Suggested Strategies and Approaches to Address Parental Vaccine Hesitancy

The ABC’s of AB2109
CHOC Children’s Hospital
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The good old days...
...and now!
Vaccine Preventable Diseases

“All the delays that I recommend I feel don't put any babies at risk for any increased cases of disease.”
--Robert Sears, MD

“Those who cannot remember the past are condemned to repeat it.”
--George Santayana
Common Reasons for Vaccine Delay/Refusal

- Concern about long term side effects
- Distrust of vaccines; conspiracy theories
  - Preservatives, heavy metals, long term effects
- Infants’ immune systems will be overwhelmed by vaccines (too many, too soon)
- Risk of infection low; diseases are not that bad; belief in “natural immunity”
- Pain and discomfort due to vaccines
- Other barriers:
  - Cost
  - Transportation
  - Inconvenience
  - Philosophical and religious beliefs

Key Influences
Parental Vaccine Decisions

- Health Care Providers
  - HCPs are the most important influence on a parent’s final decision on immunization
  - Divisions between complementary/alternative medicine practitioners and some physicians about the merits and risks of vaccination
- Government vaccine experts/officials
- Family and friends
- Media—print, TV, social media
- Internet
- Celebrities
- Parents who believe that their child was harmed by a vaccine

Demographics:
Who Typically Refuses Vaccines?

- Mid-Higher Income
- Higher Education Level
- Whites

Other characteristics:
- Belief in alternative medicine
- Direct experience with adverse vaccine effects

Is Orange County Any Different?

- Assessment of Vaccine Hesitancy and Vaccine Resistance Among Parents (May, 2012)
- 3 focus groups with 4-6 self-identified vaccine-hesitant and/or vaccine-refusing parents were held in Aliso Viejo
- One hour sessions facilitated by Kris Calvin, CEO of the AAP-CA
- Funded by CFCOC
OC Focus Groups  
Sources of Influence

- “I’m not anti-vaccine!”
- “Don’t give me a standardized schedule!”
- Most denied seeing an autism–vaccine link.
- Many perceived a low-risk of illness from vaccine preventable diseases—**main reason for not vaccinating**.
- Public health benefit was not compelling—more concerned about their individual child.
- Lack of trust in vaccine information provided by doctors.
OC Focus Groups
Sources of Influence

• Personal research
• Adverse reaction experience or cautionary advice from a personal contact
OC Focus Groups
Factors Parents Considered When Making Vaccine Decisions

- Low risk of disease
- Vaccine additives and ingredients
- Number of shots
- Underlying belief that some (or all) vaccines are not effective
### California School Immunization Requirements for Child Care Entry (18 months – 5 years):

<table>
<thead>
<tr>
<th>Immunization</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, Pertussis, and Tetanus (DPT)</td>
<td>Four (4) doses</td>
</tr>
<tr>
<td>Polio</td>
<td>Three (3) doses</td>
</tr>
<tr>
<td>Measles, Mumps, and Rubella (MMR) - on or after 1st birthday(^1)</td>
<td>One (1) doses</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Three (3) doses</td>
</tr>
<tr>
<td>Varicella (chickenpox)(^2)</td>
<td>One (1) dose</td>
</tr>
<tr>
<td>Haemophilus influenzae type b (Hib) vaccine - on or after first birthday(^1,3)</td>
<td>One (1) dose</td>
</tr>
</tbody>
</table>

1. Receipt of the dose up to (and including) 4 days before the birthday will satisfy the child care entry immunization requirement.
2. If a child had chickenpox disease and this is indicated on the Immunization Record by the child's physician, they meet the requirement. Write "disease" in the chickenpox date box on the blue card.
3. Required only for children who have not reached the age of 4 years 6 months.

