

Executive Summary

The Ashland Community Vaccination Survey

Background

Vaccination is one of the greatest achievements of public health, reducing annual incidence of many communicable diseases by 95% or more. Before vaccination, measles and pertussis were common diseases of childhood. As these diseases disappear, physicians and parents forget what they once meant to our communities. Serious pertussis outbreaks in Oregon communities this year have resulted in hospitalizations and one infant death. Measles also threatened a comeback, prompting vaccination and isolation of several contacts.

However, some parents and practitioners have begun to question whether vaccines work and if they're necessary. Unlike most Oregon communities, Ashland, a small city in Jackson County, has a high rate of religious exemption from mandated school and daycare immunization requirements. In school year 2000/2001, 11% of school children in

“I think of vaccinations as insurance, if others do not wish to vaccinate their children, that is their right. Knowing that increasing numbers of parents choose not to vaccinate, (even though it is a small percentage) reinforces my desire to make sure my child is vaccinated because it increase the likelihood of exposure to diseases. I do not think of vaccines as making my child healthier or unhealthier – just that they are protection and prevention against disease they might or might not encounter and it is worth it to prevent.”

– Ashland Parent

Ashland had a religious exemption to vaccination, compared to 3% for all of Jackson County and 2.7% for the state. This increase in exemption rates between Ashland and the rest of Jackson County translates into a dramatically lower level of community protection against disease. The 2002 Community Vaccination Survey is an attempt to understand the reasons behind the elevated exemption rate.

Description

Oregon law requires children attending daycare, preschool and school in grades K to 12 to have immunizations against nine vaccine-preventable diseases. In addition to physician-signed medical exemptions, signed religious exemptions from parents are allowed. The Community Vaccination Survey (CVS) was developed to understand what parents believe about vaccines and what differences exist between exemptors and non-exemptors. The survey was a joint effort of the Jackson County Health Department, the Ashland School District, and the Oregon Immunization Program.

The survey was sent in October of 2002 to a sample of parents with children enrolled in an Ashland School District grade or middle school. Home schooled children were not sampled. The exempt population was sampled at a higher rate than the non-exempt, to achieve a statistically sufficient number of responses from both exemptors and

non-exemptors. Parents who did not respond to the first mailing were sent a second mailing in November, and further non-respondents were contacted by phone in December. In total 648 parents were selected for the survey, and 62% responded.

What We Learned

Perceived Risk and Benefit from Vaccination

Parents balance their perceptions of risk from vaccination against their sense of individual or community benefit. When the perceived risk is low and the sense of benefit is high, a parent will be more likely to choose vaccination.

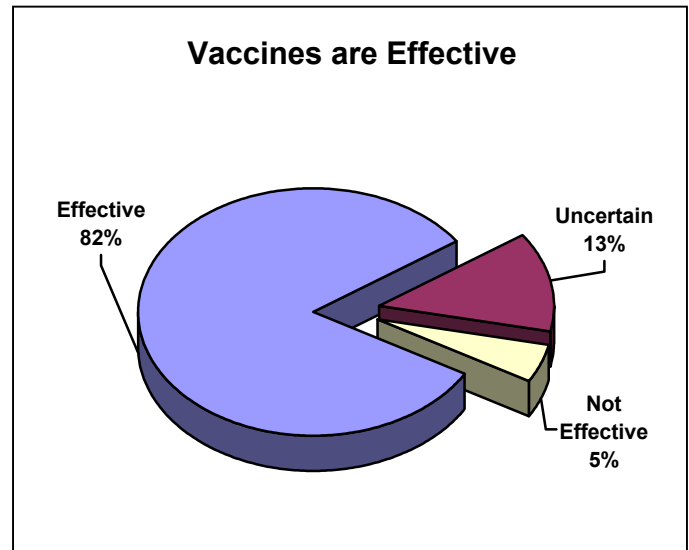
- Among those parents who responded both that vaccines are safe and effective, 5% considered getting an exemption, and only 1% had an exemption.

Perceived Benefit

As one measure of perceived benefit, The CVS asked parents whether they believed in the effectiveness of vaccines in preventing disease.

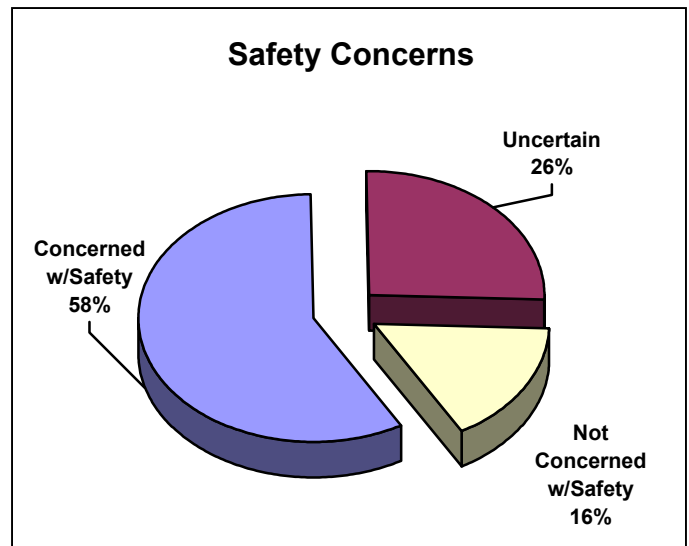
- 82% of parents said that vaccines are effective in preventing disease. Of these parents, only 7% had signed a religious exemption.
- 13% of parents were uncertain whether vaccines prevent disease, and 35% of these parents had signed a religious exemption.

- Among the 5% of parents who did not believe that vaccines are effective in preventing disease, 44% signed a religious exemption.



Perceived Risk

A perception of risk from vaccines is associated with both considering and taking exemptions. One measure of perceived risk used in the CVS was to



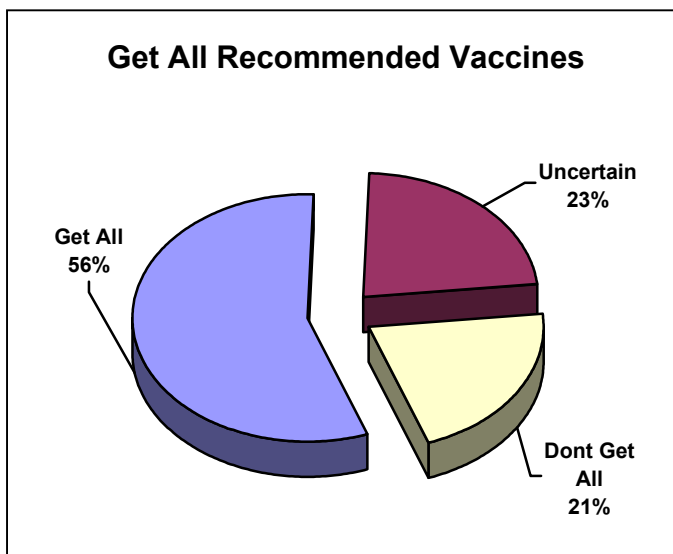
ask whether parents should be concerned with vaccine safety.

- 58% of parents agreed that people should be more concerned with vaccine safety. Of those parents who agreed, 18% signed a religious exemption.

Multiple Vaccinations

Many parents expressed concern with the number of vaccinations that children receive. Parents were asked whether "it is important for children to get all recommended vaccinations".

- 56% agreed that children should receive all vaccines, 21% disagreed and 23% were uncertain.
- Of the 56% of parents that agreed with getting all vaccines, only 11% considered an exemption and 3% signed one.



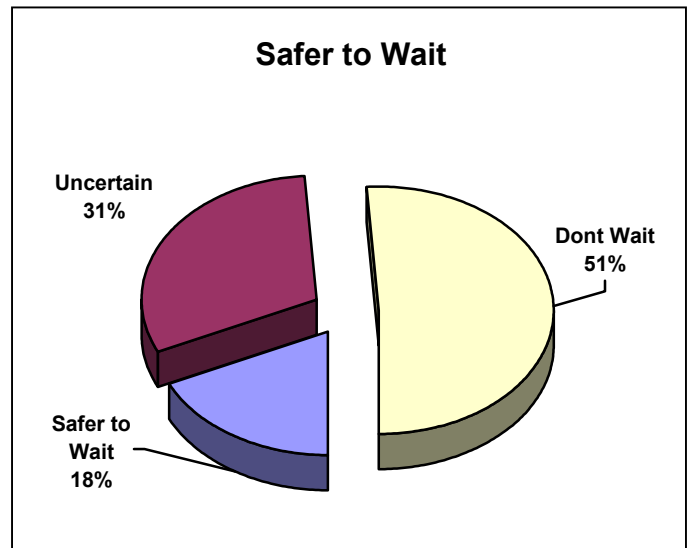
These figures indicate that although some exemptions are for convenience, it is not a widespread problem.

