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# Asthma Knowledge, Control, and Administration Techniques in Hispanic Caregivers of Pediatrics

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**Presenters**

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# Asthma knowledge, control, and administration techniques in Hispanic caregivers of pediatrics

Kelly Wright, PharmD, BCACP, TTS; Josh Arnold, BSPS; Rachel Culp, BSPS; Kyle Hultz, BSPS; Benjamin Robertson, BSPS; Jon Wilkie, BSPS; Amy Wuobio, BSPS



## Introduction

- Asthma is a chronic respiratory disorder that is characterized by episodes of bronchospasm, wheezing, and difficulty in expelling air
- Asthma affects one in every twelve people in the United States<sup>1</sup>
  - Prevalence of asthma in Hispanics is 7.0%<sup>2</sup>
- Asthma may be controlled with the use of pharmaceutical agents and avoidance of triggers
  - Asthma exacerbation and preventative medication cost the United States over \$56 billion in 2007<sup>1</sup>
  - Hispanic children were not as likely to use preventative asthma medications as compared with Caucasians<sup>3</sup>
- Patients may not receive enough information from the physician about asthma management<sup>4</sup>
  - Preventive education and intervention plans may decrease the number of emergency room visits for Latino children with asthma<sup>5</sup>

## Objectives

- Describe asthma knowledge, control, and administration techniques in Hispanic caregivers of pediatric asthma patients in primary care clinics
- Determine the association between asthma knowledge and control

## Methods

- Pilot, cross-sectional study
- Survey distributed to Spanish-speaking primary caregivers of children under 12 years old with a current diagnosis of asthma
  - Demographic questions (8 items)
  - Modified version of the Asthma Control Questionnaire (ACQ, 5 self-assessment items, 5-point, Likert-type scale), knowledge (21 items), and inhaler use (1 item)
  - Translated into Spanish
- Participants completed the written survey with the aid of a professional interpreter when needed

### Statistics

- SPSS v. 22.0 (Armonk, NY), with  $\alpha = 0.05$
- Descriptive statistics were performed for all items
- Pearson correlation analysis to assess the association between asthma knowledge and control

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## Acknowledgments/Disclosures

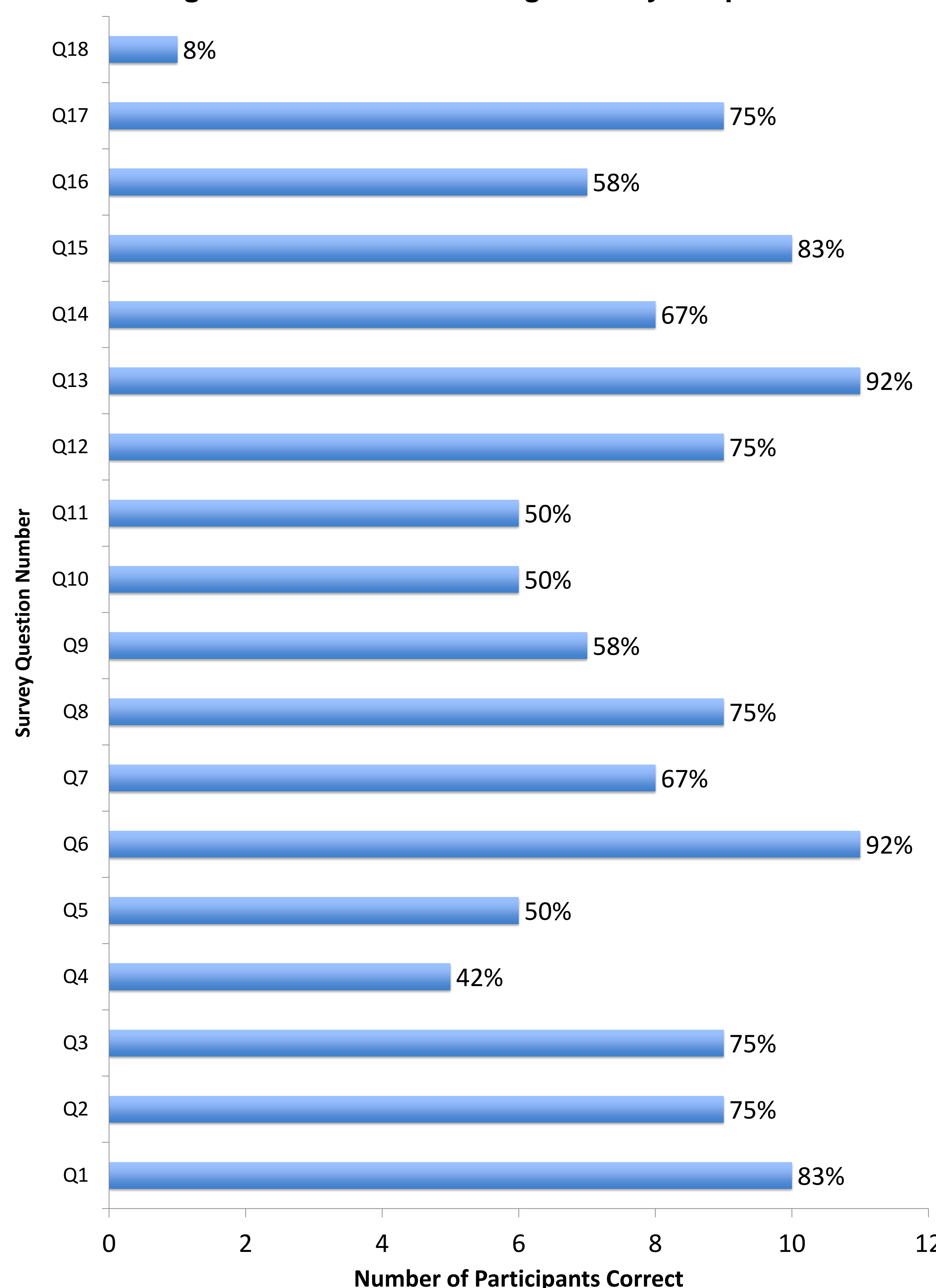
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## Results

