



# Vaccination Beliefs among Marin County Parents: A Changing Landscape

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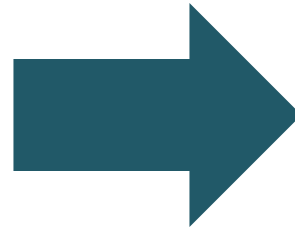
Marin County Office of Education

# Objectives

- Describe the differences between sources of vaccination information between parents with PBEs from school-entry immunizations and parents whose children are up-to-date
- Discuss the most common reasons why parents choose to vaccinate or are vaccine hesitant
- Discuss Marin County kindergarten parents' attitudes towards SB277

# Survey Purpose

- Determine vaccination beliefs among parents choosing to vaccinate
- Assess parents' attitudes and beliefs towards SB277
- Compare vaccination concerns in present times with those expressed during the 2013 survey



To develop targeted messaging that addresses vaccination and SB277 concerns

To share results about community concerns with local stakeholders

# Methods: Survey development and dissemination

- Developed survey with input from local stakeholders
- Pilot-tested with 7 respondents
- Disseminated in English and Spanish
- Partnered with school nurses and health liaisons, who:
  - E-mailed a Survey Monkey link and/or
  - Distributed paper copies of the survey
- Distributed to approximately 2,260 Kindergarten parents

