

Pediatric Injury Prevention Project: A clinic-based unintentional injury pilot

Carrie Nie MPH, Shelli Stephens Stidham MPA, Latisha Walker,
Marissa Rodriguez, Kim Peters MPA and Gregory R Istre MD

Injury Prevention Center of Greater Dallas



Parkland



Injury Prevention Center
of Greater Dallas





Background

Previous studies have shown that physician counseling can positively impact behavior. (*Bass J, et al. Pediatrics 1993*) and that a promising approach to delivering injury prevention messages by health care providers is the integration of tailored education materials to families. (*McDonald E, et al. Patient Educ Couns 2005*).

Pediatric Injury Prevention Project (PIPP) is based on promising evidence on the effectiveness of tailored communication with health care provider counseling. (*Nansel TR, et al Health Education Research 2007*) (*Weaver NL, et al. J Public Health Management Practice 2008*)



Pediatric Injury Prevention Project Overview

Who: Parents of children 2 months - 4 years of age

What: Unintentional injuries

Where: Large pediatric primary care clinic
– Hispanic/low income

When: January 20 - April 23 2010

How: Personalized computer-based injury risk assessment
2 greatest childhood injury risks identified
Provider discussed results and provided tips to increase safety behavior
Utilized an evidence informed computer assessment

Funding: Texas Department of State Health Services

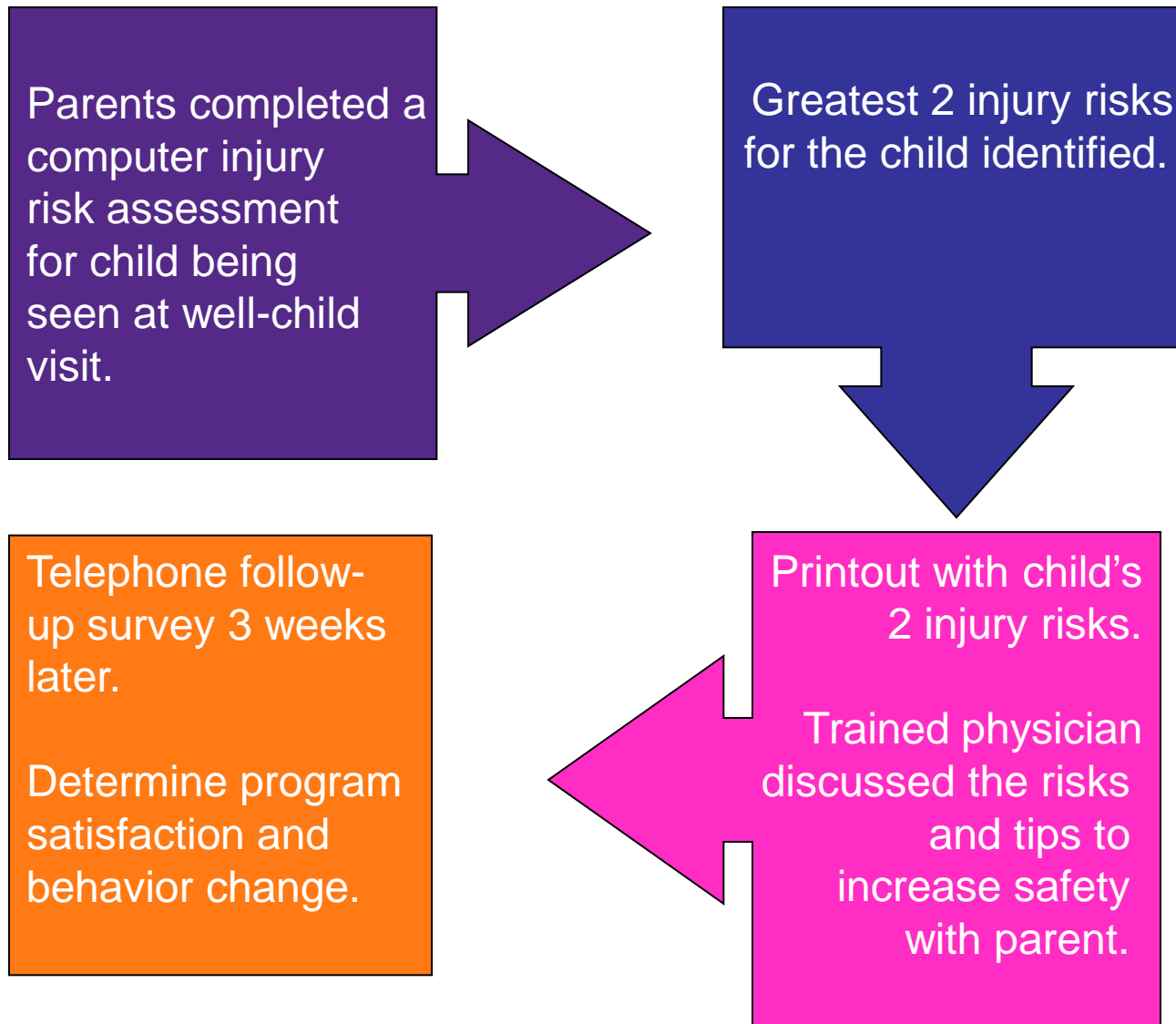


Increase adoption of protective safety behaviors

- Identify unintentional injury risks for children
- Evaluate program satisfaction