Table 1. Demographic Information

Subjects	N=12	%
Female	10	83
Age 26-35	5	42
Annual income (\$) <14,999	7	58
Did not complete HS	8	67
Did not receive education in US	9	75

Figure 1. Asthma Knowledge Survey Responses\*



\*Less<50% of participants answered incorrectly:

- Question 4. If someone takes asthma medication everyday, they do not have to stay away from things to which they are allergic.
- Question 18. When a child has an asthma attack, they should see a doctor immediately.

Figure 2. Asthma Control

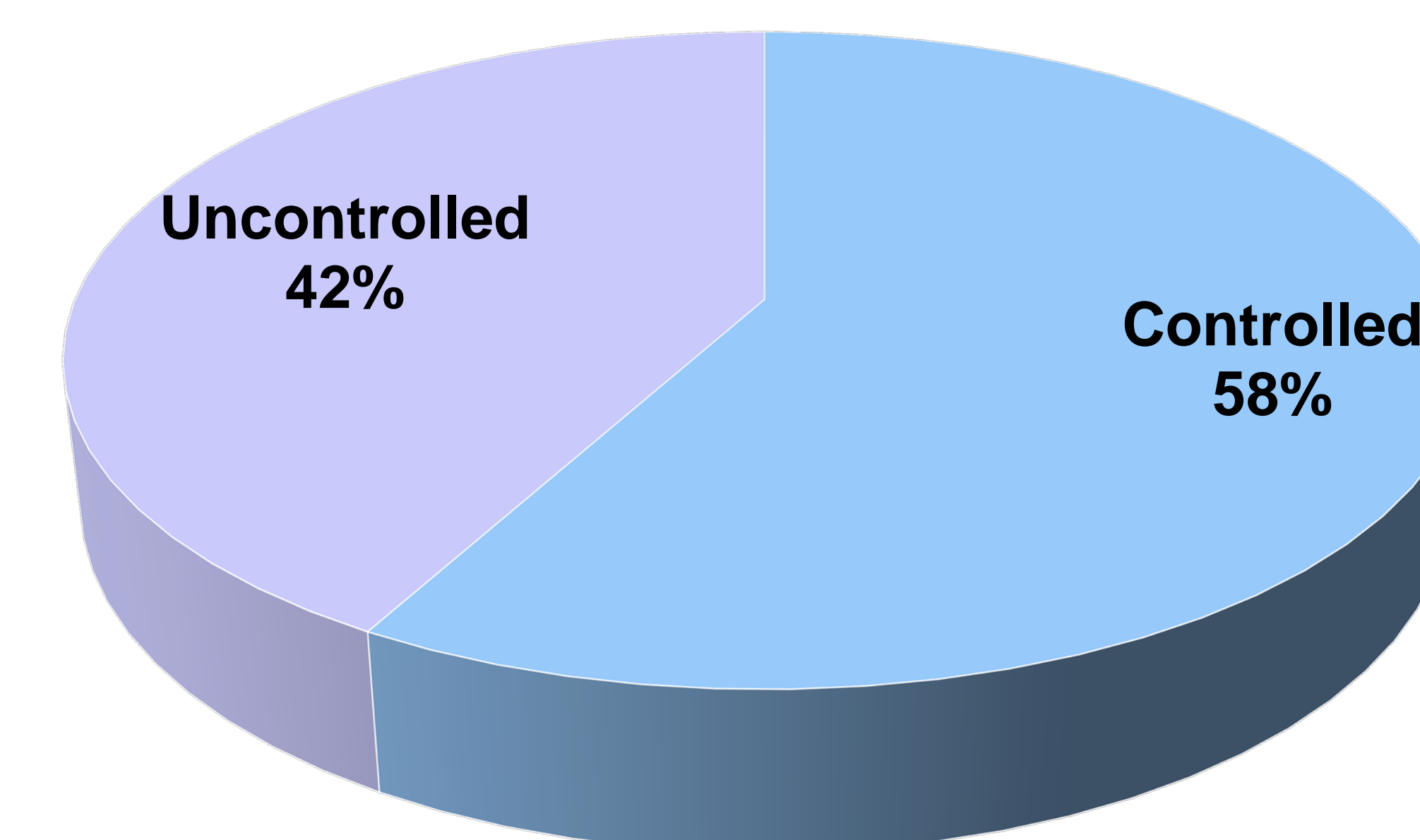


Figure 3. Medication Knowledge (% Correct)