Complete requirements by age at: [http://eziz.org/assets/docs/IMM-230.pdf](http://eziz.org/assets/docs/IMM-230.pdf)
### California School Immunization Requirements at Kindergarten Entry:

<table>
<thead>
<tr>
<th>Immunization</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria, Pertussis, and Tetanus (DPT)</td>
<td>Five (5) doses</td>
</tr>
<tr>
<td>Polio</td>
<td>Four (4) doses</td>
</tr>
<tr>
<td>Measles, Mumps, and Rubella (MMR)</td>
<td>Two (2) doses</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Three (3) doses</td>
</tr>
<tr>
<td>Varicella (chickenpox)</td>
<td>One (1) dose</td>
</tr>
</tbody>
</table>

### California School Immunization Requirements at Seventh Grade Entry:

<table>
<thead>
<tr>
<th>Immunization</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, reduced Diphtheria, and acellular Pertussis (Tdap)</td>
<td>One (1) doses</td>
</tr>
<tr>
<td>Measles, Mumps, and Rubella (MMR)</td>
<td>Two (2) doses</td>
</tr>
</tbody>
</table>

http://eziz.org/assets/docs/IMM-231.pdf
Which KG Vaccines Are Typically Delayed/Refused in Orange County?

Percentage of Orange County Kindergarten Students Completing Require Vaccine Series by School Type

- 4+ DTP: 92.0%, 92.8%, 86.5%
- 3+ Polio: 95.2%, 92.5%, 86.2%
- 2+ MMR: 90.7%, 91.8%, 83.5%
- 3+ Hep B: 95.0%, 95.4%, 92.0%
- 1+ Vari: 85.5%, 96.0%, 91.7%
DTaP: Percent of Kindergartners Enrolled Who Have Received the D-TaP Vaccine at Kindergarten Enrollment, Public Schools Within Each School District, 2012.
POLIO: Percent of Kindergartners Enrolled Who Have Received the Polio Vaccine at Kindergarten Enrollment in Public Schools Within Each School District, 2012.
Varicella: Percent of Kindergartners Enrolled Who Have Received the Varicella Zoster Virus Vaccine at Kindergarten Enrollment, Public Schools Within Each School District, 2012.
Hepatitis B: Percent of Kindergartners Enrolled Who Have Received the Hepatitis B Vaccine at Kindergarten Enrollment, Public Schools Within Each School District, 2012.
AB 2109—Unknowns

- Will religious belief exemptions negate law’s intent?
- What information provided by health professionals will meet the law’s intent?
- Which providers will be most impacted?
- What information will be provided by Naturopathic Doctors?
- How much time will it take to provide information?
- What information will be most effective?
Responding to Parental Vaccine Hesitancy:

A Suggested Approach

- Informed by:
  - Published research and commentaries
  - Expert opinion
  - Local focus groups
  - Published articles on behavioral change, communication skills, and motivational interviewing

- Full disclosure:
  - No evidence based approach is known
Recognize Complex Underpinnings

- Parental vaccination decisions are based on an array of factors.
- Parents integrate information according to their experiential and social contexts.
- A parent’s trust in the source of information may be more important than what is in the information.

Parental positions on vaccination according to attitudes and behaviors

- Unquestioning acceptor (30–40%)
- Cautious acceptor (25–35%)
- The hesitant / ‘fence-sitter’ (20–30%)
- Late or selective vaccinator (2–27%)
- Refuser (<2%)

Stages of Behavior Change

- Precontemplation—not considering change
- Contemplation—seriously considering change
- Preparation—plan and commit to change
- Action—make a specific behavior change
- Maintenance—successful continuation of behavior
Hesitant/Unsure

**Attitudes/Behaviors**

- Tend to vaccinate, but have significant concerns
- Slightly agree about vaccine benefits and safety
- Neutral relationship/trust with providers

**Strategies**

- Higher information needs, may require more time.
- Encourage dialogue and present a balanced view.
- Emphasize benefits of vaccination but discuss risks as well.

Late/Selective Vaccinator

Attitudes/Behaviors

- Significant doubts/worries
- Concerns result in choice to delay or select only some vaccines.
- Following their own or a specific alternative schedule?

Strategies

- Encourage dialogue and present a balanced view.
- Emphasize benefits of vaccination but discuss risks as well.
- Discuss consequences of not vaccinating.
- Use decision aids and quality information tools

Refuser

**Attitudes/Behaviors**

- Refuse most or all vaccines
- Child may be partially or completely unvaccinated
- Low trust in medical establishment
- Tend to prefer advice of alternative health professionals

**Strategies**

- Low or no information needs, less time.
- Emphasize benefits of vaccination but discuss risks as well.
- Discuss consequences of not vaccinating.
- “Is your decision firm?” If so, sign refusal waiver.
- Remain open to discussion

Communication Skills

- Much emphasis on:
  - “What is said”

- Not so much emphasis on:
  - “How to engage”

- Recognize unhelpful vs. helpful approaches

Unhelpful (Directing Style) – “This is what you should do.”

