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- National Consumer Quantitative Survey
  - Objectives
  - Methodology
  - Key Insights
  - Significant Findings
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Coalition Research Overview: A Multi-Phased Approach

PHASE 1 – May 2010
- Physician Interviews

PHASE 2 – June 2010
- Parents’ Focus Groups*

PHASE 3 – August 2010
- Quantitative National Survey

*Note: Parent Focus Group Findings and Insights available at members’ section of www.PreventChildhoodInfluenza.org
Objectives

Further investigate qualitative research insights and hypotheses in a quantifiable national survey to...

- Better understand family health care decision-makers’ (mothers) knowledge and perceptions about influenza and influenza vaccination
- Assess key shifts from last year’s research findings
- Uncover current barriers to influenza vaccination
- Garner strategic insights to inform and optimize communication messages to decision-makers
Methodology

- National random sample of 505 mothers
- Screening Requirement: child(ren) ages 6 months through 18 years in the household
- Two additional supplemental ethnic samples:
  - 104 African American mothers
  - 100 Hispanic mothers
- Margin of error
  - 4 percent for base survey (505 mothers)
  - 10 percent for supplemental surveys
- Surveys fielded August 12 through 25, 2010
Survey Respondent Profile

BASE STUDY (505 mothers)

- **Employment Status**
  - 66 percent employed full or part-time
  - 27 percent not currently employed
  - 4 percent retired

- **Education Level**
  - 17 percent post-graduate education
  - 32 percent college degree
  - 35 percent some college
  - 13 percent high school degree
  - 1 percent some high school

- **Mothers’ Mean Age**
  - 40.5 years
    - 2 percent age 18 – 24
    - 47 percent age 25 – 39
    - 30 percent age 40 – 49
    - 19 percent age 50+

- **Ethnicity**
  - 70 percent Caucasian
  - 15 percent Hispanic
  - 12 percent African American
  - 3 percent Asian

- **Mean Household Income**
  - $75,800
    - 6 percent under $25,000
    - 7 percent $25,000 - $39,999
    - 19 percent $40,000 - $59,999
    - 29 percent $60,000 - $99,999
    - 22 percent $100,000 +
    - 16 percent refused/don’t know

- **Area of Residence**
  - 20 percent Northeast
  - 21 percent Midwest
  - 35 percent South
  - 24 percent West
Survey Respondent Profile - Ethnic Sub-samples

HISPANIC (100 respondents)

- Employment Status
  - 62 percent employed full or part-time
  - 28 percent not currently employed
  - 7 percent retired

- Education Level
  - 14 percent post-graduate education
  - 28 percent college degree
  - 34 percent some college
  - 17 percent high school degree
  - 5 percent some high school

- Mothers’ Mean Age: 42.5 years

- Mean Household Income $69,000

AFRICAN AMERICAN (104 respondents)

- Employment Status
  - 64 percent employed full or part-time
  - 19 percent not currently employed
  - 13 percent retired

- Education Level
  - 14 percent post-graduate education
  - 22 percent college degree
  - 37 percent some college
  - 23 percent high school degree
  - 1 percent some high school

- Mothers’ Mean age: 45.9

- Mean income: $61,100
Key Insights
Knowledge of universal recommendation correlates with higher intent to vaccinate.

Mothers’ knowledge is power.

Misinformation about influenza and influenza vaccine may be depressing vaccination rates.

However, mothers’ knowledge may not be accurate.

Beliefs, “a healthy child is strong enough to battle influenza,” lead to uncertainty about vaccine necessity.

Myths and magical thinking persist.
Desire to protect family/community are top reasons that mothers vaccinate children.

Altruistic motives are seen in the decision to vaccinate.

A healthy respect for the impact of influenza on a child’s health is seen among some mothers.

Protecting children from serious illness motivates many to vaccinate; others minimize influenza’s severity.

Mothers’ instinct to protect the family is strong.

Safety concerns are paramount; safety messages are motivating, especially in regard to younger children.
Familiarity with influenza often breeds “contempt.”

