



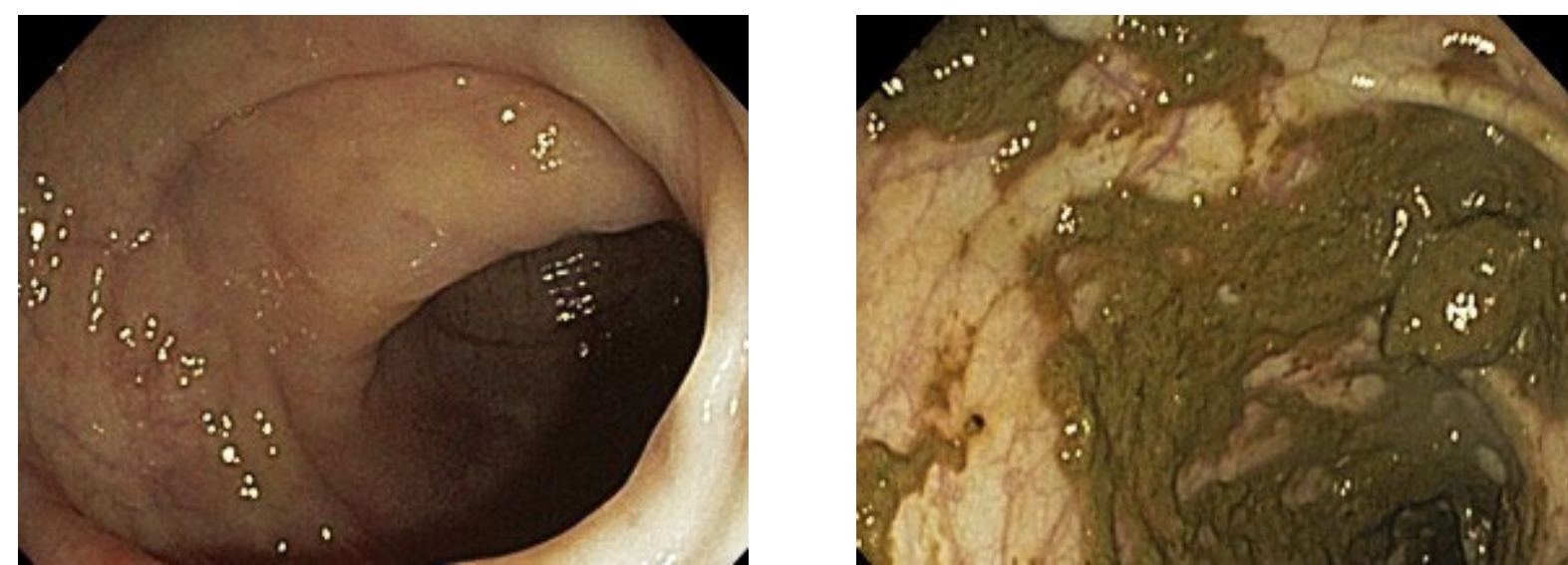
# Quality of Bowel Preparation does not influence Adenoma Detection Rate

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## Introduction

- Adenoma detection rate (ADR) is the gold standard and quality measure for screening colonoscopies, however the impact of bowel preparation quality on ADR is not clearly understood.
- The aim of our study was to investigate the influence of bowel preparation quality on ADR in screening colonoscopies.



### BBPS Scoring Criteria

Score	Definition
0	unprepared colon segment with mucosa not seen because of solid stool that cannot be cleared.
1	portion of mucosa of the colon segment seen, but other areas of the colon segment are not well seen because of staining, residual stool, and/or opaque liquid.
2	minor amount of residual staining, small fragments of stool, and/or opaque liquid, but mucosa of colon segment is seen well.
3	entire mucosa of colon segment seen well, with no residual staining, small fragments of stool, or opaque liquid.

