

Vaccine attitudes and practices among family medicine (FM) providers across New York State following changes in ACIP vaccine recommendations

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Background: Provider vaccine hesitancy represents a potential barrier to vaccinations. We describe FM provider vaccine beliefs and behaviors. **Methods:** FM providers from NYS completed an anonymous, self-administered survey regarding vaccine attitudes and practices between January and March 2016. **Results:** 177 surveys were completed by physicians (70%) and mid-level providers (30%). 160 providers always recommend standard pediatric vaccines, yet only 79% of this group always recommend HPV vaccine to eligible 11-12 year olds. Only 73% of providers strongly disagreed that administering HPV vaccine to adolescents increases the likelihood of unprotected sex. Fewer than 75% strongly disagreed that multiple vaccines administered at a visit reduced vaccine efficacy or overwhelms the immune system. Only 83% of providers strongly disagreed that autism is a possible effect of vaccines. Mid-level providers were more likely than physicians to have higher mean levels of agreement that autism is a possible effect of vaccines ($p=0.002$), multiple vaccines administered at a visit reduces efficacy or overwhelms the immune system ($p<0.001$), and administering HPV vaccine to adolescents increases the likelihood of unprotected sex ($p=0.001$). Providers in practice for <10 years were more likely than those in practice longer to have higher mean levels of agreement that multiple vaccines administered at a visit reduces efficacy or overwhelms the immune system ($p=0.01$), and administering HPV vaccine to adolescents increases the likelihood of unprotected sex ($p=0.04$). The 177 providers were still more likely to recommend HPV vaccine to eligible patients aged 13-18 years (88%) than 11-12 years (75%) or 19-26 years (70%). Only 73% of providers immunized pregnant women in the office. These providers were more likely to recommend influenza vaccine ($p=0.01$) to their pregnant patients. 3% of providers stated they were vaccine hesitant, yet 32% do not always recommend standard pediatric, influenza, pertussis, HPV, pneumococcal, or zoster vaccines to eligible patients for whom a category A ACIP recommendation exists. **Conclusion:** Vaccine hesitancy is under-recognized among FM providers. Vaccine misperceptions continue to be noted, revealing the need for ongoing provider education.

Introduction

- Provider vaccine hesitancy is an obstacle to pediatric and adult vaccine completion.
- The objective of this study was to describe vaccine attitudes and behaviors among FM providers across New York State

Methods

- FM providers from NYS completed a self-administered survey regarding vaccine attitudes and practices.
- 177 completed surveys were anonymously submitted to the study team for analysis.

