The Epidemiology and Health Effects of Uncontrolled Asthma

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March 19, 2010

Outline

- Asthma Control
  - Well-controlled, poorly controlled, very poorly controlled
  - EPR-3 Guidelines[1]
- Methods
  - Definitions
  - Asthma call-back survey
- Results
- Recommendations

1. National Heart lung and Blood Institute (US). Expert Panel Review-3 Guidelines to Asthma Management. National Institutes of Health (US); 2007 Aug. NIH Pub. Available at: http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf

General Epidemiology

- 14.5% of adults[1] and 19.5% of high school students[2] report ever being told they have asthma
- 9.5% of adults and 10.4% of high school students report currently having asthma
- An estimated 70,600 adults living with asthma and 17,100 children[1] aged 0-17

1. 2008 Montana BRFSS survey
2. 2009 Montana YRBS survey

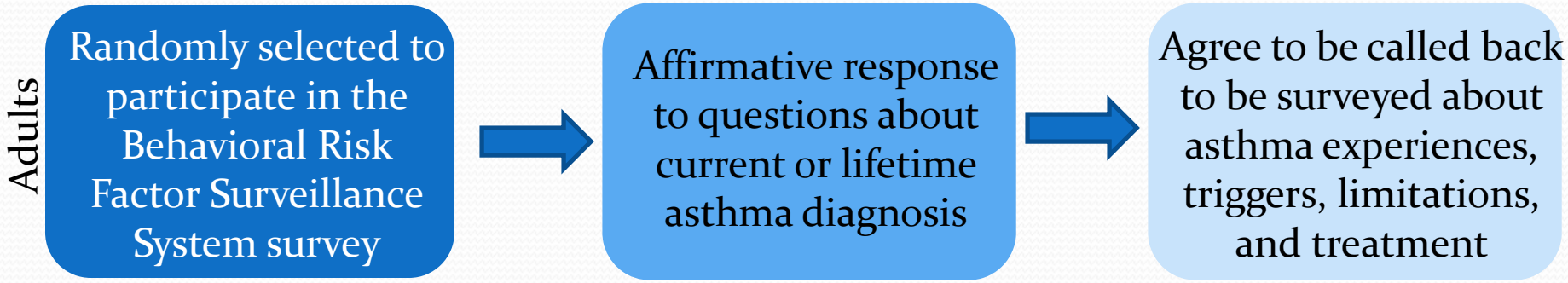
Control: Goal of Asthma Therapy

- Primary goal for treatment is well-controlled asthma
- Ongoing assessment
- For all levels of severity

Control: Goal of Asthma Therapy

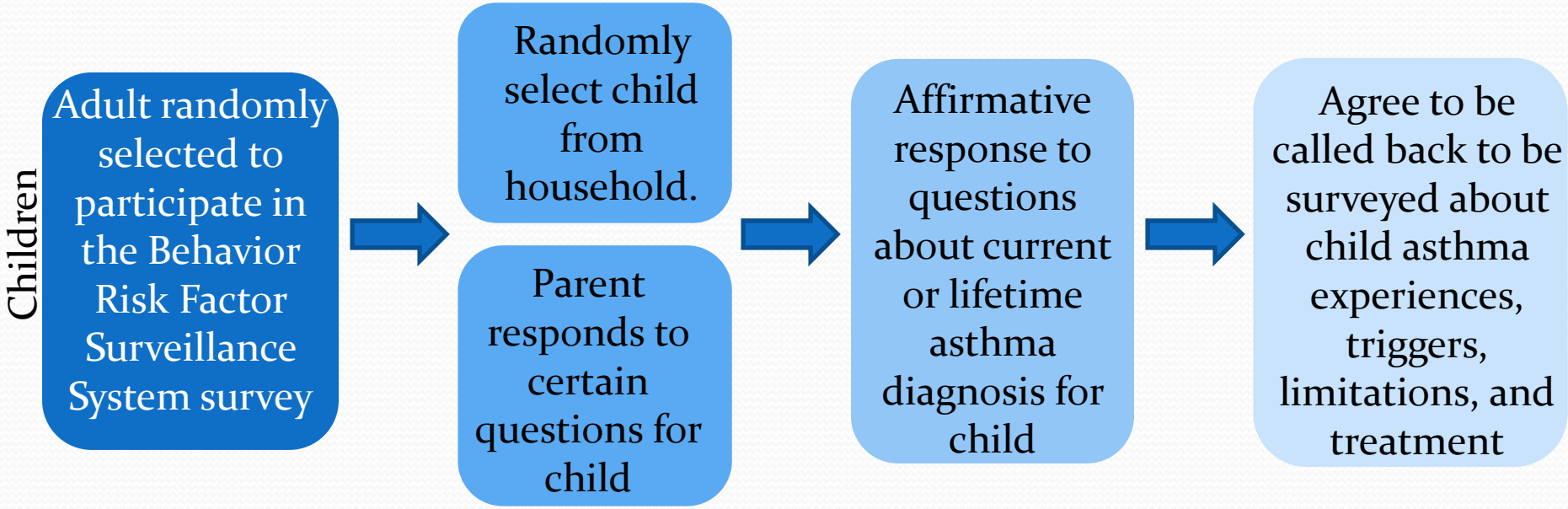
- EPR-3 guidelines define well controlled asthma for patients aged 12 and up as:
  - Symptoms no more than two days per week
  - Nighttime awakenings no more than two days per month
  - Albuterol use for symptoms no more than two days per week
  - No activity limitations
  - FEV_1 or peak flow values greater than 80% predicted
  - An Asthma Control Test score of 20 or greater
  - No more than one exacerbation requiring oral steroids per year

Asthma Call-back Survey



- Montana participation since 2006

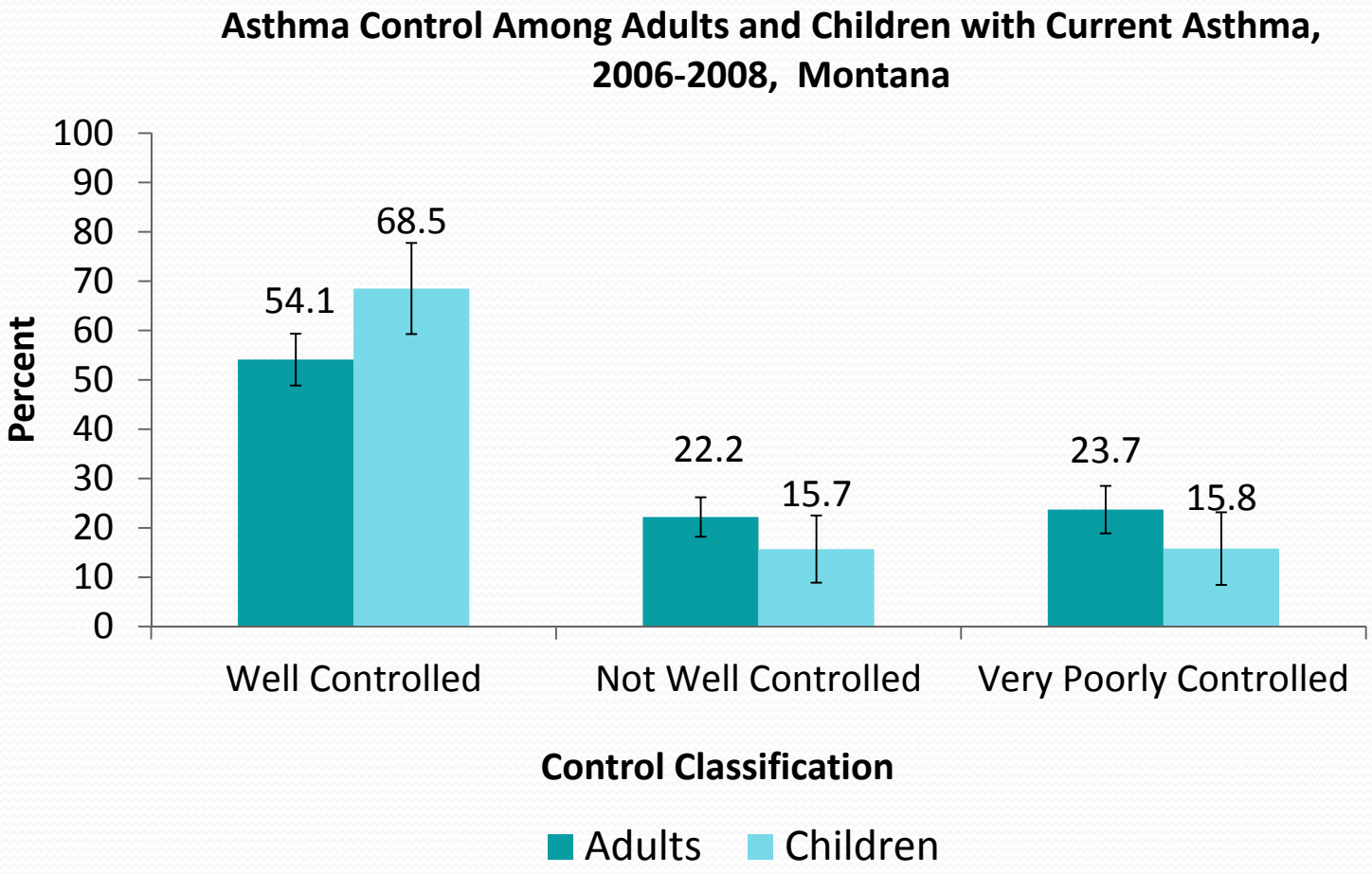
Asthma Call-back Survey



Calculated Control Classification

- Had current or active asthma
- Algorithm
  - SABA use
  - Frequency of symptoms
  - Nighttime symptoms
- Not well controlled and very poorly controlled combined
- Aggregate of three years of data
- 767 adults and 143 children surveyed