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## Methods

### Study Design

- Retrospective Chart Review

### Study Period

- March 2018 to September 2018

### Study Site

- Banner University Medical Center - Phoenix

### Inclusion Criteria

- All adults who underwent screening colonoscopies

### Data Collected

- Age, Sex, ASA, Boston Bowel Preparation Scale (BBPS) Score, and presence, type and location of all polyps

### Statistics

- STATA Statistical Software v 15.1

## Demographics

<b>Total Number of Procedures</b>	<b>244</b>
<b>Age (Mean ± SD in years)</b>	60 ± 9.5
<b>Gender</b>	
➤ <b>Male</b>	130 (52.8%)
➤ <b>Female</b>	116 (47.2%)
<b>ASA Grade</b>	
➤ <b>1</b>	13 (5.3%)
➤ <b>2</b>	66 (26.9%)
➤ <b>3</b>	150 (61.2%)
➤ <b>4</b>	16 (6.5%)

- A total of 244 screening colonoscopies were evaluated.
- Using total Boston Bowel Preparation Scale (BBPS) scores, three separate portions of the colon are independently rated from 0-3 and then the scores are summed.
- BBPS ≥ 7 was considered a good bowel prep and BBPS < 7 a poor bowel prep.
- Patients with good or poor bowel prep were 69.6% and 30.3%, respectively.
- The overall ADR, regardless of quality of bowel preparation, was 44.3%.
- There was no statistical significant associations between good or poor bowel preparation quality and the ADR in screening colonoscopies.

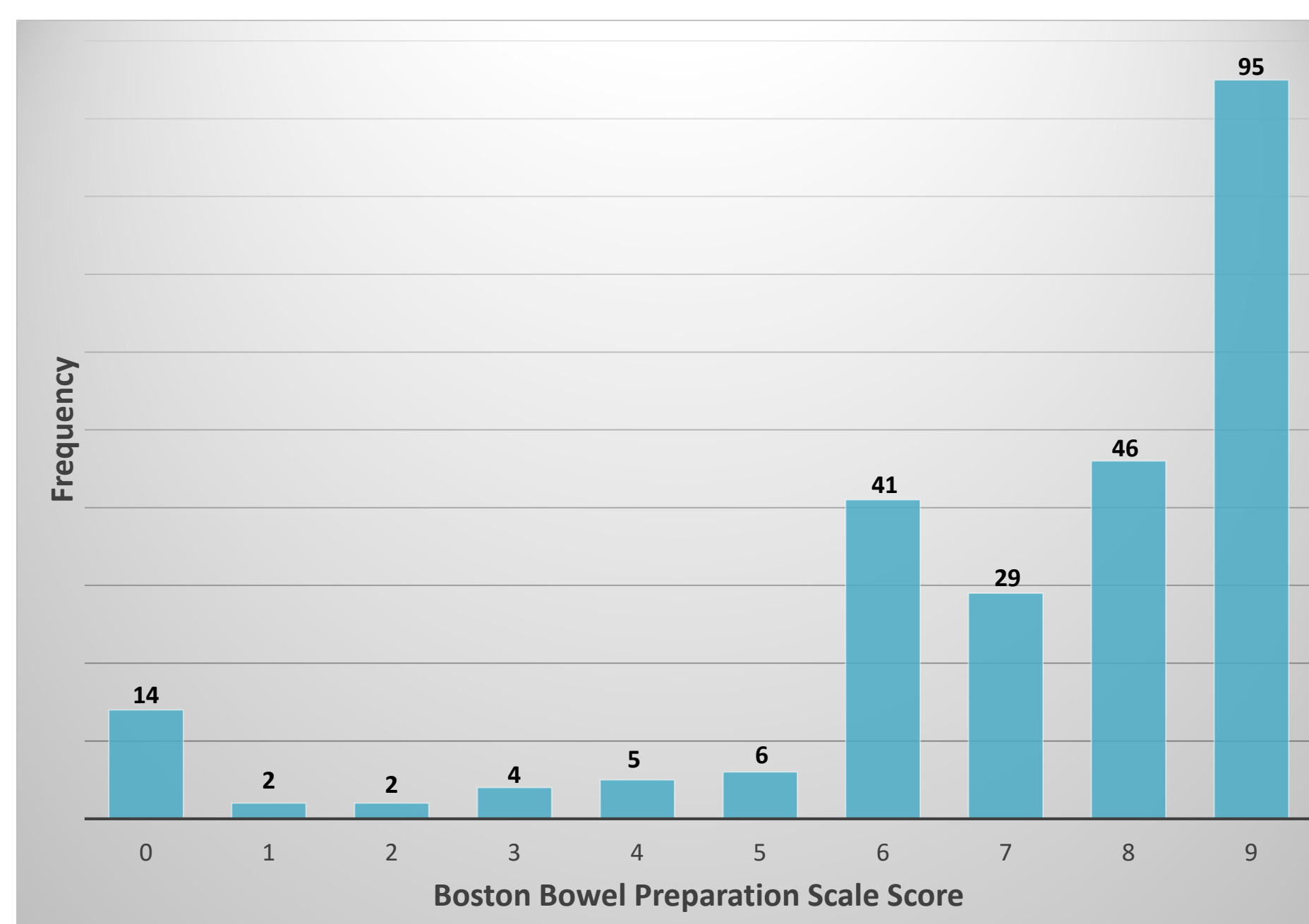


Figure 1: Distribution of Boston Bowel Preparation Scale (BBPS) scores for 244 colonoscopies

