



B O T H N E R • B R A D L E Y
COMMUNICATION AND CONSULTING

Health Communication Campaigns – Findings and Recommendations

Immunize Kansas Kids • November 30, 2009

BACKGROUND

Scope of Project

The goal of this project was to determine a course of action for communication campaigns that could increase immunization rates in Kansas. Working with the Kansas Health Institute, Kansas Department of Health and Environment, as well as the Immunize Kansas Kids Management Committee, the steps included:

- Reviewing inventory of immunization communication materials developed in the state of Kansas
- Performing a literature review that would identify characteristics of effective communication campaigns that increase and/or sustain immunization rates
- Determining the top 3 to 5 communication components (messages, materials, delivery mechanisms) and test with non-immunizing providers and immunizing providers, as well as parents of young children
- Developing a final report with findings and recommendations

Definition

For the purposes of this report, “early childhood immunization” is defined as the percentage of children ages 19 months to 35 months who have received the entire 4:3:1:3:3:1 series of vaccinations as recommended by the Advisory Committee on Immunization Practices (ACIP):

- o 4 does of diphtheria, tetanus and pertussis
- o 3 doses of polio
- o 1 dose of measles, mumps, rubella
- o 3 doses of Haemophilus influenza type B (Hib)
- o 3 doses of hepatitis B
- o 1 dose of varicella (chicken pox)

Kansas has increased its immunization rates in these areas from under 36% in 1995 to 76% by the end of 2007. The goal for Kansas is 90% by 2010.

Increasing immunization rates is a public health priority because adequate immunization protects children against a number of infectious diseases that once were common. Immunizations improve quality of life, increases productivity, prevents illness and death; and vaccines are cost effective in preventing disease.

EXECUTIVE SUMMARY

Health communication campaigns often are seen as cost-effective strategies to reach a mass audience with information that can change behavior. The challenge is to segment, target and reach the right audience with the right message.

A review of literature supports the idea that health communication campaigns can be effective strategies. However, it was difficult to find many campaigns focused on increasing immunization rates that met the “best practices” related to the social marketing framework recommended for most public health campaigns.

In a review of the materials developed in Kansas, there are a number of educational pieces that focus on increasing immunization rates. Many of these include immunizations for a number of contagious diseases – from HPV to seasonal flu. Those actually related to early childhood immunizations mostly were developed around the “Bee Wise, Immunize” tagline or were standard educational pieces from other sources, such as the CDC. There was little evidence of a coordinated campaign in Kansas that would reach parents and caregivers and support providers with what they need to be the “front-line sales” people in the effort.

A limited audience research project tested various messages and delivery mechanisms with the important target audiences:

- Parents of young children
- Immunizing providers
- Non-immunizing providers

The takeaway is that while “Bee Wise, Immunize” is a easily recognized message among all audiences, other messages that promote the idea of protecting children from disease might be a more effective message in motivating parents to immunize their children.

This report is organized in four sections and includes an addendum, as well as supporting materials. The sections are:

- SECTION 1: Literature review to identify characteristics of effective communication campaigns that increase or sustain immunization rates
- SECTION 2: Review inventory of immunization communication materials developed in Kansas
- SECTION 3: Testing messages and materials with providers and parents
- SECTION 4: Recommendations

Among the recommendations for consideration is to ensure adequate resources are available to embark on a health communication campaign that includes additional audience research, and then to **target, target, target** efforts in the most cost-effective ways possible.

FINDINGS AND RECOMMENDATIONS

SECTION 1: LITERATURE REVIEW TO IDENTIFY CHARACTERISTICS OF EFFECTIVE COMMUNICATION CAMPAIGNS THAT INCREASE OR SUSTAIN IMMUNIZATION RATES

For this report, a number of resources were found that highlight the importance of communicating about public health issues as a way to protect and promote health among certain populations. Far fewer were the number of studies that specifically looked at how health communication campaigns impact immunization rates (the 4:3:1:3:3:1 series) for young children.

The literature review (found in Addendum 1) provided several important definitions that helped frame the second step of the research process, which was to identify the top communication components from various campaigns. Those components were tested with parents, as well as providers who immunize as well as those who do not. More about the materials tested will be provided in the third section of this report.

Definitions

- Health communication has been defined as “the study and use of methods to inform and influence individual and community decisions that enhance health.” (Communicating Public Health Information Effectively, p. 6)
- Social marketing is a term used to describe the application of commercial marketing techniques to improve health or social issues. (Andreasen, 1995) It specifically looks at the 4Ps of a marketing mix: Product, Price, Place and Promotion.
- A communication campaign is an intervention that intends to generate specific outcomes or effects in a relatively large number of individuals usually with a specified period of time and through an organized set of communication activities. (Rogers and Storey, 1987, in “Speaking of Health”)
 - o It should be noted that campaigns often are part of a broader social marketing campaign. For example, a communication campaign to increase awareness of childhood vaccinations “might complement a public communication effort to promote vaccination uptake with a subsidy in the price of vaccines and an easier system for obtaining vaccines, or even a change in the rules about what vaccines can be given together.” (“Speaking of Health”)

Characteristics of communication campaigns

A number of models are available for designing effective health communication campaigns. Most use a social marketing framework, which focuses on changes in health behavior as “product” or outcome.

In “Speaking of Health,” the major tasks for an effective campaign included:

1. Choosing target audience(s) and particular behavioral objectives
2. Choosing a message strategy and executions
3. Choosing the mix of dissemination channels and settings

4. Undertaking formative, monitoring and evaluation research to support the program.

Two other models also were highlighted within the context of effective health communication campaigns. These were described by Sutton, Balch and Lefebvre (1995) and included Novelli's six-step "marketing wheel," which has been used in many national health education campaigns. In addition, the Centers for Disease Control and Prevention (CDC) uses a 10-step "wheel of action." The authors own six-step model included:

1. Defining and understanding the target audience
2. Determining the behavioral objective – that is, what action the audience should take (and not take, if there is a competitive behavior)
3. Deciding what reward should be promised in the message for taking the action
4. Establishing what needs to be included to make the promised reward credible
5. Determining what "openings and vehicles" should be used – that is, how to reach audience members when they are receptive
6. Deciding what "look and feel" or what image of the action should be portrayed in the message

Two characteristics in particular seem important for agencies, organizations and individuals planning health communication campaigns, according to the literature. This includes the importance of segmenting audiences and listening to their perspectives about the proposed behavior change. This allows the design of the rest of the campaign to flow from the perspective of the audience and not the agency.

The second important characteristic is ensuring enough resources are devoted to a health communication campaign and that includes people and funding. In "Speaking of Health," the authors indicate that an under-resourced campaign is unlikely to be effective.

"Campaigns are an appropriate and attractive strategy to a health agency anxious to influence population behavior change. However, if the minimum conditions for successful public communication programs are not met—and often they are not, particularly with regard to resources needed to obtain high levels of exposure to messages—then the campaign is not an appropriate strategy. This concern is magnified in the context of a campaign that intends to address multiple diverse segments, when resource demands are even higher. Agencies should not initiate communication campaigns unless they are able to satisfy these conditions."

In terms of new technology, little research has been done to determine the most effective way to utilize social media in health communication campaigns. Recent campaigns are employing the new technologies, from websites to Google ad campaigns to viral videos. Literature also indicates not to forget combinations of technology, such as in-person contact with telephone counseling.

Finally, in Kansas, research conducted by the Kansas Health Institute, provided significant insights into the two most important audiences for immunization campaigns. In the June 2008 "Parental and Provider Attitudes" report, Ayars draws these themes from interviews conducted with private providers, local health departments and parents of children 0 to 35 months:

- Parents and providers recognize importance of patient follow-up and education
- Parental needs are not being met
- Cost represents barrier – both providers and parents are concerned about immunization costs for underinsured patients
- Providers emphasize cost of administering immunizations as barrier
- A complete and accessible immunization registry would allow parents to monitor immunization status of children and providers an effective tool for tracking
- System needs to be secure and flexible for parents and providers
- Registering children at birth would enhance ability for both parents and providers and could also strengthen linkage between private providers and local health departments
- Parents and providers both think the idea of statewide educational campaigns are needed to maintain awareness and need for childhood immunizations
- Providers especially appreciated campaign materials and incentives that established a link between provider and state for parents.
- Incentives are not necessarily as valued by parents as providers think they are
- Parents rely on physicians as credible sources of information and education in prefer to have their children immunized at the doctor’s office
- Ultimately there is a need for coordinated strategies by private providers, local health departments, and parents with support from state

Because an electronic “immunization registry” has been identified as an important part of the immunization system, some limited audience research was conducted with Kansas providers – specifically looking at benefits and barriers.

Findings related to KsWebIZ will be discussed in Section 3, but they tended to support those found in “Developing Communication Messages to Promote Immunization Registry Use by Health Care Providers” (KHI 2009). In particular, the benefit was that the system would bring more accuracy to a system that sometimes is difficult to document. On the barriers side, some providers were concerned about how the online system would interact with their own IT systems and how the contact data about patients could be kept current.

An extensive search of literature found many immunization campaigns in other states and on a national level. Links to those can be found in Addendum 2. A set of materials was tested with providers (immunizing and non-immunizing) and with parents.

Materials from the CDC were reviewed, based on the research model generally utilized by the Centers. In addition, materials from a number of campaigns were selected because of they were developed and/or used by professional organizations representing providers and there was a likelihood that providers might use the materials with their patients who have small children. A more complete discussion of these materials is provided in Section 3.

However, one campaign seemed to stand out among the rest in terms of following the steps of effective health communication campaigns. This was the Immunize BC campaign designed and sponsored by the British Columbia Centre for Disease Control. It was researched, implemented and evaluated, with findings provided by the BC Centre.