Calculated control



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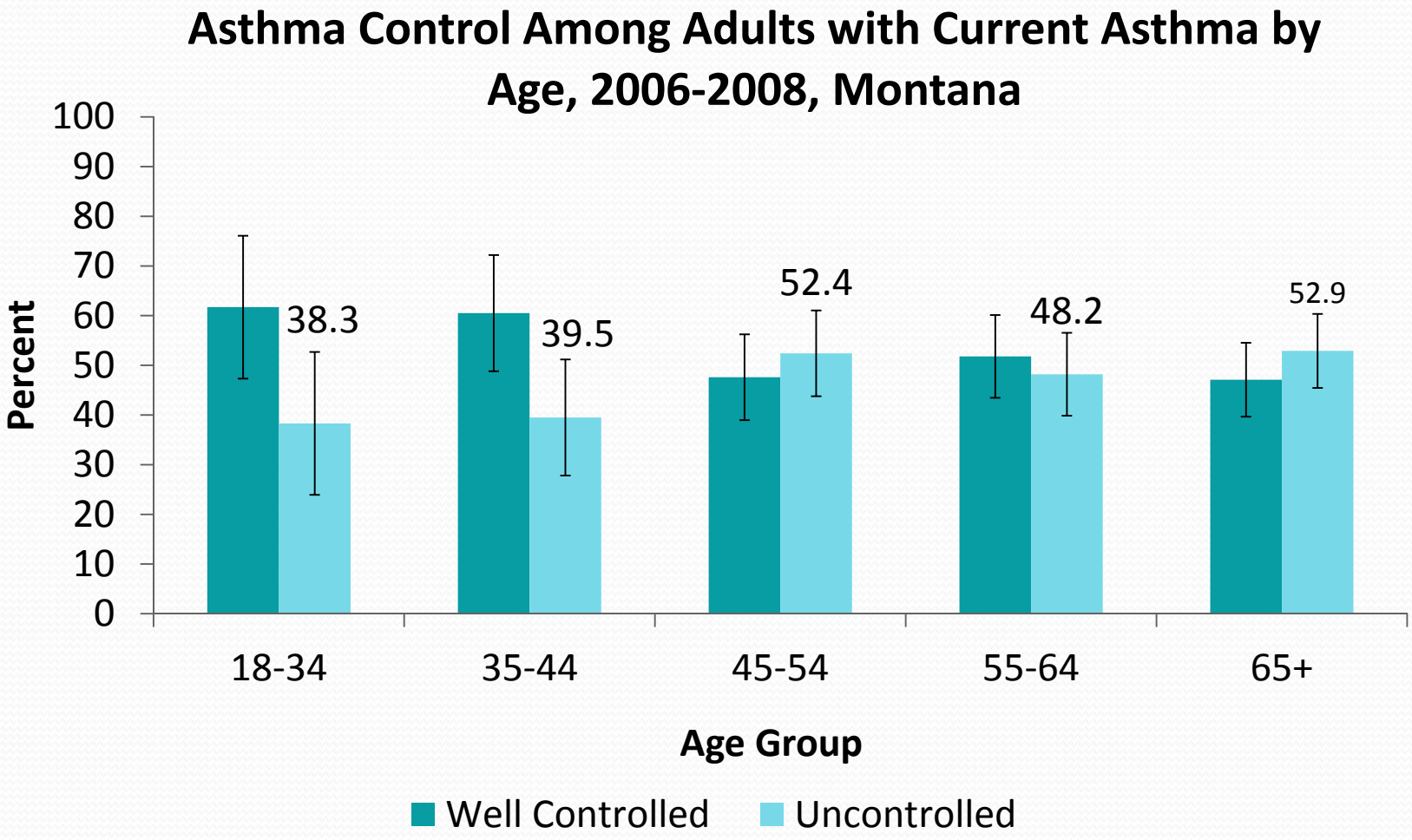

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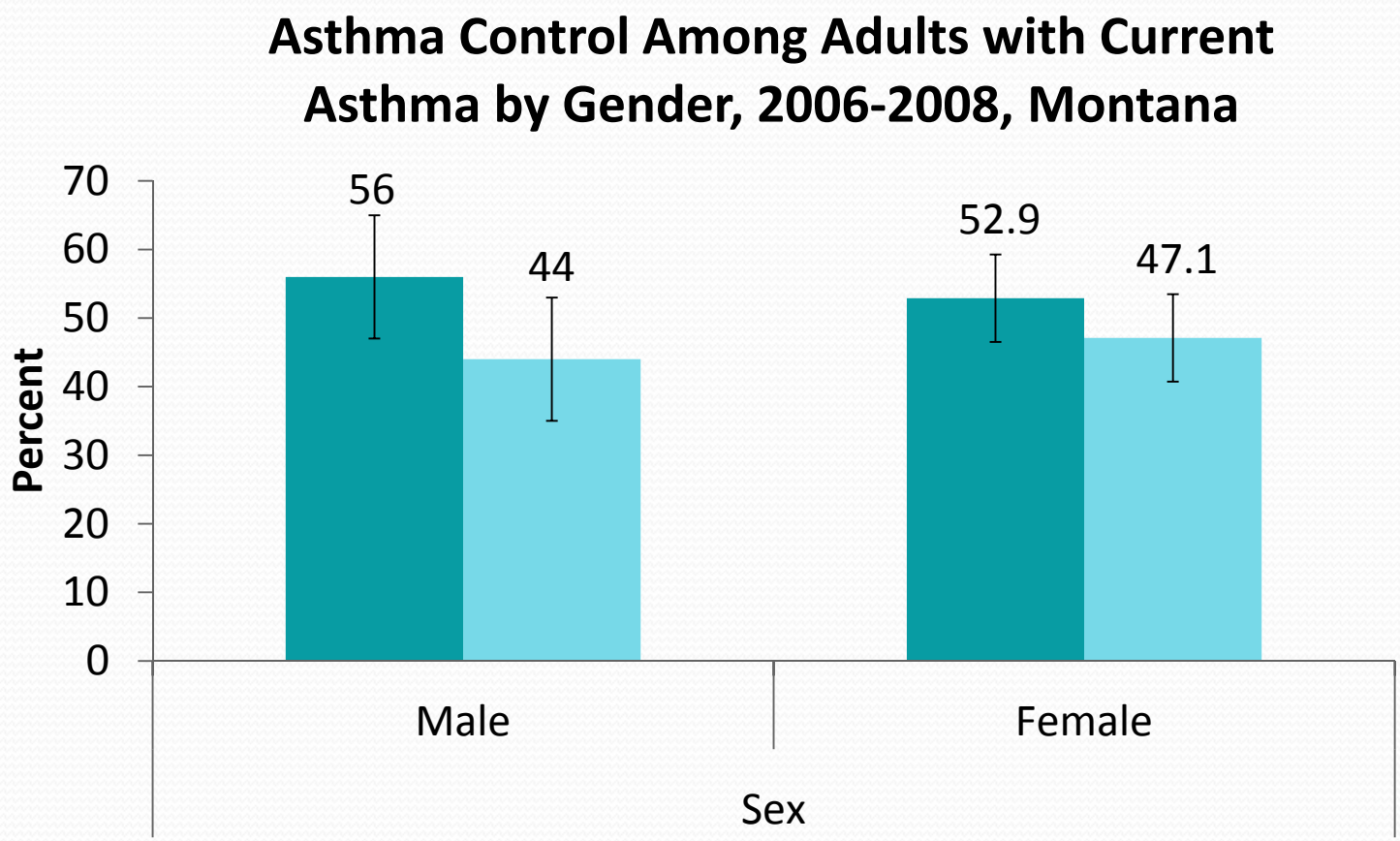

