

## Introduction

- Obstructive Sleep Apnea (OSA) is a sleep disorder characterized by brief periods of obstructive apnea and hypopnea, as evidenced by the passive collapse of the upper airways during sleep (Kline, 2020)

## Background and Significance

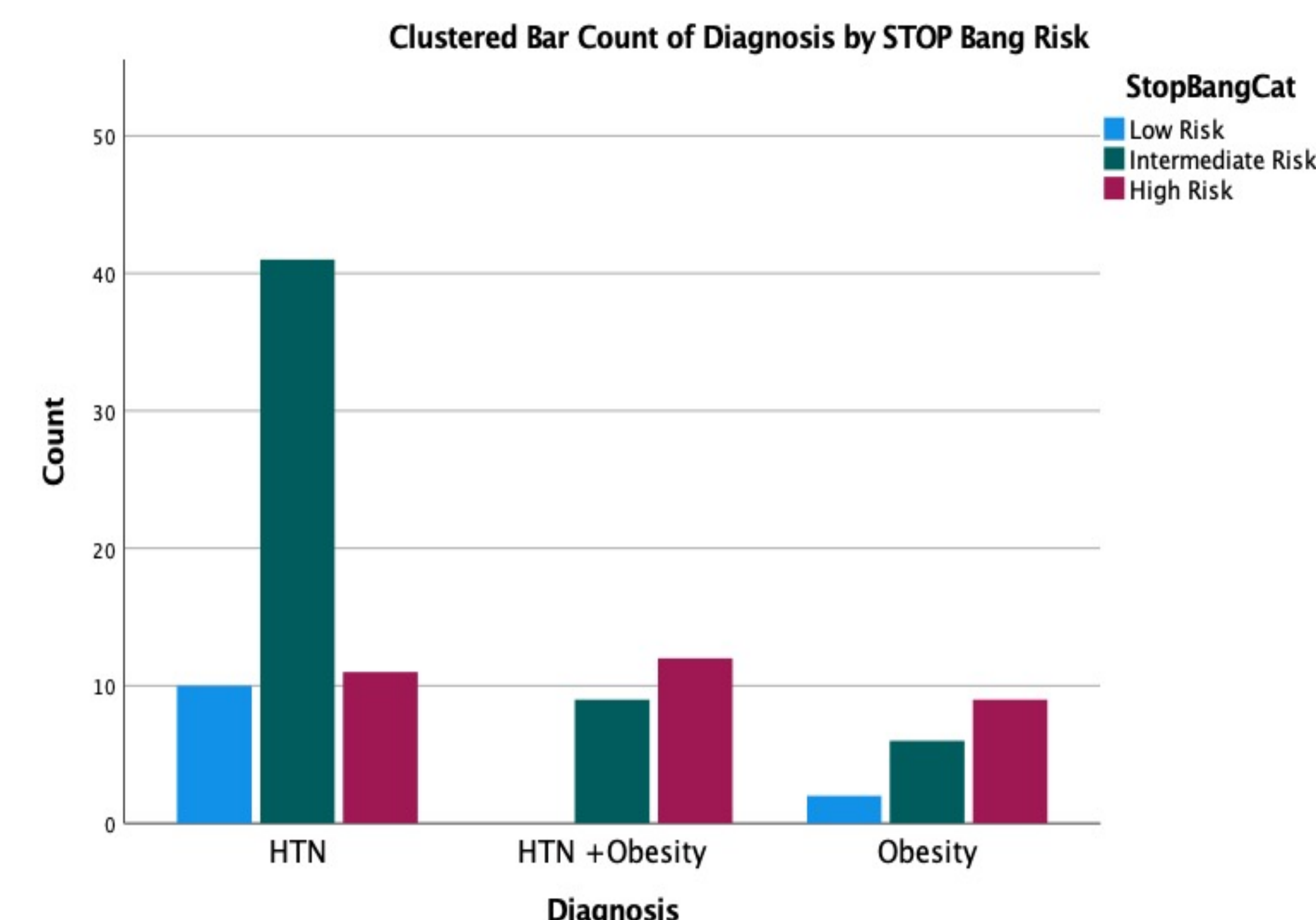
- There is a high prevalence of obstructive sleep apnea (OSA) in 75%-80% of the population in primary care (Aurora & Quan, p. 1185, 2016)
- Untreated OSA has implications for long-term cardiovascular, cerebrovascular, and metabolic health detriments and an increase in cardiac mortality
- There are limitations in the evidence-based research resulting in a deficiency in clinical guidelines supporting OSA screenings among high-risk and asymptomatic populations

## Methodology

- Project Design:** Quality Improvement Project
- Sample:** Convenience Sample Method
- Setting:** Primary Care Practice in Central New Jersey
- Measures:**
  - The STOP-Bang Questionnaire, a validated screening tool, will be used for measuring an individual's level of low, intermediate, or high risk for OSA
  - The following measurements will be obtained from participants' including age, gender, body mass index, and neck circumference
- Data Analysis:** Descriptive statistics, frequencies, and percentages with Microsoft Excel and SPSS Version 28

## Findings

- Out of the 100 surveys, 12% (n=12) had STOP Bang scores of 0-2 suggesting a low risk, 56% (n=56) had STOP Bang scores of 3-4 suggesting an intermediate risk, and 32% (n=32) had STOP Bang scores of 5-8 suggesting a high risk for obstructive sleep apnea (OSA)
- Out of the 32 participants with high risk scores, all (n=32) were referred for a sleep study including 4 additional participants with intermediate scores. Total of 36% (n=36) of participants were referred for diagnostic sleep testing.