The campaign reported an increase in the number of immunizations of almost 10 percent in the one year of the initial campaign (2007 – 2008). That is compared with a 1 percent decrease from 2006-2007. Some important features of the campaign included:

- Why do it?
 - o A provincial survey of “immunizers” who asked for a coordinated promotion campaign
 - o A increase in “misinformation” available on the Internet
- What was the purpose?
 - o To work in conjunction with an educational ‘in-servicing’ for immunizers about how to answer common vaccines questions from parents
 - o To address one of British Columbia’s Immunization framework, “to promote the immunization program to the public and health care professionals”
 - o To target the primary audience of parents of children 0-2 and secondary audience of health care providers
- How did they do it?
 - o Through an RFP process, worked with a company to handle the creative and logistical pieces of the campaign
 - o Campaign was designed in 2007 and launched in early 2008
 - o Oversight was provided by BC Immunization Promotion Working Group (IPWG), which reported to the BC Sub-Committee on Immunization
 - o Three creative approaches were developed based on understanding the “what” and “how” of the what needed to happen (more children immunized); and those approaches were focus group tested with parents to choose specific approaches that worked best
 - o The media mix included radio, newspaper, magazines, television, brochure, poster series, viral video, Google ad campaign. All media drove the public to a new website: www.immunizebc.ca
 - o Evaluation included:
 - Qualitative comments – A variety of comments, but they indicated the campaign was a good “reminder”
 - Parental survey to measure awareness, knowledge, attitudes and beliefs – A total of 400 telephone surveys indicated an overall increase in support for immunization (especially a greater increase from lower income households); and radio was the medium with highest awareness
 - Google ad campaign – Keyword based campaign more than doubled traffic to website; total cost of this component was \$1,839
 - Health behavior – change in immunization rates – 9.5 percent increase from first quarter 2007 to first quarter 2008
 - o Important lessons learned:
 - Coordinate online and traditional media to get greatest impact and optimize dollars
 - Opinions v. advertising – “you” are an “n” of 1
 - For traditional media, hard hitting messages worked best; opposite for online approaches
 - No substitute for “good engaging content”

SECTION 2: REVIEW INVENTORY OF IMMUNIZATION COMMUNICATION MATERIALS DEVELOPED IN KANSAS

A matrix of materials developed by the Immunize Kansas Kids partners (see accompanying materials) provided an overview of the breadth and depth of communication materials available in the state focusing on awareness and education efforts about immunizations.

Materials were targeted to a variety of audiences (from health care providers to parents to schools), covered a variety of diseases (from the seasonal flu to avian flu to early childhood diseases like measles, mumps and rubella) and included a variety of messages delivered in multiple media (from brochures to flyers to online).

Once the materials specifically focusing on early childhood immunizations were identified, the main findings included:

- **Message:** “Bee Wise, Immunize” and “Immunize, Win a Prize” were the primary messages used. The “Bee Wise” tagline has been used in different ways since the late 1990s and was part of an original campaign that boosted awareness and immunization rates using multiple partners and approaches throughout the state.
- **Media:** Brochures, flyers, info cards, print advertising, online and a short video. It should also be noted that a number of materials focused specifically on materials for providers, including immunization schedules, storage and handling charts and the KsWebIZ program, an online registry available to health care providers in the private sector, as well as local health departments and schools.

In reviewing the materials, and comparing those with the elements of an effective health communication campaign found in Section 1, as well as materials found in other states and on a national level, the following observations were made:

1. Defining and understanding the target audience
 - This research is beginning to determine relevance of “Bee Wise” to the target audience
 - Early indications are that “Bee Wise” has significant awareness, likely due to the longevity of the campaign. However, there is a need to consider updating the materials
2. Determining the behavioral objective – that is, what action the audience should take (and not take, if there is a competitive behavior)
 - The call to action is direct, and that is to “immunize”
 - There is little appeal directly to parents, which could strengthen the campaign
3. Deciding what reward should be promised in the message for taking the action
 - The “Immunize, Win a Prize” is an effective adjunct to the “Bee Wise” campaign – promising incentives for parents who bring their children in for immunizations. However, this should be tempered, as some parents do not like the implications this kind of program is a “bribe” that rewards bad behavior.
4. Establishing what needs to be included to make the promised reward credible

- The promised rewards in the “Bee Wise” campaign is delivered by a trusted spokesperson – the provider – which helps make it a credible program.
5. Determining what “openings and vehicles” should be used – that is, how to reach audience members when they are receptive
 - While the “incentives” program is delivered in the providers’ offices, it is unclear what other materials are used. In fact, findings from the research in Section 3 indicate that more educational pieces are needed, highlighting the benefits of immunizations and blunting the messages about “risks.”
 6. Deciding what “look and feel” or what image of the action should be portrayed in the message
 - There are few elements in “Bee Wise” that would connect this as an overall campaign. From design, to simple messages, to where to find the materials, it lacks an overall comprehensive feel that goes into an effective campaign.

SECTION 3: TESTING MESSAGES AND MATERIALS WITH PROVIDERS AND PARENTS

Methodology

Limited audience research was conducted with:

- Parents parents of children 0 to 5
- Providers
 - o Private providers who immunize (including those who use the KsWebIZ registry and those who do not
 - o Private providers who do not immunize
 - o Local health departments

An online survey was developed and implemented in October 2009. A total of 360 parent surveys were completed. Demographic information is available; however, in general these parents were:

- More likely to immunize their children (91 percent)
- More likely to stay at home with their children
- Most likely women (66 percent)
- Mostly white (87 percent)
- Educated (35 percent had a bachelor's degree)

While the top-line trends are important, more extensive research needs to be conducted with lower income respondents to reflect a more accurate set of findings across populations in the state.

For providers, the number of returns and methodology limit generalizations to a broader audience. A total of 71 online surveys were completed. The Kansas Academy of Family Physicians and Kansas Chapter of the American Academy of Pediatrics, distributed the survey to members for private provider input. The Kansas Department of Health and Environment distributed to local health departments in the state. Almost 46 percent of surveys were completed by pediatric offices, 42 percent by local health departments and 5 percent by family physician offices. Others surveys were not identified by provider code.

A majority of providers (89 percent) indicated they provided immunizations, while 10 percent indicated they did not. In addition, almost 59 percent indicated they were KsWebIZ users, while 38 percent were not. A total of 2.7 percent indicated they did not know if they were KsWebIZ users.

Messages and materials

After a review of campaign materials from other states, organizations and national campaigns (including British Columbia), the following messages were tested:

- Kansas
 - o Bee Wise, Immunize
 - o Immunize, Win a Prize
 - o What would happen if we stopped vaccines?
- Others
 - o Every Child by Two, *a national campaign*

- Up-to-date? Vaccinate, *CDC awareness month*
- M.O.V.E.: Make On-Time Vaccinations Easy, *Parents of Kids with Infectious Diseases*
- Shots for Tots, *various statewide immunization initiatives*
- It's Time to Immunize, *American Academy of Pediatrics*
- You protect your children from the dangers you can see, what about the ones you can't?, *ImmunizeBC*

For parents, seven messages and nine pieces of materials tested:

- "Bee Wise, Immunize" flyer and schedule
- "Immunize and Win A Prize" flyer
- "What Would Happen if We Stopped Vaccinations?" newspaper ad
- CDC: National Infant Immunization Week 30-second radio ad/PSA
- CDC: Welcome to Parenthood video
- M.O.V.E.: Make On-Time Vaccinations Easy 30-second radio ad
- Every Child by Two TV 30-second ads (3) – one focused on timely immunizations, one on immunization registries and one on vaccine safety
- ImmunizeBC 30-second radio ad

For providers, the focus was on materials generally used for patient education. Materials tested were:

- "Immunize and Win a Prize" flyer
- CDC posters with immunization schedules (2)
- Children's Hospital of Philadelphia PACK (Parents Possessing Accessing Communicating Knowledge about Vaccines), an online resource package
- Immunization Action Coalition comparison poster focusing on declines in vaccine-preventable diseases

Examples of materials that were tested are included in the accompanying materials.

Findings - PARENTS

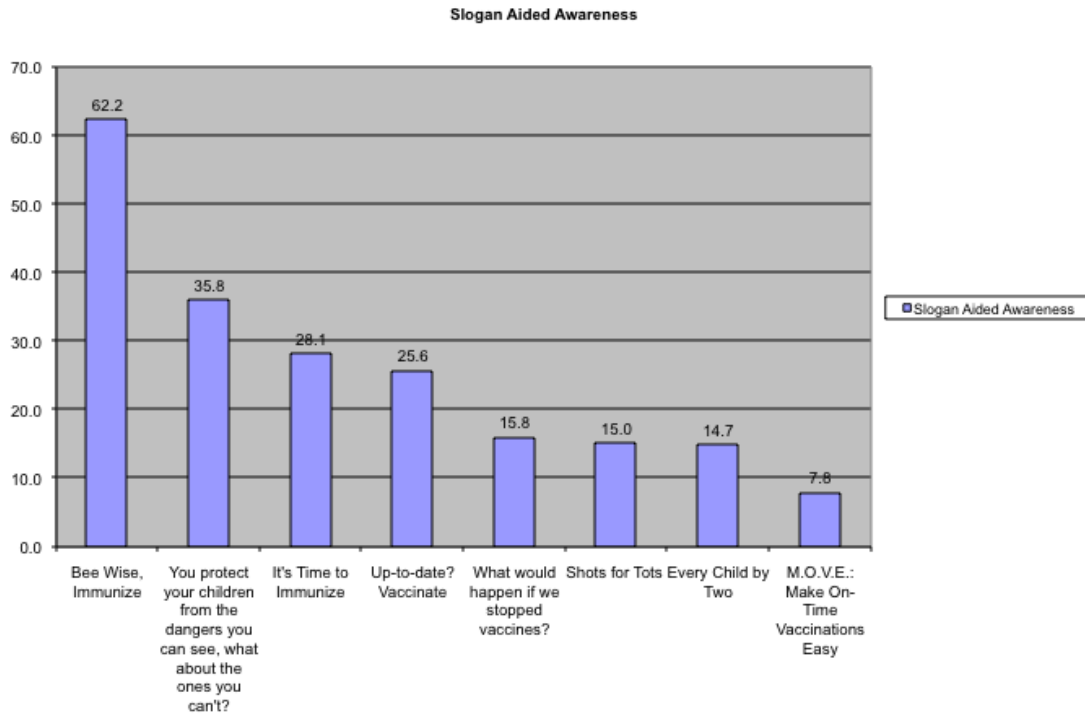
For parents participating in this survey, the majority (91 percent) made sure their children were immunized. Interestingly, while many responded in open-ended questions that they did so to protect their children, another common reason was related to policies that require children to be immunized before they enter school. As one respondent said:

- "Because it is required by the state that my kids have their immunizations to go to school."