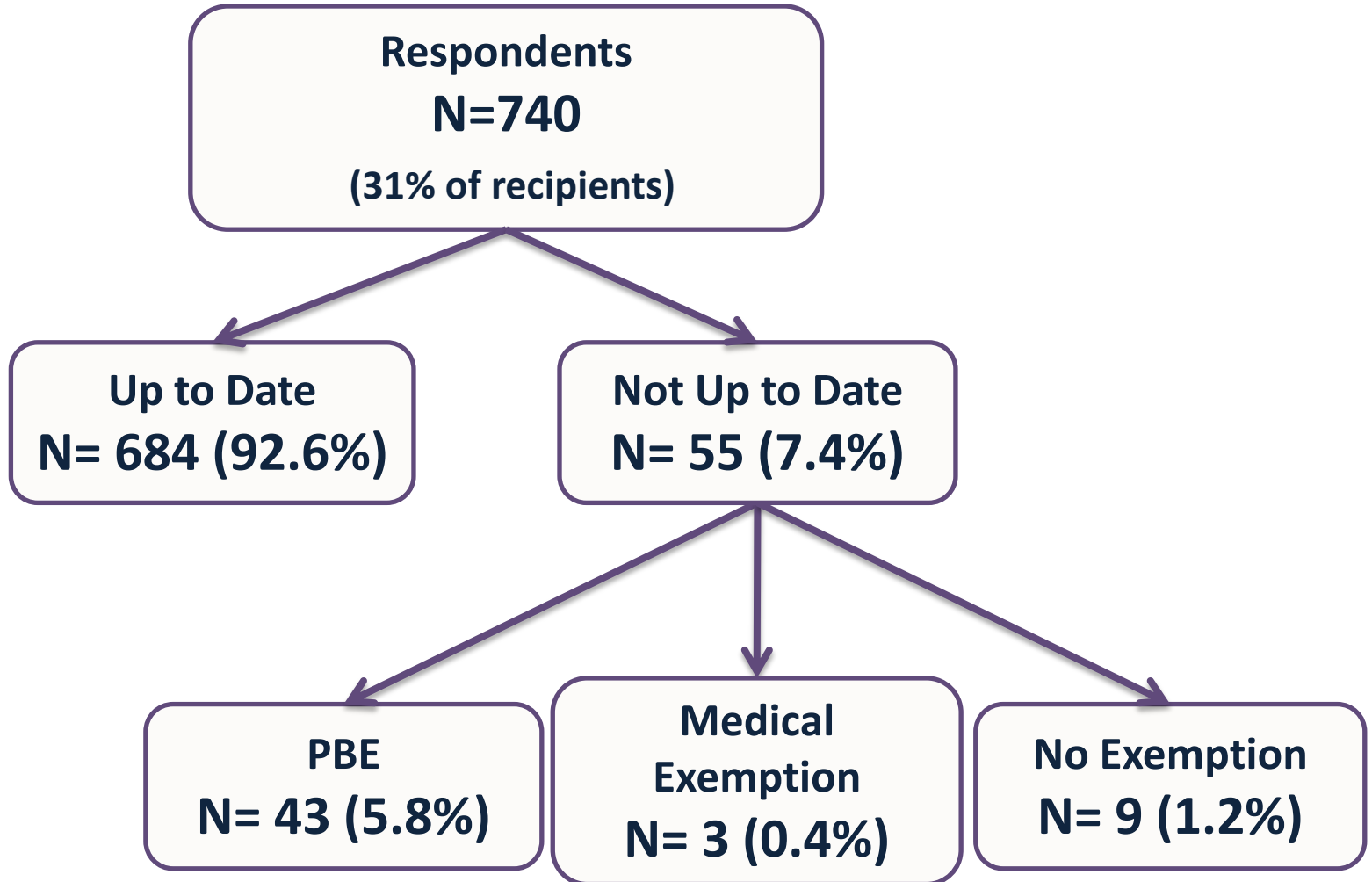
# Methods: Survey content

- Demographic information
- Sources of immunization information
- Status of meeting school-required immunizations
- SB277 attitudes and beliefs
- For PBEs
  - Child's status by vaccine
  - Reasons for PBE request
- For up-to-date
  - Reasons for vaccination
  - If delayed in the past and why

# Methods: Data Analysis

- Stratified by immunization status
- Compared those with and without PBEs using Pearson's chi-squared tests, Fisher's exact tests, and Student's t-test:
  - Demographic information
  - Sources of vaccine information
- Compared findings from the follow-up survey to the 2013 survey
- For PBEs
  - Proportions of required vaccines delayed or opted out
  - Means for reasons for vaccine hesitancy
- For up-to-date
  - Means for reasons for vaccine support
- Analyzed with Stata 12

# Results: Study Population



\*Preliminary results, subject to change

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Survey Completion Method	Survey Language		
	English	Spanish	Total
	Electronic	515	6
Paper	96	123	219
Total	611	129	740

\*Preliminary results, subject to change



# Results: Parent Characteristics by PBE Status

Demographic Characteristic	2013 Vaccine Decision Making Survey			2015 Vaccine Decision Making Survey		
	PBE (N=39)	No PBE (N=429)	P-value	PBE (N=43)	No PBE (N=687)	P-value
Age	39.8	41.1	0.15	39.8	39.4	0.73
Bachelor Degree or Higher	97%	89%	0.11	92%	75%	0.06

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# Results: Sources of Vaccination Information

Source	2013 Vaccine Decision Making Survey			2015 Vaccine Decision Making Survey		
	PBE (N=35)	No PBE (N=430)	P-value	PBE (N=43)	No PBE (N=687)	P-value
Physician or other healthcare provider	87%	99%	<0.01	65%	91%	<0.01
Complementary and alternative medical providers	54%	4%	<0.01	35%	7%	<0.01
Family	0%	12%	0.02	7%	17%	0.13
Health-related website	46%	29%	0.02	16%	27%	0.13
Social media website	5%	2%	0.18	5%	3%	0.65
Friends	10%	10%	0.96	5%	10%	0.42
Complementary medicine website				19%	3%	<0.01
Books about Vaccinations				30%	8%	<0.01
News sources				7%	17%	0.13

