The Starkville & Hattiesburg Heart Attack Studies

REDUCTIONS IN HEART ATTACK ADMISSIONS FOLLOWING THE IMPLEMENTATION OF *LOCAL SMOKE-FREE* ORDINANCES

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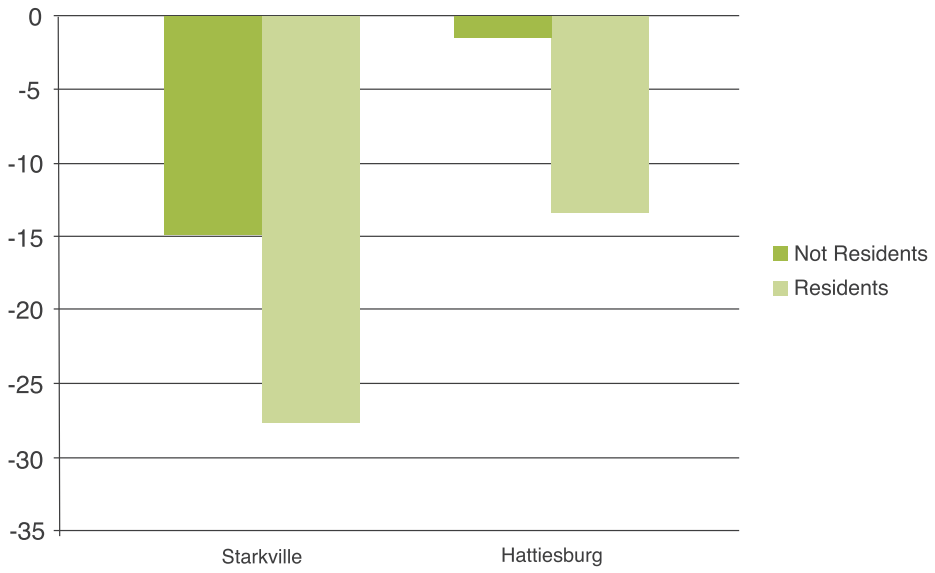
- STARKVILLE | 27.7% REDUCTION IN HEART ATTACK ADMISSIONS, COST SAVINGS OF $288, 270.
- HATTIESBURG | 13.4% REDUCTION IN HEART ATTACK ADMISSIONS, COST SAVINGS OF $2,367,909.



Starkville implemented a comprehensive smoke-free ordinance that prohibited smoking inside of all indoor public places on May 20, 2006. Seven months later, Hattiesburg implemented a similar comprehensive ordinance on January 1, 2007.

Findings from controlled observational studies demonstrate that hospital admissions for heart attacks in both Starkville and Hattiesburg decreased substantially following the implementation of the smoke-free ordinances. Moreover, the observed decrease in these communities was much higher than that observed in control communities that did not have a smoke-free ordinance.

ROBERT MCMILLEN, PHD | ANNA HILL, MPP, MPH | NELL VALENTINE, MS | ROBERT COLLINS, MD

RESULTS

Starkville | During the 1,053 day period following the implementation of the smoke-free ordinance in Starkville, there were 38 heart attack admissions among Starkville residents, compared to the standardized rate of 52.57 admissions prior to the implementation. Outside of Starkville, there were 19 heart attack admissions, compared to the standardized rate of 22.30 admissions prior to the implementation. Thus, Starkville residents experienced a 27.7% reduction in heart attack admissions compared to the 14.8% reduction observed among those who did not live in Starkville.

Hattiesburg | During the 911 day period following the implementation of the smoke-free ordinance in Hattiesburg, there were 299 heart attack admissions among Hattiesburg residents, compared to the standardized rate of 345 admissions prior to the implementation. Outside of Hattiesburg, there were 1,090 heart attack admissions, compared to the standardized rate of 1,049 admissions prior to the implementation. Thus, Hattiesburg residents experienced a 13.4% reduction in heart attack admissions compared to the 3.8% reduction observed among those who did not live in Hattiesburg.

Cost Savings | It is possible to estimate the cost savings of these reductions in heart attack admissions by applying the methods used by a study of New York hospital admissions. Previous research of in-hospital costs for acute myocardial infarction estimated the total median in-hospital costs to be $14,772 (1998 dollars). Using this approach, the reductions in heart attack admissions resulted in cost savings of $215,233 in Starkville and $1,767,970 in Hattiesburg. The Bureau of Labor Statistics provides an inflation calculator that can convert these figures to 2010 dollars. Using these estimates, the smoke-free ordinances were followed by cost savings of $288,270 in Starkville and $2,367,909 in Hattiesburg during the study period.

CONCLUSIONS

Consistent with previous research, residents of Starkville and Hattiesburg experienced reductions in heart attacks following the implementation of a smoke-free ordinance. Moreover, these reductions were greater than those observed in the control populations that did not live in a community with a smoke-free ordinance. These two studies, when considered in the context of 12 similar studies and the IOM Report, demonstrate that Mississippi could experience a substantial decrease in heart attacks, as well as substantial cost savings, if more communities and/or the state implemented smoke-free laws.

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