Delaying Vaccination

"I would trust vaccination recommendations more if they didn't push immunizing 2-month-olds."

– Ashland Parent

Most vaccines are given beginning at age 2 months. However, some parents worry that vaccinations are given too early. The CVS asked whether parents believed that it is "safer to wait as long as possible before getting vaccinations".



- Only 18% of parents agreed that it is safer to wait, 51% disagreed with waiting and 31% were uncertain.
- Parents who agreed that it is safer to wait to vaccinate were

6.4 times more likely to have signed a religious exemption.

Sources of Information

Healthcare Providers

Overall, 89% of parents reported that their healthcare provider was a trusted source of healthcare information. These parents were also 1.4 times less likely to have considered an exemption.

Among the 11% of parents who did not list their provider as a trusted source, 36% had considered an exemption and 19% actually had gotten one.

Provider Advice

The CVS asked parents whether their provider had told them to get all the recommended vaccines for their child.

“With my first child, health care professionals seemed to discuss the importance of vaccines much more – and remind – here it seems up to parents to request immunizations.” – Ashland Parent

- 57% of parents said that their provider advised getting all vaccinations. Those parents were 1.5 times less likely to consider an exemption and 5 times less likely to have one.

Parents were also asked whether they recalled a discussion of the pros and cons of vaccination from their provider. This is another measure of the parent’s perception of the risks and benefits, as

told to them from a trusted source. Whether these findings are related to a reinforcement of parent’s perceived risk, or are related to parents’ selective recall of their discussions with providers, is not fully known without further study.

- The 76% of parents who remember their providers discussing the pros and cons were 1.9 times more likely to have considered an exemption, and 4.1 times more likely to have one.

Media

The majority of surveyed parents, 80%, were aware of media accounts of children allegedly hurt by vaccines. However with the exception of magazines, media sources such as newspapers and television were not significantly related to having a religious exemption.

Social and Community Sources

This category included family, coworkers, friends and the library as sources of trusted information.

- Listing either friends or the library as trusted sources of healthcare information was significantly associated with having an exemption.
- Many parents, 23%, believed that they knew someone with a

“Doctors telling me they are safe are not as convincing as children who react to vaccinations.” – Ashland Parent

child that had been hurt by vaccines. Of these parents, 44% considered an exemption, and 30% had a signed exemption.

Demographics

No significant differences with regard to exemptions were found when considering such characteristics as income or family size.

Conclusion

Overall the findings of the CVS reinforce that the majority of parents in Ashland believe that vaccines are effective and their children should receive all recommended vaccines.

Healthcare providers are important sources of community-based information on vaccines for parents.

Provider advice is significantly associated with a parent's sense of risk and benefit. The type of advice and the way it is delivered by a provider are associated with exemption seeking by parents.

The decision to seek an exemption is based, for most parents, on a balance between perceived risk and perceived benefit from vaccination. The factors that appear most significantly associated with considering exemptions and with the perception of risk from vaccination include concerns with vaccine safety, the timing of vaccinations, provider discussions, information from friends

and the local library, having read or heard from the media about allegedly vaccine-hurt children, and the use of alternative healthcare providers.

The sense of benefit from vaccination is more associated with progressing from considering to taking exemptions. Factors that appear associated with a sense of benefit, (or lack of), include whether the parent knows someone with an allegedly vaccine-hurt child, whether providers told the parent to get all the recommended vaccines, and whether the parent believes that vaccines are effective at preventing disease.

Currently outbreaks of Pertussis in southern Oregon and elsewhere are reminders that vaccine preventable diseases still exist and threaten our communities. For the Ashland community, any drift away from the acceptance of vaccination as a community norm, whether by the public or by local healthcare providers, may open the door to further disease outbreaks.