

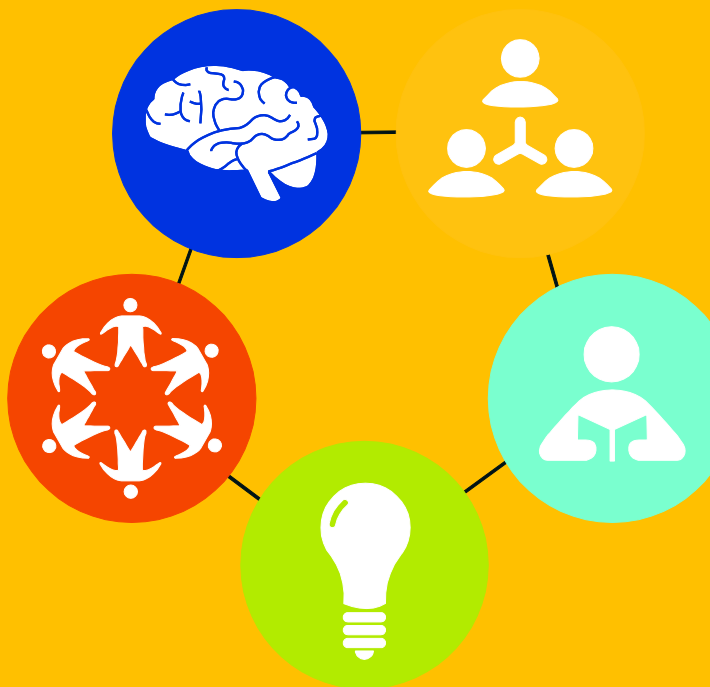
# Bass Connections 2015: Help Babies Avoid Smoke

## Environmental Effects on Cognitive Development | Brain and Society

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**BASS  
CONNECTIONS**

### PROJECT SUMMARY

Pregnant women's exposure to environmental tobacco smoke can cause changes in the DNA of their children, leading to an increased risk for the development of ADHD. To combat this issue, we created a brochure to be distributed to populations most affected by smoke exposure. Our brochure and a control brochure were distributed along with a survey to measure the effectiveness of both at communicating scientific information to the public.

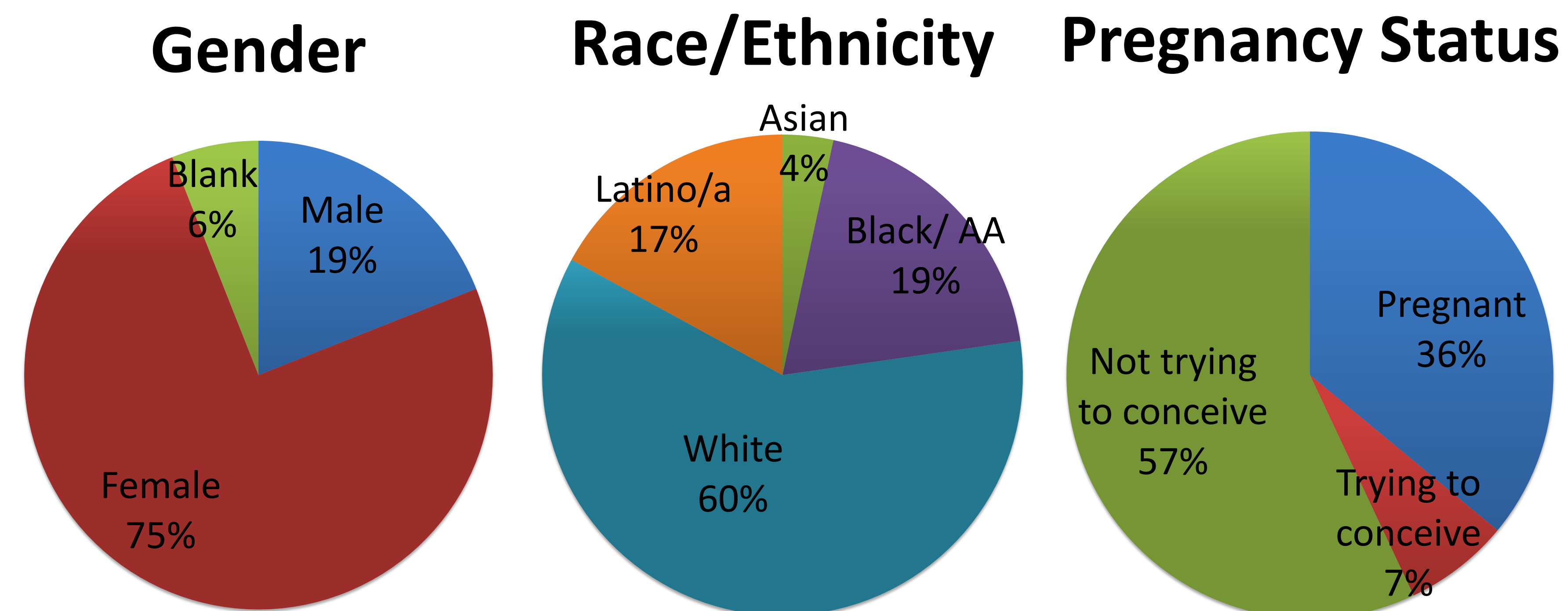
### PROJECT OBJECTIVES

- Synthesize information on epigenetics and smoke exposure into a brochure
- Interview and collect data on the effectiveness of the infographic from the target population and local stakeholders
- Develop an interactive contest to engage local population via social media

