



# Body Mass Index and Diagnosis of Obesity in the Military and Civilian Population

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## BACKGROUND

- The obesity rate is rising in the United States; this is reflected in the military population (1-3)
- Appropriate diagnosis of obesity, discussion of treatment options and follow up for treatment efficacy is essential
- Under diagnosis of obesity can have major implications in overall military readiness and the general health of the military health system population (4,5)

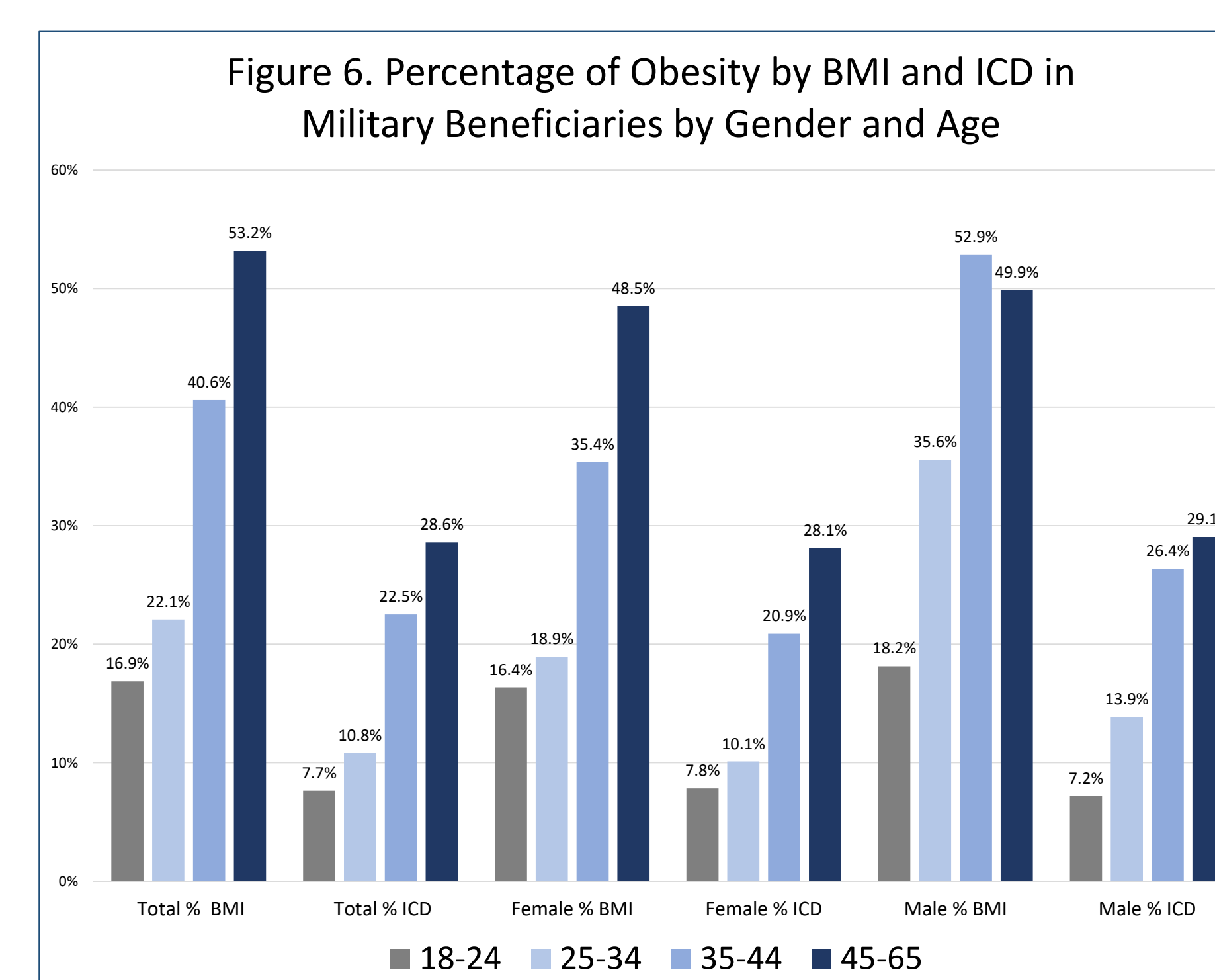
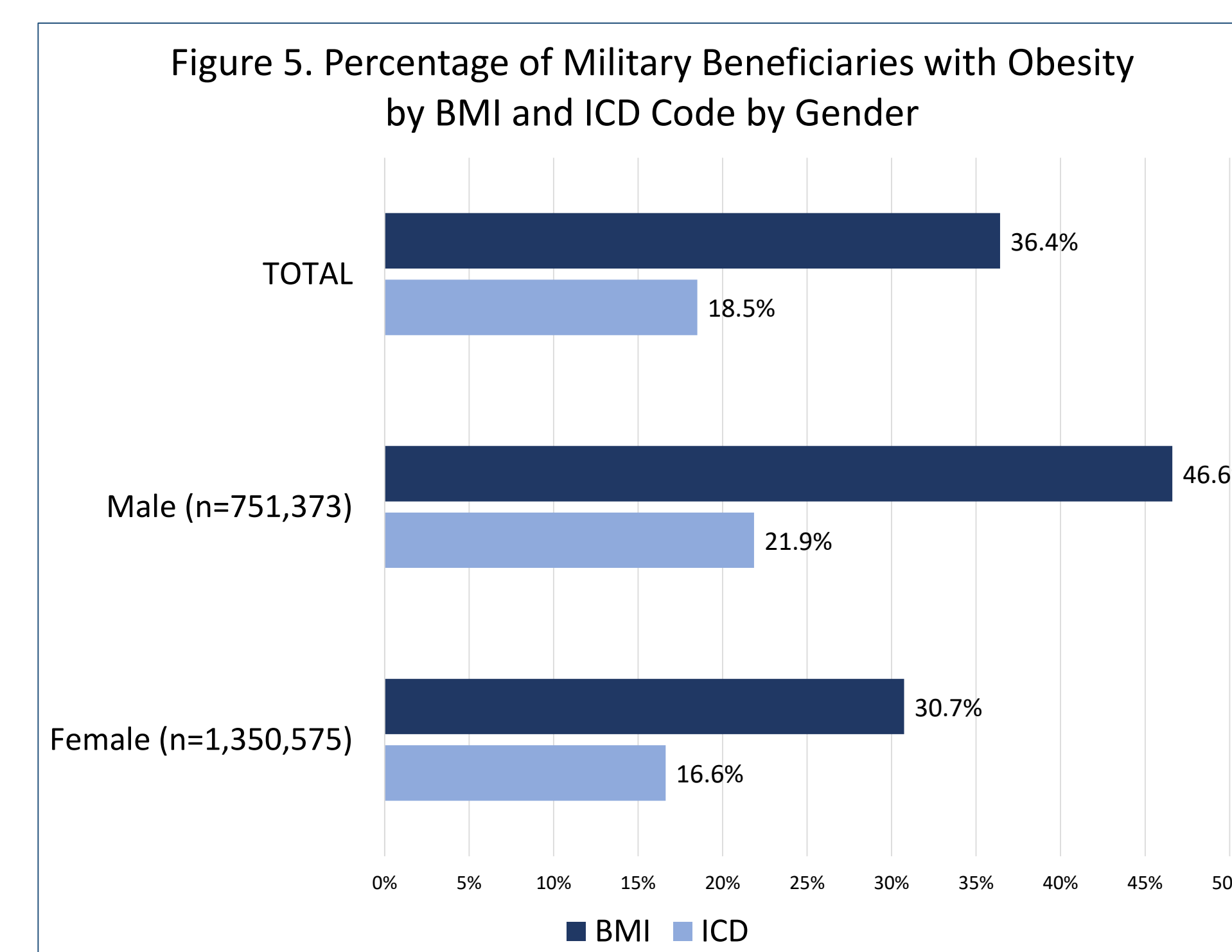
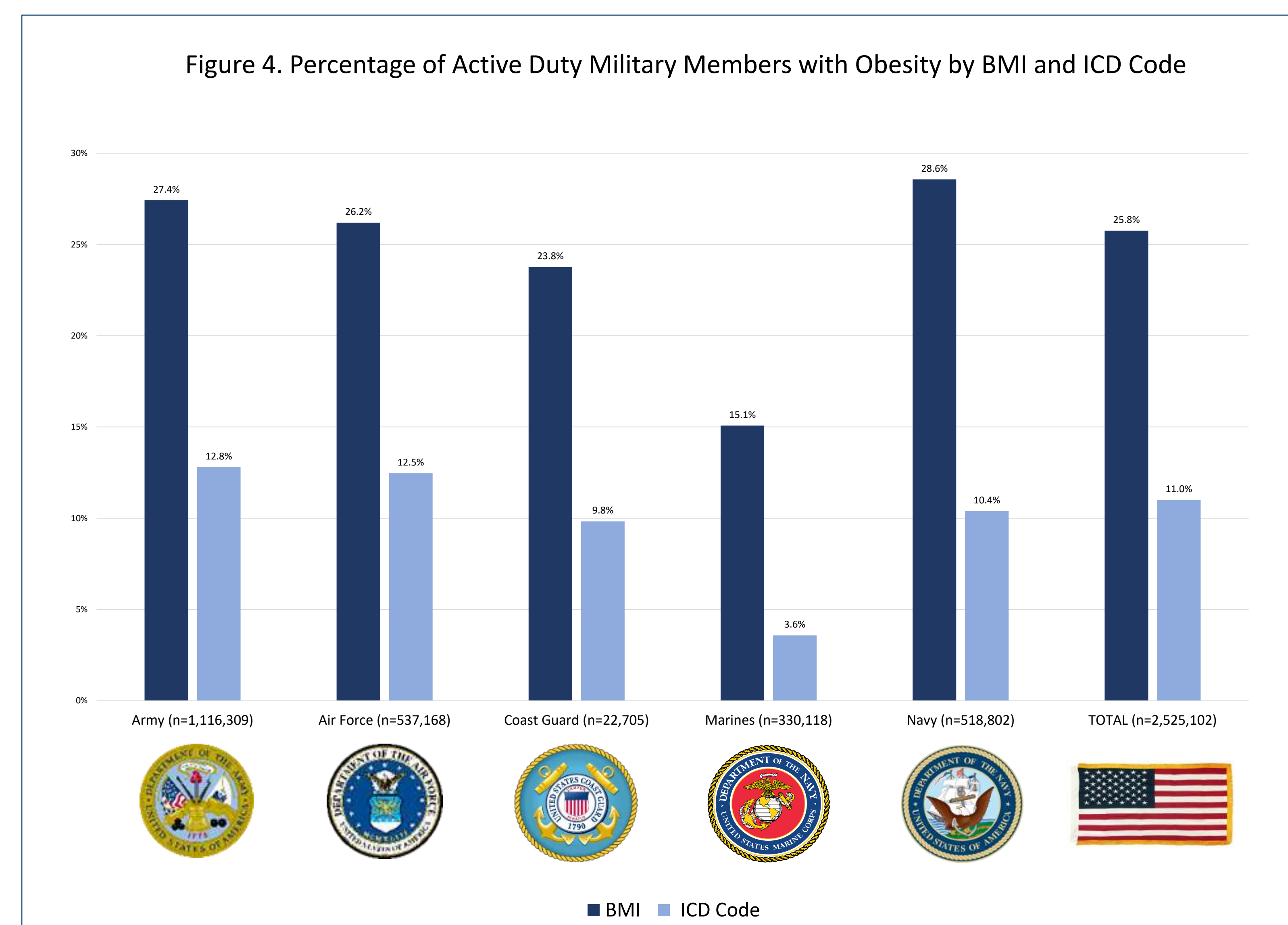