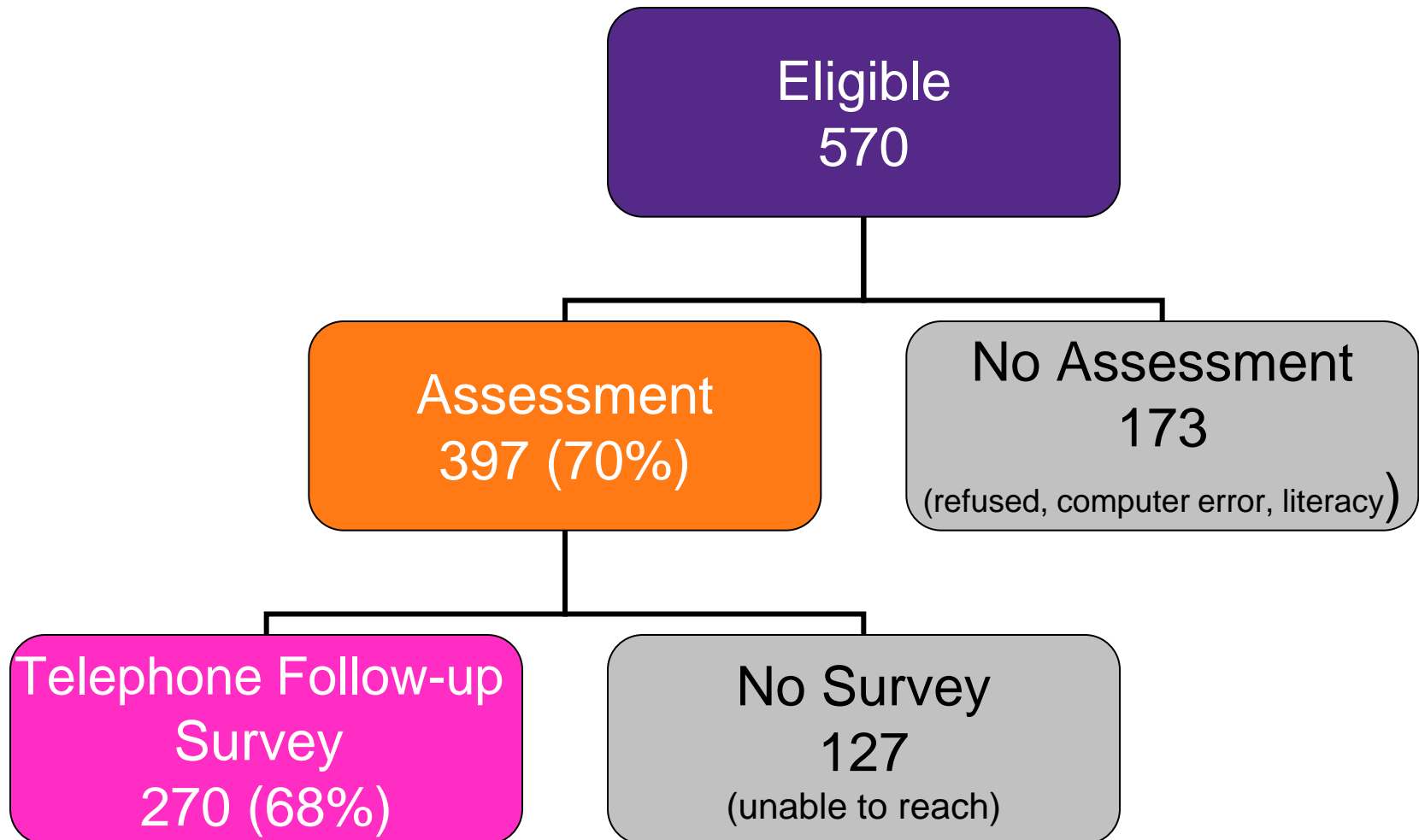
Methods

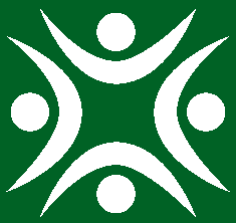




Project Enrollment

January 20, 2010 – April 23, 2010

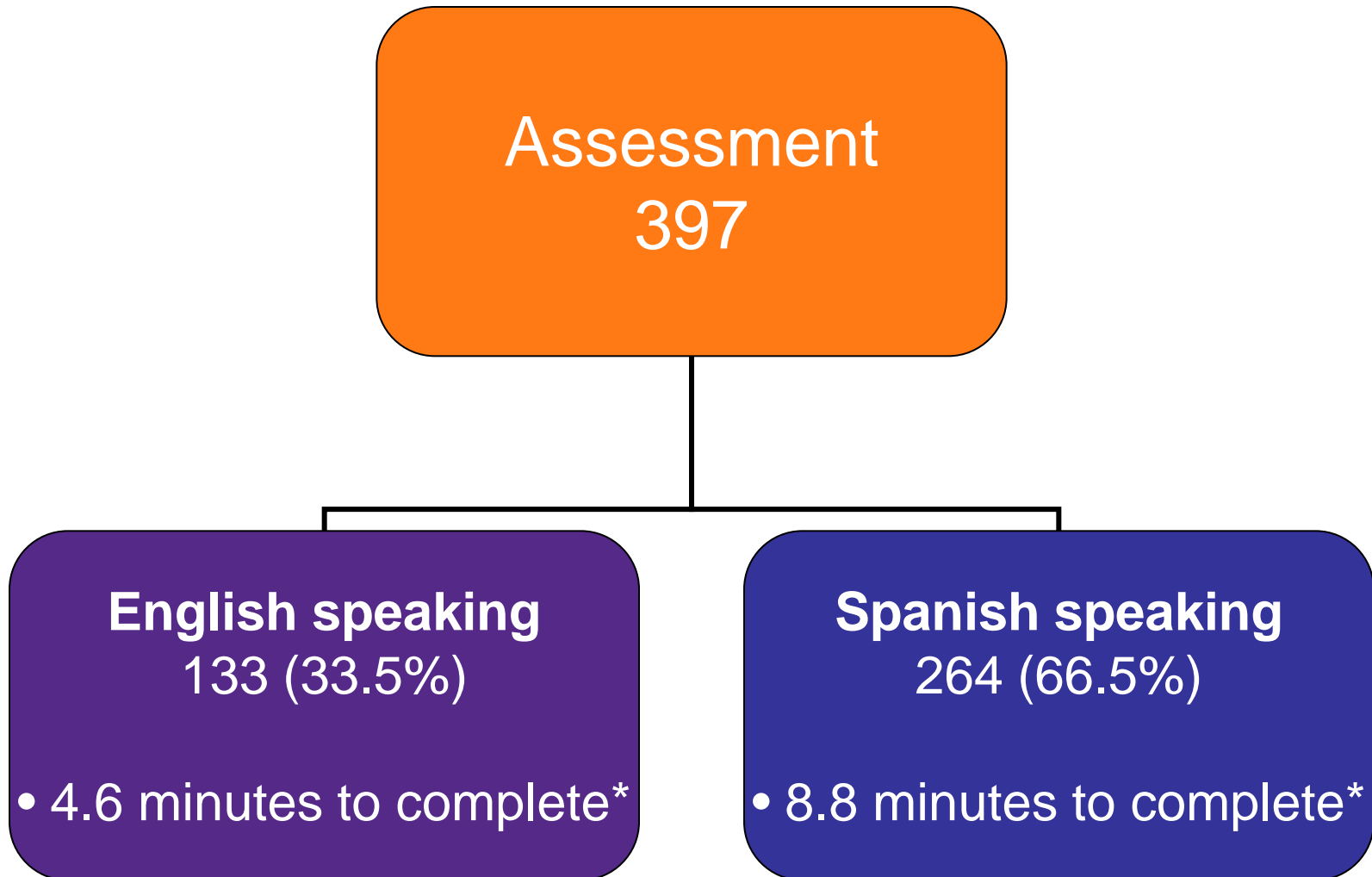




Assessment

- Software program loaded on a computer located in pediatric clinic waiting room
- Demographic information
- Attitude and behavior questions about childhood injury
- Injury risks areas included:
 - Burn safety
 - Car seat safety
 - Sleep, eat and play safety
 - Poisoning safety
 - Water safety