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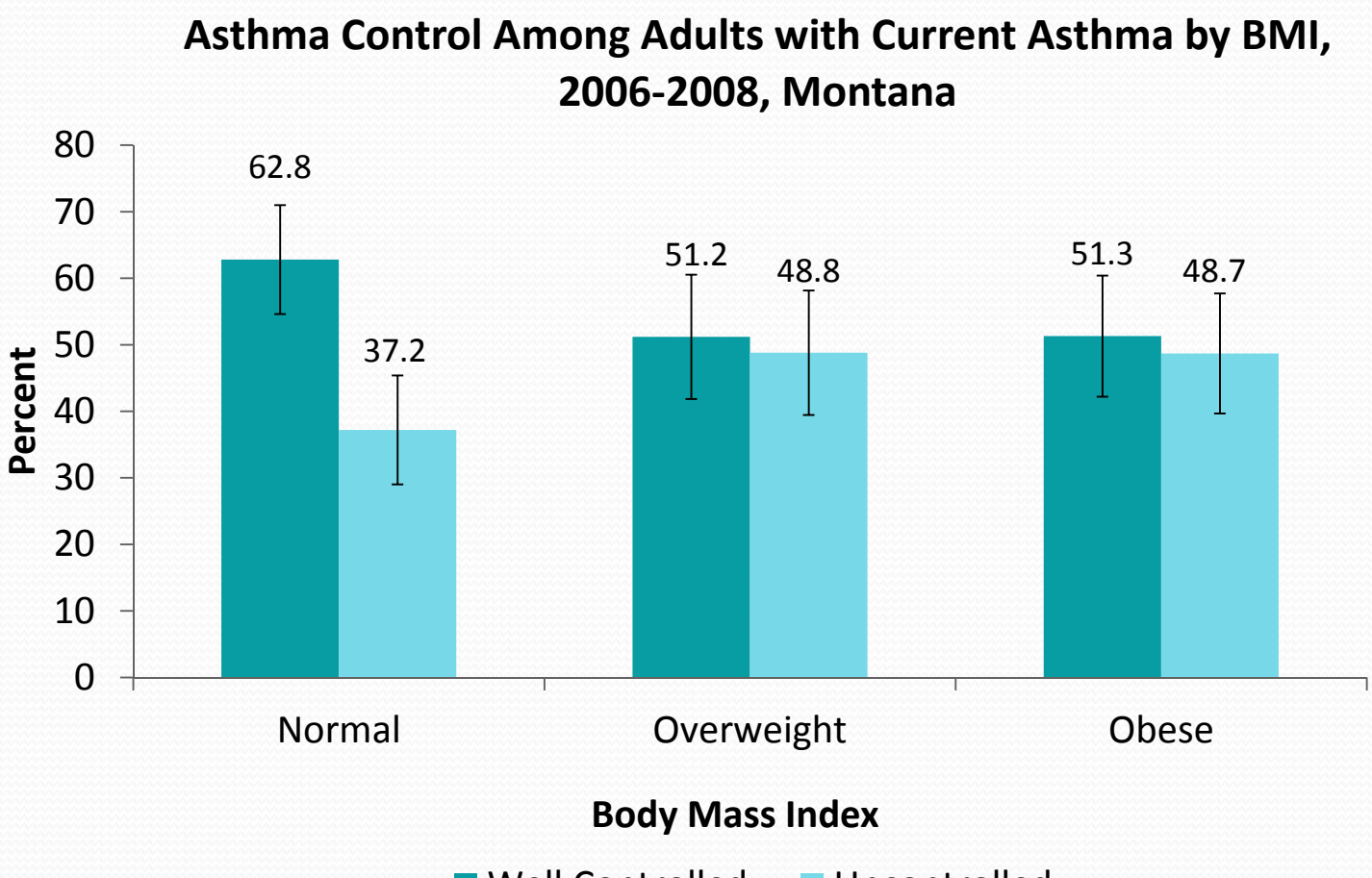

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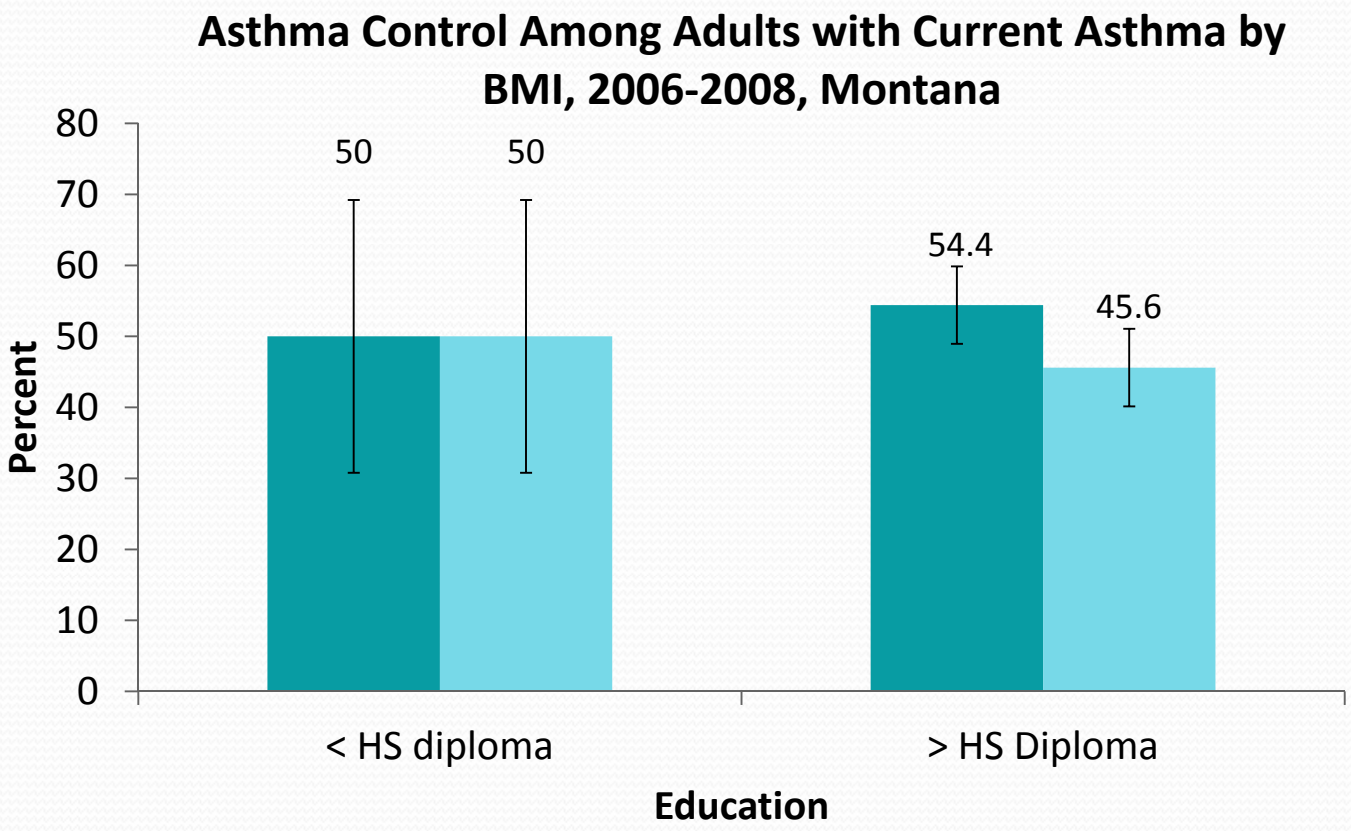