A family’s experience with the disease is associated with higher reported vaccination rates.

Last year’s H1N1 pandemic did not necessarily “rock mothers’ world.”

Many mothers have not altered their influenza vaccine intentions for their children, though intent remains high.

Mothers require a personal “GPS” to wade through information overload.

Pediatricians are the favored source of information; their recommendation is sought / deemed motivating.
Significant Findings
Influenza Vaccination Intentions Largely Unchanged, Intent Remains High

- Most mothers unchanged in vaccination intent; only 18 percent report shift
  - Shift toward “more likely” is eight times greater than shift toward “less likely” vaccination
  - Hispanic mothers somewhat more likely (22 percent) to vaccinate than in past

- Nearly two-thirds of mothers (65 percent) intend to have children vaccinated this year

QA4: Which ONE of the following statements best describes your CURRENT INTENTIONS concerning influenza vaccination for your children this year?
Bases: National sample (n=505), African-American mothers (n=104), Hispanic mothers (n=100)
This year, annual influenza vaccination is recommended for all Americans 6 months of age and older. For the past three years, annual influenza vaccination has been recommended for all children age 6 months through 18 years of age.

QA5: Which of the following statements do you believe to be true?
Bases: National sample (n=505), African-American mothers (n=104), Hispanic mothers (n=100)
Mothers with family experience with influenza are more likely to have children vaccinated

<table>
<thead>
<tr>
<th>Experience with Influenza with Child(ren) vaccinated this year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>More likely/likely to have child(ren) vaccinated this year</td>
</tr>
<tr>
<td>Less likely/not likely to have child(ren) vaccinated this year</td>
</tr>
</tbody>
</table>
Child’s Age Plays a Role in Vaccination Intent

Mothers with children 12-17 years old are less likely to have children vaccinated

<table>
<thead>
<tr>
<th>Age of Children</th>
<th>Under 6</th>
<th>6-11</th>
<th>12-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>More likely/likely to have child(ren) vaccinated this year</td>
<td>76%</td>
<td>70%</td>
<td>57%</td>
</tr>
<tr>
<td>Less likely/not likely to have child(ren) vaccinated this year</td>
<td>21%</td>
<td>28%</td>
<td>41%</td>
</tr>
</tbody>
</table>

QA4: Which ONE of the following statements best describes your CURRENT INTENTIONS concerning influenza vaccination for your children this year?
Bases: Have child(ren) in household under 6 years of age (n=150), Have child(ren) in household 6-11 years of age (n=257), Have child(ren) in household 12-17 years of age (n=318)

Prevent Childhood Influenza.org
More than six in 10 mothers consider influenza vaccination *as important as* other recommended annual health measures

Little ethnic variation exists

**QA6:** Which of the following statements about annual influenza vaccination do you believe to be true?

- It is as important for your child as regular dental check-ups
- It is as important for your child as an annual eye exam
- It is as important for your child as an annual hearing test

*National Sample (n=505), African-American mothers (n=104), Hispanic mothers (n=100)*
Family/Community Protection Among Top Reasons to Vaccinate; But Severity of Illness is Most Important

QA12: Which of the following do you consider to be VERY IMPORTANT reasons in favor of influenza vaccination for your children? Bases: More likely to have child(ren) vaccinated or no change in feelings, will likely have child(ren) vaccinated (n=307)

QA12: Which of the following do you consider to be MOST IMPORTANT reasons in favor of influenza vaccination for your children?
More than nine in 10 mothers (91 percent) believe it's important to get children vaccinated for infectious diseases, but many do not make the connection with influenza.

Nearly two-thirds of mothers (63 percent) believe the influenza vaccine protects against only one flu strain each year.

More than six in 10 mothers (61 percent) erroneously believe last year's swine flu was a “brand new” type of flu.

QA5: Which of the following statements do you believe to be true?
Bases: National sample (n=505), African-American mothers (n=104), Hispanic mothers (n=100)
Absence of Pediatrician Recommendation, Safety Concerns & Misinformation Present Barriers

<table>
<thead>
<tr>
<th>MOST IMPORTANT VACCINATION RESERVATIONS</th>
<th>National Sample</th>
<th>African Americans</th>
<th>Hispanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your pediatrician or other PCP left it up to you and you chose not to give your child another vaccine</td>
<td>21%</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>You don’t want to put unknown substances in your child(ren)’s bodies</td>
<td>20%</td>
<td>30%</td>
<td>11%</td>
</tr>
<tr>
<td>Hand washing works just as well – or better – as a means of flu prevention</td>
<td>20%</td>
<td>35%</td>
<td>14%</td>
</tr>
<tr>
<td>Your children are healthy and don’t need the vaccine</td>
<td>19%</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>You think concern over H1N1 was blown out of proportion by the media</td>
<td>14%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>You believe long-term effects of the vaccine may be worse for your kids than having the flu</td>
<td>12%</td>
<td>5%</td>
<td>23%</td>
</tr>
<tr>
<td>You aren’t sure the vaccine is safe</td>
<td>7%</td>
<td>5%</td>
<td>20%</td>
</tr>
</tbody>
</table>

- Blue boxes represent top responses in base study
- Rust boxes represent possible directional ethnic differences

QA8: Which ONE of these is the MOST IMPORTANT to you?
Bases: Less likely to have child(ren) vaccinated or no change in feelings, will not likely have child(ren) vaccinated (n=191), African-American mothers (n=40), Hispanic mothers (n=35)
Pediatrician Recommendation & Reassurance of Safety Most Likely to Help Overcome Barriers

Vaccination Motivators

- A strong recommendation from your pediatrician*: 73%
- Reassurance that the vaccine is always researched and tested: 73%
- Knowing that this year's vaccine will provide protection against the H1N1 pandemic influenza strain still in circulation: 71%
- Better understanding of how the flu vaccine can work to build immunity for your child: 70%
- More information about the different flu strains and how many are in the vaccine: 69%
- Statistics regarding flu's impact on children: 61%
- Knowledge of vaccine ingredients: 61%
- Hearing personal stories about children in your community who have become seriously ill or died from flu: 57%
- Knowledge that your pediatrician or other primary care provider has their child(ren) vaccinated for influenza: 53%

* 69 percent of mothers also cite pediatricians as first choice for information about influenza/immunization

QA14: Which of the following might make you MORE interested in vaccinating your child for influenza this year?
Bases: National Sample (n=505)

Prevent Childhood Influenza.org
Messages Emphasizing Safety, Disease Severity & Family Protection Most Likely to Motivate

<table>
<thead>
<tr>
<th>MOTIVATIONAL MESSAGES</th>
<th>VERY LIKELY TO MOTivate</th>
</tr>
</thead>
<tbody>
<tr>
<td>For vaccines to be approved -- including influenza vaccine -- the manufacturing process</td>
<td>National Sample</td>
</tr>
<tr>
<td>must meet FDA safety standards, and each batch of vaccine is carefully tested before</td>
<td>African Americans</td>
</tr>
<tr>
<td>it is released.</td>
<td>Hispanics</td>
</tr>
<tr>
<td></td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>63%</td>
</tr>
<tr>
<td>Every flu season is different and unpredictable; some mild and some severe, but some,</td>
<td>National Sample</td>
</tr>
<tr>
<td>like last year’s H1N1 pandemic are particularly serious for children.</td>
<td>African Americans</td>
</tr>
<tr>
<td></td>
<td>Hispanics</td>
</tr>
<tr>
<td></td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>60%</td>
</tr>
<tr>
<td>It makes sense to vaccinate your child(ren) for influenza to protect all the members</td>
<td>National Sample</td>
</tr>
<tr>
<td>of your family -- from infants to grandparents.</td>
<td>African Americans</td>
</tr>
<tr>
<td></td>
<td>Hispanics</td>
</tr>
<tr>
<td></td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>59%</td>
</tr>
<tr>
<td>The flu vaccine protects your child(ren) from a highly infectious disease that can</td>
<td>National Sample</td>
</tr>
<tr>
<td>have serious health consequences for them.</td>
<td>African Americans</td>
</tr>
<tr>
<td></td>
<td>Hispanics</td>
</tr>
<tr>
<td></td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>58%</td>
</tr>
<tr>
<td></td>
<td>51%</td>
</tr>
<tr>
<td>If one child dies from influenza, it’s as devastating as dying from any other disease;</td>
<td>National Sample</td>
</tr>
<tr>
<td>influenza vaccination is the best way to prevent your child from becoming that</td>
<td>African Americans</td>
</tr>
<tr>
<td>statistic.</td>
<td>Hispanics</td>
</tr>
<tr>
<td></td>
<td>57%</td>
</tr>
<tr>
<td></td>
<td>55%</td>
</tr>
<tr>
<td></td>
<td>57%</td>
</tr>
</tbody>
</table>