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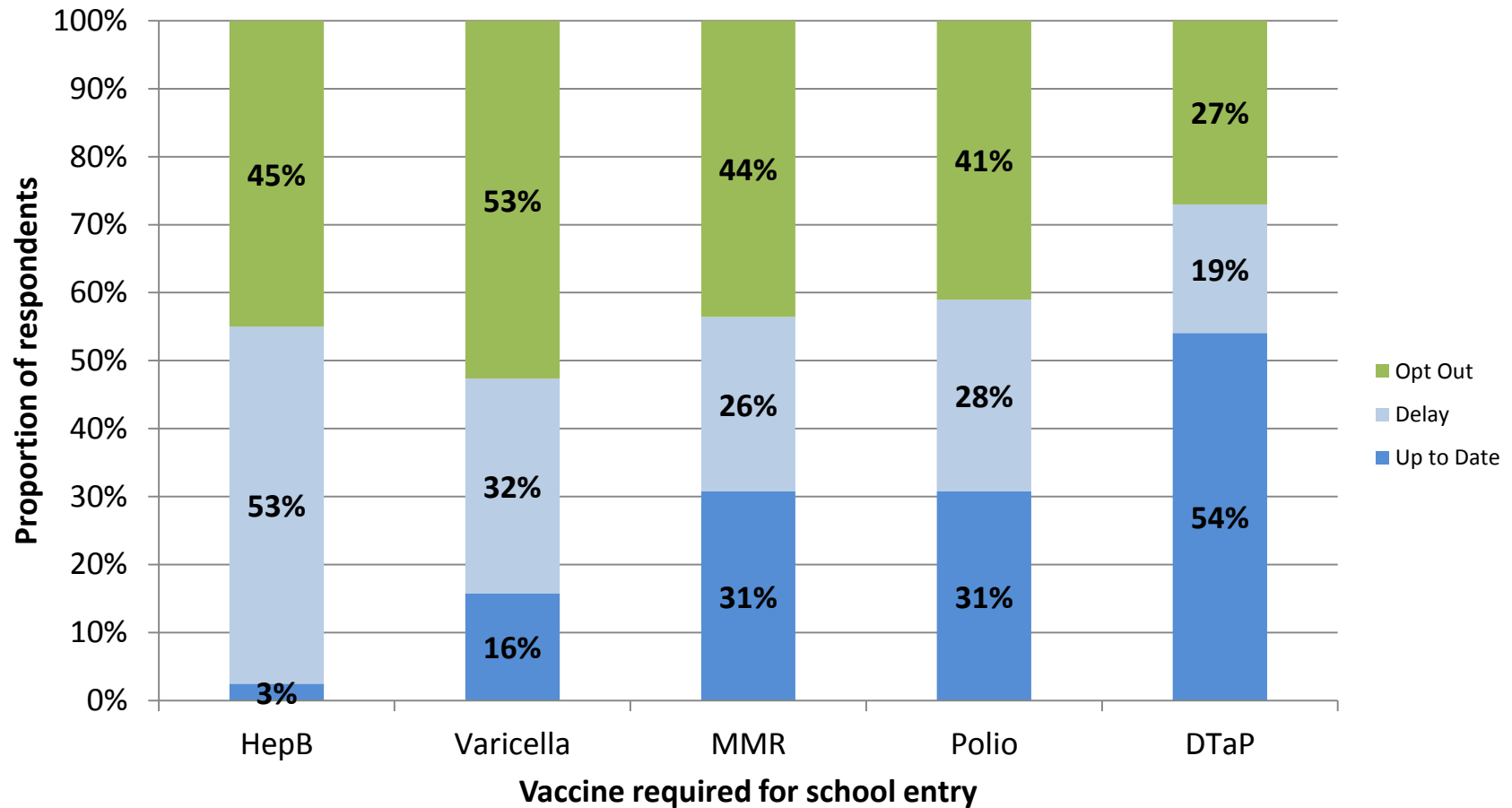
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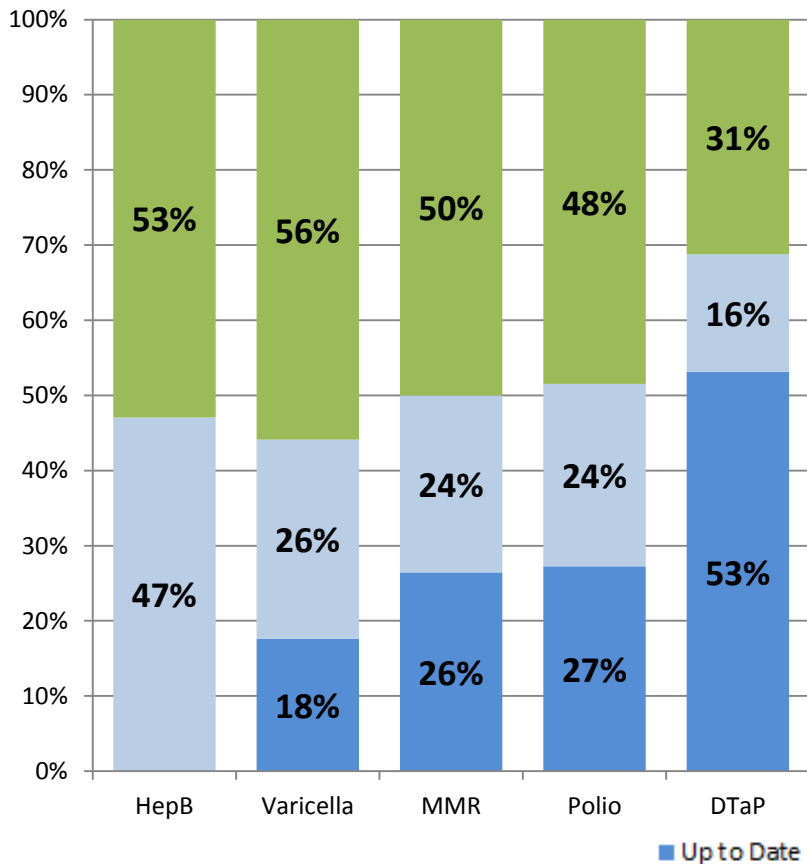
# Results: Vaccine Behavior among parents who delay required vaccines