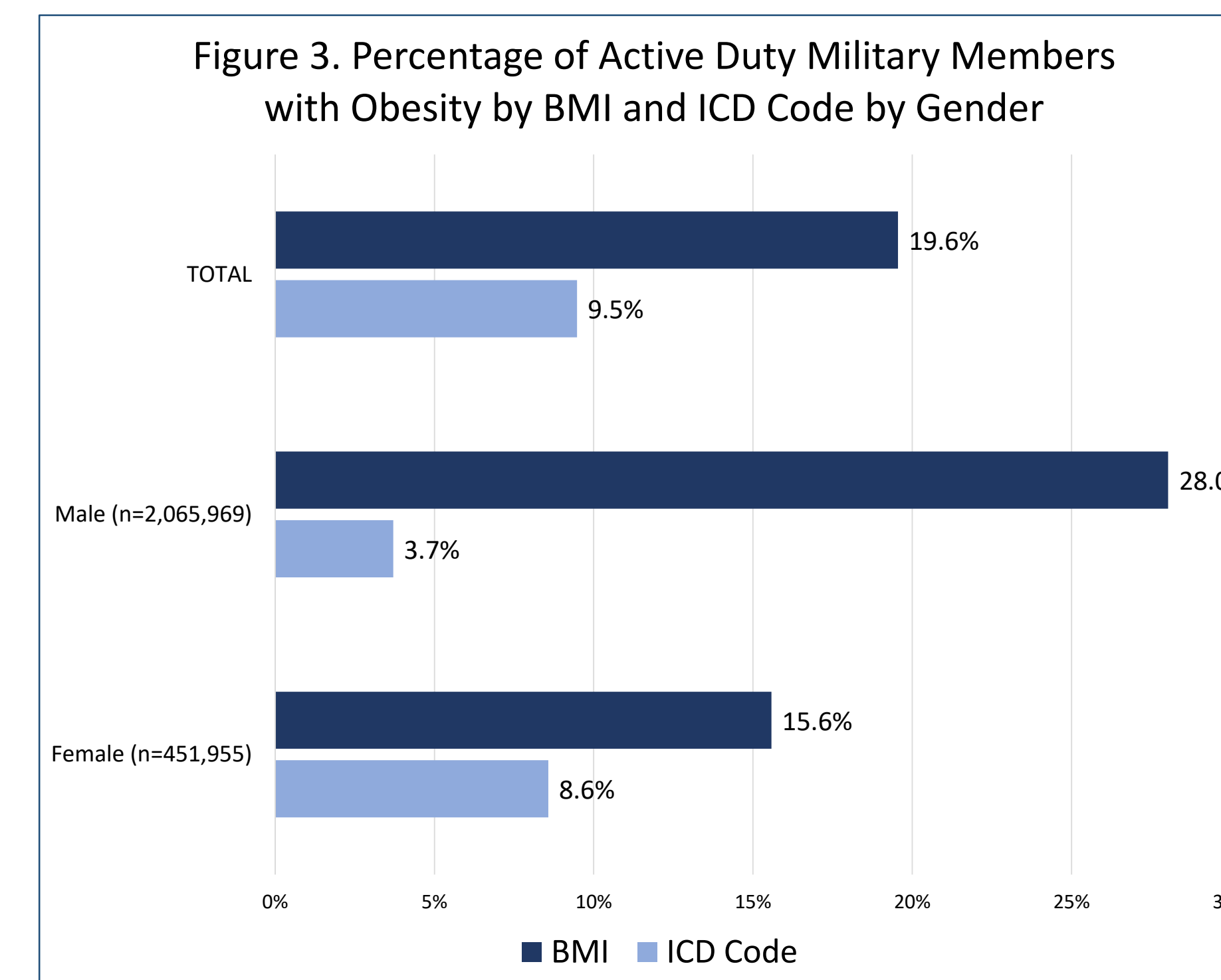
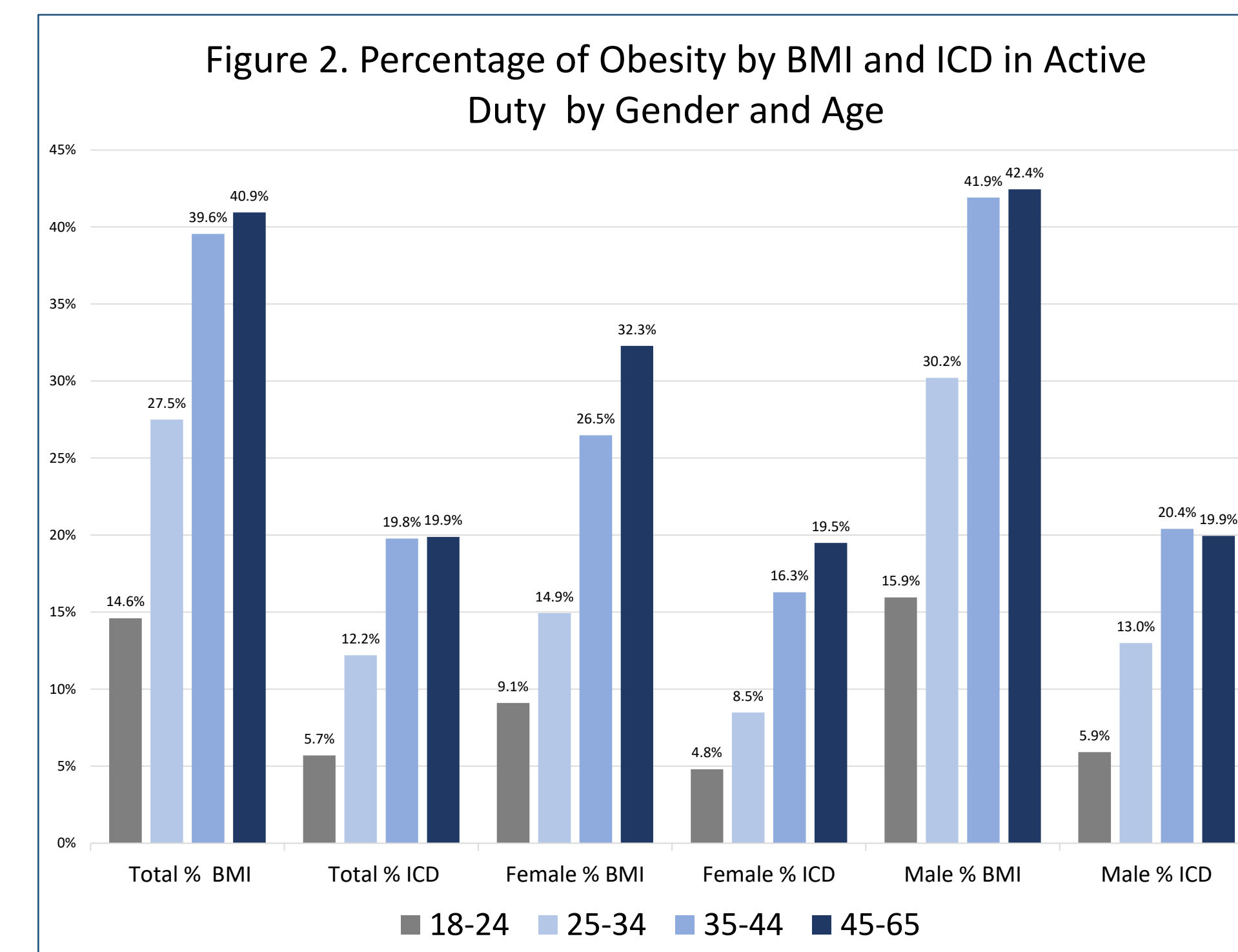
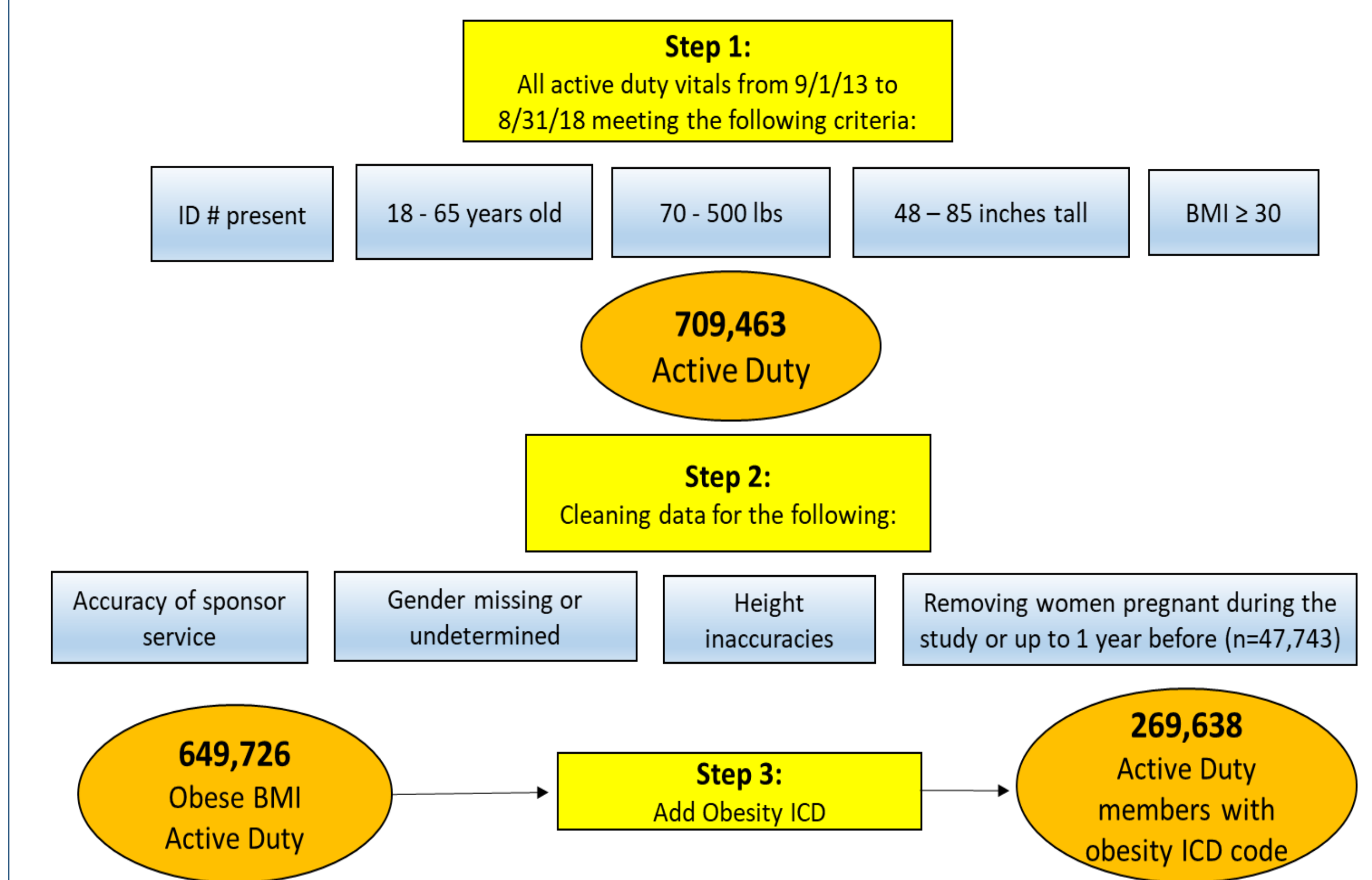
## RESEARCH QUESTIONS

