



## Smoking and Stressful Life Events During Pregnancy, Maryland, 2001-2007

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No relationships to disclose.

2

### Smoking During Pregnancy

- Smoking during pregnancy is a risk factor for poor birth outcomes<sup>1,2</sup>:
  - Low birth weight
  - Preterm births
  - Infant mortality
- Smoking is also associated with pregnancy complications<sup>2</sup>:
  - Placenta previa
  - Placental abruption
  - Premature rupture of membranes

3

### Stress During Pregnancy

- Studies of the association between stress during pregnancy and poor birth outcomes have been inconclusive.
  - Recent prospective studies appear to indicate a weak association between stress and preterm birth.<sup>3</sup>

4

### Life Events During Pregnancy

- Major life events such as:
  - Death in the family
  - Divorce
  - Loss of a job
  - Homelessness
- Life events that occur during the perinatal period may increase maternal stress levels and complicate her attempts to quit smoking.

5

### Objective

- Investigate whether stressful life events were associated with smoking during pregnancy.

6

## Methods

- Data were obtained from a stratified random sample of 10,898 mothers who delivered live infants during the years 2001-2007 and completed the Maryland Pregnancy Risk Assessment Monitoring System (PRAMS) survey.
  - Respondents were surveyed 2 to 9 months following delivery.
  - The average response rate was 71%.
- Descriptive and bivariable analyses were performed using SAS v9.2.
  - Results are reported with a 95% confidence interval.
  - Percentages based on fewer than 10 responses are not displayed.
  - Results reported by race are for White non-Hispanic and Black non-Hispanic. Cell sizes were too small to present other race/ethnicities.

7

## Methods

- Smoking during pregnancy was based on the number of cigarettes smoked daily during the last 3 months of pregnancy. The survey question was:
  - In the last 3 months of your pregnancy, how many cigarettes did you smoke on an average day? (a pack has 20 cigarettes).

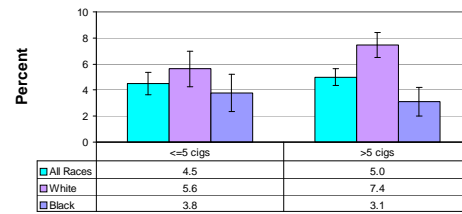
8

## Methods

- Stressful life events during pregnancy were based on responses to:
  - This question is about things that may have happened during the 12 months before your new baby was born.
    - A close family member was very sick and had to go into the hospital
    - I got separated or divorced from my husband or partner
    - I moved to a new address
    - I was homeless
    - My husband or partner lost his job
    - I lost my job even though I wanted to go on working
    - I argued with my husband or partner more than usual
    - My husband or partner said he didn't want me to be pregnant
    - I had a lot of bills I couldn't pay
    - I was in a physical fight
    - My husband or partner or I went to jail
    - Someone very close to me had a bad problem with drinking or drugs
    - Someone very close to me died

9

Prevalence of Smoking During Last 3 Months of Pregnancy by Race/Ethnicity, Maryland, 2001-2007

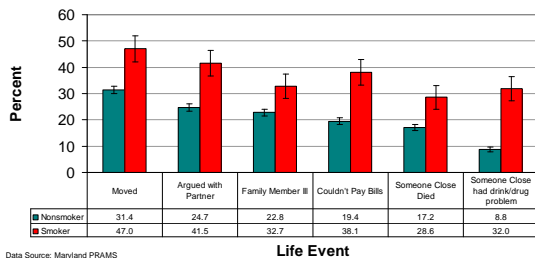


Data Source: Maryland PRAMS

Number of Cigarettes Smoked Daily

10

Prevalence of Stressful Life Events During Pregnancy by Smoking Status, Maryland, 2001-2007