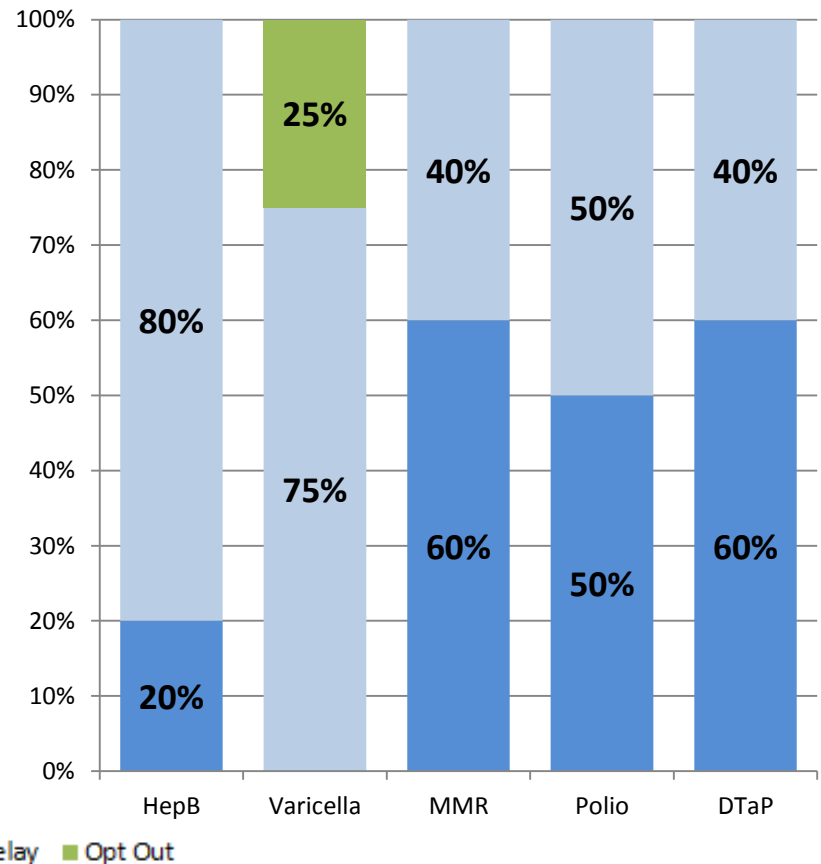
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# Results: Vaccine Behavior among parents who delay by exemption