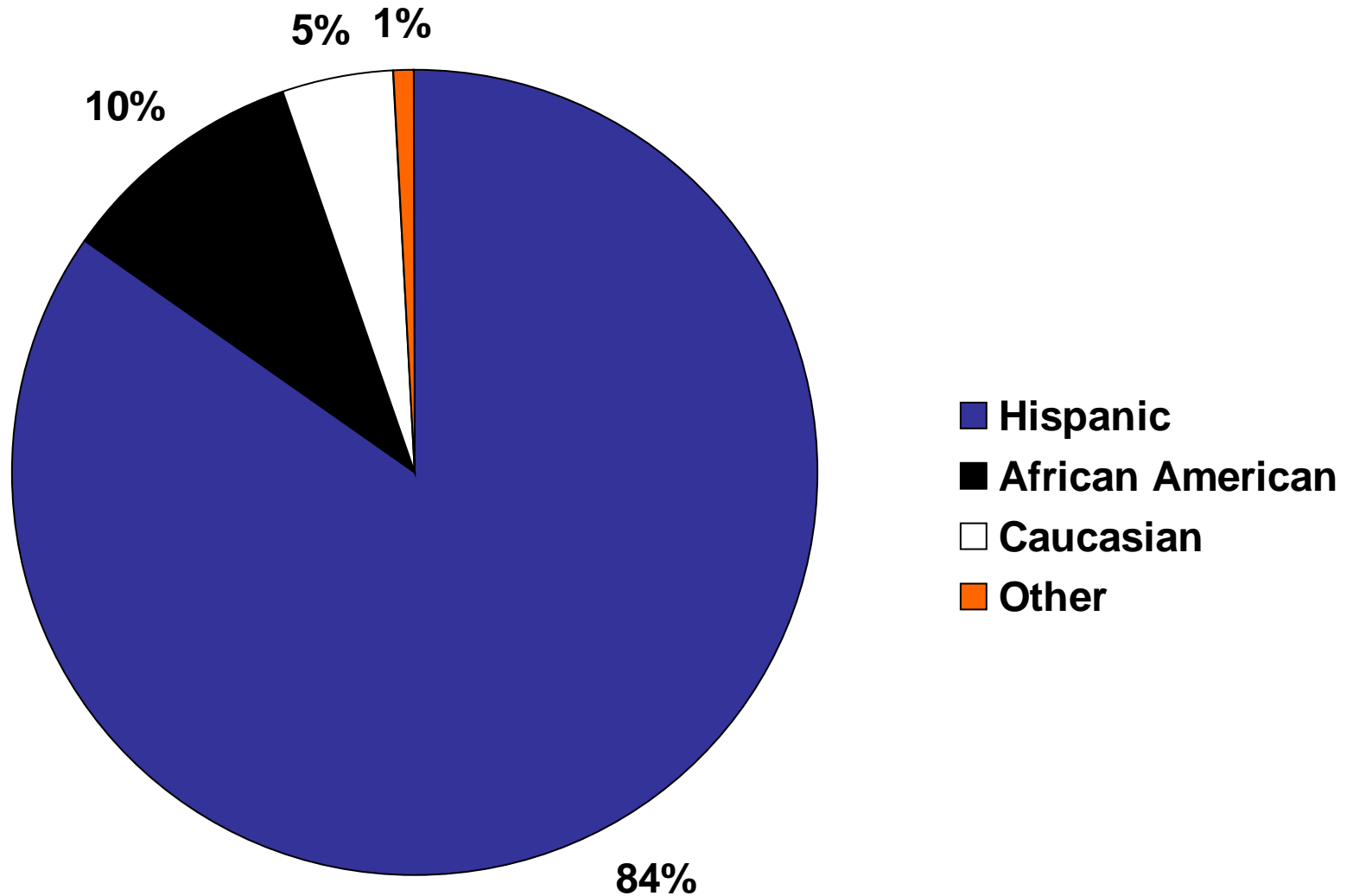




* P<0.0001



Assessment Child's Race/Ethnicity (N=397)

