Association between pregnancy planning and health behaviors: Results from the Behavioral Risk Factor Surveillance System (BRFSS) in seven states, 2013

Presented by

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Introduction

For all women to be as healthy and ready for pregnancy as possible,

- Risk behaviors such as drinking and smoking, need to be reduced or eliminated well in advance of pregnancy; and
- Protective behaviors such as receiving recommended vaccinations and eating nutritious meals, need to be increased.

Purpose

Assess the relationship between planning children in the future and changes in selected health behaviors among adult women of reproductive age (18-44 years old):

- Planning children by timing (within two years, two to five years, at least five years); and
- Planning children by birth history (no children, at least one child).

Methods

Data source: Behavioral Risk Factor Surveillance System (BRFSS), 2013

- Phone survey with a wide range of state and national population-based estimates of health status, health risk and protective behaviors, and chronic conditions;
- Unique in its partnership with all states and U.S. territories, in Connecticut since 1989;
- Reproductive Health Module, offered in seven states (Connecticut, Kentucky, Massachusetts, Mississippi, Ohio, Texas, & Utah).

Methods (*continued*)

Technique: Multivariate logistic regression;

Independent variable: Reproductive Health Module (reproductive history, family planning, infertility), offered to female respondents 18-44 years old, not currently pregnant;

Covariates: Age, race/ethnicity, housing arrangement, body-mass index;

Dependent variables: Leisure activity in the past 30 days, consume fruits and vegetables at least once daily, always use a seatbelt in a car, medical checkup in past 12 months, flu vaccination in past 12 months, smoke cigarettes every day or most days, heavy drinking in past 30 days, binge drinking in past 30 days.

Results

Significance of Model Effects for Pregnancy Planning, 2013
Behavioral Risk Factor Surveillance System (BRFSS), Connecticut, Kentucky, Massachusetts, Mississippi, Ohio, Texas, Utah

Covariate	Timing		Birth History	
	F-Value	Prob	F-Value	Prob
Age	496.61	<0.0001	53.36	<0.0001
Race/Ethnicity	2.33	0.1267	3.88	0.0490
Housing Arrangement	10.11	0.0015	0.05	0.8223
Body Mass Index	2.51	0.0816	9.03	0.0001

Results (*continued*)

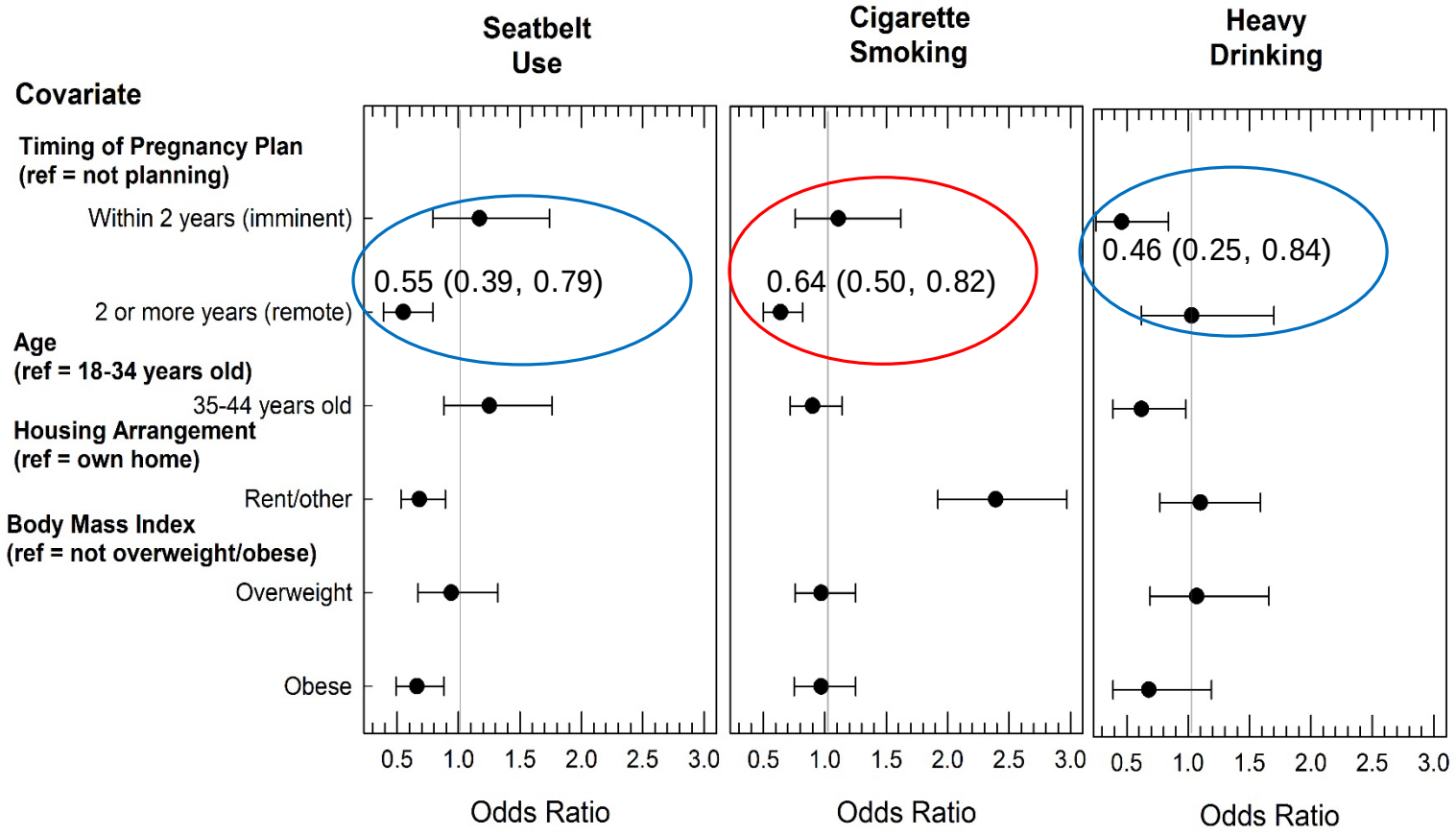
Significance of Pregnancy Planning and Selected Health Indicators
Behavioral Risk Factor Surveillance System, 2013
Connecticut, Kentucky, Massachusetts, Mississippi, Ohio, Texas, Utah