## Results

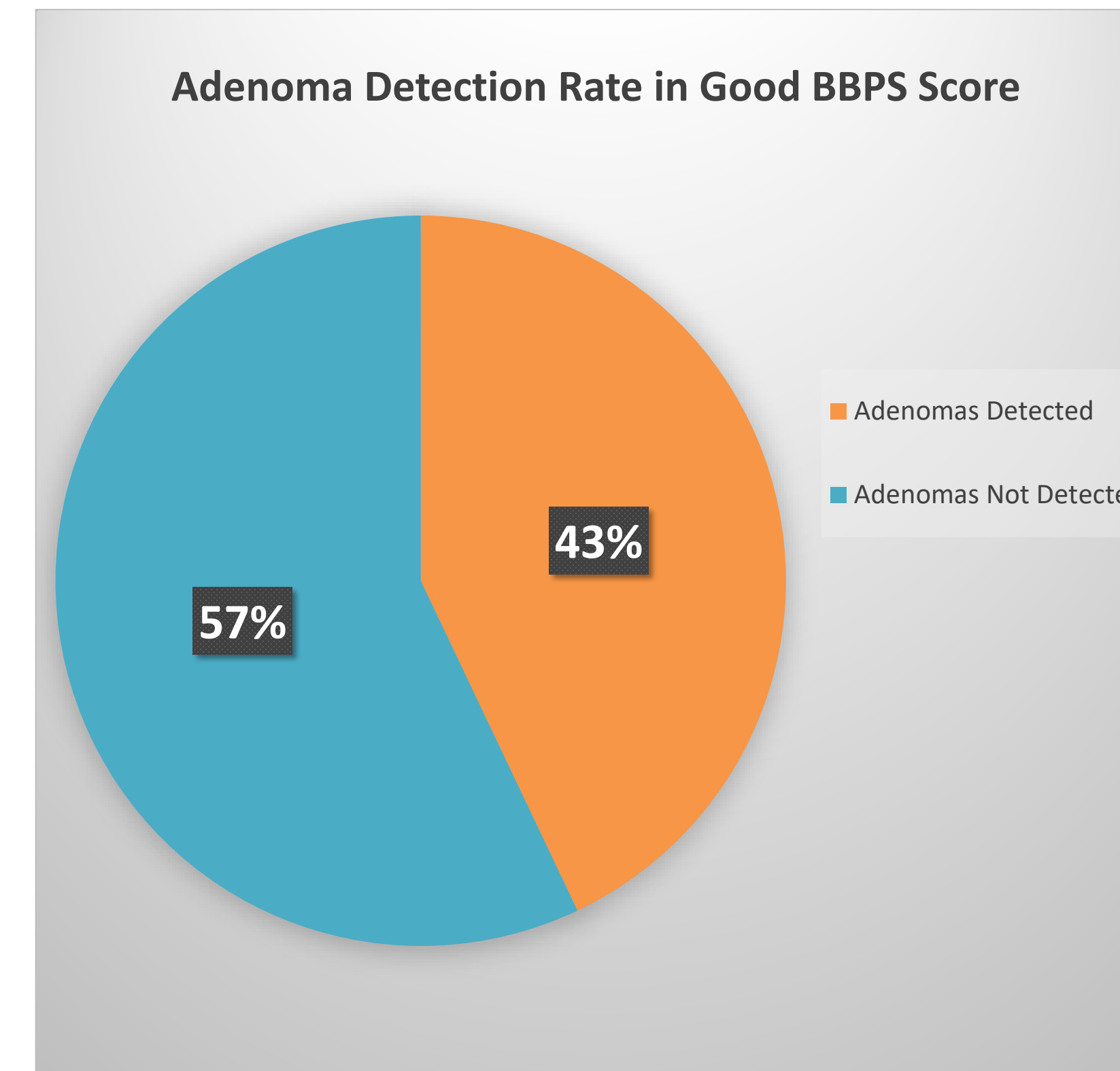


Figure 2: Adenoma detection rate (ADR) with good bowel preparation quality (BBPS ≥ 7)