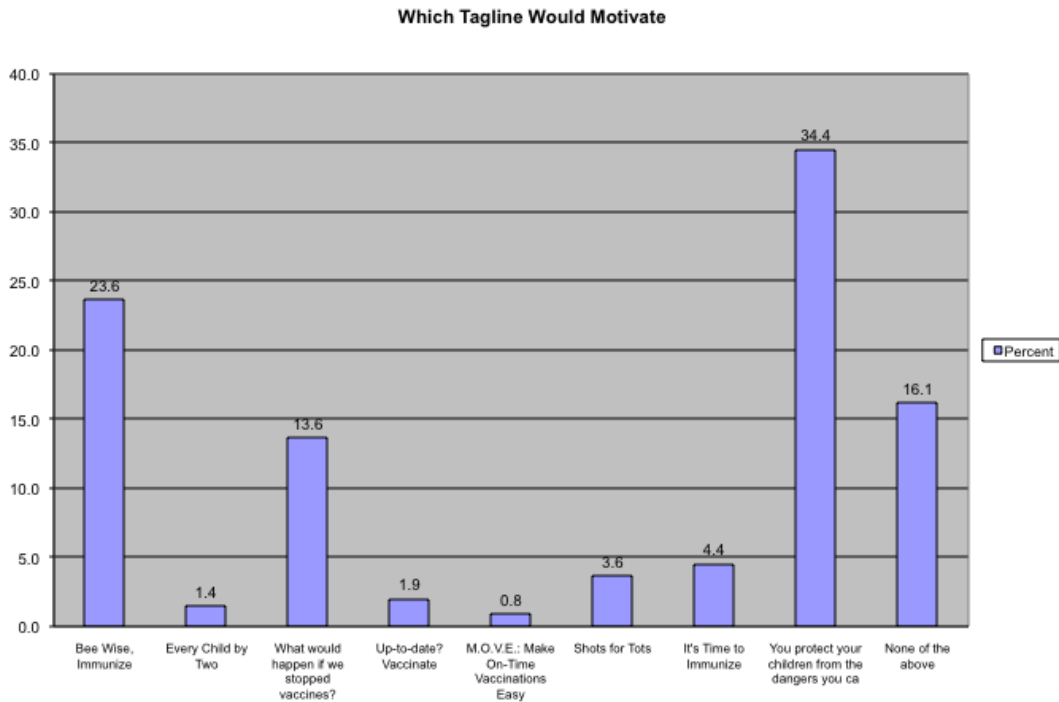
Reasons for not immunizing children varied, with one reference to conspiracy and another based on religion. One example in the open-ended question offered this explanation:

- "I think that the information that is provided about the safety of a vaccine is biased and most of the information comes from a research company that was paid for by the vaccine maker. I think that the vaccine and medicine cartel work heavily to influence"

When it comes to campaigns and taglines, parents had a high awareness of the Kansas slogan, “Bee Wise, Immunize.”



However, when it came to which tagline would motivate you to immunize your child, the favorite focused on “protecting your child.”



Open-ended responses provided some understanding about what parents thought about the campaign messages.

For the “Bee Wise” campaign, comments included:

- Catchy, informative and colorful were among the most common responses
- “Catchy. Informative and concise.”
- “Colorful so it catches your eyes, has the facts you need to know about helping your child stay safe and healthy.”
- “I liked the immunization chart that showed what shots needed to be given at what age.”

For the “What would happen?” material, the most common response was “boring.” As one respondent said:

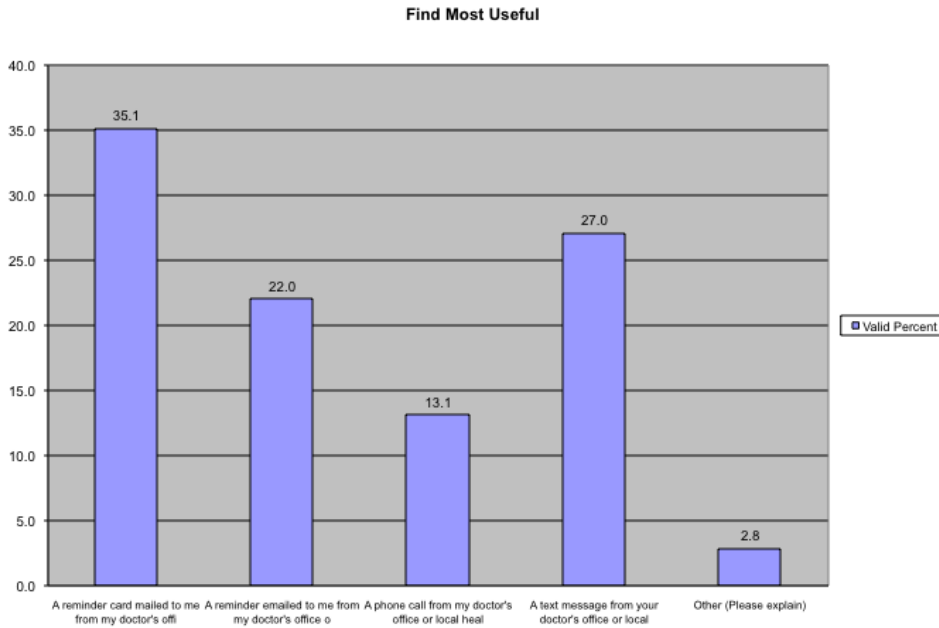
- “Too much boring detail. Need a balance to make it attractive, don't you? I would breeze this over and not read it in any detail.”

For the Canadian campaign, “You protect your children from the danger you can see, what about the danger you can't?” the message for motivating parents to get their children immunized rated high, although the sound of the cough was a concern among some respondents. As one person said, “Ee-gads! Are you trying to scare the \$%%\$ out of a parent? Effective for that route, but I thought it spent too much negative on the disease. I forgot it was about immunizations all together.”

Other comments included:

- “Best audio message so far. It was helpful to hear the pain that a child goes through without the vaccine.”
- “Disturbing, but actually helpful. Never quite knew what whooping cough sounded like.”
- “This is a great radio spot. It brings in a real life situation, information, risks, and signs to look for in case your child is effective. Very motivating!”

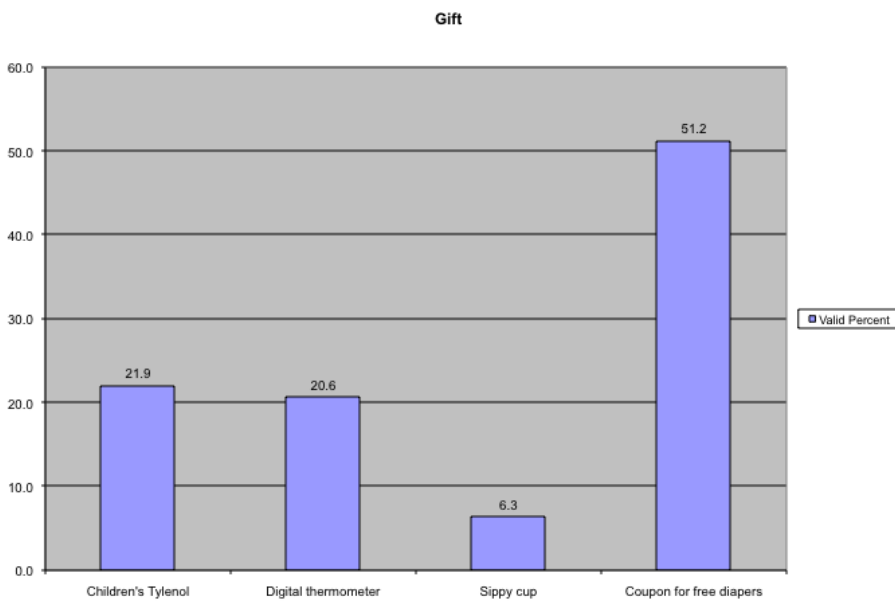
In terms of the most useful way to communicate with parents, respondents indicated a reminder card mailed from their providers' office would be the best way. However, the second most popular way was a text message from the doctor's office.



Interestingly, in the open-ended responses, a combination of ways was recommended. Comments included:

- "A broader combination of these options. Reminders from the doctor as well as emails. The online immunization registry sounds wonderful. It's terribly hard to not lose that little pink card!"
- "I would like a reminder card mailed from my doctor's office and also a printed record card that I could keep at home and bring to the doctor's office. This combination would be most helpful to me."

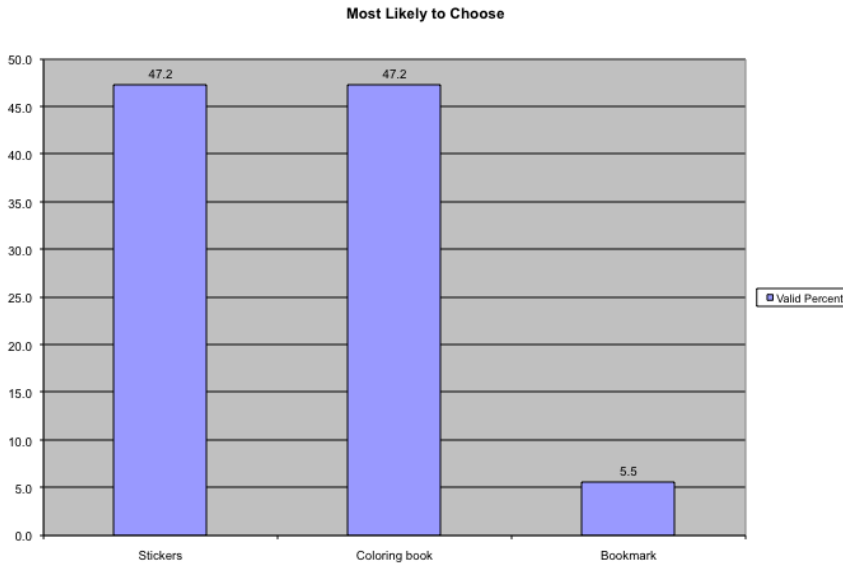
When it comes to incentives, parents clearly opted for the coupon for free diapers when compared with other options.



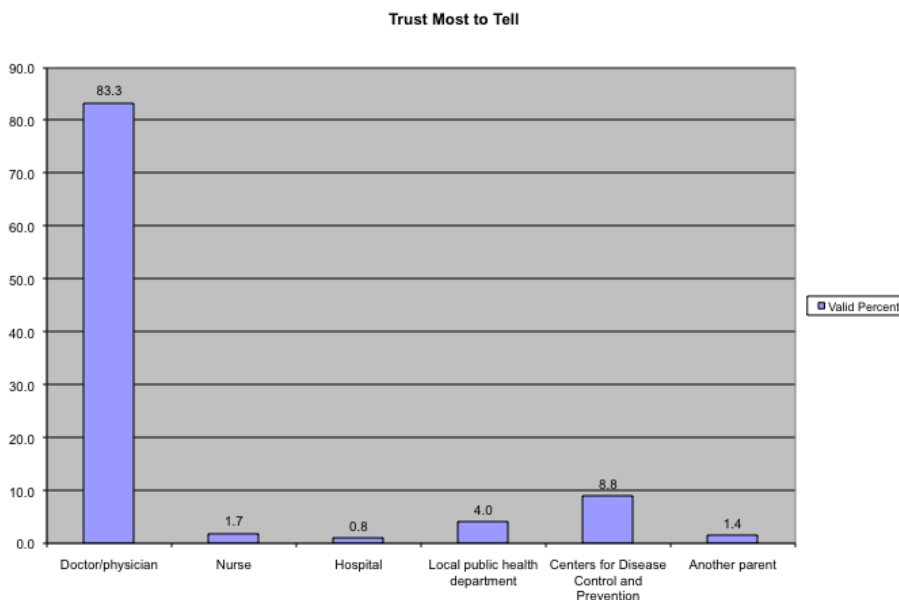
Still, while these are perceived as good options, the open-ended responses cautioned this as a promotion, as they were also described quite often as “bribes.” Comments included:

- “Not needed...don't think parents should have to be bribed to care about their child's health.”
- “We really should not have to (be) rewarded for doing the right thing for our children. The reward (gift) is a healthy child.”

