Childhood Influenza Vaccination: Understanding Parent Resistance and Motivating Behavioral Change
An NFID Consumer Research Study

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The Childhood Influenza Immunization Coalition (CIIC) was established by NFID in 2007 to increase pediatric immunization rates. CIIC comprises 32 medical, public health and parent organizations. Consumer research and message testing was conducted in 2009 to ensure that CIIC messages were in line with the rapidly changing information and needs of parents. The findings were incorporated into a multi-channel communications program. CIIC plans to enhance our current research efforts in 2010-2011 to report findings and make available to the public.

Activities supported by an unrestricted educational grant to NFID from Sanofi Pasteur
Low Influenza Immunization Rates Leave Children Vulnerable to Influenza Every Year

- Every year influenza claims the lives of up to 100 children and hospitalizes an estimated 20,000

- Children were particularly vulnerable in this pandemic year
  - Estimated deaths in children 0-17 years of age: 1,230 (range 880-1,810)
  - Estimated hospitalizations in children 0-17 years of age: 82,000 (range 58,000-120,000)

- Pediatric immunization recommendations have been expanded in recent years
  - 2004: 6 to 23 months of age
  - 2006: 6 to 59 months of age
  - 2008: All children 6 months through 18 years of age

- Pediatric influenza immunization rates remain low
  - 24% of children 6 months through 17 years vaccinated during the 2008-2009 season (Behavioral Risk Factor Surveillance System)
Consumer Research Provides Insight into Factors that Motivate and Inhibit Vaccination

- **Provide a deeper insight into factors and triggers that motivate and inhibit behavior**

- **Help identify optimal strategic communication messages to integrate into our programs**
  - Eight, geographically dispersed, 30-45 minute pediatrician interviews
  - Four, 2-hour focus group mothers conducted in Stamford, CT and Charlotte, NC
    - Mix of “non vaccinators” and “inconsistent vaccinators;” “vaccination averse” screened out
  - 500-interview telephone survey of mothers in late August 2009
    - To further investigate qualitative findings (focus groups) with a quantifiable, representative sample
    - Respondents geographically disperse, ethnically diverse and had children 6 months through 18 years of age living in the household
Mothers didn’t think seasonal influenza was as serious as H1N1 or other vaccine-preventable diseases
They did view influenza as more serious than the common cold

<table>
<thead>
<tr>
<th></th>
<th>Extremely</th>
<th>Somewhat</th>
<th>Not very</th>
<th>Not at all</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polio</td>
<td>77%</td>
<td>14%</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>H1N1</td>
<td>39%</td>
<td>46%</td>
<td>11%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Measles</td>
<td>35%</td>
<td>50%</td>
<td>9%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Chickenpox</td>
<td>11%</td>
<td>51%</td>
<td>31%</td>
<td>8%</td>
<td>0</td>
</tr>
<tr>
<td>Seasonal flu</td>
<td>9%</td>
<td>54%</td>
<td>31%</td>
<td>6%</td>
<td>0</td>
</tr>
<tr>
<td>Common cold</td>
<td>0</td>
<td>20%</td>
<td>57%</td>
<td>22%</td>
<td>0</td>
</tr>
</tbody>
</table>
82% of mothers said seasonal influenza in one of their children would have “some” or “substantial” impact on their family/household. Impact believed to be similar to stomach virus and strep throat. However, impact of H1N1 perceived to be greater.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Substantial</th>
<th>Some</th>
<th>Hardly Any</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1N1</td>
<td>52</td>
<td>41</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Seasonal flu</td>
<td>15</td>
<td>67</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Stomach virus</td>
<td>14</td>
<td>60</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Strep throat</td>
<td>13</td>
<td>61</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>Ear infection</td>
<td>5</td>
<td>42</td>
<td>34</td>
<td>19</td>
</tr>
<tr>
<td>Common cold</td>
<td>2</td>
<td>34</td>
<td>41</td>
<td>23</td>
</tr>
</tbody>
</table>
91% of participants cited “the whole family getting sick” as a significant concern associated with a child in the family contracting seasonal influenza.

- The whole family getting sick: 91%
- Your child(ren) missing school: 75%
- Your child(ren) feeling uncomfortable and miserable: 74%
- You or your spouse missing work: 70%
- Inconvenience of having to separate sick child from family: 60%
- Your family missing a vacation: 47%
- Your child(ren) missing extra-cur. activities/athletics: 41%
- Your child(ren) missing social events or occasions: 35%
- You or your spouse missing social events or occasions: 20%
Mothers were mixed in their reactions to H1N1; similar to findings from qualitative research.