Health Indicator	By Timing		By Birth History	
	Wald Statistic	Significance	Wald Statistic	Significance
Leisure activity in past 30 days	0.03	0.9859	2.05	0.3578
Consume fruit and vegetable at least once daily	3.24	0.1977	2.62	0.2696
Always use seatbelt in a car	19.66	<0.0001	18.15	0.0001
Checkup in past 12 months	4.23	0.1205	3.51	0.1732
Flu vaccination in past 12 months	2.58	0.2754	4.10	0.1285
Smoke cigarettes every day or most days	14.67	0.0006	16.37	0.0003
Heavy drinking in past 30 days	11.21	0.0037	2.43	0.2972
Binge drinking in past 30 days	2.74	0.2545	7.95	0.0187

Multivariage logistic regression was conducted for family planning by timing (not planning, planning within two years, planning in more than two years) and family planning by birth history (no plans with no children, planning with no children, planning with one or more child). Regression with pregnancy planning by timing was controlled for age, housing arrangement and body mass index. Regression with pregnancy planning by birth history was controlled for age, race/ethnicity, and body mass index. Analysis was conducted as described in **Methods** section.

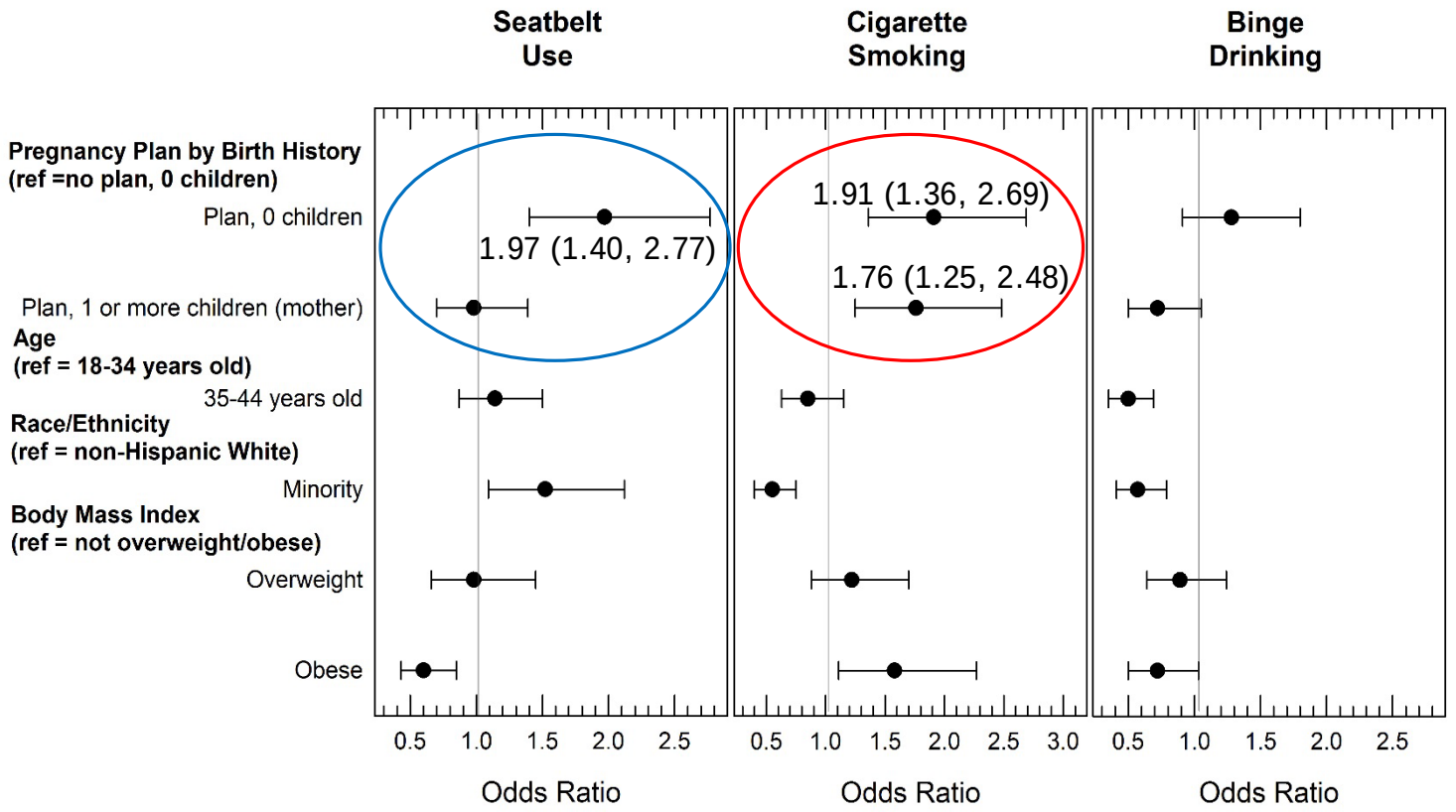
Results (*continued*)

Adjusted Odds Ratios of Selected Health Behaviors *versus* Timing of Pregnancy Planning, 2013
Behavioral Risk Factor Surveillance System (BRFSS), Connecticut, Kentucky, Massachusetts, Mississippi, Ohio, Texas, Utah



Results (*continued*)

Adjusted Odds Ratios of Selected Health Behavirs *versus* Pregnancy Plan by Birth History, 2013
Behavioral Risk Factor Surveillance System (BRFSS), Connecticut, Kentucky, Massachusetts, Mississippi, Ohio, Texas, Utah