When it came to materials that parents wanted to receive as “rewards” for taking their child in for immunizations, the stickers and coloring books were clear winners over bookmarks.

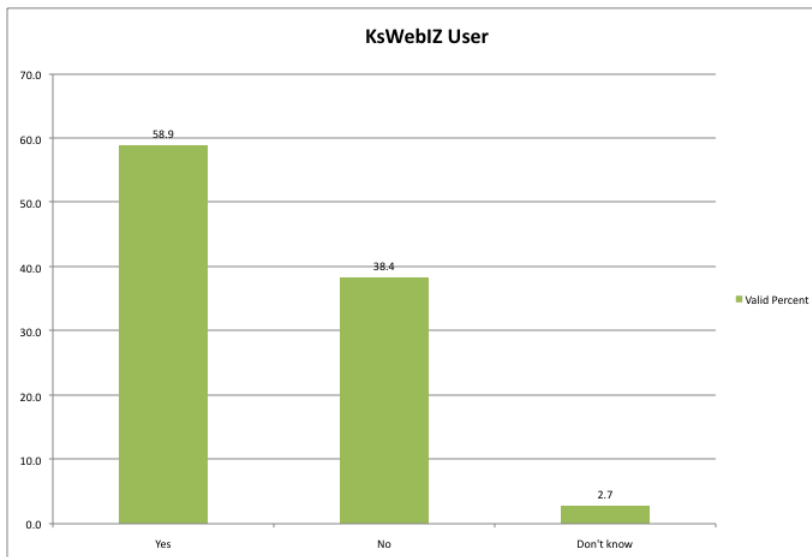
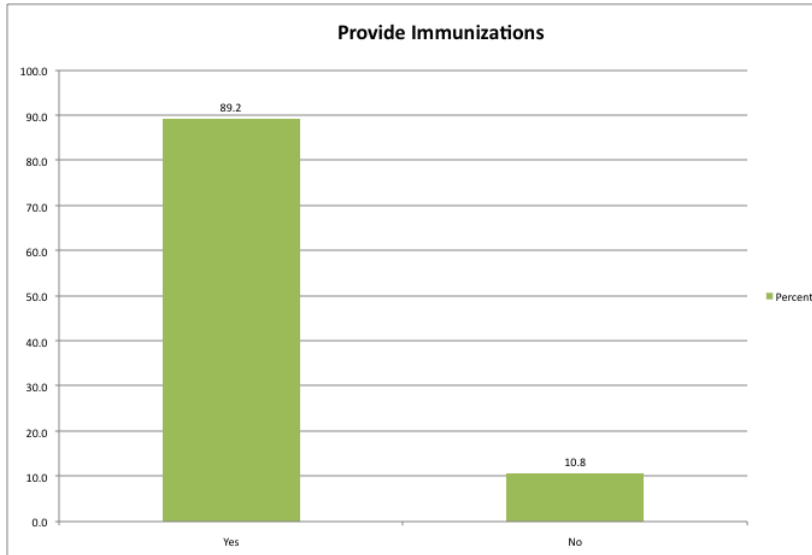


Finally, when it comes to trusted sources for information related to immunizations, doctors/physicians were the choice among parents. In comparison, organizations in general (such as the CDC) were not seen as a trusted source.

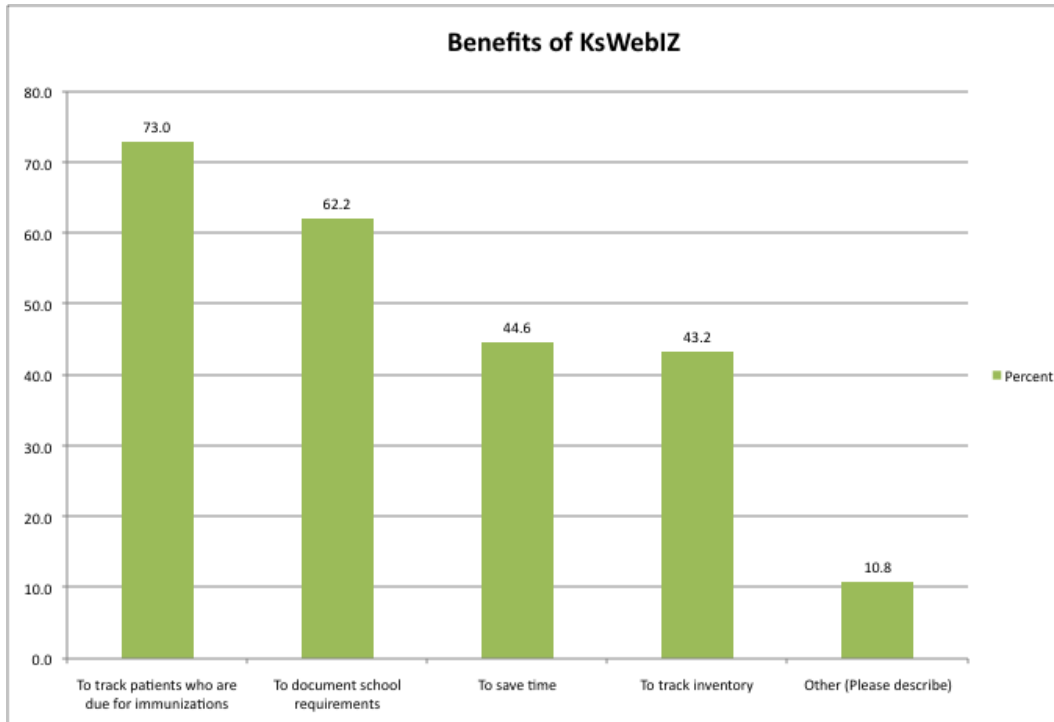


Findings - PROVIDERS

For providers, the sample size was small, but the majority of respondents immunized and used the online registry KsWebIZ.



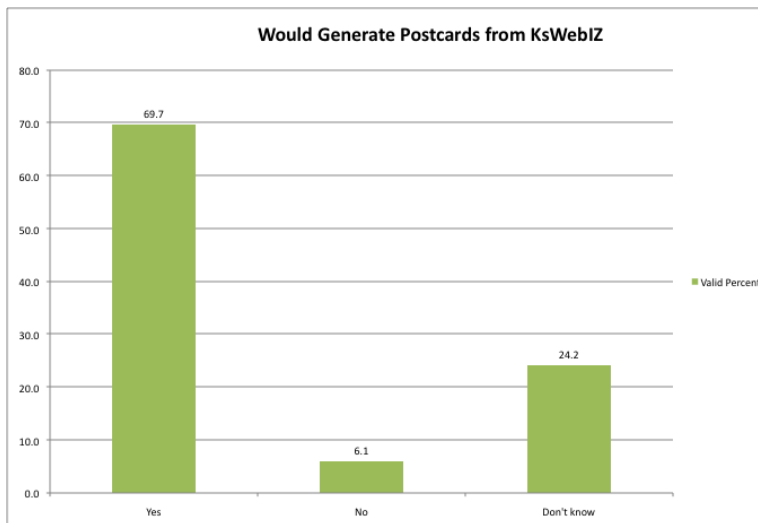
When asked, “What do you see as the major benefits of an electronic immunization registry like “KsWebIZ?” respondents could select all that applied. Tracking patients was the most common response. This was a perception that was consistent among KsWebIZ users and non-users.

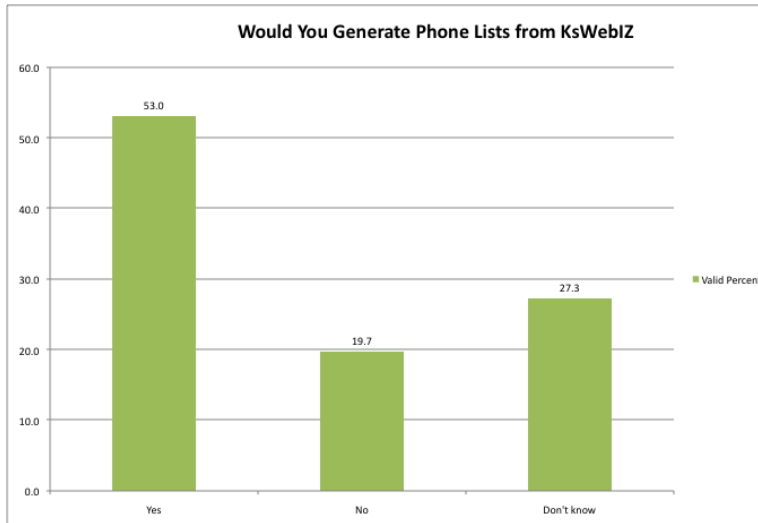


In open-ended responses, providers spoke about accuracy of KsWebIZ. Among the comments were:

- “Most accurate record for patients who have received shots from many providers”
- “Prevents duplication of vaccination, allows providers and schools to share vaccine information easily, recommends needed vaccines.”

When asked if they would generate postcards and phone lists from an online registry like KsWebIZ, providers were more certain that they would use it for postcards rather than phone lists.

