

Statin Adherence and its Predictors: A Systematic Literature Review

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Introduction

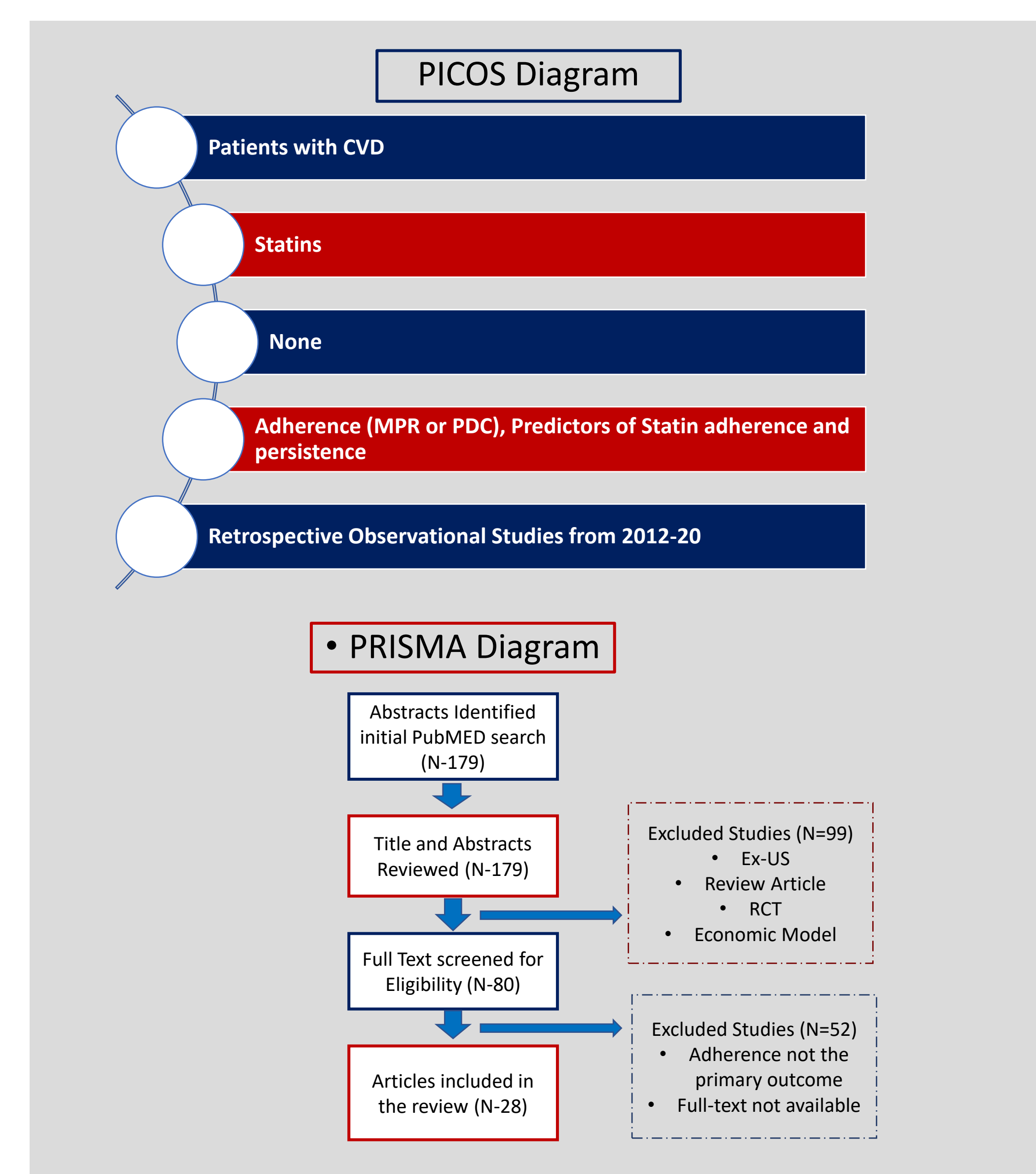
- The American College of Cardiology (ACC) and the American Heart Association (AHA) recommend adherence monitoring within 4 to 12 weeks following statin initiation
- Statin play important role in determining morbidity and mortality associated with cardiovascular disease (CVD)