## Parents with PBEs (n=39)

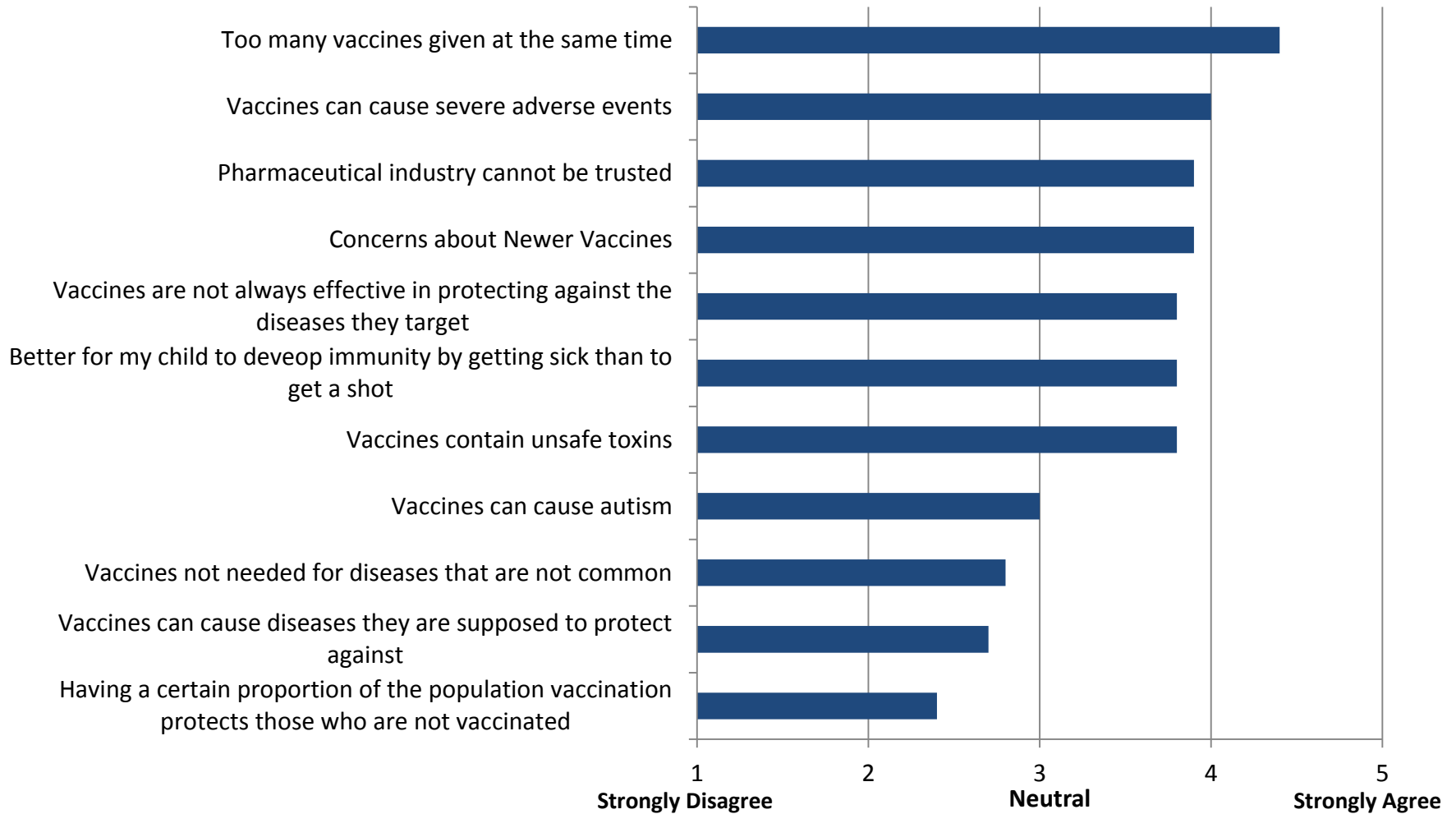


## Parents with no exemption (n=9)