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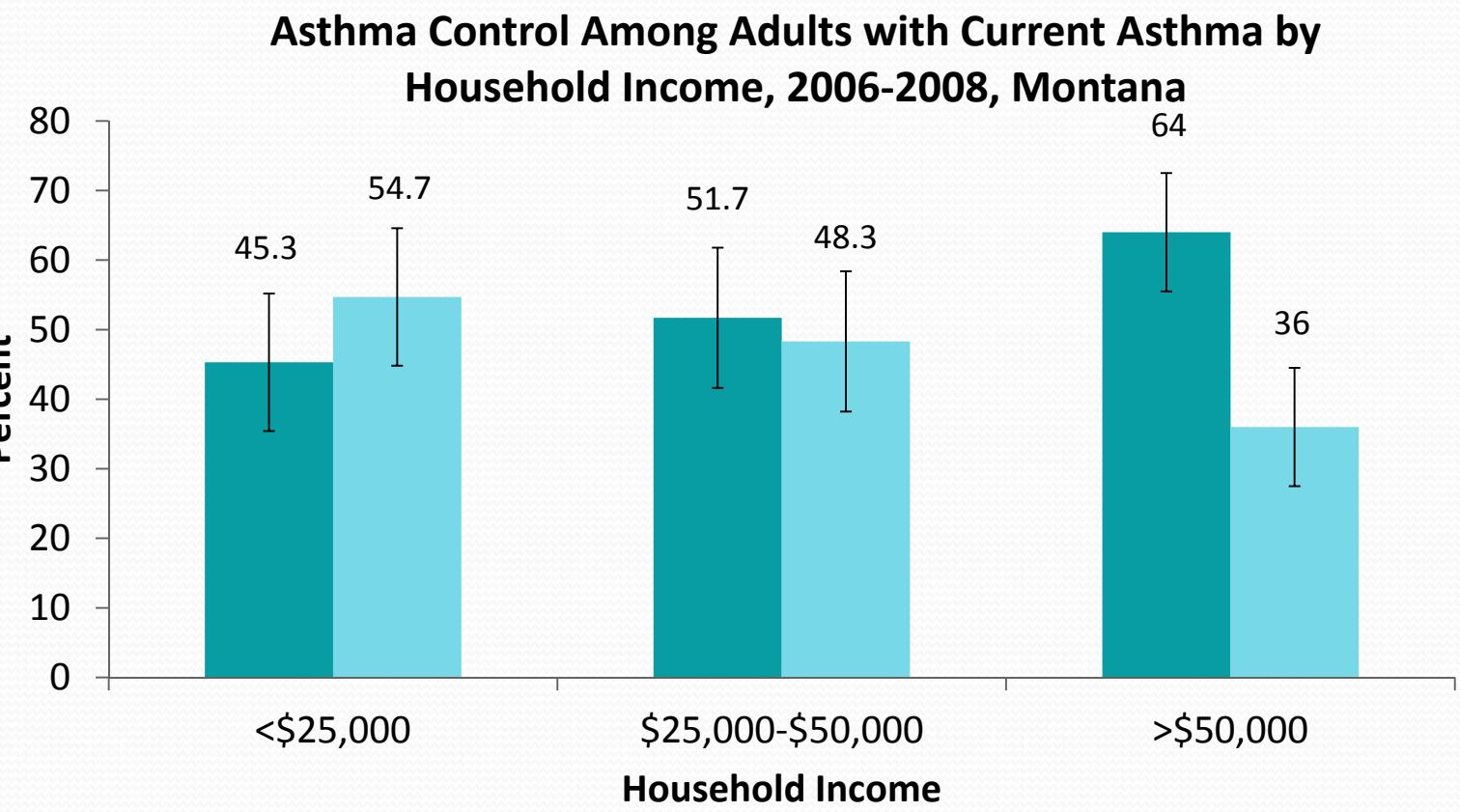

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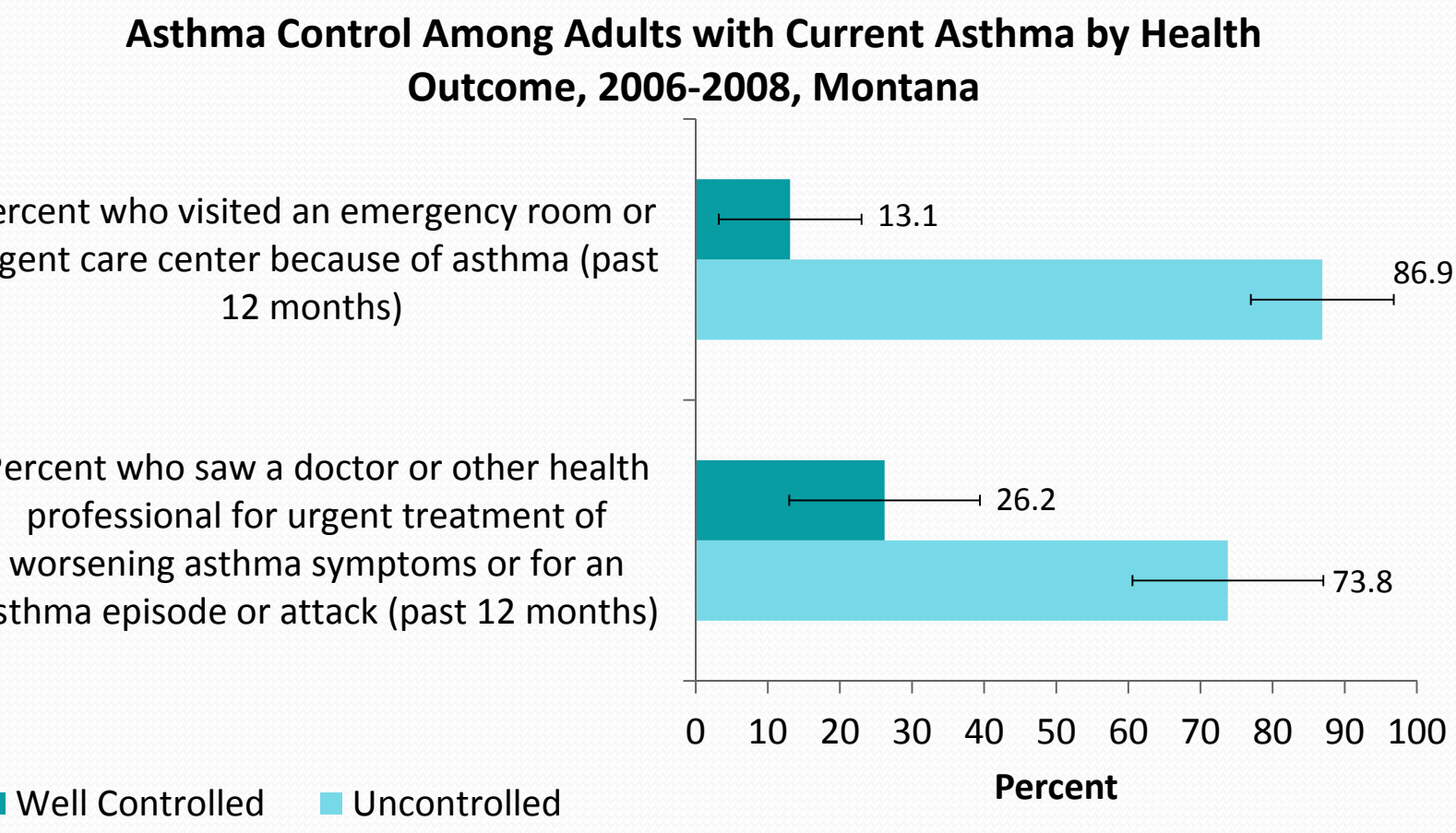