Research Goal

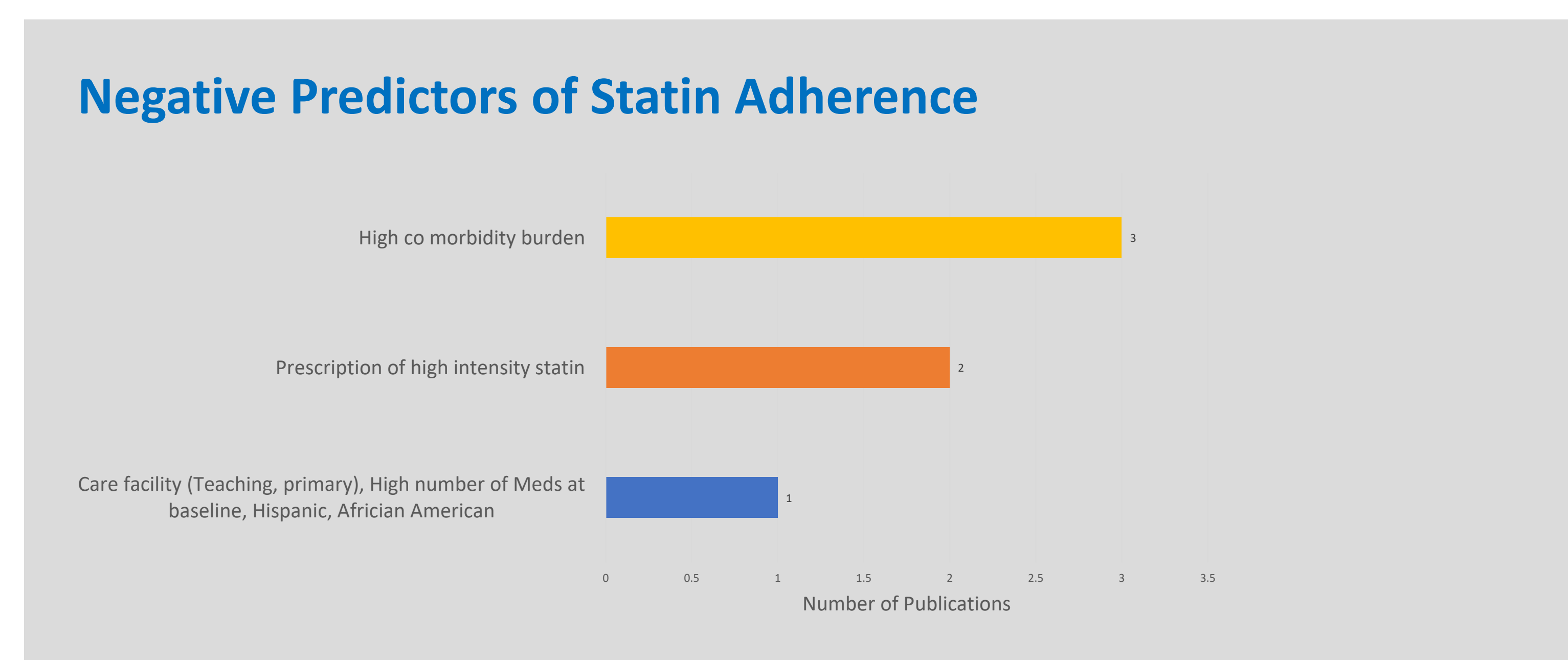
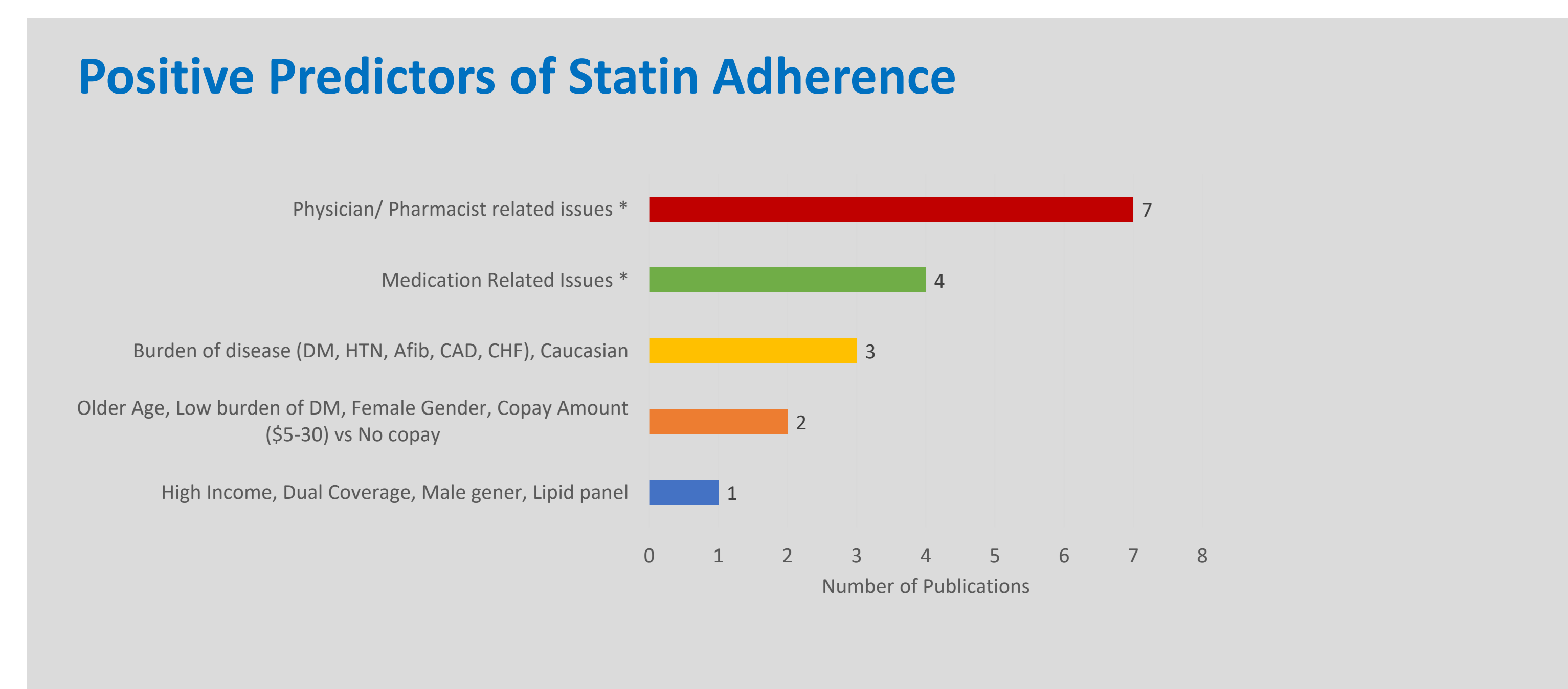
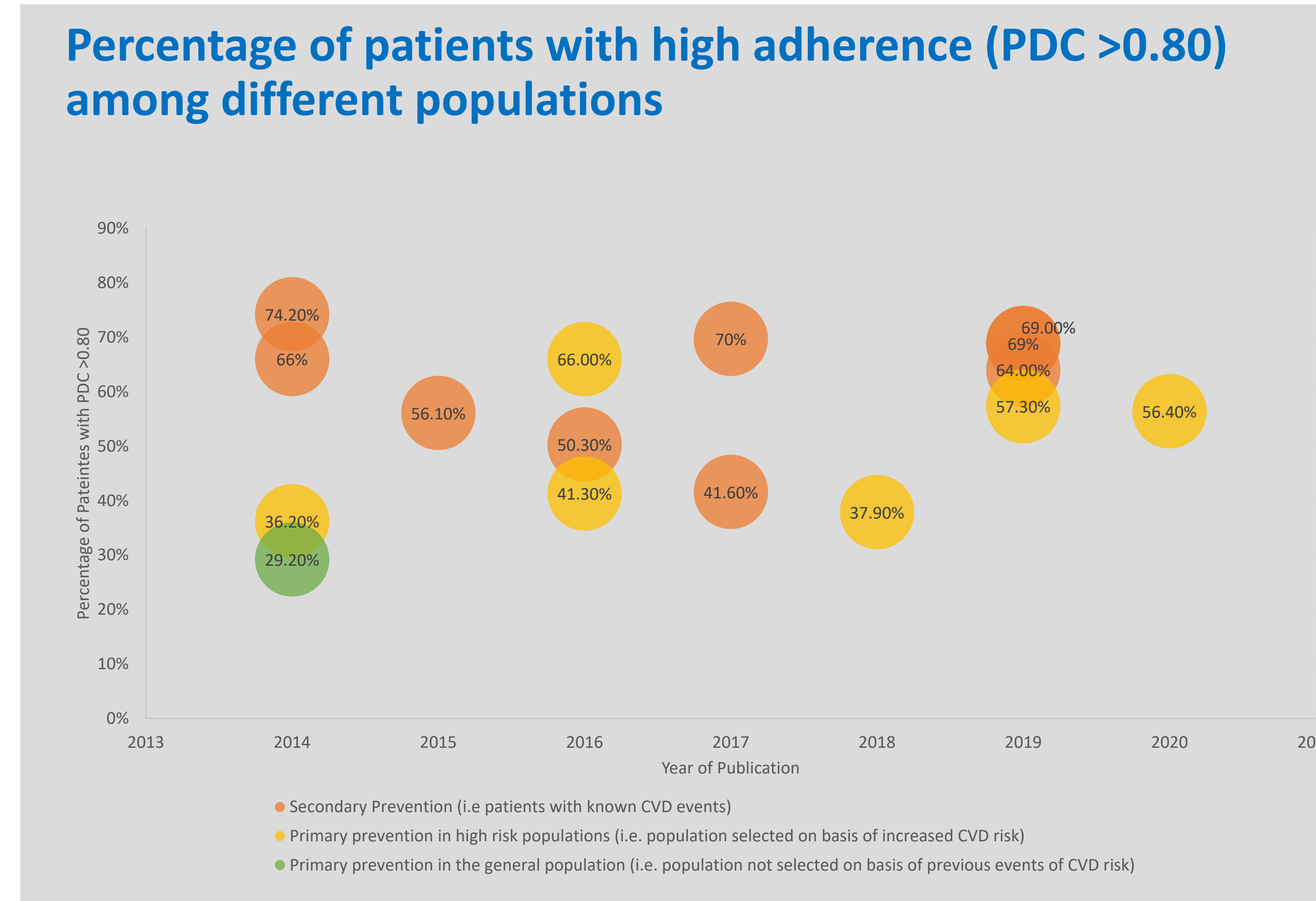
- The objective of the study was to understand adherence of statins
- Identify key predictors of statin adherence which could be used in adherence monitoring