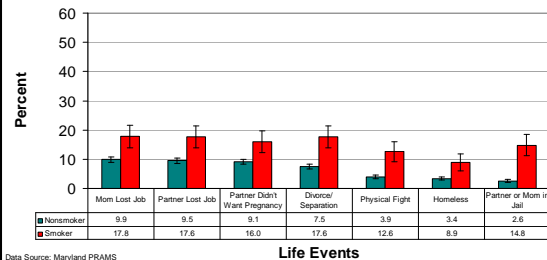


Data Source: Maryland PRAMS

Life Event

11

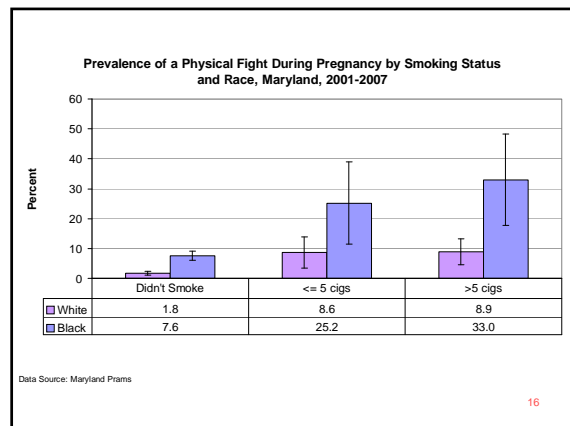
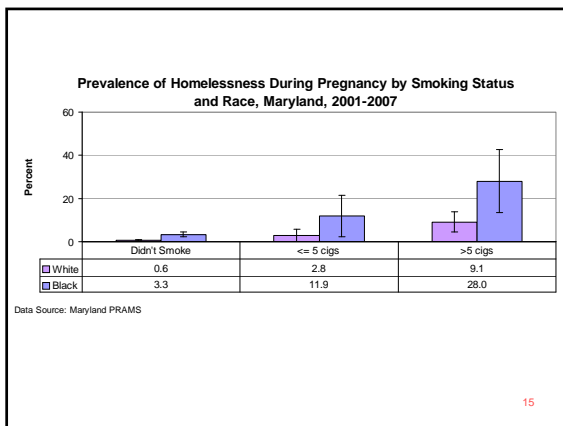
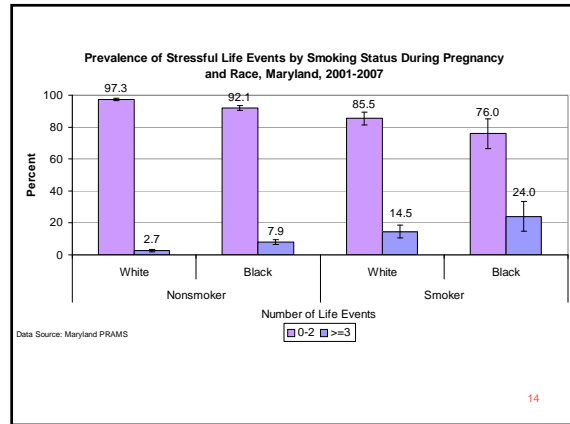
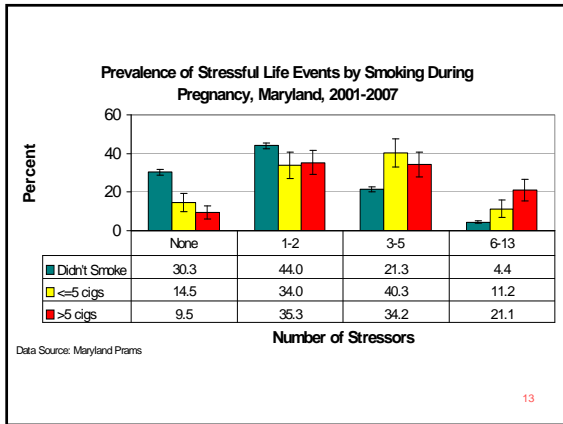
Prevalence of Stressful Life Events During Pregnancy by Smoking Status, Maryland, 2001-2007



Data Source: Maryland PRAMS

Life Events

12



## Limitations

- PRAMS data are retrospective and therefore subject to recall bias.
- Survey data are based on the mother's perception of events and may not be completely accurate.
- Studies have shown that surveys of maternal smoking may underestimate the prevalence of smoking during pregnancy by a significant amount, due to factors related to social desirability.<sup>4,5</sup>
- There is variation in the severity of the stressful life events that were surveyed.

17

## Conclusions

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18

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19

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- Black heavier smokers were more likely to experience multiple stressful events than White heavier smokers.
- Knowledge about the multiple serious difficulties facing pregnant women that smoke may affect the design of smoking cessation programs.

20

## References

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21

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22