- What is the rate of obesity in the military health system population?
- How many individuals with an obese body mass index (BMI) are diagnosed with obesity?
- How do these rates compare based on age, gender, and active duty status?

## METHODS

- Per NHLBI guidelines, obesity is defined as a BMI  $\geq 30$ .<sup>(6)</sup>
- Data were collected from the Clinical Data Repository vitals and M2 encounter data from a five-year time period

Figure 1. Methodology for Pulling Obesity Data for Active Duty Members



## RESULTS

- Approximately 650,000 Active Duty service members had at least one BMI measurement of 30 or greater (Figure 1)
- Overall obesity rate of 25.8% for active duty service members (Figure 4)
- Less than one half of service members with an obese BMI had an ICD-9 or ICD-10 obesity diagnosis (Figure 4)
- 30.7% of female beneficiaries and 46.6% of male beneficiaries had at least one BMI measurement of 30 or greater (Figure 5)
- Active Duty females with an obese BMI are more likely to have ICD diagnosis (Figure 3)
- Obesity rates increased with age in all population subgroups (Figures 2 and 6)

## CONCLUSIONS

- Obesity is more prevalent in active duty and beneficiary population than described in previous studies
- Obesity is underdiagnosed when compared to measured BMI
- This trend is similar in active duty and beneficiary populations
- Under diagnosis of obesity may result in insufficient resources provided to patients to achieve weight reduction
- Further investigation is warranted to identify causes of under diagnosis and to develop effective obesity interventions.
- In addition, future research should investigate the relationship of pregnancy to obesity in active duty women.

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