Respondents were nearly evenly split as to whether H1N1 had heightened their concern about the seriousness of seasonal flu:
- 48% more concerned now
- 50% said H1N1 had no effect on seasonal influenza perception

Mothers who are now more concerned about seasonal influenza (due to H1N1 publicity) are evenly split among 3 reasons why:
- Ease of transmission
- Elevated risk for children
- Risk of death in children
Significant percentage of mothers choose *not* to get children vaccinated:
- 40% said they never vaccinated their children against influenza
- 35% vaccinate all (30%)/some (5%) of their children for seasonal influenza annually
- 25% vaccinate their children occasionally – in some years but not others

Reasons children not vaccinated annually (n= 348; 70%):

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your child was healthy and didn’t need it</td>
<td>63%</td>
</tr>
<tr>
<td>Other ways to avoid influenza just as effective</td>
<td>57%</td>
</tr>
<tr>
<td>Pediatrician left it up to you</td>
<td>52%</td>
</tr>
<tr>
<td>You’re not sure the vaccine works</td>
<td>43%</td>
</tr>
<tr>
<td>The vaccine isn’t required for school</td>
<td>42%</td>
</tr>
<tr>
<td>Pediatrician doesn’t push the vaccine</td>
<td>41%</td>
</tr>
<tr>
<td>Your child never gets influenza</td>
<td>36%</td>
</tr>
<tr>
<td>Not serious enough to vaccinate against</td>
<td>34%</td>
</tr>
<tr>
<td>The vaccine can cause the flu</td>
<td>33%</td>
</tr>
<tr>
<td>You’re not sure the vaccine is safe</td>
<td>30%</td>
</tr>
<tr>
<td>Inconvenient to get to a place that gives it</td>
<td>14%</td>
</tr>
</tbody>
</table>
“Magical thinking” or an overall belief that the vaccine is not necessary accounts for the most common reasons mothers don’t vaccinate their children annually for influenza (45%)

- Your child was healthy and didn’t need it (18%)
- Other ways to avoid influenza are just as effective (14%)
- Your child never gets influenza (6%)
- Not serious enough to vaccinate against (5%)
- The vaccine isn’t required for school (2%)

Concerns about the vaccine (23%)

- You’re not sure the vaccine works (11%)
- You’re not sure the vaccine is safe (7%)
- The vaccine can cause the flu (5%)

Other reasons cluster around the pediatrician didn’t recommend (17%)

- Pediatrician doesn’t “push” the vaccine (9%)
- Pediatrician left it up to you (8%)
A small percentage of mothers cited vaccine concerns as their primary reason for not vaccinating:
- 11% “not sure the vaccine works”
- 7% “not sure the vaccine is safe”
- 5% “the vaccine can cause the flu”

More than 2/3 thought the seasonal flu vaccine is safe and important for keeping healthy; somewhat less (57%) believe it is effective.

Rating seasonal flu vaccine:

- Safety of the vaccine:
  - Excellent: 23%
  - Good: 47%
  - Total: 70%

- Importance to keeping healthy:
  - Excellent: 29%
  - Good: 38%
  - Total: 67%

- Effectiveness:
  - Excellent: 16%
  - Good: 41%
  - Total: 57%
### Top Messages Resonate among All Mothers Despite Vaccination Habits

#### Message Rank (highest to lowest influence)

<table>
<thead>
<tr>
<th>Message</th>
<th>Mothers who don’t regularly have their children vaccinated (n = 350)</th>
<th>Mothers who regularly have their children vaccinated (n = 150)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy kids die from the flu</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Vaccinate early to protect against two deadly diseases; seasonal/H1N1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>A pediatric death from flu is as tragic as from any other cause</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Now you know- flu can kill; vaccinate to protect your kids</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Know your flu facts. Do all you can to protect your children</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Flu is hard on body and disruptive to families; vaccination is easy</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>The choice is yours</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Vaccination is an opportunity to protect your kids; make a wise choice</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Children are great spreaders of flu; protect yours with vaccination</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Seasonal vaccine is time tested - 100 million Americans get it annually</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>
Multi-pronged Messaging Approach Recommended

- Focus on mothers who don’t regularly have their children vaccinated
- Use multiple messages aimed at breaking down vaccination barriers
  - Same messages will likely resonate with mothers who regularly have their children vaccinated
- Focus on messaging “hot buttons” to increase perception that vaccination is *necessary* – not *optional*
  - Emphasize impact on family, discomfort and vulnerability of children
    - “*Flu is hard on the body and disruptive to families; vaccination is easy*”
  - Continue to elevate disease severity, link with death; dispel “magical thinking”
    - “*Healthy kids die from the flu*”
  - Emphasize knowledge acquisition/“flu facts” to convey safety, efficacy and good health
- Consider segmenting communications
  - Key regions/sub groups where vaccine “friendliness” may be lower; mothers of older kids
Reaching Parents and Health Care Professionals

Motivate Parents to Action
Integrated outreach with consistent messaging across various channels

Message Development | Reach | Frequency | Credibility

Online Media | PSAs/Promotions | Advocacy | Traditional Media | Social Networking | Member Communications

CIIC Programming

Reach, Frequency, Credibility:
- Online Media
- PSAs/Promotions
- Advocacy
- Traditional Media
- Social Networking
- Member Communications

Message Development:
- Integrated outreach with consistent messaging across various channels
- Reaching Parents and Health Care Professionals

Motivate Parents to Action: