



Immunization Exemptions and Parent Beliefs

Presented by:
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Reasons behind Immunization Exemptions at School Entry in Idaho: Parents' Attitudes and Beliefs

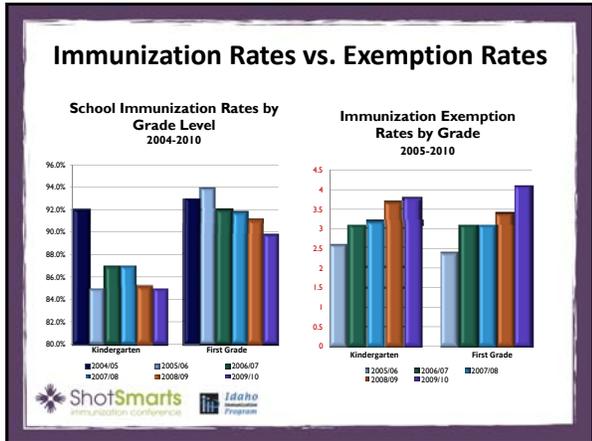
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Purpose

To identify why parents choose to exempt their children from required school-entry immunizations and what is causing the number to increase in Idaho.



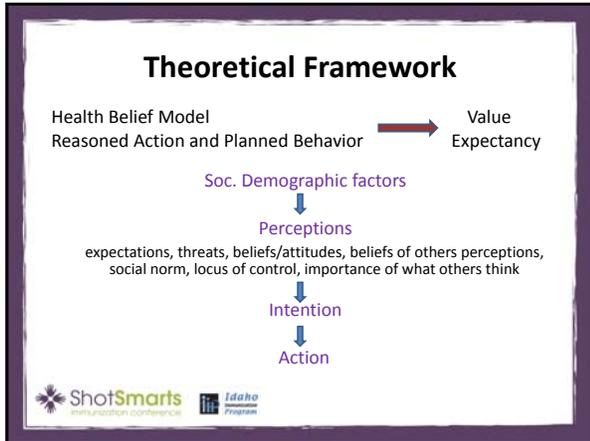



Importance

- Regardless of the success, fears of side effects and adverse reactions to vaccines have caused some parents to stop or delay vaccination.
- Vaccine-hesitancy is increasing among parents.
- As more of the population is unvaccinated, the community is at risk.

Questions to be answered.....

1. What are the documented reasons that parents claim on school exemption forms?
2. Are high exemption rates geographically clustered and if so can the reasons be tied to a shared belief within the region?
3. What impact are external factors having on parent's motivation to immunize or not immunize their children?



Methods

I: Exemption forms were submitted to the Idaho Immunization Program (IIP) during the 2010/2011 school year.

- 1,093 Exemption forms qualified for analysis (Submitted between August –November 2010)

II: Parent Vaccination Knowledge and Belief survey was distributed to parents of kindergarten and first grade students between March-May 2011.

- Anonymous survey randomly distributed to schools throughout the state. (174 surveys received, significant sample = 150)

III: Qualitative interviews of parents were conducted between May-July 2011.

- Optional: Interviews (9/36) parents

At the bottom left, logos for 'ShotSmarts immunization conference' and 'Idaho Immunization Program' are displayed.

Survey Numbers

450 Surveys were distributed

- 206 Kindergarteners
- 244 First Graders

52 schools

- 50 Public
- 2 Private

174 Surveys returned (39% Response Rate)

- Achieved needed responses for a significant sample.
- Achieved needed responses for district level significance in all but one health district.

At the bottom left, logos for 'ShotSmarts immunization conference' and 'Idaho Immunization Program' are displayed.

Respondent Demographics

- 89.7% were Mothers
- 50.6% were between 35-44 years of age
- Annual Gross Income
 - 42.5% - above \$75,000
 - 25.9% - \$25,000-\$49,000
- 96.6% were English speaking homes
- Vaccination Status
 - 91.4% reported having all vaccinations required for school
- Exemption Status
 - 4.5% had an exemption on file
 - Overall state exemption rate per IIP = 4.2%



Interview Demographics

- 8 of 9 were women
- Average age = 35
- Education
 - 66.6% – At least 2 years of College
- Religion
 - 55.5% - LDS (self-described)
- Vaccination Status
 - 100% vaccinated (self-reported)



(Q1) What are the documented reasons that parents claim on school exemption forms?

Fear (32.9%, n=359)

- Wanted assurance that vaccines were 100% safe
- Believed vaccines are experimental
- Believed risks outweigh the benefits

Personal Control (19.3%, n=208)

- Philosophical/personal
- Don't want to, don't believe in it, family doesn't vaccinate

Family History of Adverse Reaction (16.7%, n=182)

- Family history of adverse reactions from vaccine
- Family history of autism from vaccine



(Q2) Are high exemption rates geographically clustered and if so can the reasons be tied to a shared belief within the region?