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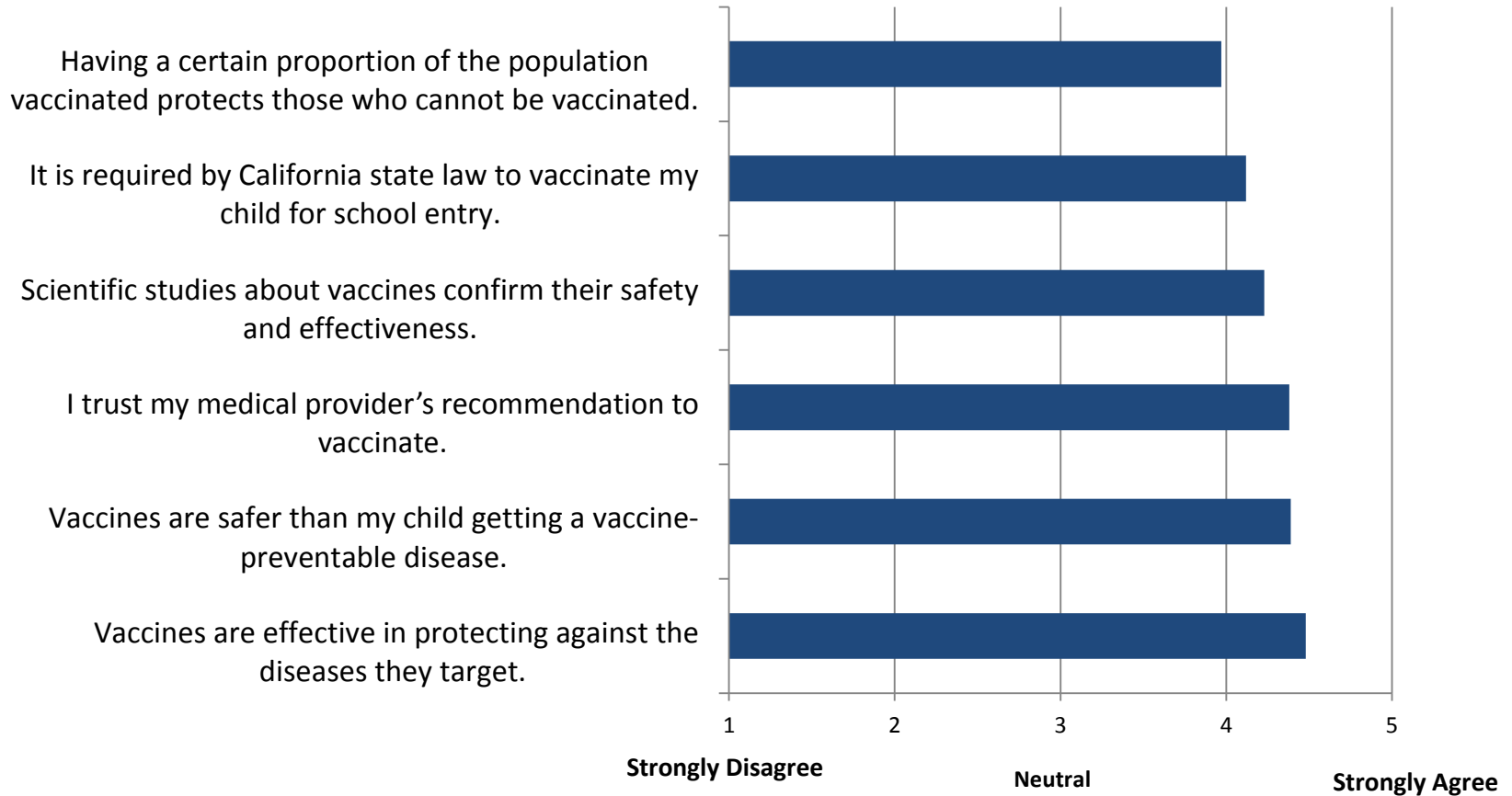
# Results: Reasons for Vaccination Hesitancy