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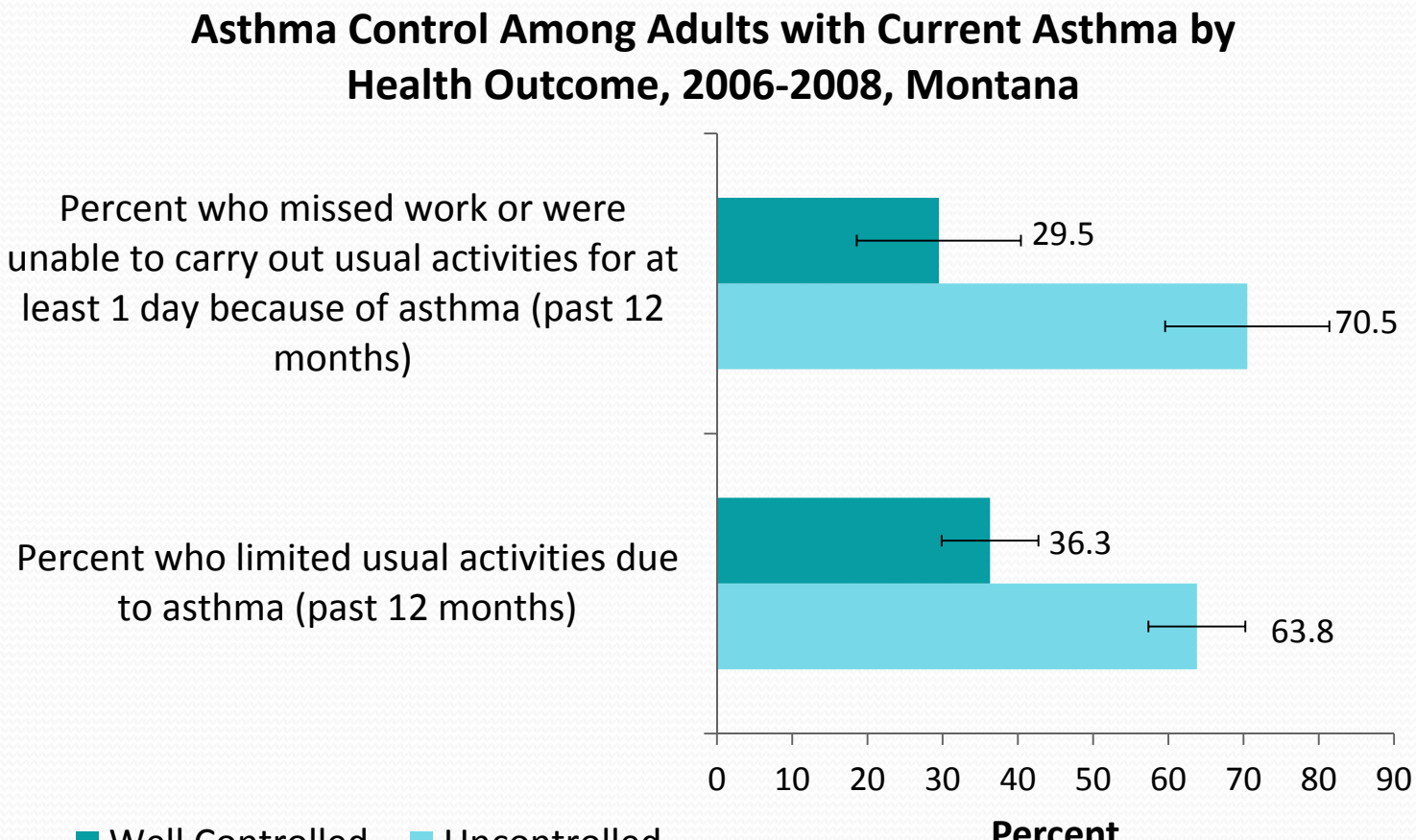

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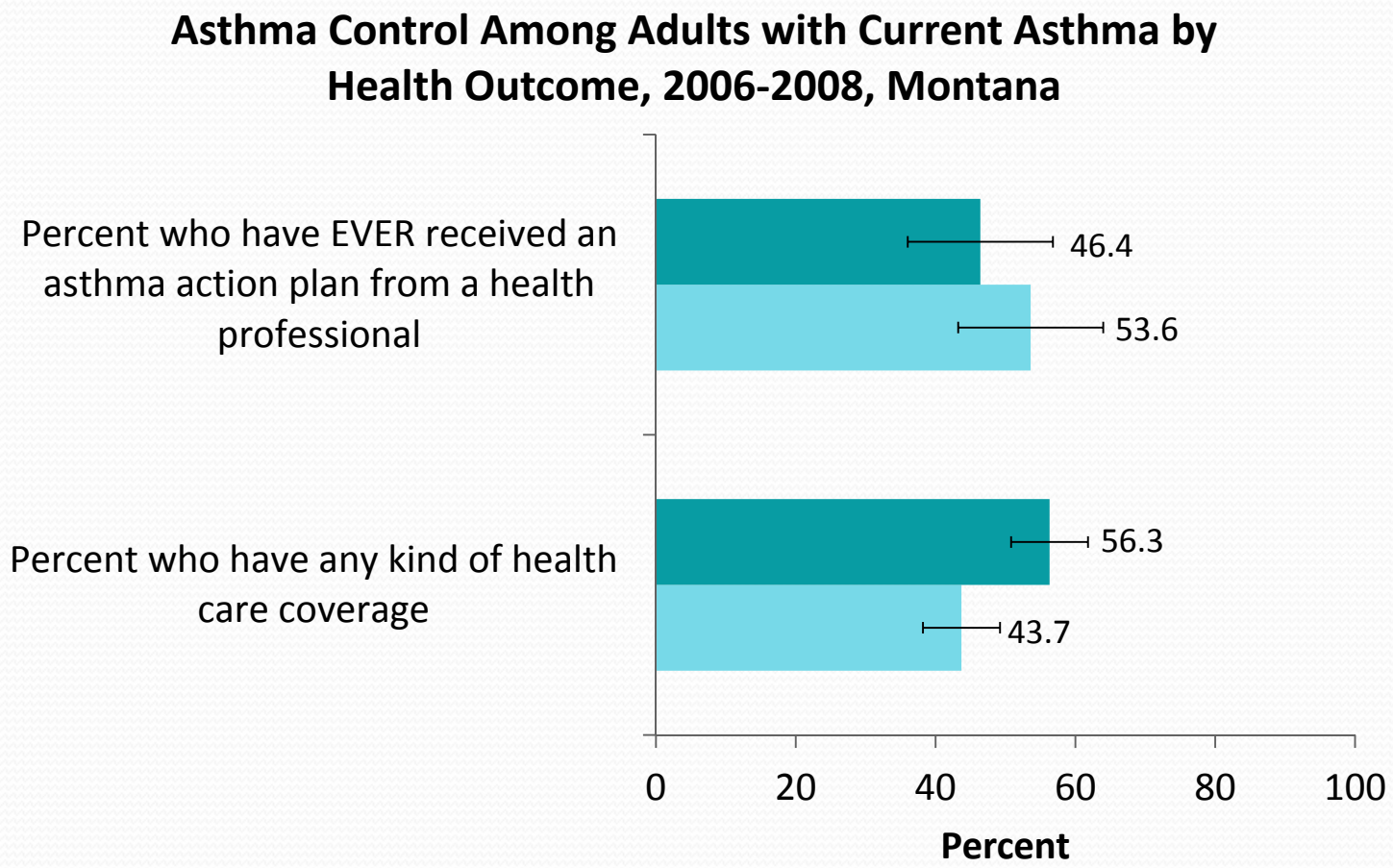
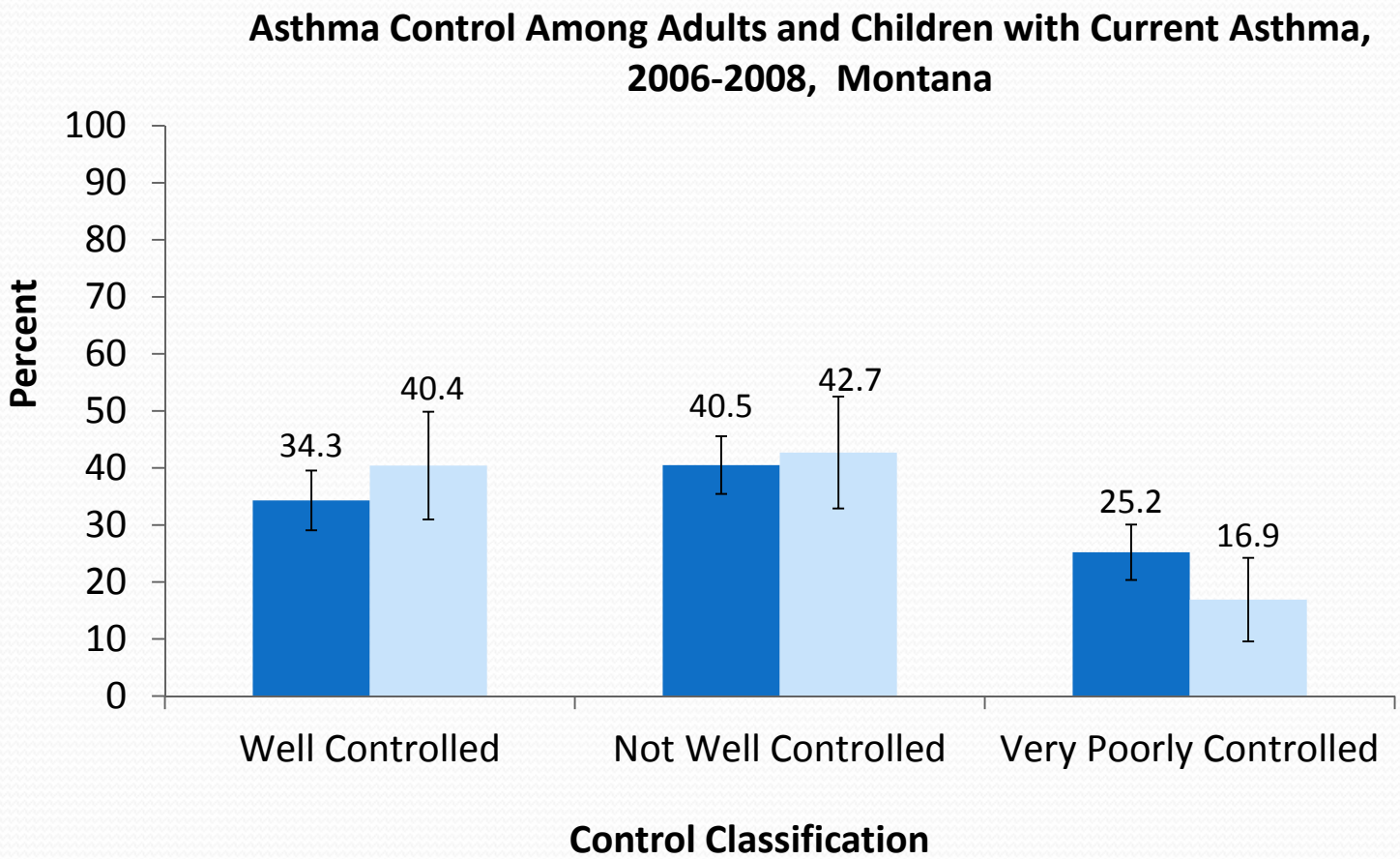