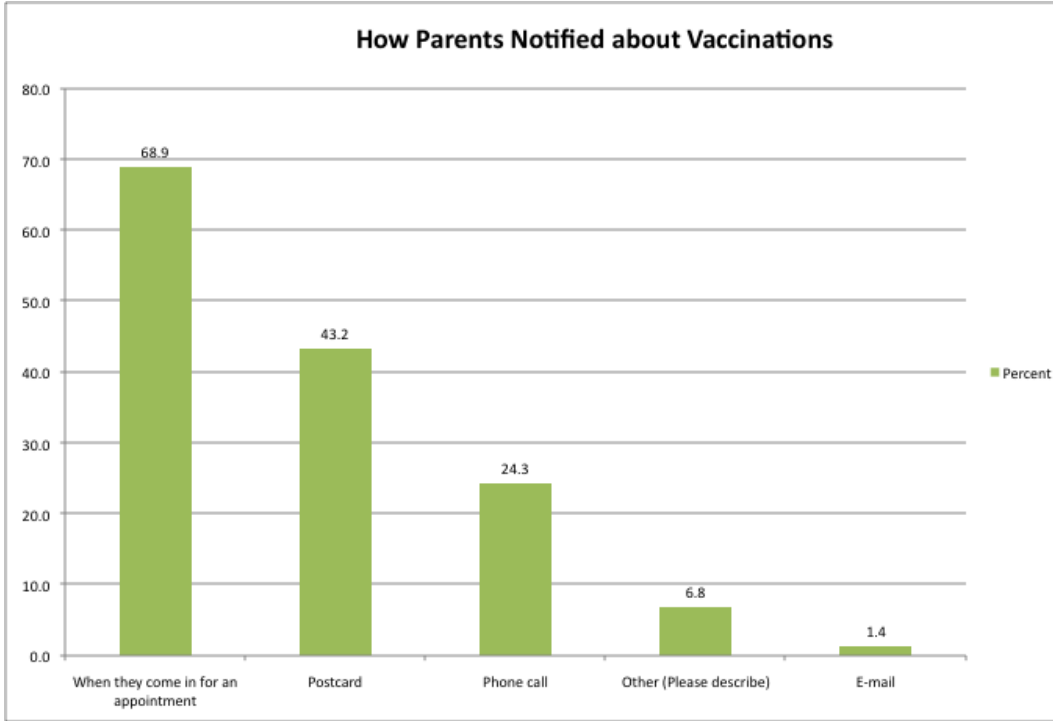




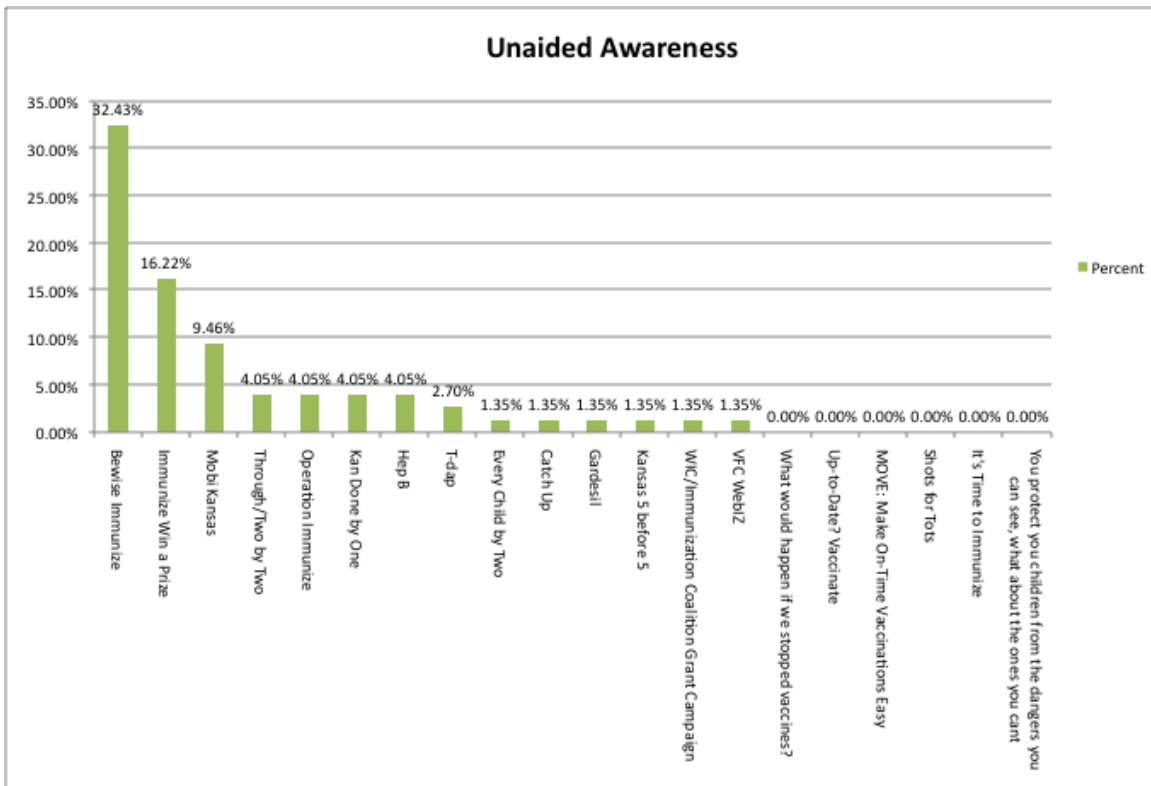
In the open-ended responses, providers indicated there was some concern about how the registry would interact with other software programs already used in a practice, how to ensure that information was up-to-date and how time-consuming these tasks would be. Comments included:

- “It would need to be presented to the director of our clinic/medical records program, as that is where the recall letters are generated for our current system. We obviously wouldn’t want to send 2 notifications for the same item.”
- “We would have to consider the changes of addresses that will occur frequently in families with small children, and study whether it saves time and money to print them or do them individually, than to have to returned cards due to improper addresses.”
- “Don't imagine that the (phone) numbers in that system would be any more accurate than the ones in our own computer system which has upwards of 40% plus nonworking phone numbers.”
- “Too time consuming for my nurses. Again, an e-mail system would be preferred. Also would love it if parents could log into their children's charts and see dates of vaccines given, and highlighted ones that are upcoming (ie yellow) and due (red).”

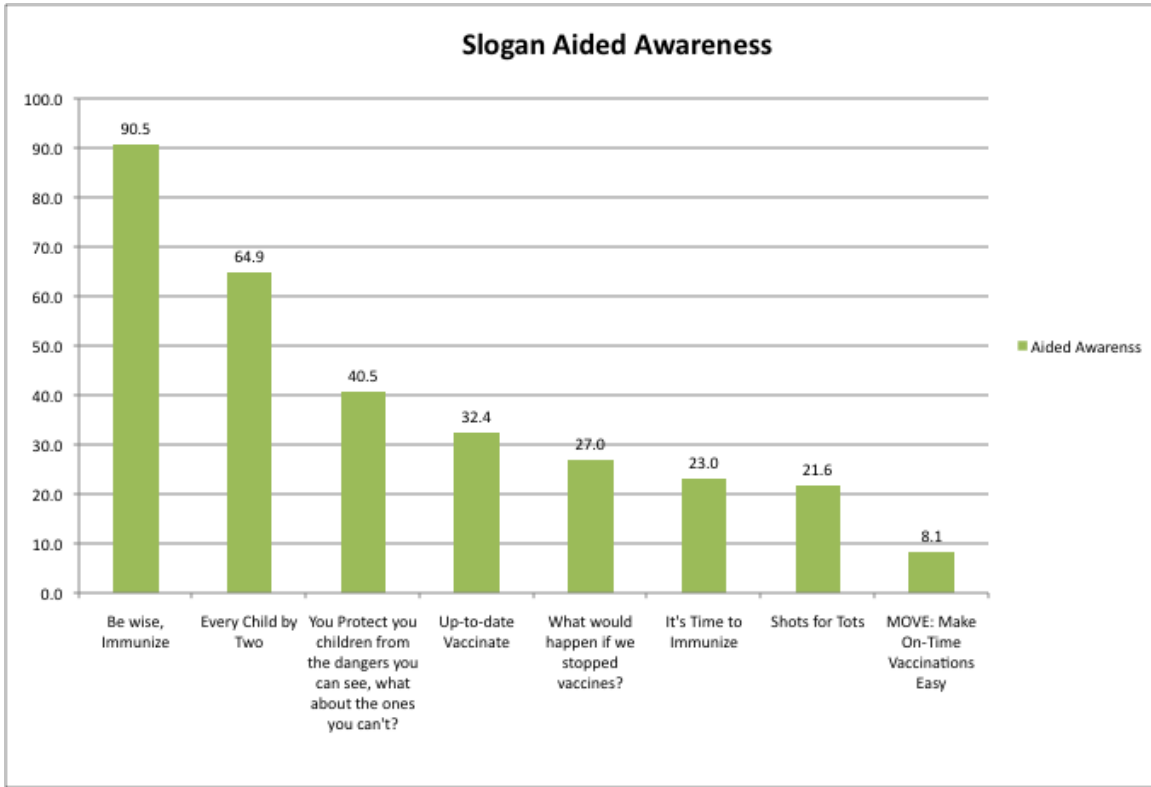
As a comparison, providers reported they most often notify or remind patients about vaccinations when they come in for an appointment, with less than half indicating they use postcards and less than 25 percent indicating they make phone calls.



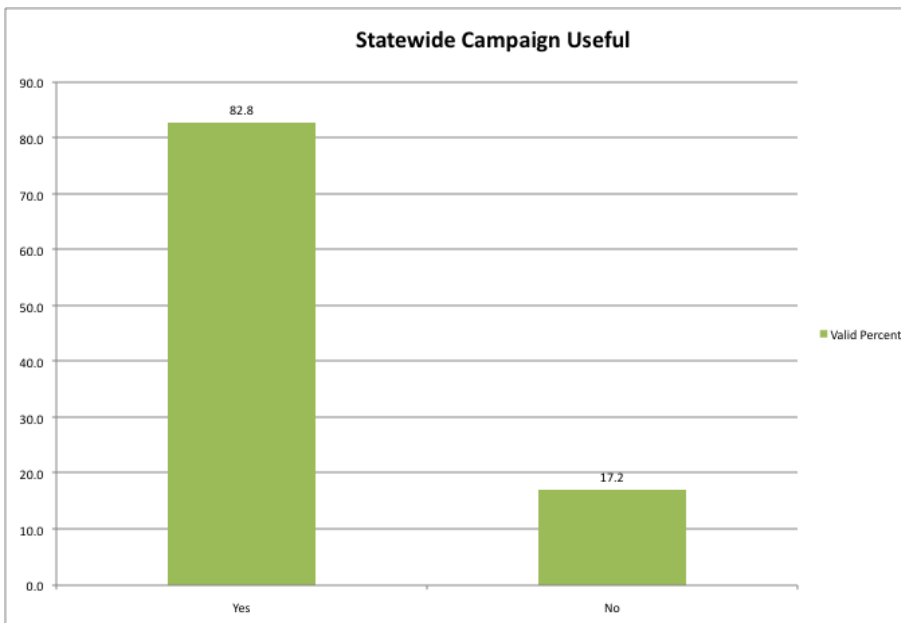
When it comes to health communication campaigns and materials, providers were most aware of the “Bee Wise, Immunize” and “Immunize, Win a Prize” messages. In unaided responses, providers mentioned the following:



Furthermore, when asked about specific messages and materials, providers reinforced their familiarity with “Bee Wise, Immunize.”



When it comes to a statewide campaign to increase immunization rates, providers were supportive – a trend that is consistent with responses in an early assessment conducted by the Kansas Health Institute.