### METHODOLOGY

- Compile findings on epigenetics and its role in ADHD development after smoke exposure *in utero*
- Model brochures after already established science infographics
- Distribute brochures and conduct surveys at local health clinics
- Analyze survey results

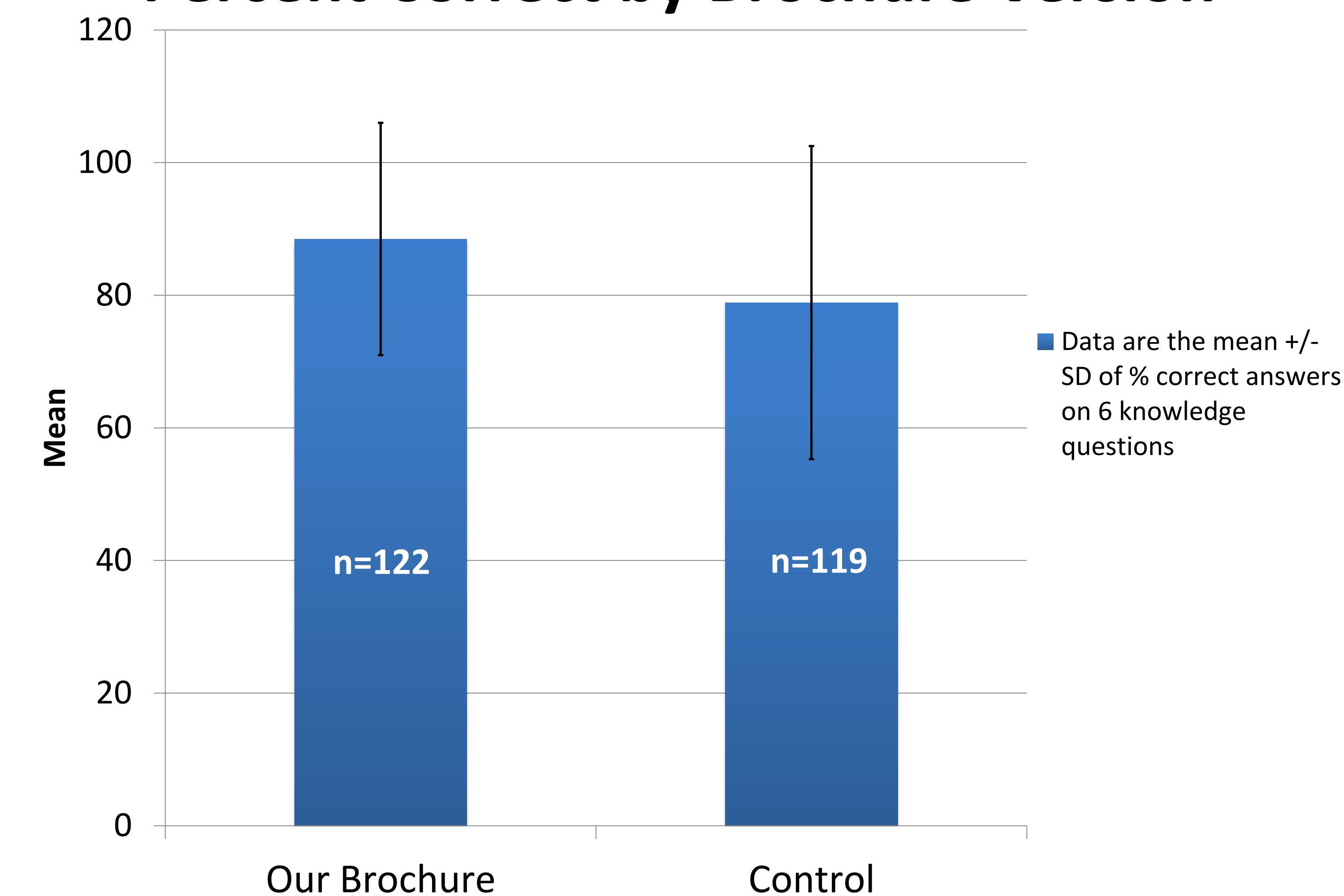
### RESULTS



### DATA ANALYSIS/DISCUSSION

- Subjects with higher education scored significantly higher on knowledge-based questions compared to subjects with lower education regardless of brochure type (ANOVA,  $p = 0.009$ )
- Our brochure was more effective in conveying new information than the control brochure by a statistically significant difference (ANCOVA,  $p = 0.005$ ). None of the other covariates, such as pregnancy status and race/ ethnicity were statistically significant.
- Language was a significant factor in knowledge regardless of brochure type (ANCOVA,  $p = 0.016$ ). Subjects using the English and French versions scored higher than subjects using the Spanish version.

### Percent Correct by Brochure Version



### FUTURE DIRECTIONS

- Empower and educate the public through encouraging producing new versions of scientific knowledge through participating in an Instagram contest
- Find effective health communication strategies based on the contest entries
- Tailor future health messages to the public's communicative preferences