Health District	Exemption Rate as Percent of Total Exemptions	Percent of State Residing in Health District	Rate Ratio
Panhandle	23.8%	13.8%	1.7
North Central	4.2%	6.8%	0.6
Southwest	16.5%	16.2%	1.0
Central	22.2%	27.8%	0.8
South Central	9.1%	11.6%	0.8
Southeast	6.9%	10.8%	0.6
Eastern	17.6%	12.9%	1.4



Exemption by Health District

% of District Total	Fear	Personal Control	Family History	Religious	Unnatural	Too Young	Can't Find Record	Trust	Access	Total
Panhandle	96 36.9%	51 19.6%	39 15.0%	18 6.9%	28 10.8%	7 2.7%	9 3.5%	11 4.2%	1 0.4%	260 23.8%
North Central	14 30.4%	10 21.7%	9 19.6%	4 8.7%	5 10.9%	4 8.7%	0 0.0%	0 0.0%	0 0.0%	46 4.2%
Southwest	46 25.5%	30 16.7%	19 10.6%	44 24.4%	10 5.6%	15 8.3%	8 4.4%	8 4.4%	0 .0%	180 16.5%
Central	91 39.2%	45 19.4%	32 13.8%	14 6.0%	20 8.6%	14 6.0%	8 3.5%	8 3.5%	0 0.0%	232 22.2%
South Central	24 24.2%	26 26.3%	21 21.2%	8 8.1%	9 9.1%	7 7.1%	4 4.0%	0 0.0%	0 0.0%	99 9.1%
Southeast	29 39.7%	12 16.4%	18 24.7%	2 2.7%	0 0.0%	8 11.0%	2 2.7%	2 2.7%	0 0.0%	73 6.9%
Eastern	54 28.1%	32 16.7%	43 22.4%	6 3.1%	21 11.0%	10 5.2%	15 7.8%	9 4.7%	2 1.0%	192 17.6%



Schools with a Dominant Exemption Category

Health District City	School	n	Percent of City Exemptions	Dominant Category (Percent of Responses)
Panhandle	Post Falls	23	30.0%	Family/Child History of Adverse Event (30.0%)
Southwest	Marsing	24	100.0%	Religion (88.0%)
Eastern	East School A	18	46.0%	Family/Child History of Adverse Event (39.0%)
Eastern	Rigby	15	38.0%	Family/Child History of Adverse Event (27.0%)



(Q3) What impact are external factors having on parents' motivation to immunize or not immunize their children?

- 82.1% of parents use Pediatrician/Family Practice
- 96.6% of parents (vaccinators and exemptors) identified healthcare providers as the main source of information
- 77.6% of parents said they were advised to get all vaccines
- 26.0% of parents said they were never talked to about pros and cons
- 14.4% were never told what to do



Healthcare Provider Advice and Exemptions

(p=.00)

- Parents who were *advised to get all vaccines* were more likely to be vaccinated.
- Parents who were *not told what to do* were associated with exemption.



Culture/Experience

- 51.1% of parents responded that friends and family influence their decision to vaccinate (Parent Survey)
 - Stories about personal or family member experiences with the diseases
 - 16.7% of parents indicated worry about history of adverse reactions (Exemption Forms)
- Parents who exempted were significantly more likely to have indicated their child was injured by a vaccine, p=.05



Internet

- 34.5% of parents listed Internet as a vaccine information source (Parent Survey & Interviews)
 - Most cited WebMD, Mayo as key sites
- 44.4% of exemptors listed the Internet as a source
 - 25.0% of Vaccinators
 - Significance could not be established
- Internet use was significant in 3 regions (p=.01)
 - 47.6% of parents in Panhandle
 - 46.0% of parents in Central
 - 43.5% of parents in Eastern



Overall Parents' Beliefs

- 93.7% and 85.7% of parents felt vaccines are important to prevent disease and vaccines are safe, respectively
- **But, a third of all parents:**
 - Said children get too many vaccines
 - Said that people should be more concerned with safety
 - Showed uncertainty about the need to wait until children were older



Conclusions

- Substantial amounts of uncertainty exist among both parents who vaccinate and those who do not.
- Healthcare providers still influence parents' decisions.
- Family and culture play a role in parents' decisions, particularly as it relates to occurrence of an adverse reaction.
- The state shows diversity among parents with regard to Internet use, family history, and religion.



Implications for The Future

- Survey schools that showed signs of clustering to better understand the significance.
- Research and educate parents on risks associated with family history of vaccine adverse reactions.
- Apply theoretical framework to identify future motivators of parents, on a larger scale.



Immunization Focus Groups

- IIP conducted immunization focus groups throughout Idaho in February- March of 2012
- Recruited participants through:
 - Mass mailing
 - Social marketing
 - Community sites
 - Newspapers
- 22 Focus groups
- 160 Participants



Focus Group Purpose

- Collect information regarding the perception of immunization throughout Idaho.
 - Beliefs
 - Benefits
 - Fears
 - Concerns
 - Influences
 - Knowledge and feelings
 - Sources of information



Pro-immunization

People who choose to immunize their children with the “it’s what you do” mentality; their opinions were consistent statewide.



