internet]. The Commonwealth Fund; 2020 Dec. Available from: <https://www.commonwealthfund.org/publications/issue-brief-report/2020/dec/maternal-mortality-united-states-primer>. Last accessed on 3/25/2022
- Eliason, E. L. (2020). Adoption of Medicaid Expansion Is Associated with Lower Maternal