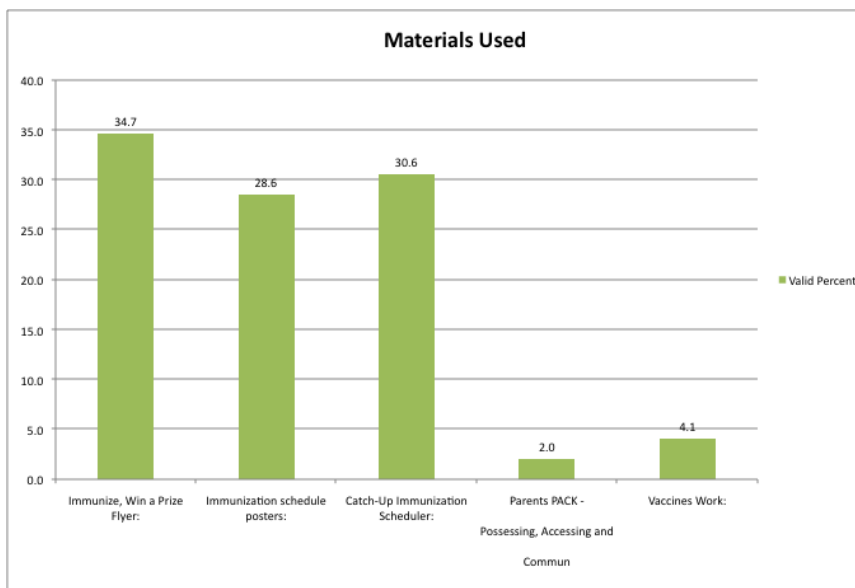
When asked why a statewide campaign would be useful, open-ended responses included:

- “Advertising goes out to more people. Better incentives.”
- Any media campaign that can get the word out helps with vaccination rates. (I would use as able.”
- “Any media helps. Need to dispel myths and fears more than anything. I have to be a salesman as well as a physician and educator.”
- “I would love this! We get so many parents who are worried about vaccines b/c of misinformation about immunizations and autism. I think it would be great to have some pro-vaccine messages out there to counter the Oprah/Jenny McCarthy lies.”
- “If there was statewide coverage, perhaps it would reach those parents out of the loop because they are so mobile. It would be nice to have some sort of text messaging to the parents if they would accept this form of communication.”
- “It would reinforce what we are telling parents and give the pediatricians more credibility when we have to fight against what parents are sharing with each other on the Internet, etc.”
- “I have to be a salesperson as well as a physician and educator. Any reminder to vaccinate young children is helpful.”

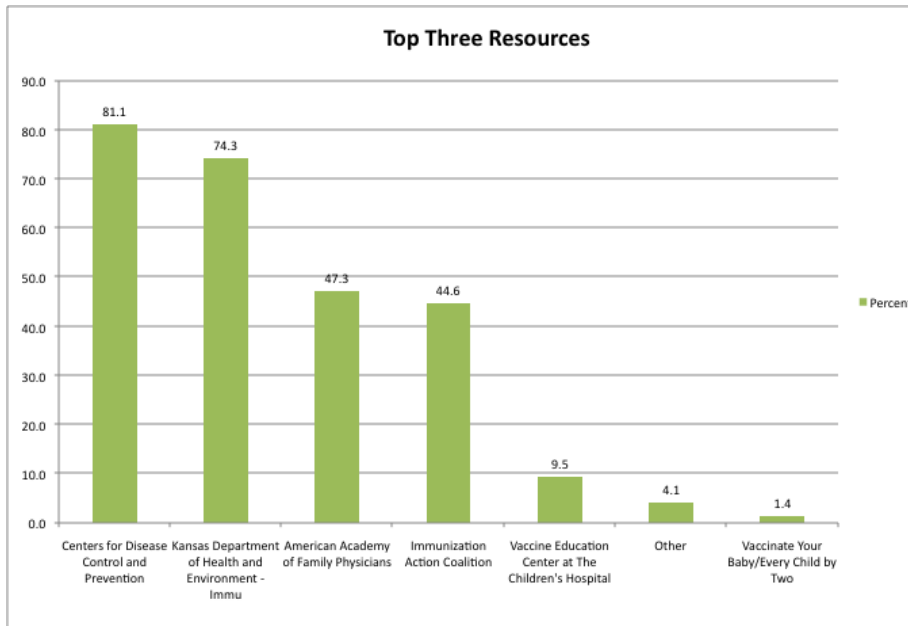
Comparatively, when asked why a statewide campaign would not be useful, responses in general focused on the fact a campaign might not reach the people it needs to. Responses included:

- “I don’t think it would reach that many more of my regular patients.”
- “Those that get it, get it. (You) need teeth like no Medicaid unless current, no food stamps unless current, no preschool or day care unless current, no refund on state taxes unless proof of immunizations for dependent children. Do not waste money on something (that won’t work).”

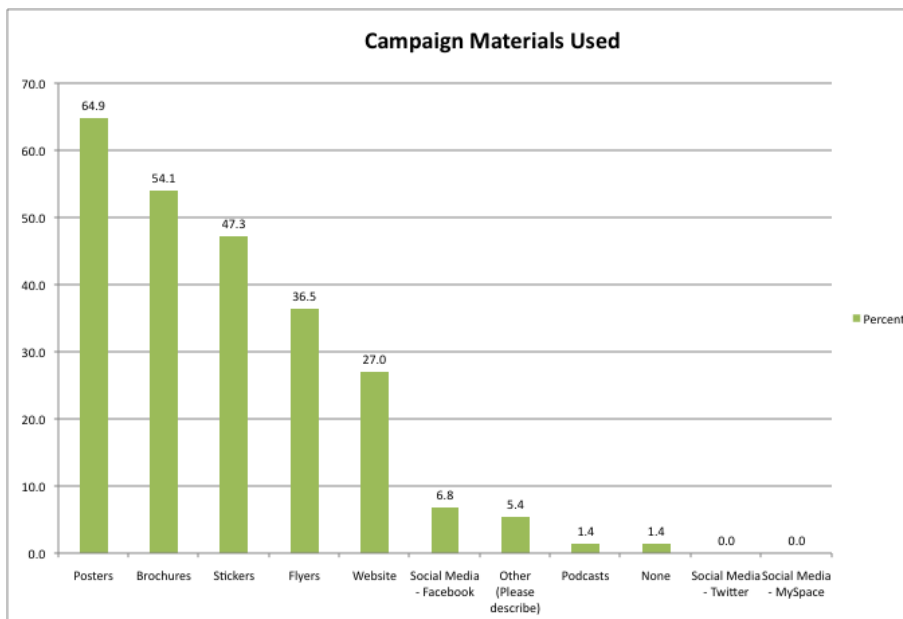
In terms of materials the providers indicated they already were using, the “Immunize, Win a Prize” information seemed the most popular.



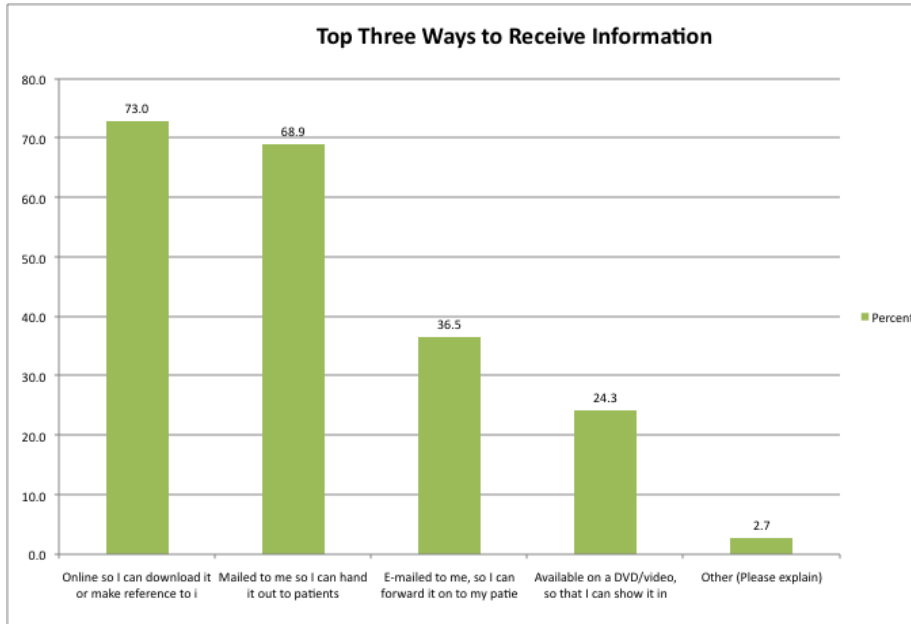
The top three resources used by providers for information related to childhood immunizations were the CDC, Kansas Department of Health and Environment and American Academy of Family Physicians.



In terms of educational material used – as well as those they would find most useful in the future – providers preferred materials they could display or hand out to patients. Open-ended responses supported the importance of using brochures when interacting with patients.



When receiving information, providers indicated online and mail were the two preferred options.



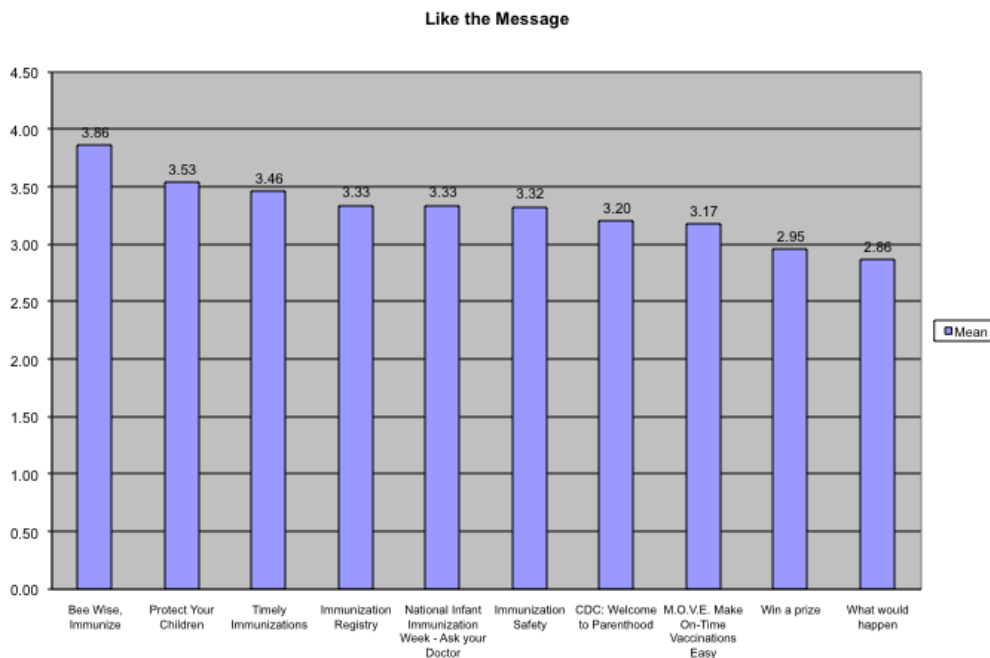
SECTION 4: RECOMMENDATIONS

A strong majority of parents and providers participating in the surveys believe in the importance of protecting children from the dangers of infectious diseases, particularly those that can be prevented through immunizations. A statewide campaign could be useful in increasing immunization rates among the most vulnerable population – young children.

A literature review conducted as part of this research project supports the idea that fully developed and integrated public health communication campaigns can be effective strategies in changing health behavior. Furthermore, an evaluation of a campaign in British Columbia indicates that by using a social marketing model – which is endorsed by leading health organizations such as the CDC – campaigns can be effective in boosting immunization rates.