Methods

- Systematic literature review using PRISMA guidelines was conducted in June 2020
- MeSH headings and subheadings for cardiovascular disease, atherosclerosis, adherence and statins were used to create search strategy



Figures and Results



Results

Adherence Rates

- 241 initial studies were identified, title and abstracts of 80 studies were reviewed and 28 studies were included in the final review
- Twenty studies reported proportion of days covered (PDC) as a dichotomous outcome; the percentage of patients with PDC $\geq 80\%$ ranged from 29.2% to 74.2%
- Eleven studies reported a continuous outcome of PDC, with mean values ranging from 0.57 to 0.86
- Four studies reported medication possession ratio (MPR) as a dichotomous outcome; the percentage of patients with MPR > 80% ranged from 45.3% to 75%

Predictors of Adherence

- Common positive predictors of adherence were care coordination issues with healthcare providers (N=7), followed by medication-related issues (N=4), and presence of chronic disease (N=3)
- Negative predictors of adherence were high co-morbidity burden (N=3), and prescription of high intensity statin (N=2)

Conclusion

- A majority of studies reported higher adherence levels in more than 50% of patients.
- Care-coordination issues with health care providers was most commonly identified as an important predictor of medication adherence among patients.

References

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- Mauskop, A., & Borden, W. B. (2011). Predictors of statin adherence. *Current cardiology reports*, 13(6), 553-558.