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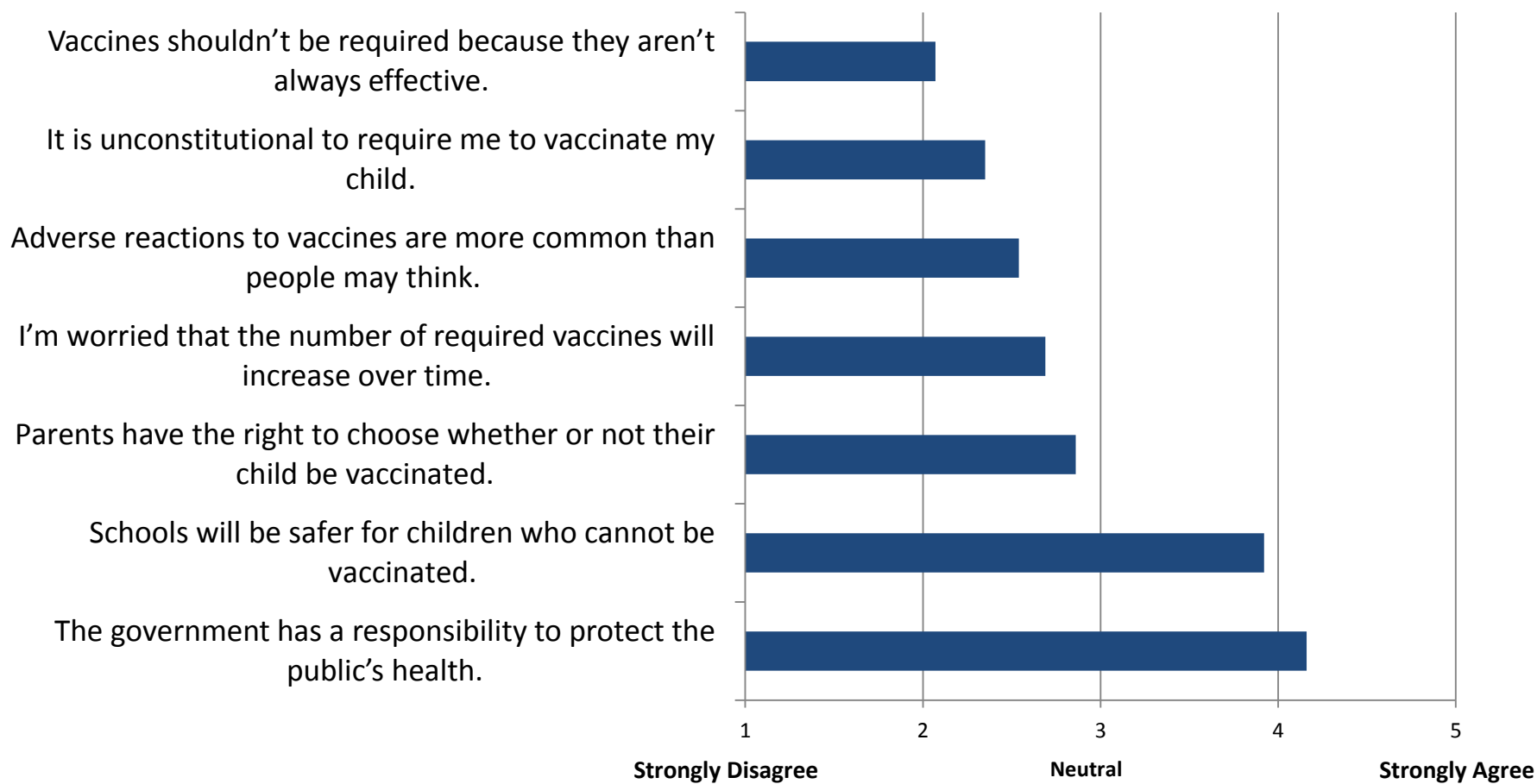


# Results: Reasons for Vaccination Support



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# Results: SB277 Support



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# Conclusions

- Among parents with a PBE, higher proportion with bachelor's degree or higher
- Parents with PBEs are more likely to receive vaccination information from:
  - Complementary and alternative healthcare providers
  - Complementary medicine websites
  - Books about vaccinations
- Many parents who request PBEs are making decisions to opt out of or delay specific vaccines
- Reasons for vaccination hesitancy are diverse
- Reasons for vaccination support are more consistent
- High level of support for SB277

# Lessons Learned

- Paper survey distribution helps reach varying socio-economic status levels
- Barriers to school-based survey release
  - Approval processes vary by school
  - Different outreach to private schools
- Literacy level for Spanish-speaking survey too high
  - Pilot in Spanish-speaking community
  - Develop a team to vet Spanish surveys and communications

# Future Directions

- Stratify by survey language
- Stratify SB277 support and reasons for support or opposition by PBE status
- Stratify by public v. private school
- Summarize results by school district
- Qualitative analyses
  - Reasons for past delay among up-to-date parents
  - Comments on reasons for vaccination support or delay
  - Comments on reasons to support or oppose SB277

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