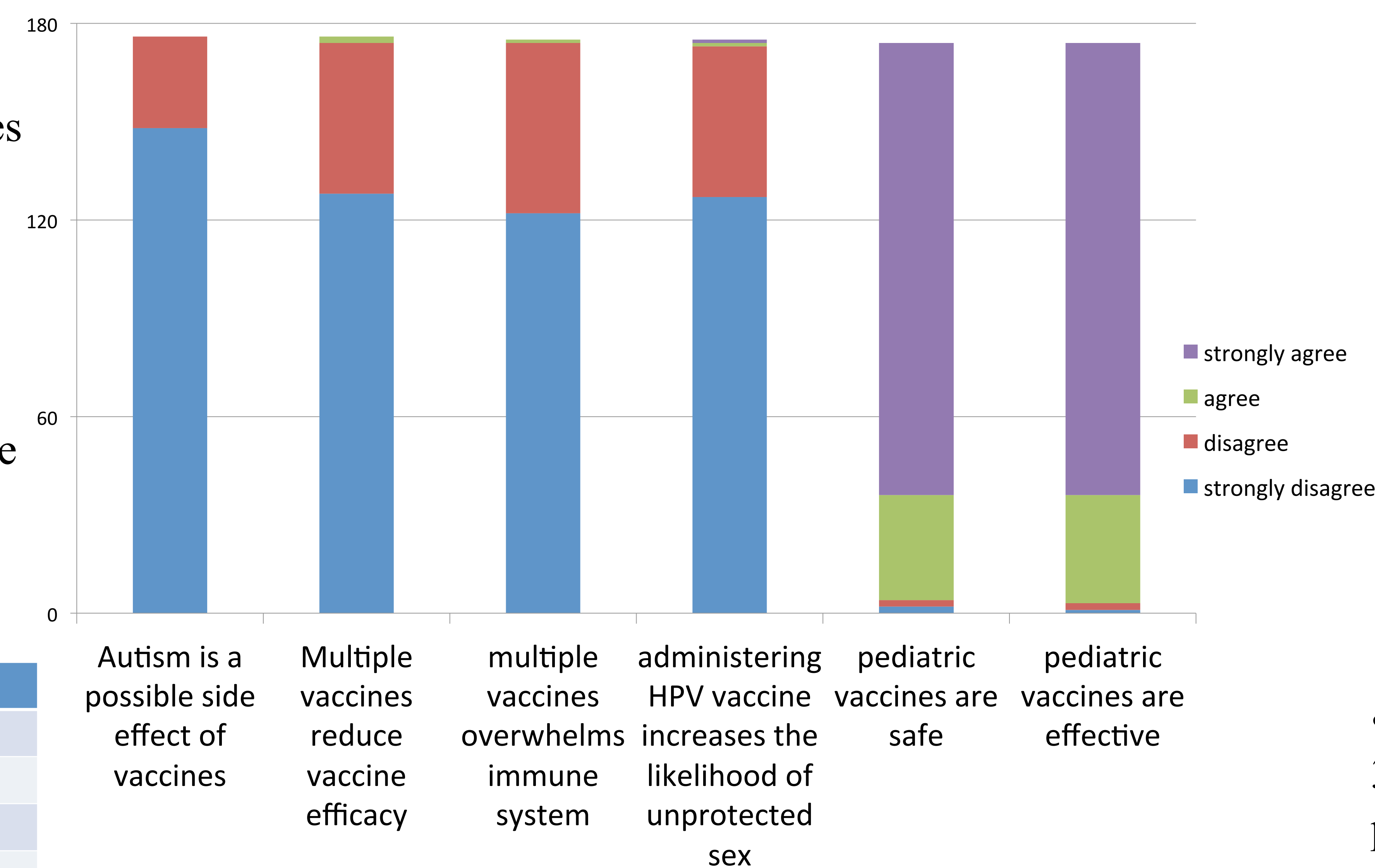
Results

Demographics		N (%)
Provider role		157
	Physician	110 (70)
	Mid-level	47 (30)
Gender		155
	Male	72 (46)
	Female	83 (54)
Years in practice		164
	< 10	49 (30)
	≥ 10	115 (70)