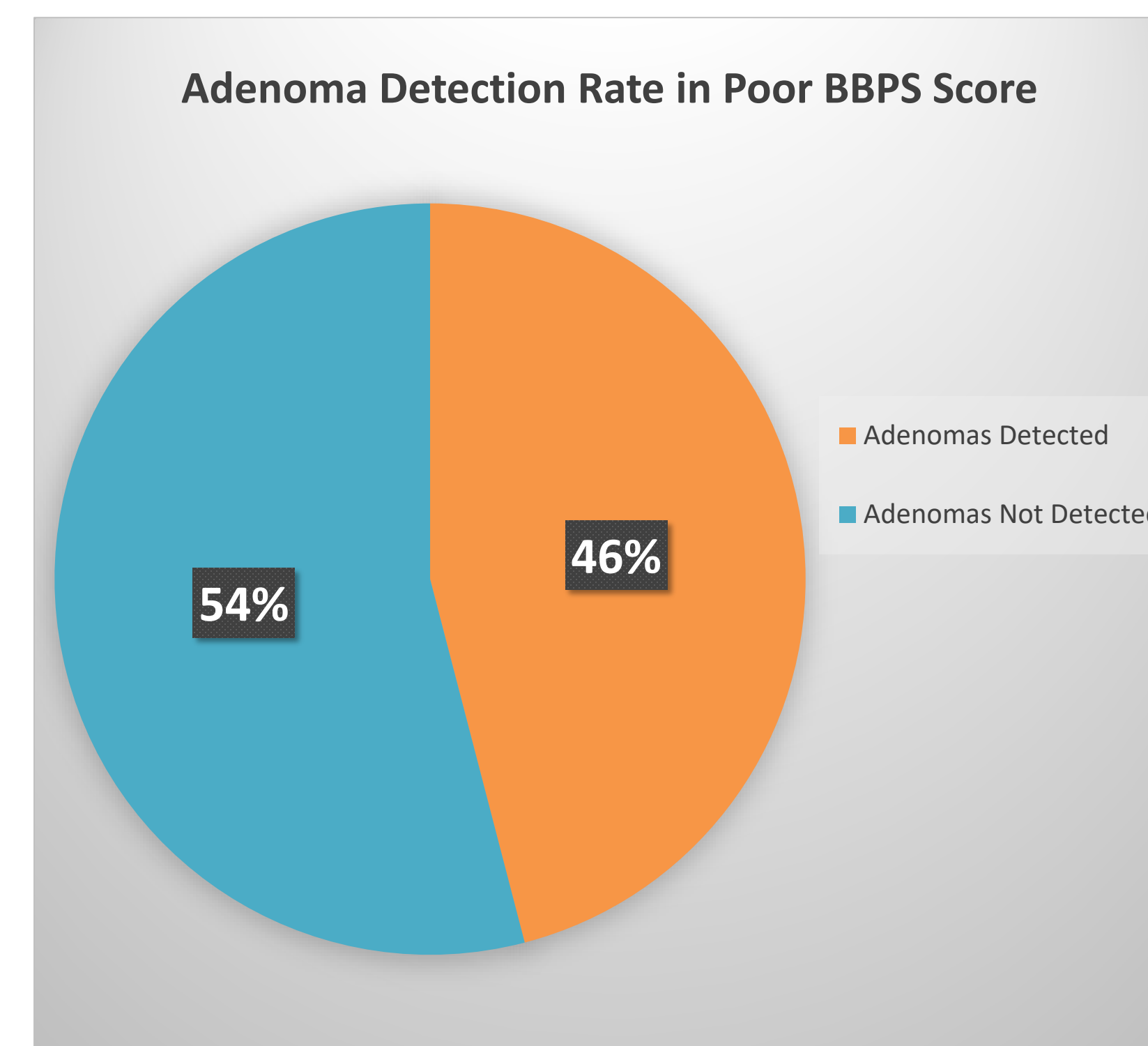


Figure 3: Adenoma detection rate with poor bowel preparation quality (BBPS < 7).