Conclusions

Compared to women who were not planning children in the future, women planning children were significantly:

- **More likely to always use seatbelts;**
- **Less likely to engage in heavy drinking; and**
- **More likely (or at least not less likely) to smoke cigarettes.**

Women planning children were no more likely to engage in leisure activity, consume fruits and vegetables daily, get an annual checkup, get an annual flu vaccination, or be binge drinkers.

Public Health Implications

Preconception care for women:

- Care received from a licensed health professional that is focused on maximizing health before pregnancy;
- Care provided to all women of reproductive age who are either planning pregnancy or who may plan pregnancy during their reproductive life stage.

Public Health Implications (*continued*)

Emphasis on health before pregnancy:

- Reduce or eliminate risk behaviors such as drinking and smoking; and
- Increase protective behaviors such as receiving recommended vaccinations and eating nutritious meals.

Increase awareness of the need for a family plan and regular well visits, and conscious changes in behaviors – well in advance of pregnancy.

Limitations

Small sample size:

- Aggregated categories;
- Negative results;
- Pregnancy *versus* reproductive health module age limits.

Selected health behaviors.

Planning children *versus* planning pregnancy.

Nonresponse bias, recall bias, selection bias.

Acknowledgements

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A technical report describing the results of this study can be viewed at: *http://www.ct.gov/dph/BRFSS*