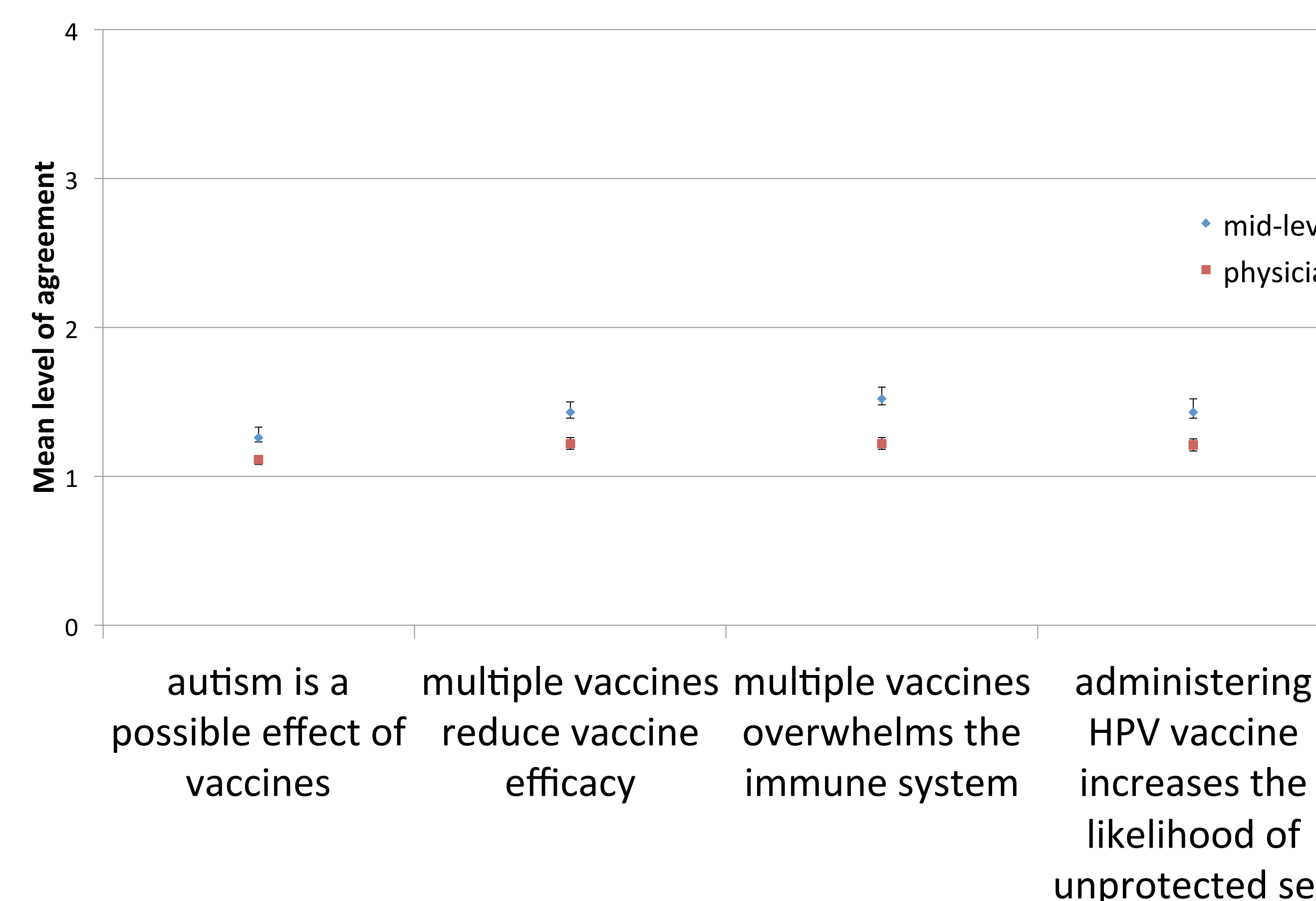
Provider vaccine behaviors	N/number answered (%)
Always recommend standard pediatric vaccines to eligible patients	160/170 (94)
Always recommend IV ^a to eligible pregnant patients	134/144 (93)
Always recommend Tdap ^b to eligible pregnant patients	124/143 (87)
Always recommend HPV ^c vaccine to eligible 11-12 year olds	128/171 (75)
Always recommend HPV ^c vaccine to eligible 13-18 year olds	153/174 (88)
Always recommend IV ^a to all eligible patients	158/177 (92)
Always recommend PCV13 ^d to all eligible adults over 65 years	157/175 (90)
Always recommend zoster vaccine to all eligible adults over 60 years	146/175 (83)

^aIV: influenza vaccine; ^bTdap: tetanus-diphtheria-pertussis vaccine, ^cHPV: human papillomavirus vaccine, ^dPCV13 pneumococcal conjugate vaccine-13