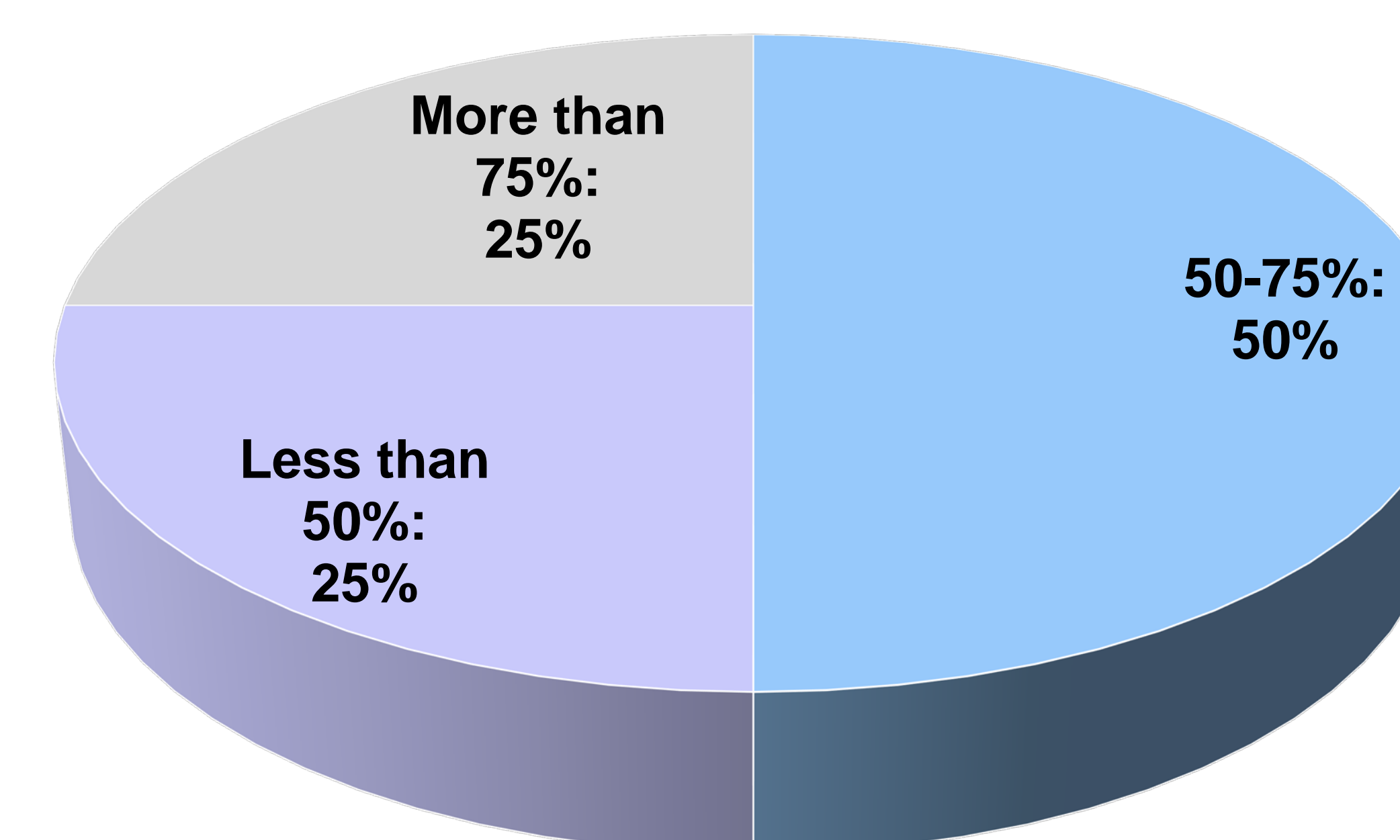


Table 2. Association between Asthma Knowledge and Control

	Pearson's Rho	P-value
Asthma Knowledge vs. Control	0.668	0.009

## Conclusions/Evaluations

### Conclusions

- Asthma knowledge positively correlated with asthma control
- Participants showed lack of knowledge in:
  - Inhaler technique
  - Recognition of asthma triggers
  - Recognizing situations necessitating a physician visit
- Possible strategies to increase asthma control:
  - Caregiver asthma education
  - Caregiver asthma medication education
  - Education material needs to be tailored to caregiver's literacy level

### Clinical Application

- Pharmacists are trained and educated to share information on these topics
- Pharmacists' personal interaction with patients allows them unique opportunities to educate patients and should be included in every patient visit to the clinic