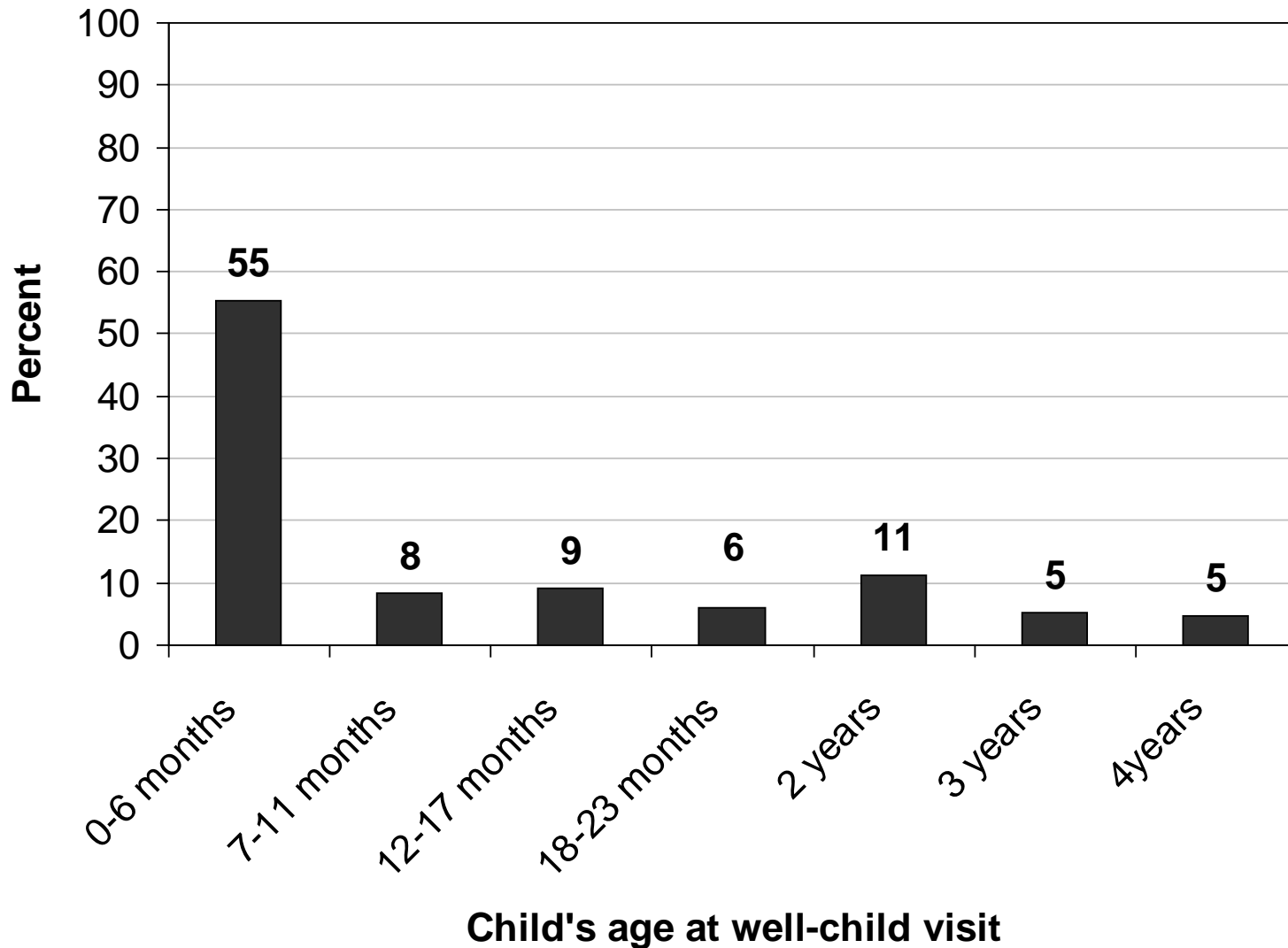




Assessment

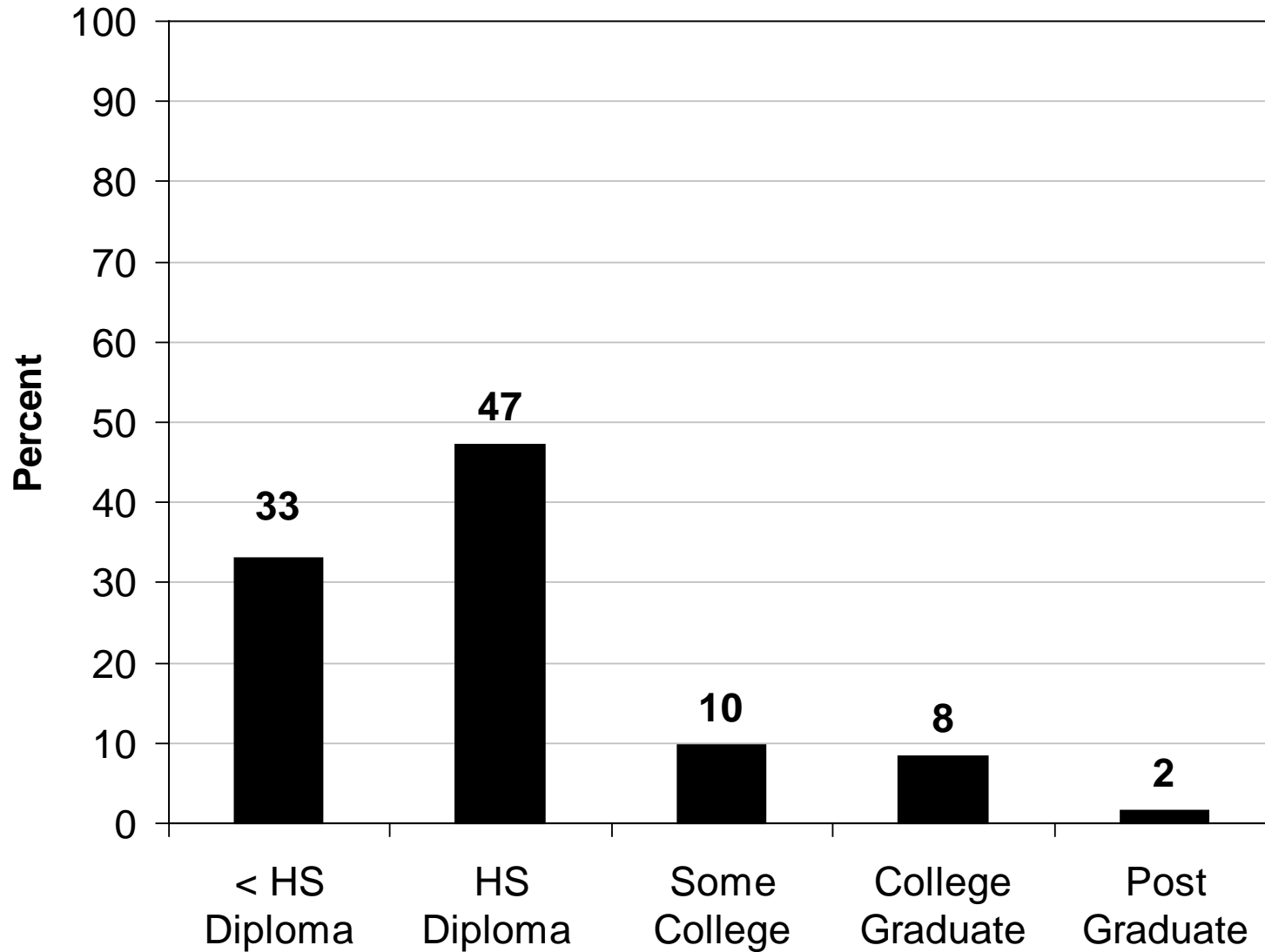
Child's age at well-child visit

(N=397)





Assessment Education level (N=397)





Assessment Number of Risks (n=397)

Number of Injury Risks	
No Risks	6 (1.5%)
One Risk	45 (11.3%)
Two Risks	346 (87.2%)



Top 5 Injury Risks & Recommendations

(n=397)

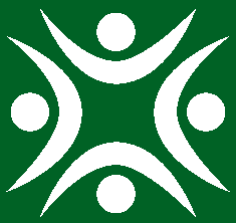
Type of Risk (recommendation)	
Smoke alarm <i>(batteries need changing; has no alarm)</i>	32.5%
Car seat <i>(child needs buckling; child needs to move to different kind of child safety seat)</i>	32.2%
Hot water temperature <i>(check hot water temperature and lower water heater if greater than 120 degrees)</i>	29.0%
Safe sleep <i>(take pillows, blankets or toys out of crib; place child to sleep on back)</i>	28.7%
Falls <i>(don't use walkers, move furniture away from windows and use window guards; never leave child on high surface; use stair gates at top and bottom of steps)</i>	24.9%



Top 5 Injury Risks by Language Spoken

(n=397)

Ranking	All	English	Spanish
1	Smoke Alarm 32.5%	Smoke Alarm 33.1%	Smoke Alarm 32.2%
2	Car seat 32.2%	Car seat 33.1%	Car seat 31.8%
3	Hot water 29.0%	Sleep 32.3%	Hot Water 29.9%
4	Sleep 28.7%	Hot Water 27.1%	Sleep 26.9%
5	Falls 24.9%	Falls 21.1%	Falls 26.9%



Telephone Follow-up Survey

- 270 (68%) parents who completed the assessment also completed the telephone follow-up survey
- Verbal consent
- Conducted 3 weeks after the well-child visit
- 3 call attempts
- Survey Content
 - Attitudes about childhood injury prevention
 - Satisfaction
 - Reported behavior change
 - Did they remember if the doctor talked about the identified risks at the well-child visit



Telephone Follow-up Survey

Number of Risks

(n=270)

Number of Injury Risks	
No Risks	5 (1.8%)
One Risk	32 (11.9%)
Two Risks	233 (86.3%)



Telephone Follow-up Survey Injury Risks vs. Behavior Change*

(n=265)