## Discussion

- The use of the STOP-Bang Questionnaire among this patient population identified patients with a high level of risk for OSA more effectively and consistently in comparison to clinician judgement alone in this three month time period.
- 100% of the study population with low, intermediate, or high-risk for OSA after administration of the STOP-Bang Questionnaire was identified
- 100% of the study population which was identified with a high level of risk for OSA was referred for sleep apnea testing per the provider's discretion as a result of the recommendations from the STOP-Bang Questionnaire was identified

## Implications

### Implications for Clinical Practice

- Annual screening for OSA among asymptomatic and high-risk populations with hypertension and/or obesity with the STOP-Bang Questionnaire
- Increase the rate of diagnosis of OSA among obese or hypertensive populations

### Implications for Healthcare Policy

- Mandating annual screening practices for OSA among asymptomatic and high-risk populations with hypertension and/or obesity with the STOP-Bang Questionnaire in primary care practices

### Implications for Quality and Safety

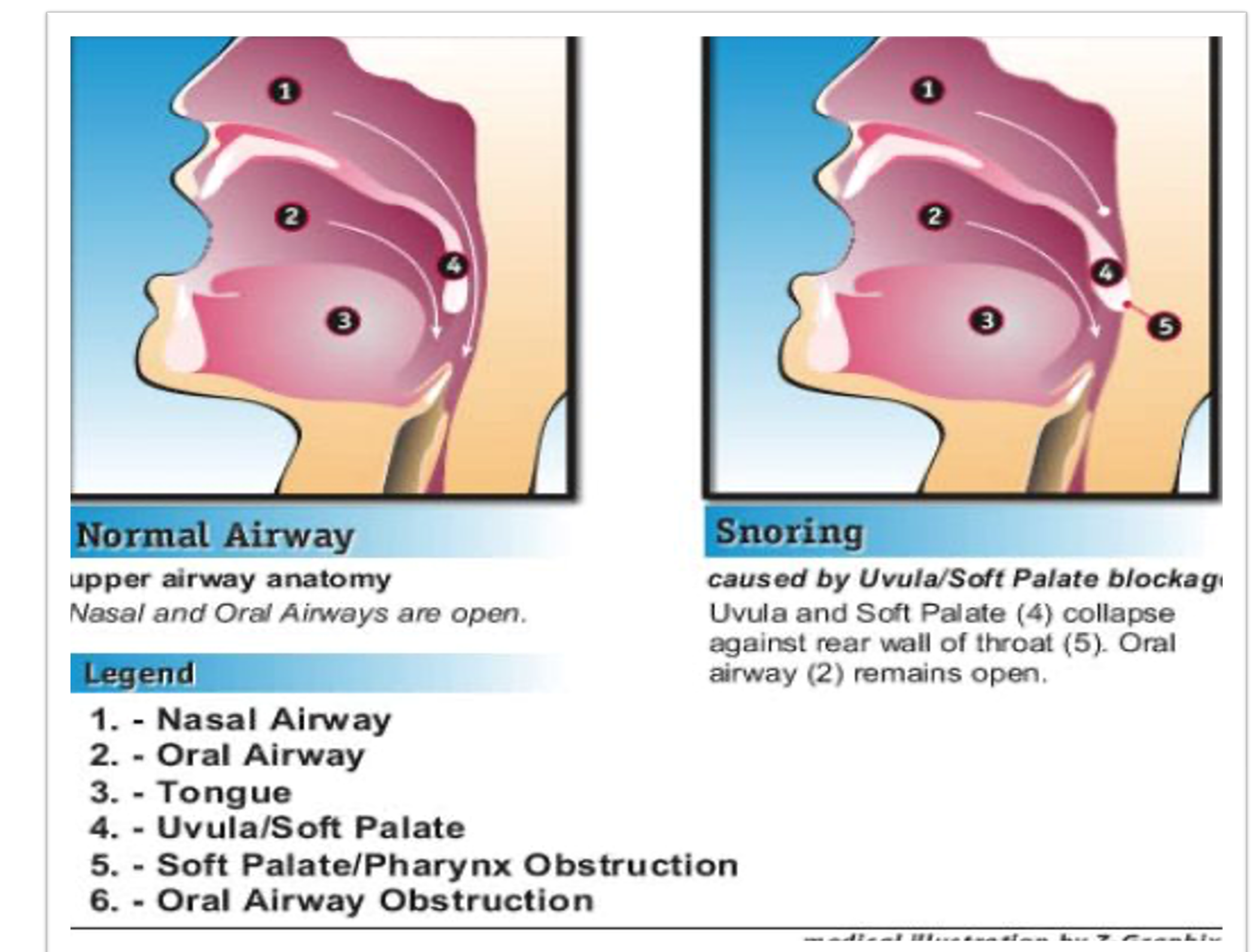
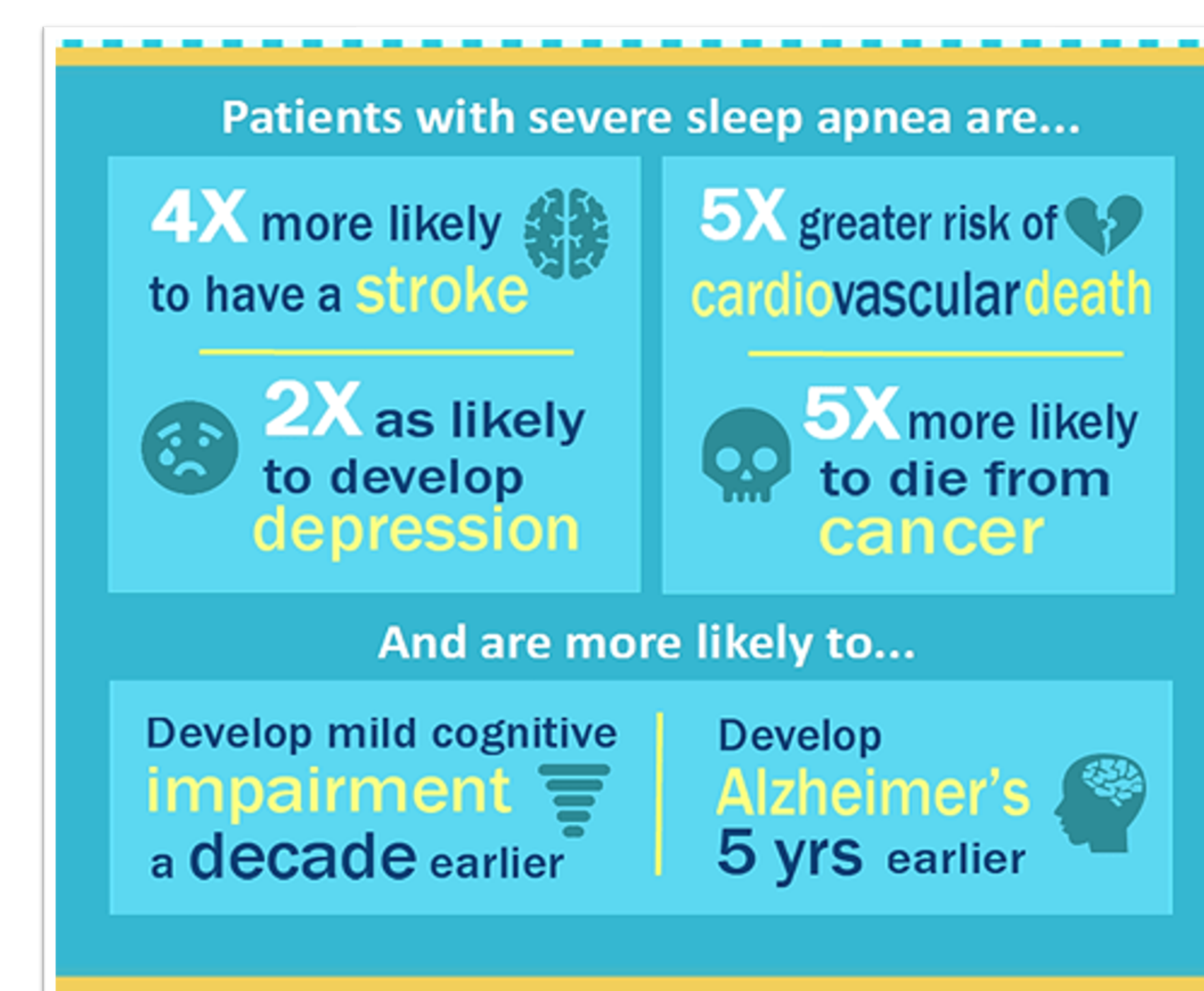
- Produce outcomes warranting diagnostic testing for OSA to improve the quality and safety of patient care with minimal risks for patients

### Implications for Education

- Education of the high rate of undiagnosed OSA may prompt provider to facilitate screenings for OSA among hypertensive or obese populations without overt symptoms of disease in primary care

### Implications for Economics/Cost Benefits

- The STOP-Bang Questionnaire is a convenient and inexpensive screening tool for routine use and access upon integration into a primary care practice's electronic health record
- Patients may incur costs associated with treatment for OSA



## Conclusion

- Evidence-based research suggests an increase in detecting disease, confirmatory testing, treatment plans, and the prevention of cardiovascular mortality with annual screening protocols for all high-risk and asymptomatic patient populations
- This quality improvement project aimed to facilitate a change in the primary care setting by establishing the feasibility to implement a practice change with an OSA screening protocol for high-risk patients without signs of disease
- This project's outcomes were achieved by improving identification of the level of risk for OSA with an effortless and efficient screening tool and emphasized the repercussions of untreated OSA

## References

Please scan the QR Code to view the Reference page.



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