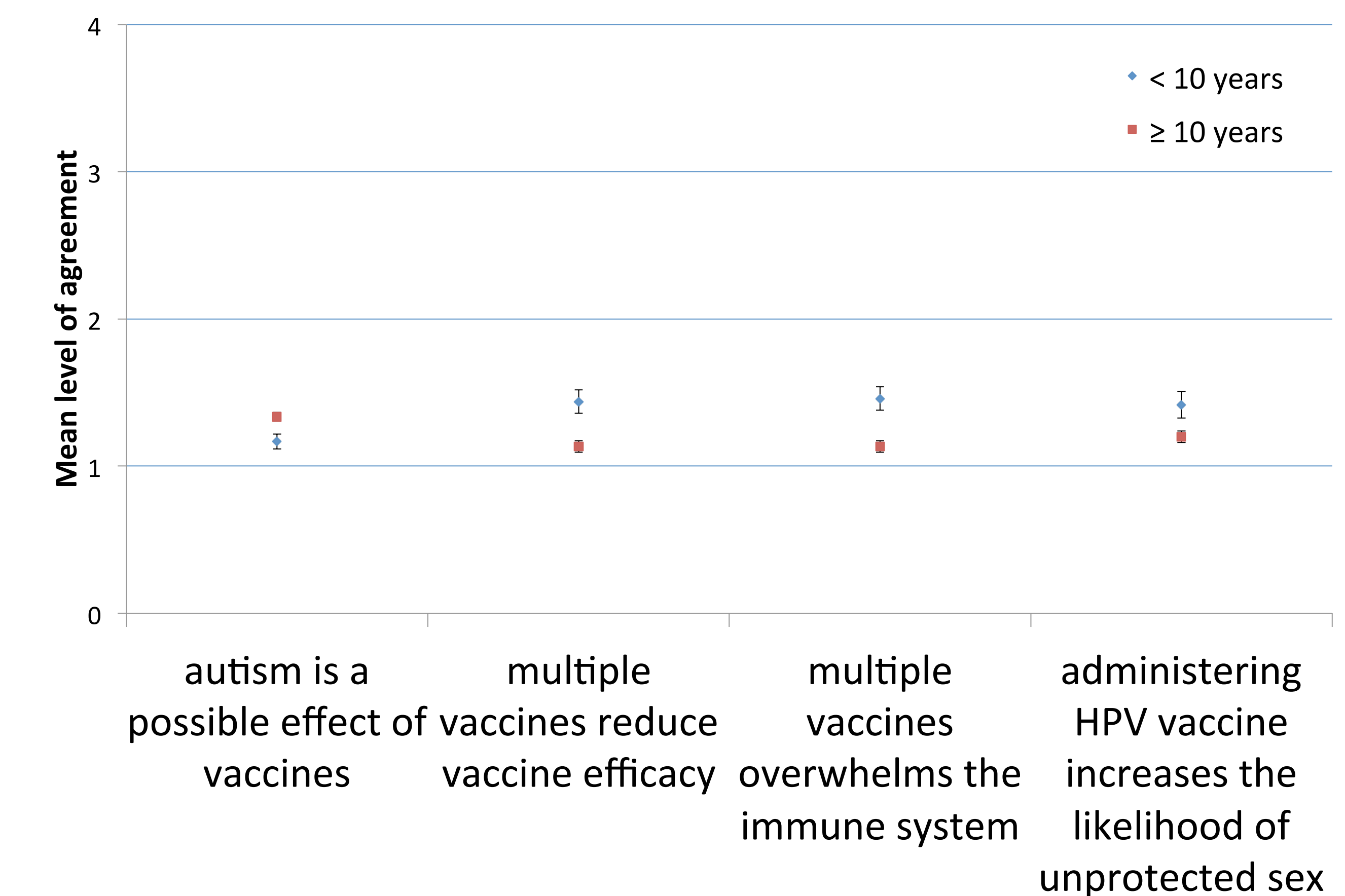
Provider vaccine attitudes



Vaccine attitudes by provider level



Vaccine attitudes by years of provider practice



- 3% of providers state they were vaccine hesitant, yet 32% state they do not always recommend standard pediatric, influenza, pertussis, HPV, pneumococcal, or zoster vaccine to eligible patients for whom a category A ACIP recommendation exists.
- Only 73% of providers immunized pregnant women in the office.

Conclusion

- Provider vaccine hesitancy is under-recognized among FM providers in NYS

Reference

Omer SB, Salmon DA, Orenstein WA, deHart P, Halsey N. Vaccine refusal, mandatory immunization, and the risks of vaccine-preventable diseases. *N Engl J Med.* 2009; 360: 1981-8.