cluding activity limitations…

lternate algorithm results



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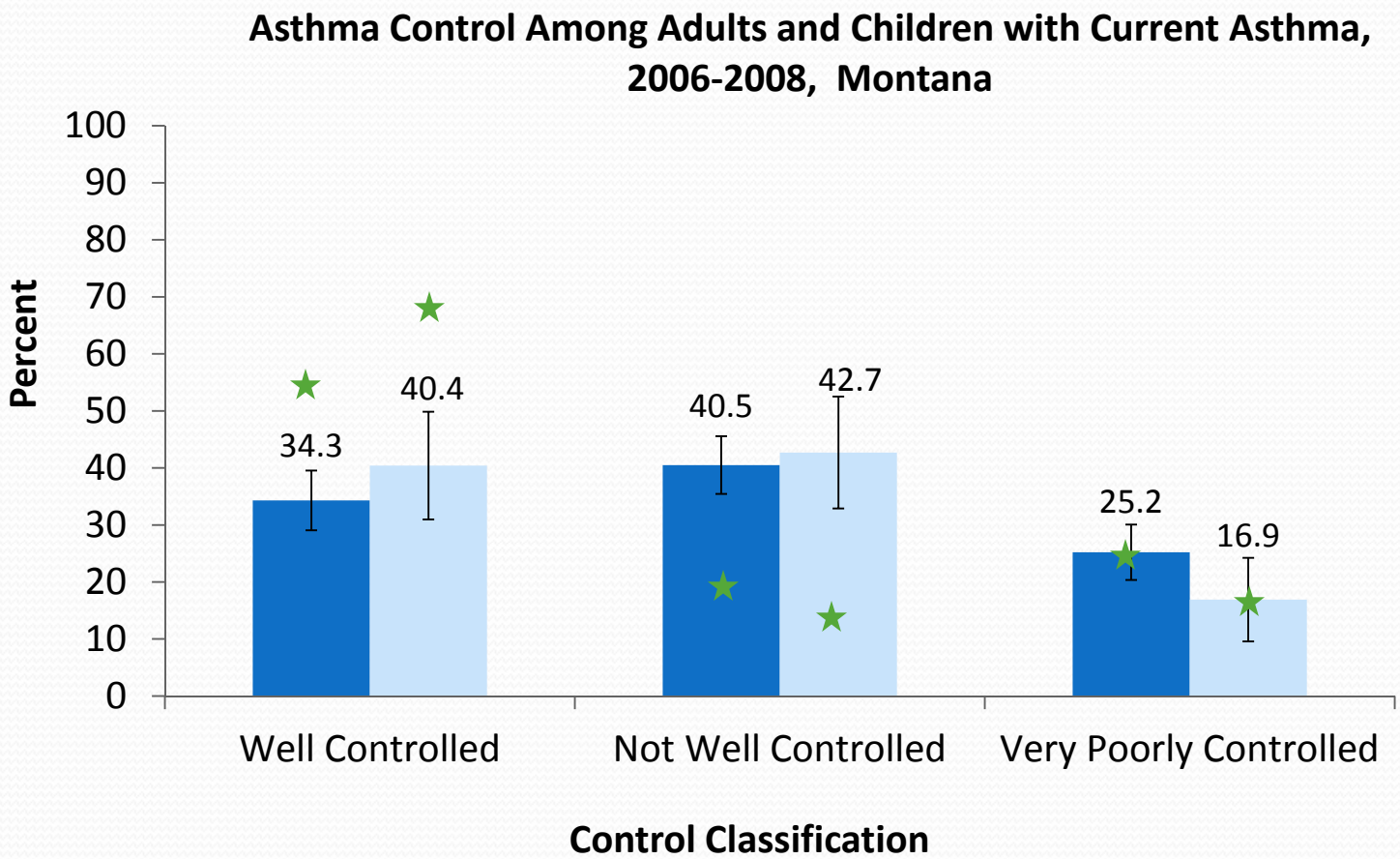

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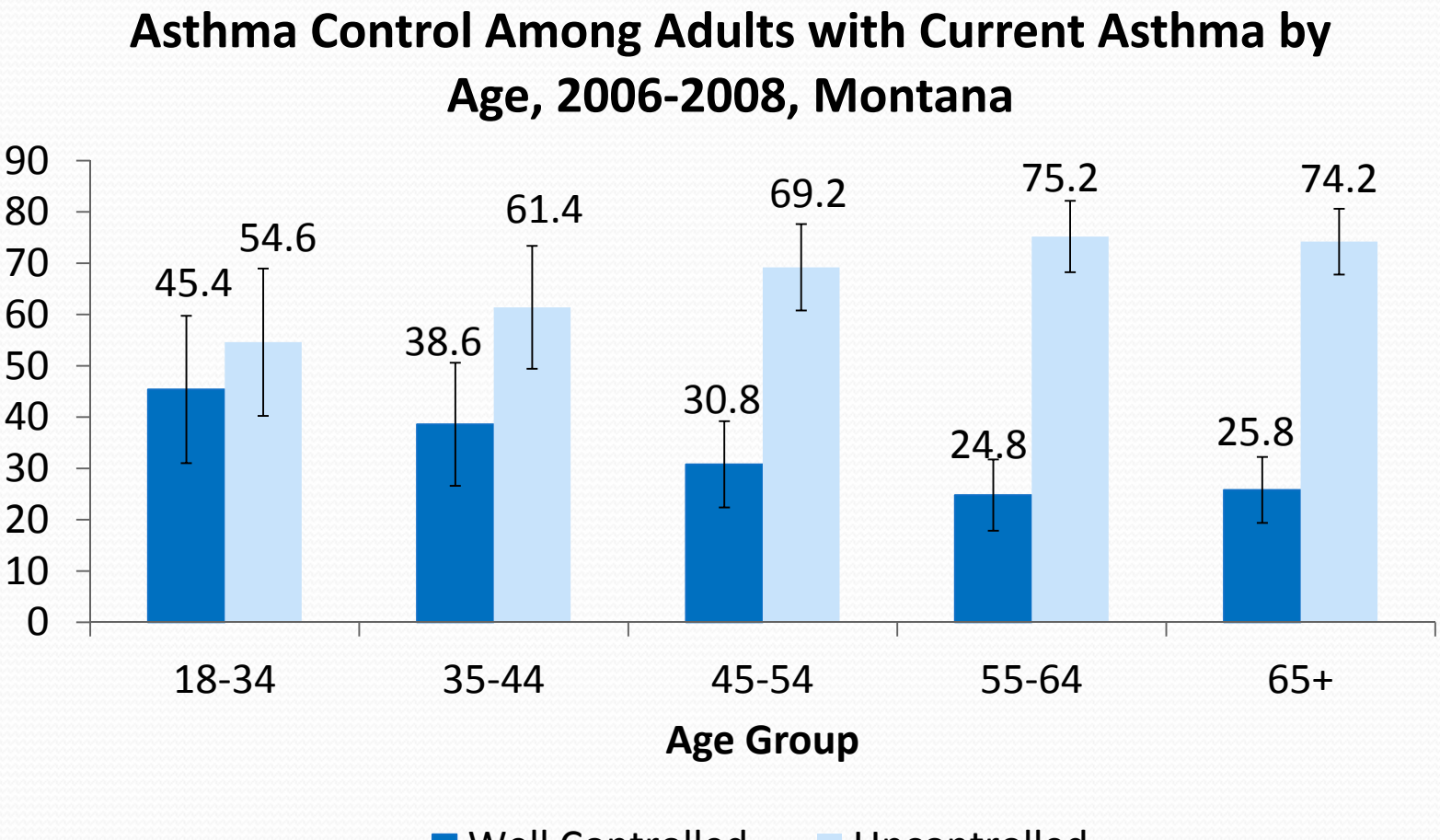