Pro Immunization Beliefs

- Description of immunizations were similar throughout the state.
 - Protecting their loved ones and children from disease.
 - Providing peace of mind
 - Eradicating disease
 - Protecting communities
 - Benefits outweigh the risks



Pro Immunization Beliefs

- May not allow influenza and HPV vaccine.
- Know about but don’t buy into Andrew Wakefield because of a lack of supporting evidence.
- Understand if “things happen” parents need to blame something.
- Don’t put weight on celebrity opinions.



Pro Immunization Sources

- Believe it is the pediatrician’s job to stay informed.
- Completely trust their pediatrician.
- Don’t really seek information.
- Seemed to lack knowledge of VPD’s and specific vaccines.



Anti-immunization

People who choose not to immunize their children and do not believe immunizations are safe and effective in preventing disease.



Anti-immunization Beliefs

- Very similar perception throughout the state.
- Most anti-immunization were also anti-establishment
- Common Beliefs
 - Vaccines are too risky.
 - Government tracks people and should not be involved.
 - It’s all about money.
 - Vaccine safety is not studied.



Anti-immunization Sources

- Family history
- Books at the Library
- T.V.
 - Dr. Oz
 - Dr. Phil
 - The Doctors
 - Larry King
 - 20/20
- Internet
- North Idaho provider resource's







Vaccine Hesitancy

People who chose to immunize their children but have apprehension or caution caused for various reasons; may withhold one or two of the vaccines like flu or HPV or selectively create a schedule based on knowledge and motherly intuition.




Beliefs and Behavior

- Chose to vaccinate.
- Immunizations eradicated diseases but have schedule concerns.
- Felt bullied into immunizing.
- Felt CDC and IDHW have good intentions but skeptical of the FDA and pharmaceutical companies.
- Embrace evolution of medicine and science.
- Concerns over influenza vaccine.




Immunizations eradicated diseases but have schedule concerns.

- Too many shots at once
- Given at too young of an age
- Too many antigens in one shot
- Too many chemicals in vaccine
- Cost
 - Participant education - vaccine is free, administration waived if unable to pay, or are uninsured.
- Annual CDC schedule update creates concern
 - Who is changing it?
 - Why?
- Believe vaccines are best for the community



Felt bullied into immunizing

- Motherly intuition
 - I know my child.
 - Felt the pediatrician would not listen to questions, opinions, provide feedback, and rush their opinion.
 - Looking to understand the purpose.
- Policy
 - Lack of explanation for school rules .
 - Lack of explanation for childcare rules.
 - Conflict of CDC schedule and school and childcare rules.

Felt CDC and IDHW have good intentions but skeptical of the FDA and pharmaceutical companies.

- Believe the CDC and IDHW statistics accurately represent risk, benefits and modern day disease.
- Provide in-depth information on their websites.
- Skeptical of the FDA and licensing process.
 - License too many vaccines.
 - Licensure occurs too quickly.
- Skeptical of pharmaceutical companies and their relationships with FDA.
 - Current events
 - Negative effects of licensed medications.

Embrace evolution of medicine and science

- Have concerns regarding specific antigens, child disposition.
- Benefits of natural immunity.
- Delay immunization for new discoveries.
- Medicine is constantly evolving and improving.



Influenza and Pharmaceutical Commercials

- Pharmaceutical commercials increase concern.
 - Disclaimer
 - Hidden risks



Influenza, Live and Controversial Vaccines

- Influenza
 - I received the flu vaccine and got sick.
 - Does not protect because viral shifting.
 - **Leads concerned parents to question other vaccines.**
- HPV vaccine
 - Not embraced because it sends a message encouraging premarital sex.
 - Parents would like the individual to make the choice at 18.
 - Timing



Hesitancy Sources of Information

- Receive information from doctors.
 - Doctors information did not spell out side effects.
- Online
 - Go to .org, .edu, .gov sites
 - Will look at blogs if there is a two sided conversation.
 - Will search vaccine brand name or side effect.
- Conversations with other parents and or people who have suffered an adverse reaction.





How can you be more effective?

- Discuss risks and benefits.
 - Become very skeptical if risks are not discussed.
 - Feel the provider is hiding information from them.
 - Provide information prior to administering immunizations.
- Take time to listen to parents concerns.
 - Have a conversation with the parent.
 - Discuss reasons for schedule changes.
 - Discuss risks and benefits of alternative schedules.
- Physician should be available for the discussion.




How can you be more effective?

- Administer vaccine correctly.
 - Use the right needles.
- Discuss disease incidence.
- Discuss risk factors of natural exposure.
 - Pox parties
 - Disease symptoms and effects.
- Use technology parents asked for:
 - Notifications by email
 - Scheduling phone app
- Discuss purpose of birth dose of Hepatitis B.




How can you be more effective?

- Assist in finding immunization resources.
 - Online .edu, .gov, .org
 - Warn of anti sites
- Know the myths.
- Be able to discuss safety information.



Thank you!
Questions?