In Kansas, there are several challenges in designing and implementing an effective health communication campaign targeted on increasing early childhood immunization rates in Kansas. Among those are financial resources. As the literature indicates, in order to be effective, health communication campaigns need to have the resources to “obtain high levels of exposures to messages.” If that does not exist, then “the campaign is not an appropriate strategy.”

In addition, as the limited amount of audience research conducted as part of this project indicates, there is a significant amount of clutter that exists around the issue of early childhood immunizations. As the chart below indicates, parents in Kansas like the messages that were put in front of them as part of this research. However, as reported earlier, when the focus is on what would **motivate** them to immunize their children, the concept of protecting children from the dangers of disease rated the highest. This is a significant finding for anyone pursuing health communication campaigns as a strategy for increasing immunization rates – focus on what will change behavior.



Still, despite these challenges, a number of opportunities exist in Kansas that can build on the success of the many immunization efforts that are in place. These opportunities include:

- High awareness of the “Bee Wise” message among parents and providers
- Implementation and marketing of the KsWebIZ online registry, which can help providers increase their efficiencies and communicate with parents
- Coordinated and cooperative efforts among public health and private providers

With these in mind, consideration should be made to update and coordinate the current health communication efforts being done in Kansas. Steps could include:

1. Conduct **qualitative research** with target audiences. The online research provided in this report was limited due to methodology and reach, particularly with the provider population. As such, organizers need to go deeper to understand ‘why’ behind comments. For example, scare tactics usually don’t work, but there is a need cut through the clutter and get attention among these campaigns.
2. Design a **comprehensive but targeted campaign** that combines the best “lessons learned” from this research, as well any future audience research. And while it might be most effective to stay with the “Bee Wise, Immunize,” messages, the campaign needs to be updated, simplified and coordinated. Consider:
 - Using Immunize Kansas Kids as the coalition in charge of a new campaign. This will provide the organizational structure needed to oversee develop of messages, materials, distribution and funding.
 - Testing “call to action” messages with target audiences (parents and providers). For example, a supporting tagline to “Bee Wise, Immunize,” might build on the idea of protecting children.
 - Utilizing multimedia, including social media and radio – both are cost-effective media outlets that can target parents and caregivers drive them to websites where coordinated messages and materials can be downloaded or printed out. Do not over-buy media that will reach more people than needed.
 - Utilizing electronic templates for flyers, posters and brochures. These should incorporate consistent design features and messages but could be tailored depending on target audience.
 - Connecting media campaign with providers – they are “front-line sales people” and need to be informed and have materials that match the media
 - Utilizing and marketing KsWebIZ. It is a tremendous tool for providers. The marketing plan that has been developed needs to continue to be implemented as a way to ensure the “sales force” of providers (physicians, public health departments and schools) can use it to increase their own efficiencies, generate reminders that reach the parents and caregivers and take advantage of multiple communication tools, including text messages, emails and postcards.

In conclusion, the number of campaigns, messages and sponsors that exist show the significance of the issue, but often serve to “muddy the waters” when it comes to keeping parents on track with immunization schedules for young children. In order to move the needle to higher immunization rates, an integrated campaign will need to find a way to penetrate these multiple messages and delivery systems in simple, direct and frequent ways.

ADDENDUM 1: Literature Review

“Designing a Social Marketing Campaign from Research to Evaluation,” BC- British Columbia Center for Disease Control, Public Health Agency of Canada, Immunize BC, March 2008

Social Marketing Campaigns and Children’s Media Use,
www.futureofchildren.com, Vol. 18, No. 1, Spring 2008

Early Childhood Health Problems and Prevention Strategies: Costs and Benefits, Issue Brief #3, Partnership for America’s Economic Success (funded by Pew Charitable Trusts)

Designing a Social Marketing Campaign from Research to Evaluation, Canadian Immunization Conference, 2008

Evaluating Communication Campaigns, 2007 Research and Evaluation Conference, Robert Wood Johnson Foundation

“Effects of Mass Media Campaign to Increase Physical Activity Among Children: Year 1 Results of the VERB Campaign,” Pediatrics Journal of the American Academy of Pediatrics, August 2005

“Speaking of Health: Assessing Health Communication Strategies for Diverse Populations, Committee on Communication for Behavior Change in the 21st Century: Improving the Health of Diverse Populations,” Board on Neuroscience and Behavioral Health, 2002

Communicating Public Health Information Effective: A Guide for Practitioners, 2002

Immunize Kansas Kids, www.immunizekansaskids.org

- Developing Communication Messages to Promote Immunization Registry Use by Health Care Providers: What You Should Know,” May 10, 2009 (Draft)
- Achieving and Sustaining High Vaccination Rates Among Kansas Children, June 2008
- How to Achieve and Sustain High Vaccination Rates Among Kansas Children: An Action Plan, March 2008
- Parental and Provider Attitudes, Practices and Beliefs about Childhood Immunizations in Kansas, KHI, August 2008
- Evaluation of the Maximizing Office Based Immunizations in Kansas (MOBI-KS) Program
- States with High Rates: How Do they Do It? (Part II) – Presentation, January 2007
- KsWebIZ: The Kansas Immunization Registry – Presentation, January 2007

ADDENDUM 2: Campaign Search - Childhood Immunization/Vaccination

Centers for Disease Control (www.cdc.gov)

<http://www.cdc.gov/vaccines/recs/schedules/default.htm#child>

- Childhood Immunization Schedules:
<http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#printable> 11x17
Brochure, pocket and Spanish versions also available
 - 0-6 years (8.5x11)
http://www.cdc.gov/vaccines/recs/schedules/downloads/child/2009/09_0-6yrs_schedule_pr.pdf
 - 7-18 years (8.5x11)
http://www.cdc.gov/vaccines/recs/schedules/downloads/child/2009/09_7-18yrs_schedule_pr.pdf
 - Catch-up schedule (8.5x11)
http://www.cdc.gov/vaccines/recs/schedules/downloads/child/2009/09_catch-up_schedule_pr.pdf
- CDC Pre-Teen Campaign: <http://www.cdc.gov/vaccines/spec-grps/preteens-adol/07gallery/default.htm>
- Vaccine Information Statements VIS's (information sheets):
<http://www.cdc.gov/vaccines/pubs/vis/default.htm>
- Vaccines and Immunizations - Basics and Common Questions (Web page):
<http://www.cdc.gov/vaccines/vac-gen/default.htm>
 - Common Questions Parents Ask about Infant Immunizations (Web page):
<http://www.cdc.gov/vaccines/spec-grps/infants/parent-questions.htm>
- Vaccines and Immunizations – Parents (Web page):
<http://www.cdc.gov/vaccines/spec-grps/parents.htm#question>
 - Parent's Guide to Childhood Immunizations (guidebook):
<http://www.cdc.gov/vaccines/pubs/parents-guide/downloads/2008-parents-guide.pdf>
 - Why Immunize (Web page)? <http://www.cdc.gov/vaccines/vac-gen/why.htm>
 - The Importance of Childhood Immunizations (Web page):
<http://www.cdc.gov/vaccines/vac-gen/importance.htm>
 - Ten Things You Need to Know about Childhood Immunizations (Web page with links to PDF information sheets):
<http://www.cdc.gov/vaccines/vac-gen/10-shouldknow.htm>
 - Evaluating Information from the Web (Web page):
<http://www.cdc.gov/vaccines/vac-gen/evalwebs.htm>
 - Parents Who Question Vaccines (information sheet):
http://www.cdc.gov/vaccines/pubs/downloads/f_parents_questvax_hcp.pdf
 - Some Common Misconceptions (Web page):
<http://www.cdc.gov/vaccines/vac-gen/6mishome.htm>
- Vaccines and Immunization Flyers and Brochures page:
<http://www.cdc.gov/vaccines/pubs/flyers-brochures.htm#question>
- CDC Publications: <http://www.cdc.gov/vaccines/pubs/default.htm>
- Vaccines and Immunization Publications page:
<http://www.cdc.gov/vaccines/pubs/default.htm>
- Contact CDC Form (online):
http://www.cdc.gov/vaccines/about/contact/nipinfo_contact_form.htm

Food and Drug Administration (www.fda.gov)

<http://www.fda.gov/BiologicsBloodVaccines/Vaccines/default.htm>

- A Parent's Guide to Kid's Vaccines (Web page):
<http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm048750.htm>

KidsHealth from Nemours (www.kidshealth.org)

- Your Child's Immunizations (Web page):
<http://kidshealth.org/parent/general/body/vaccine.html>
- Frequently Asked Questions about Immunizations (Web page/article):
http://kidshealth.org/parent/general/body/fact_myth_immunizations.html
- Immunization Schedule (Web page/article):
http://kidshealth.org/parent/growth/medical/immunization_chart.html

Immunization Action Coalition (www.immunize.org)

- What if You Don't Immunize Your Child? (Brochure)
<http://www.immunize.org/catg.d/p4017.pdf> (this link provided on CDC site)
- Vaccine Concerns (8.5x11 article): <http://www.immunize.org/catg.d/p4038.pdf>
(this link provided on the CDC site)
- After the Shots (Parent information Sheet):
<http://www.immunize.org/catg.d/p4015.pdf> (this link provided on the CDC site)
- Summary of Recommendations for Childhood and Adolescent Immunization
(information sheet/chart) <http://www.immunize.org/catg.d/p2010.pdf>
- Print Materials: <http://www.immunize.org/printmaterials/>

**Vaccinate Your Baby (www.vaccinateyourbaby.org) and Every Child by Two
(www.echt.org)**

- Parent Resources (Web page):
<http://www.vaccinateyourbaby.org/resources/parents.cfm>

American Academy of Pediatrics (www.aap.org)

- <http://www.aap.org/healthtopics/immunizations.cfm> URL is AAP's Immunization/Vaccine Children's Health Topics page with links to Vaccine Resources, including:
 - Immunization Schedules
 - Featured Content
 - Childhood Immunization Support Program Web site
<http://www.cispimmunize.org/>
 - Page with information on AAP immunization initiatives, Family Q&A, Clinicians, Vaccine-preventable illnesses and newsletter & resource links
 - National Infant Immunization Week
http://www.cispimmunize.org/pro/pro_main.html?http&&&www.cispimmunize.org/pro/niw.html
 - Audio Interviews, One-a-day Web messaging, Poster, PSA
 - Family and Community Resources
 - Vaccine-Preventable Diseases

- General External Resources
- A Minute for Kids Audio Files

Allied Vaccine Group (www.vaccine.org)

- Site comprised of American Academy of Pediatrics, The Children’s Vaccine Program at PATH, Immunization Action Coalition, Parents of Kids with Infectious Diseases PKIDS, The Vaccine Education Center at the Children’s Hospital of Philadelphia, The Vaccine Page
- Above sites are searchable via the Allied Vaccine Group’s site