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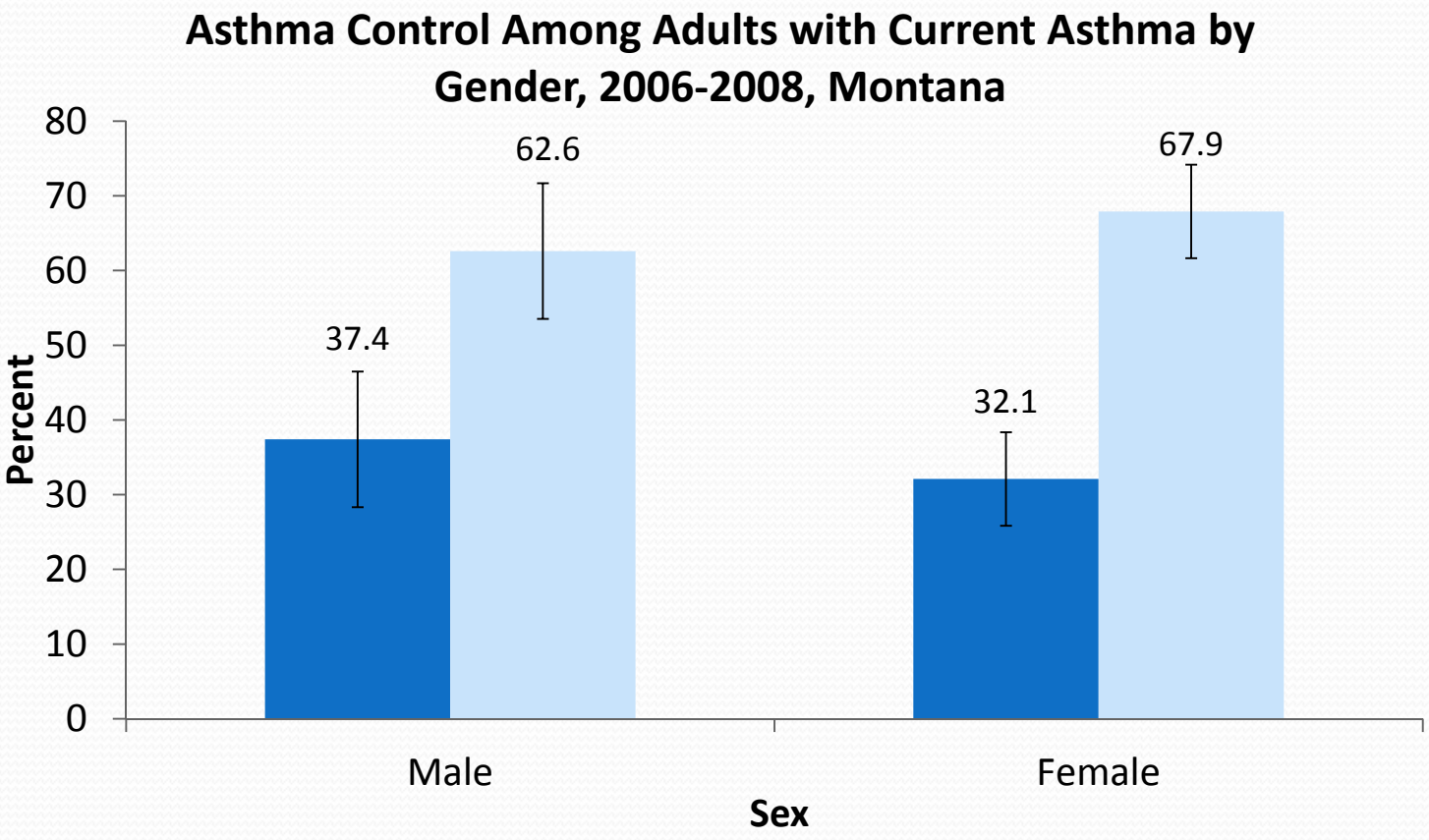

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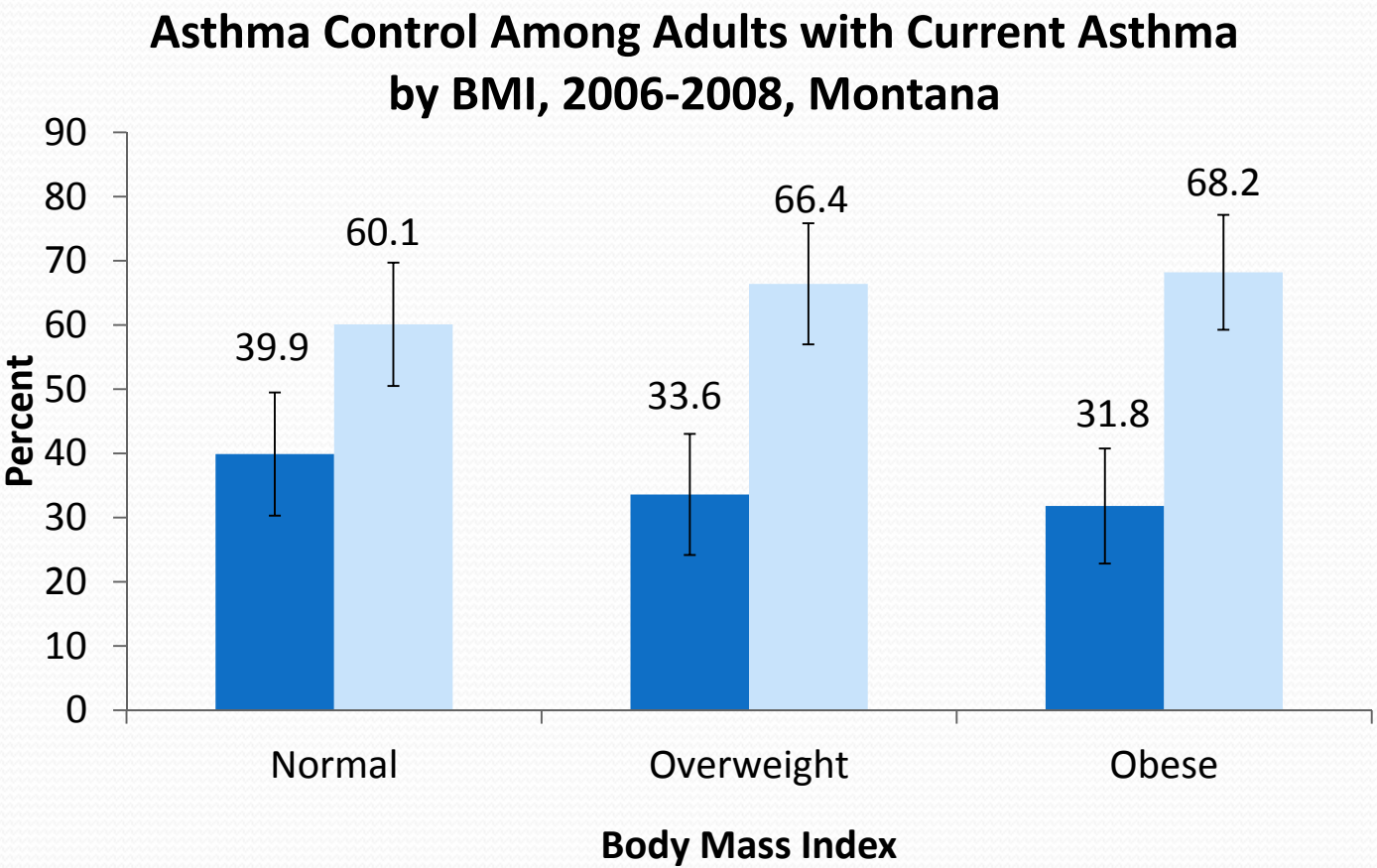