- Little variation across ethnic groups

QA21-24: Please tell me if each statement would be very likely, somewhat likely, not very likely, or not at all likely to motivate you to get or continue to get your child vaccinated for seasonal flu THIS YEAR.

Bases: National Sample (n=505), African-American mothers (n=104), Hispanic mothers (n=100)
Perceptions of Motivational Messages Differ Slightly Among Ethnic Groups

<table>
<thead>
<tr>
<th>MOTIVATIONAL MESSAGES</th>
<th>VERY LIKELY TO MOTIVATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>National Sample</td>
</tr>
<tr>
<td>It takes just one exposure to influenza for your child(ren) to possibly get very ill – and even end up in the hospital.</td>
<td>55%</td>
</tr>
<tr>
<td>Influenza vaccination is the best way to protect your children from an infectious disease that results in an average of 20,000 yearly hospitalizations for children.</td>
<td>54%</td>
</tr>
<tr>
<td>To protect as many people as possible, the Centers for Disease Control and Prevention (CDC) now recommends that every person over 6 months of age get a flu vaccine.</td>
<td>54%</td>
</tr>
<tr>
<td>The flu vaccine is newly formulated each year, so it can offer the best protection.</td>
<td>54%</td>
</tr>
<tr>
<td>The flu vaccine works with your child’s immune system to build disease-protecting immunity.</td>
<td>53%</td>
</tr>
<tr>
<td>Flu can kill, even healthy people. Each year, flu-related deaths can range from 5,000 to 50,000 people.</td>
<td>53%</td>
</tr>
<tr>
<td>Be Fluent. Know your flu facts and learn why vaccination offers the best means of influenza protection.</td>
<td>53%</td>
</tr>
</tbody>
</table>

* Ethnic differences not significant due to small sample sizes.

OA21-24: Please tell me if each statement would be very likely, somewhat likely, not very likely, or not at all likely to motivate you to get or continue to get your child vaccinated for seasonal flu THIS YEAR. Bases: National Sample (n=505), African-American mothers (n=104), Hispanic mothers (n=100)
Emotional Appeals Are Somewhat Less Motivating than Rational Arguments