American Academy of Family Physicians (www.aafp.org)

- Immunization Resources site:
<http://www.aafp.org/online/en/home/clinical/immunizationres.html>
- Immunization stickers:
<http://www.aafp.org/online/en/home/clinical/immunizationres/immunsticker.html>
- Immunization Recommendation Report (PDF):
http://www.aafp.org/online/etc/medialib/aafp_org/documents/clinical/CPS/immunization-general.Par.0001.File.tmp/GeneralRecommendationImmunization.pdf

The Vaccine Education Center at the Children’s Hospital of Philadelphia (www.chop.edu)

- Immunization Web site:
<http://www.chop.edu/consumer/jsp/microsite/microsite.jsp?id=75918>
- Resources for parents and others:
<http://www.chop.edu/consumer/jsp/division/generic.jsp?id=81901>
 - Includes informational tear pads, newsletters, booklets, VHS and DVD
- Resources for health care professionals:
<http://www.chop.edu/consumer/jsp/division/generic.jsp?id=81902>
 - Includes special information for parents and adolescents, in addition to parent resources available at previous Web page

Emory Vaccine Center (<http://www.vaccines.emory.edu/>)

- Vaccine Facts (Web page): <http://www.vaccines.emory.edu/vaccines/facts.shtml>
- Vaccine Myths (Web page): <http://www.vaccines.emory.edu/vaccines/myths.shtml>

Institute for Vaccine Safety at Johns Hopkins Bloomberg School of Public Health (<http://www.vaccinesafety.edu/Aboutus.htm>)

- Web site provides vaccine information
- Web page with links to outside sources: <http://www.vaccinesafety.edu/links.htm>

National Network for Immunization Information (<http://www.nnii.org/>)

- Fact sheets: <http://www.nnii.org/pressroom/nniiFactsheets.cfm>
- Parent information Web site: <http://www.nnii.org/parents/index.cfm>

Parents of Kids with Infectious Diseases (<http://www.pkids.org/>)

- Media room Web page: http://www.pkids.org/media_room.php
- PKIDS publications: http://www.pkids.org/mr_pubs.php
- PSA's: http://www.pkids.org/mr_psas.php
- Flu's Gonna Lose campaign: http://www.pkids.org/dis_influ_fgl.php
- Make One-time Vaccination Easy (MOVE): <http://www.pkids.org/move.php>
- Silence the Sounds of Pertussis: http://www.pkids.org/dis_pert_stsop.php

Voices for Vaccines (<http://www.voicesforvaccines.org/>)

- Blog: <http://voicesforvaccines.org/Blog/>
- Your stories: <http://voicesforvaccines.org/Your-Stories/>
- Disease/Vaccine information (Web page): <http://voicesforvaccines.org/Vaccines/>

Childhood Immunization by State

North Carolina 72%

- North Carolina Department of Health and Human Services:
<http://www.dhhs.state.nc.us/>
 - Search for Childhood Immunization leads to www.immunizenc.org site
- Immunize North Carolina Web site: <http://www.immunizenc.org/Default.htm>
 - School Information: <http://www.immunizenc.org/Schools.htm>
 - Childhood Immunization FAQ's:
http://www.immunizenc.org/Childhood_FAQ.htm
 - Educational Materials
Cover Your Cough:
http://www.cdc.gov/flu/protect/pdf/covercough_school8-5x11.pdf
What Parents Need to Know About the Flu:
[http://www.immunizenc.org/images/PDFs/parents_preventing_spread_of_fluFINAL\(web\).pdf](http://www.immunizenc.org/images/PDFs/parents_preventing_spread_of_fluFINAL(web).pdf)
What Schools Need to Know About Preventing the Spread of Flu:
[http://www.immunizenc.org/images/PDFs/schools_preventing_spread_of_fluFINAL\(web\).pdf](http://www.immunizenc.org/images/PDFs/schools_preventing_spread_of_fluFINAL(web).pdf)
Good Health Manners:
<http://www.immunizenc.org/images/PDFs/goodhlthman.pdf>
HPV Information: <http://www.immunizenc.org/HPV.htm>
Meningitis Information:
<http://www.immunizenc.org/Meningitis.htm>
Meningococcal Fact Sheet:
[http://www.immunizenc.org/images/PDFs/meningococcal_fact_sheetFINAL\(web\).pdf](http://www.immunizenc.org/images/PDFs/meningococcal_fact_sheetFINAL(web).pdf)
 - North Carolina Immunization Rules and Laws:
<http://www.immunizenc.org/NCRulesandLaws.htm>
 - Information for Parents and Guardians:
<http://www.immunizenc.org/Parents.htm>
 - North Carolina's Universal Childhood Vaccine Distribution Program:
<http://www.immunizenc.org/UCVDP.htm>
 - Vaccines for Children Program:
http://www.immunizenc.org/VFC_parentinfo.htm
 - North Carolina School Vaccine Requirements:
<http://www.immunizenc.org/ParentsSchoolReqs.htm>
 - Immunization Information for Child care Centers:
<http://www.immunizenc.org/ChildCares.htm>
 - Kid's Club: <http://www.immunizenc.org/Kids.htm>
 - About the North Carolina Immunization Branch:
<http://www.immunizenc.com/AboutNCIB.htm>

- Data Collection: <http://www.immunizenc.com/AboutNCIB.htm#data>
- North Carolina Immunization Rates/Statistics: <http://www.statehealthfacts.org/profileind.jsp?ind=54&cat=2&rgn=35>
<http://www.ncbi.nlm.nih.gov/pubmed/10541025?dopt=Abstract>

Massachusetts 79%

- Massachusetts Department of Health and Human Services: <http://www.mass.gov/?pageID=eohhs2agencylanding&L=4&L0=Home&L1=Government&L2=Departments+and+Divisions&L3=Department+of+Public+Health&sid=Eeohhs2>
- Search for Childhood Immunization yielded following results:
 - Immunization Program: http://www.mass.gov/?pageID=eohhs2terminal&L=5&L0=Home&L1=Government&L2=Departments+and+Divisions&L3=Department+of+Public+Health&L4=Programs+and+Services+A+-+J&sid=Eeohhs2&b=terminalcontent&f=dph_cdc_g_imm&csid=Eeohhs2
 - MPDH Immunization Program: <http://www.mass.gov/?pageID=eohhs2subtopic&L=6&L0=Home&L1=Provider&L2=Guidelines+and+Resources&L3=Guidelines+for+Clinical+Treatment&L4=Diseases+%26+Conditions&L5=Immunization&sid=Eeohhs2>
 - School Immunization Requirements: http://www.mass.gov/Eeohhs2/docs/dph/cdc/immunization/guidelines_ma_school_requirements.pdf
 - School Immunization Requirements, Summary Poster: http://www.mass.gov/Eeohhs2/docs/dph/cdc/immunization/school_vaccinate_poster.pdf
 - Meningococcal Information Sheet: http://www.mass.gov/Eeohhs2/docs/dph/cdc/meningitis/info_waiver.pdf
 - School Immunization Regulations: <http://www.mass.gov/Eeohhs2/docs/dph/regs/105cmr220.pdf>
 - Vaccine Management: http://www.mass.gov/Eeohhs2/docs/dph/cdc/immunization/vaccine_availability_childhood.pdf
- Immunization Rates/Statistics: <http://www.statehealthfacts.org/profileind.jsp?ind=54&cat=2&rgn=23>

Connecticut 79%

- Connecticut Department of Public Health: <http://www.ct.gov/dph/site/default.asp>

- Immunization Program:
 - http://www.ct.gov/dph/cwp/view.asp?a=3136&q=388450&dphNav_GID=1601&dphPNavCtr=|47014|#47026
 - Immunization Record (combined Children, Adolescent, Adult):
 - http://www.ct.gov/dph/lib/dph/Vax_Admin_Record_10_08.pdf
 - Educational Materials order form:
 - http://www.ct.gov/dph/lib/dph/On_Line_Educational_Materials_Order_Form_01-09.pdf
 - National Infant Immunization Week events:
 - http://www.ct.gov/dph/lib/dph/infectious_diseases/immunization/pdf/national_infant_immunization_week_2009.pdf
- Immunization Rates/Statistics:
 - <http://www.statehealthfacts.org/profileind.jsp?rgn=8&cat=2&ind=54>
 - State Childhood Vaccination Rate Third in the Nation:
 - <http://www.ct.gov/dph/cwp/view.asp?A=3294&Q=413902>
 - Immunization Data:
 - http://www.ct.gov/dph/cwp/view.asp?a=3136&q=388426&dphNav_GID=1601&dphPNavCtr=|#46975
 - Connecticut Gets Over \$2.5 million in Stimulus Funds to Support Childhood Immunization:
 - <http://www.ct.gov/dph/cwp/view.asp?A=3659&Q=439040>

Arizona 73%

- Arizona Department of Health Services: <http://www.azdhs.gov/>
- ADHS Immunization Program Office: <http://www.azdhs.gov/phs/immun/>
 - Back to School Information for Schools, Child care centers and Parents:
 - <http://www.azdhs.gov/phs/immun/back2school.htm>
 - 2009-2010 Immunization Requirements:
 - <http://www.azdhs.gov/phs/immun/pdf/b2s/2009-2010%20SCHOOL%20YEAR%20REQUIREMENTS.pdf>
 - Requirements for Children under age 7:
 - <http://www.azdhs.gov/phs/immun/pdf/b2s/Requirements%20for%20Children%20Under%207.pdf>
 - Partnerships with following coalitions:
 - The Arizona Partnership for Immunization (TAPI):
 - <http://www.whyimmunize.org/>
 - Maricopa County Childhood Immunization Partnership (MCCHIP):
 - <http://www.mcchip.org/index1.html>
 - Information for School and Child care:
 - http://www.azdhs.gov/phs/immun/index_schchld.htm
 - Animated health e-cards:
 - <http://www2a.cdc.gov/ecards/message/message.asp?cardid=191>

- Arizona Immunization Program Office Activities:
http://www.azdhs.gov/phs/immun/act_aipo.htm
 - Childhood Immunizations:
http://www.azdhs.gov/phs/immun/act_aipo.htm#childhood
- Immunization Rates/Statistics:
<http://www.statehealthfacts.org/profileind.jsp?rgn=4&cat=2&ind=54>
Arizona State Immunization Information System (ASIIS) Statistics, May 2009:
http://www.azdhs.gov/phs/asiis/pdf/TAPStats%2005_07_2009.pdf
Vaccines for Children Program: http://www.azdhs.gov/phs/immun/act_aipo.htm

Statistics by State:

National Immunization Survey: <http://www.cdc.gov/vaccines/stats-surv/imz-coverage.htm#nis>

- 2007-2008 (4:3:1:3:3:1): <http://www.cdc.gov/vaccines/stats-surv/nis/figures/downloads/0708-431331.pdf>