- Righting reflex – using information and persuasion to achieve change
- Missing cues
- Using jargon
- Discrediting information source
- Overstating vaccine safety
- Confrontation

Helpful (Guiding Style) – “May I help you?”

- Care with body language
- Eliciting concerns
- Asking permission to discuss
- Acknowledging/listening/empathizing
- Determining readiness to change
- Informing about benefits and risks
- Giving or signposting appropriate resources

Ask About Reasons for Delay/Refusal

- Seek first to understand
  - Don’t make assumptions
  - Diagnose the Resistance
- Ask about and acknowledge key vaccine concerns
  - Safety/side effects
  - Personal experience
  - Too many at same time
  - Not needed
  - Prefer natural response
  - Don’t trust manufacturers
Information Sources

- What sources were most influential?
- Are they interested in additional information?
- Be informed & prepared.
- Offer reliable, trustworthy information relevant to their specific concerns.
- Consider personal stories and visual imagery.


How to enhance parental confidence in vaccines, Offit, et al in Vaccines 5th ed. Plotkin, Orenstein, Offit eds. page 1642
Risks vs. Benefits

• Important in establishing credibility and dialogue with parents.
• Acknowledge that vaccines may be associated with adverse events and balance that against disease risk.
  • The vast majority of reported adverse events attributable to vaccines are minor and self-limited
  • Serious adverse events from an individual vaccine can occur, but these events are exceedingly rare
• No vaccine is completely without adverse events or 100% effective for all children.

Parent Vaccine Safety Concerns
Scientific Basis Summary

- No MMR association with autism
- Vaccines highly purified
  - Immune system not overwhelmed
  - No thimerosal in virtually all routine pediatric vaccines
  - Aluminum vaccine content trivial vs. environment
  - Naturally circulating formaldehyde > vaccine content
- Recommended vaccine schedule
  - Protects children when they are most vulnerable
  - Delayed vaccines = delayed protection

Vaccine Hesitant Parent Concerns: Addressing the Scientific Basis, D Blumberg, CA AAP June 26 Webinar, available at: www.vicnetwork.org
Parent Vaccine Safety Concerns

What is Not in Vaccines?

- Vaccines do not contain:
  - human cells or tissue*
  - chicken embryos*
  - monkey kidney cells*
  - fetal bovine serum*
  - antifreeze (ethylene glycol)

- Good to know what vaccines do contain and why:
  - [http://www.cdc.gov/vaccines/vac-gen/additives.htm](http://www.cdc.gov/vaccines/vac-gen/additives.htm)

*May be used in the early manufacturing process of some vaccines. As with all viral vaccines, multiple purification steps ensure that cells are not in the final vaccine product. Fetal bovine serum is highly diluted and eventually removed from cells during the growth of vaccine viruses.

Parent Vaccine Concerns
Vaccines Not Needed?

- The microbes/diseases are still with us.
  - Consider informing about recent/current US disease outbreaks
- Vaccine-preventable diseases are just a plane ride away.
- Vaccine-preventable diseases are severe, uncomfortable and they can and do kill.
- Multiple studies have shown an increase in the local risk of vaccine-preventable diseases when there is geographic aggregation of persons refusing vaccination.
  - Consider informing about low rates of vaccination in your area

www.cdph.ca.gov/programs/immunize/Pages/ImmunizationLevels.aspx
Additional Resources

- Virtual Immunization Communication Network: [www.vicnetwork.org](http://www.vicnetwork.org)
- CDC vaccine side effects: [http://www.cdc.gov/vaccines/vac-gen/side-effects.htm](http://www.cdc.gov/vaccines/vac-gen/side-effects.htm)
- CDC vaccine info for Health Care Professionals: [http://www.cdc.gov/vaccines/hcp.htm](http://www.cdc.gov/vaccines/hcp.htm)
- Vaccine information and testimonials: [http://www.vaccineinformation.org/](http://www.vaccineinformation.org/)
- AAP Vaccine Info for Families: [http://www2.aap.org/immunization/families/safety.html](http://www2.aap.org/immunization/families/safety.html)
- OCHCA Immunization Assistance Program: [http://ochealthinfo.com/phs/about/family/iz](http://ochealthinfo.com/phs/about/family/iz)
Nobody said doing the right thing is easy!