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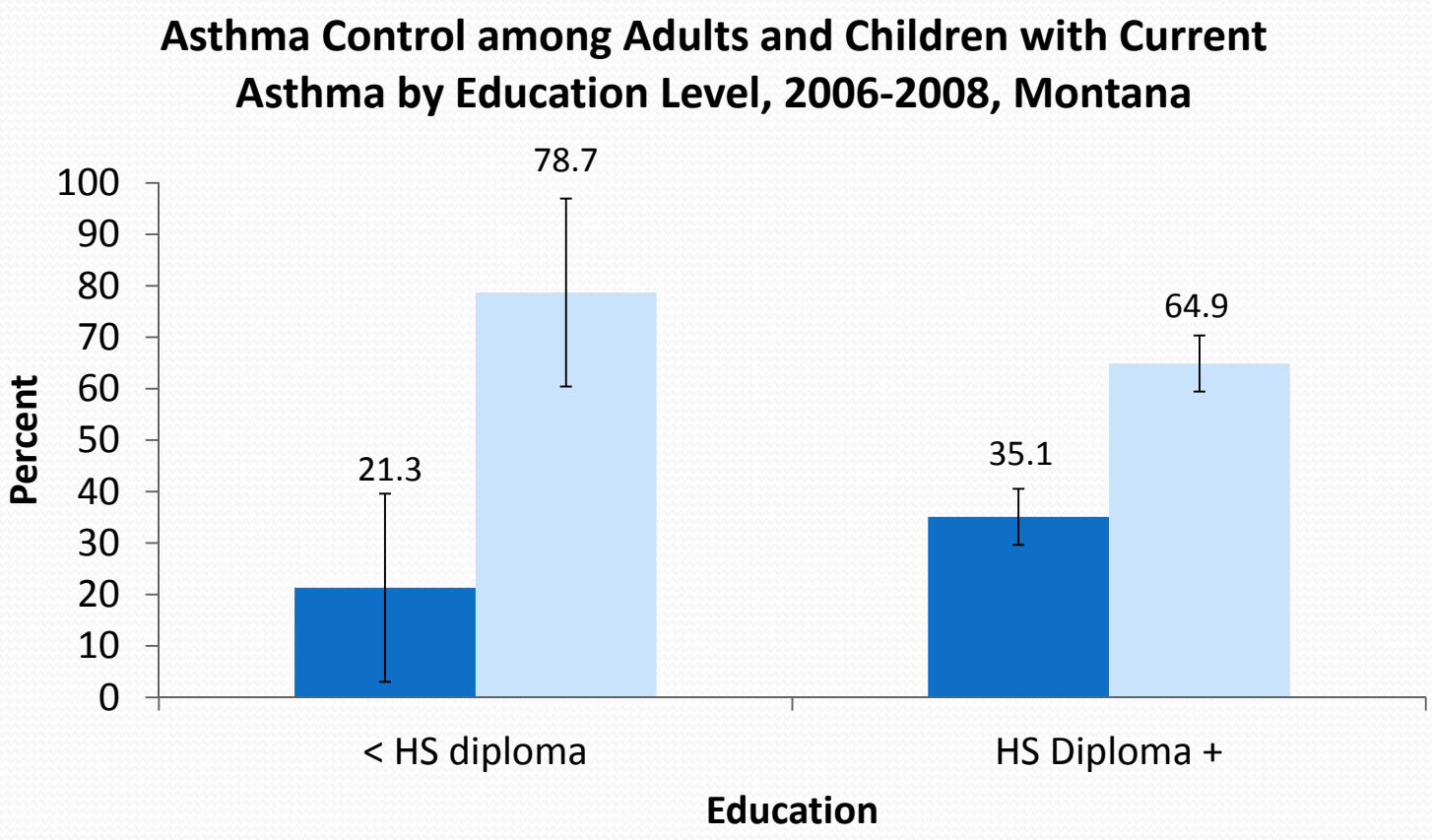

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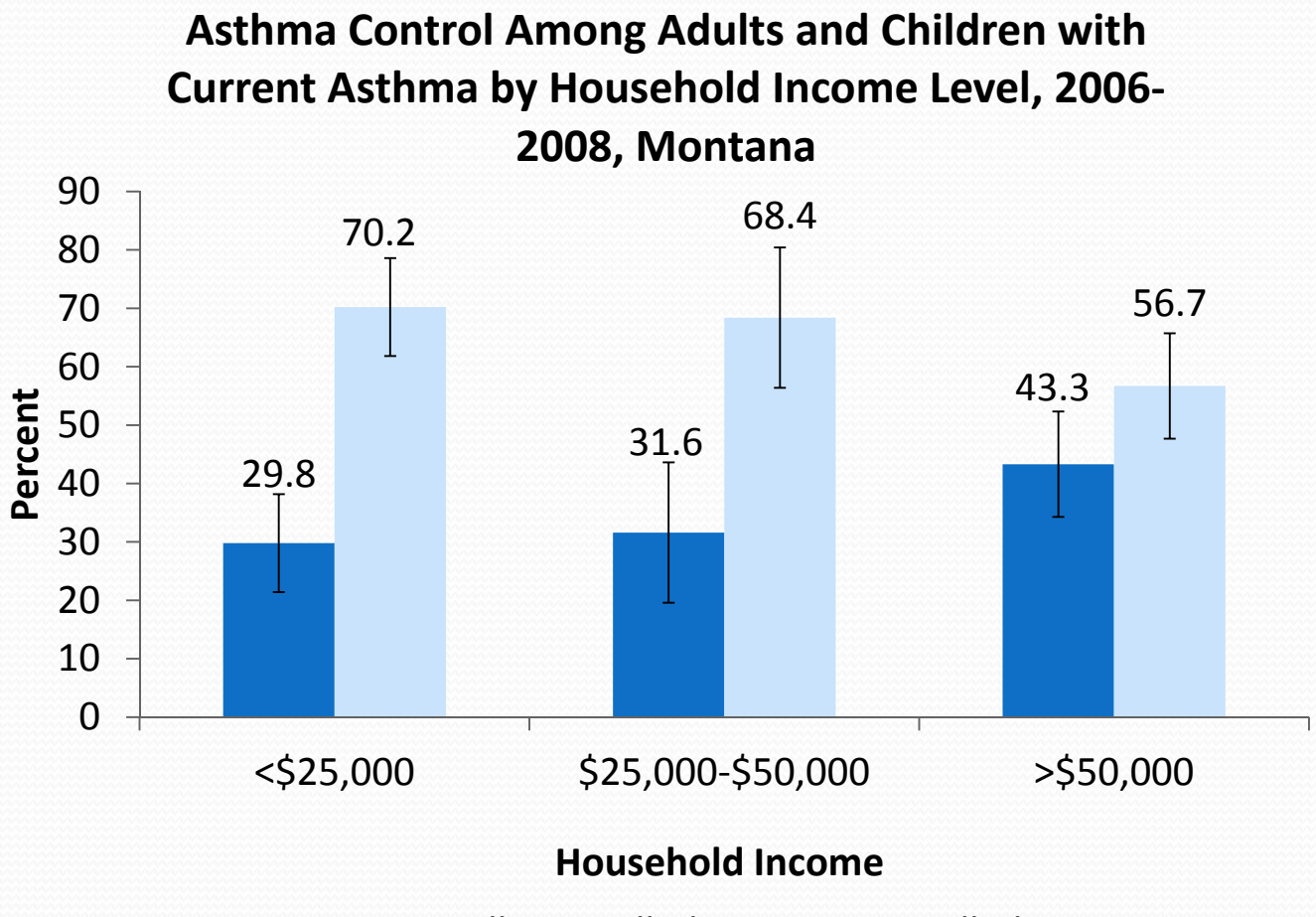

Other considerations

ccess to care

Of people with uncontrolled asthma,

- 23.0%* were not able to afford medication in the last year
- 14.6%* were not able to see a primary care physician for asthma in the last year due to cost

Vs.

Of people with well controlled asthma

- 6.1% were not able to afford medication in the last year
- 4.1% were not able to see a primary care physician for asthma in the last year due to cost

ducation opportunities

Of adults with active asthma:

- 65.9% taught to recognize early signs or symptoms
- 42.8% taught to use peak flow
- 79.2% taught what to do during an asthma episode or attack
- 25.1% given an asthma action plan

ummary

- Almost half of the adults with asthma and one third of the children with asthma in Montana have uncontrolled asthma
- Adults with lower levels of household income are at greater risk for uncontrolled asthma
- Higher BMI and increasing age also appear to affect asthma control
- Individuals who visit the emergency room or an urgent care clinic due to an asthma attack and limit their usual activities because of the disease are more likely to have uncontrolled asthma.

ummary

- People with uncontrolled asthma report having difficulty paying for medical visits and prescriptions for asthma more often than people with well controlled asthma
- There is room for improvement in self-management education among people with current asthma
- Activity limitations appear to be an important criteria in assessing asthma control

ecommendations

Evaluate asthma control at each visit

Use a validated clinical tool like the Asthma Control Test

Prescribe all patients with persistent asthma an inhaled steroid controller medication

Consider controller medication cost

Provide patient education on:

- Disease self-management and use of a personalized asthma action plan
- Proper inhaler technique and the importance of adherence to medical therapy
- Avoiding and mitigating environmental triggers
- The need for ongoing, periodic clinical evaluation of asthma control with a primary care provider

Referral for specialty consultation (Pulmonology or Allergy).

Questions?

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