<table>
<thead>
<tr>
<th>MOTIVATIONAL MESSAGES</th>
<th>VERY LIKELY TO MOTIVATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>National Sample</td>
</tr>
<tr>
<td>Seasonal flu vaccines have been given safely for years. Over 100 million Americans</td>
<td>52%</td>
</tr>
<tr>
<td>are vaccinated every year, and last flu season, 80 million people in the U.S. also</td>
<td></td>
</tr>
<tr>
<td>safely received the H1N1 vaccine.</td>
<td></td>
</tr>
<tr>
<td>The flu vaccine helps control deadly flu epidemics that were devastating to previous</td>
<td>52%</td>
</tr>
<tr>
<td>generations.</td>
<td></td>
</tr>
<tr>
<td>Each year, the flu vaccine contains multiple flu strains for greater odds of protection.</td>
<td>50%</td>
</tr>
<tr>
<td>The flu vaccine can lessen flu severity, even if your child doesn’t get full protection.</td>
<td>47%</td>
</tr>
<tr>
<td>Influenza vaccination helps you avoid that helpless feeling of seeing your child sick</td>
<td>47%</td>
</tr>
<tr>
<td>and lifeless with the flu.</td>
<td></td>
</tr>
<tr>
<td>The flu vaccine has been proven safe over generations of use.</td>
<td>45%</td>
</tr>
<tr>
<td>Childhood influenza vaccination helps you avoid feeling guilty that you allowed your</td>
<td>42%</td>
</tr>
<tr>
<td>child to suffer form a disease you could have prevented.</td>
<td></td>
</tr>
<tr>
<td>Hand washing can’t protect your children from airborne flu germs. Only vaccination</td>
<td>38%</td>
</tr>
<tr>
<td>can offer the best protection.</td>
<td></td>
</tr>
</tbody>
</table>

* Ethnic differences not significant due to small sample sizes.

QA21-24: Please tell me if each statement would be very likely, somewhat likely, not very likely, or not at all likely to motivate you to get or continue to get your child vaccinated for seasonal flu THIS YEAR. Bases: National Sample (n=505), African-American mothers (n=104), Hispanic mothers (n=100)
Strategic Opportunities
Survey Confirmed Several Insights and Hypotheses Gleaned from Focus Groups/Prior Research

MOTHERS...

- Often dismiss influenza as not a severe disease
- Demonstrate family experience with flu can increase belief in vaccination
- Harbor safety concerns regarding influenza vaccination
- Frequently make influenza vaccination decisions based on misinformation and unsubstantiated “magical” or wishful beliefs
- Fear child’s hospitalization from flu as much as/more than death
- Are confused over influenza vaccine composition/number of strains
- Seek pediatrician/physician guidance, but are not always getting it
- Would be most motivated to vaccinate by:
  - Strong health care provider recommendation
  - More information about vaccine testing/safety
New Insights and Surprises Were Uncovered

MOTHERS...

- Report higher than expected awareness of new universal recommendations
- Demonstrate concern over protecting community as well as family via influenza vaccination
- Have not necessarily changed their intentions to get their children vaccinated post-H1N1, BUT say that...
  - H1N1 raised their consciousness that influenza can be severe for children
  - Knowledge of H1N1 protection in this year’s vaccine is motivating
- Indicate that emotional appeals for vaccination are somewhat less motivating than rational arguments
- Display consistency across ethnic groups concerning most key vaccination variables, with a few possible exceptions
  - Hispanic mothers seem particularly concerned over safety of vaccine ingredients
  - African Americans seem:
    - more responsive to message that “hand-washing alone can’t protect”
    - less motivated by the notion of partial protection from vaccination
    - less motivated by the idea that vaccine “works with” child’s immune system
    - more motivated by messages emphasizing potential for child’s hospitalization
Strategic Opportunities

- Continue to emphasize that influenza “knowledge is power”
- Promote universal recommendation, based on findings that awareness correlates with increased vaccination rates
- Emphasize that vaccination benefits family and community health
- Elevate severity of influenza/necessity of vaccination for all children
- Continue to dispel myths and misinformation, e.g.,
  - Mistaken notion of “natural immunity”/vaccination isn’t necessary for “healthy” children
  - Hand washing alone is optimal means of prevention
Capitalize on post-H1N1 realization that children can be particularly vulnerable to influenza

Communicate safety and multi-strain protection of vaccine

Emphasize hospitalization as well as death as possible influenza outcome

Leverage role of pediatricians as key players in increasing vaccination rates

Target key sub-groups with relevant messaging
  - Mothers of older children
  - Families with no flu experience
  - African American and Hispanic mothers (to address possible differences in beliefs/attitudes)