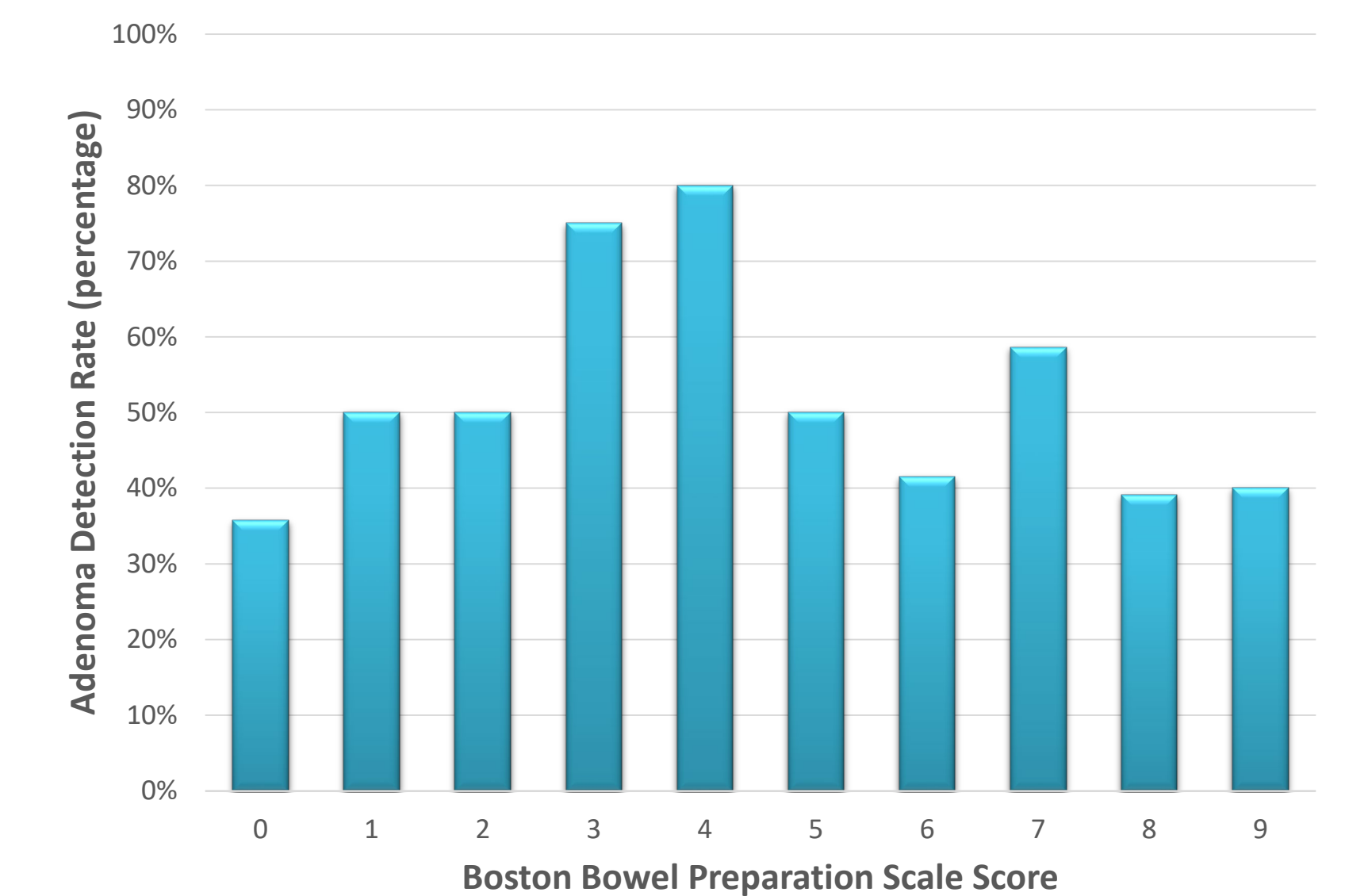


Figure 4: Adenoma detection rate at each Boston Bowel Preparation Scale (BBPS) score

## Discussion and Conclusions

- Our study compared the BBPS score with ADR for screening colonoscopies.
- There was no significant difference noted in ADR between good or poor bowel preparation.
- These findings suggest that high quality bowel preparation is not a crucial quality measure for detecting colonic neoplasms.
- Our findings highlight the importance of continued detailed inspection during screening colonoscopies regardless of quality of colonic preparation.
- Limitations of this study:
  - Small sample size
  - Short study duration