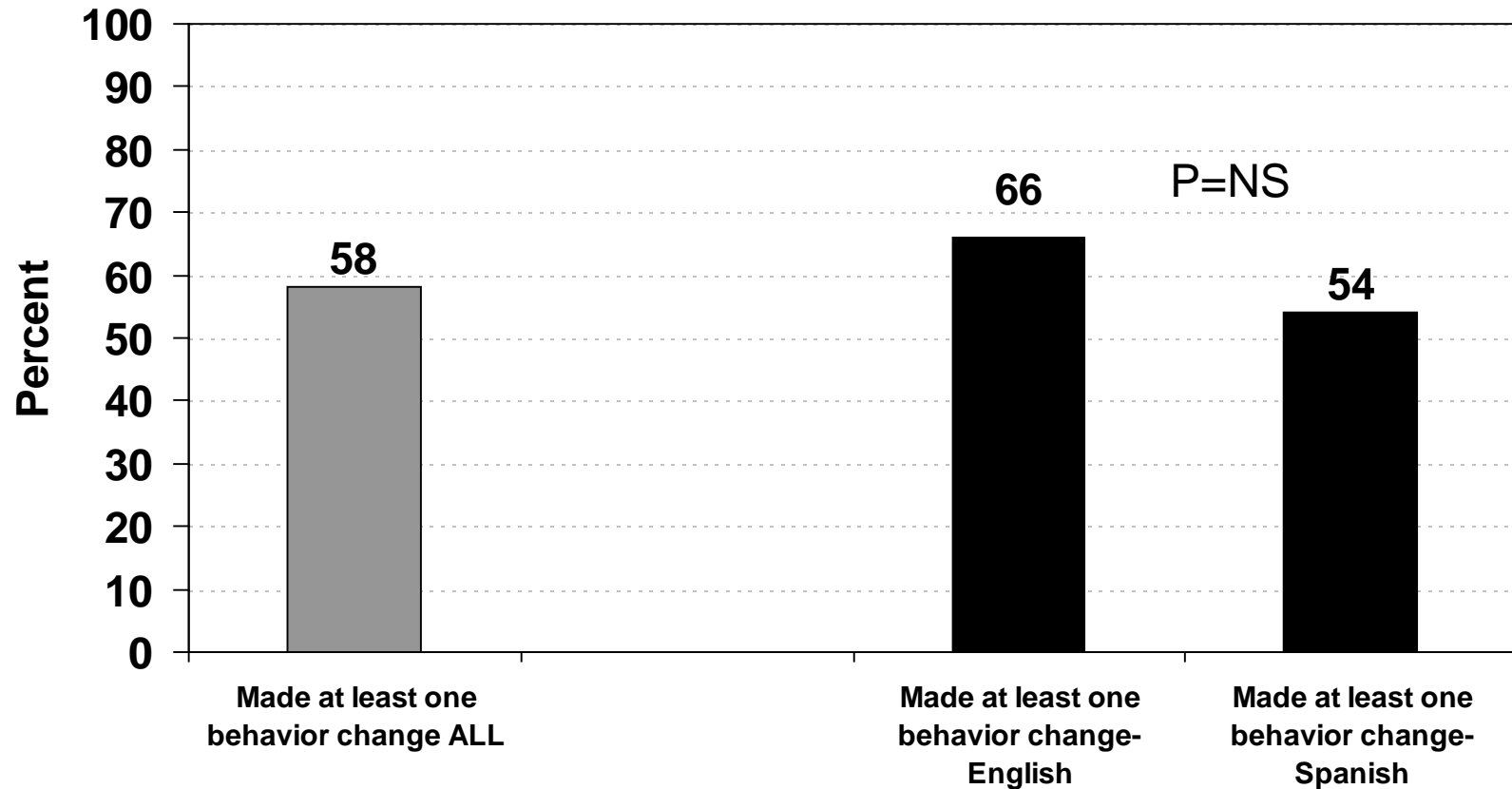
	No Behavior Change Made	One Behavior Change Made	Two Behavior Changes Made
One Risk Identified	10 (4%)	22 (8%)	N/A
Two Risks Identified	104 (39%)	80 (30%)	49 (19%)

* Reported behavior change had to match the initial assessment otherwise the behavior change was not counted.



Telephone Follow-up Survey Behavior Change by Language (n=262)

At least One Risk Identified and Made at Least One Behavior Change by Language Spoken



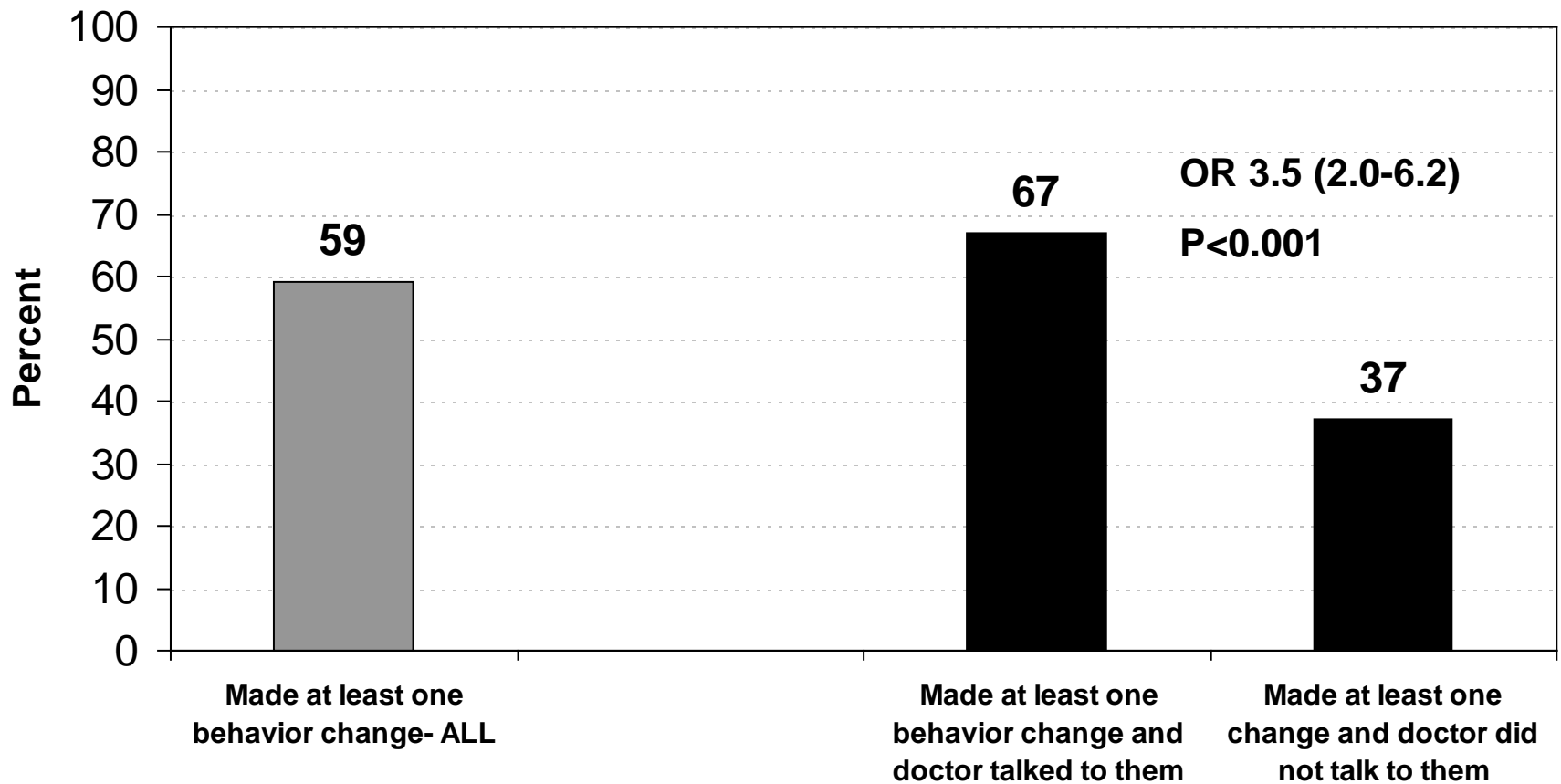


Telephone Follow-up Survey

Effect of Physician on Behavior Change

(n=257)

Effect of Physician Discussing Risks/Recommendations on Behavior Change





Satisfaction

Parent/Caregiver Satisfaction	
Kept tailored assessment print out.	94%
Tailored assessment helpful.	93%
Those who remember talking with the doctor reported the discussion about ways to keep their child safe was helpful.	99%
Would recommend to other parents/caregivers.	99%
Assessment was a good way to learn how to keep my child safe.	98%

Provider (Physician) Satisfaction
Increase in knowledge of injury prevention practice
Project well accepted; 85% provided anticipatory guidance
Specifically liked the child safety seat materials
Majority expressed interest in building on project experience (includes clinic leadership)



Limits

- Behavior change was self reported. No practical way to document that parents made the change they reported or know how long the behavior change remained intact.
- Unknown if recall bias in remembering the doctor talking to them.



Conclusions

The Pediatric Injury Prevention Project sought to increase parent's safety behaviors through provider messages and the provision of tailored communication.

- Reported behavior change was clearly linked with whether the doctor talked to the parent. It was a strong and statistically significant association.
- Project was generally well accepted.
- Feasible.
- Next step includes a more objective evaluation of reported behavior.



Questions?