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# PUBLIC ATTITUDES TOWARD VACCINES

A Survey Conducted by

Harris Interactive

Commissioned by

Center for Media and Public Affairs and Center for Health and Risk Communication at George Mason University

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#### INTRODUCTION

The Centers for Disease Control and Prevention have long emphasized that preventing disease is the key to public health. The CDC regards vaccines as a crucial weapon in the battle for disease prevention, because they prevent disease not only among the people who receive them but also among those who come into contact with individuals who have not been vaccinated. Thus, in addition to its value to every individual who is vaccinated, immunization slows or halts outbreaks of disease in the community.

Widespread immunization has dramatically reduced the incidence of vaccine-preventable diseases. Nonetheless, many children and adults are still under-immunized. Adding to the problem is the publicity recently given to discredited research that claimed to find a link between vaccination and autism.

In addition, although immunization has brought many once-common infectious diseases under control, the development of costly vaccines that protect against rare diseases has raised questions as to whether their benefits to relatively few potential victims outweigh the costs of producing and administering them on a large scale.

With these concerns in mind, the Center for Health and Risk Communication and the Center for Media and Public Affairs at George Mason University collaborated on research to examine public attitudes toward the immunization of children and other age groups, with special reference to a recently approved vaccine (others remains under consideration by the Food & Drug Administration) that was developed to combat meningococcal meningitis, a rare but severe and sometimes fatal disease that strikes infants and children at disproportionately high levels.

Representatives of the Center for Health and Risk Communication were participants in a CDC-sponsored "Childhood Vaccine Decision Making Stakeholder Meeting," held May 25, 2011 in Washington, DC, which the agency convened to gain input from patient organizations and public health experts on issues relating to its consideration of a new vaccine for infant meningitis. CDC followed this meeting with four regional hearings during the summer of 2011 to help it further understand public and health professional attitudes toward its pending decision. It is our hope that this study helps the agency to better understand some of the public opinion issues CDC has raised.

#### **METHODOLOGY**

The George Mason University Center for Media and Public Affairs and Center for Health and Risk Communication commissioned Harris Interactive to conduct this telephone survey within the United States between August 24 and August 28, 2011 among a nationwide cross section of 1,003 adults (aged 18 and over). The sample was selected using a Random Digit Dialing methodology that ensures the households with listed and unlisted telephone numbers are selected.

Figures for age, sex, race/ethnicity, education, region, number of adults in the household, number of phone lines in the household were weighted where necessary to bring them into line with their actual proportions in the population. The population targets come from the US Census Bureau's 2010 Current Population Survey.

All sample surveys and polls, whether or not they use probability sampling, are subject to multiple sources of error which are most often not possible to quantify or estimate, including sampling error, coverage error, error associated with nonresponse, error associated with question wording and response options, and post-survey weighting and adjustments.

Therefore, Harris Interactive avoids the words "margin of error," as they are misleading. All that can be calculated are different possible sampling errors with different probabilities for pure, unweighted, random samples with 100% response rates. These are only theoretical because no published polls come close to this ideal.

#### **SURVEY FINDINGS**

#### **Public strongly supports immunization**

To establish a baseline level of public support for vaccination, we first asked respondents whether they favored or opposed vaccination to immunize people against major diseases. Despite the recent concerns raised by spurious but highly publicized claims that linked vaccination to autism, only ten percent opposed the use of vaccines, while an overwhelming majority of 86 percent supported their use.

#### Infants/children most important group to vaccinate

Among those who favored vaccination, nearly half (43 percent) felt that infants and children are the most important group to vaccinate, while an equal number felt that all age groups are equally important. Much smaller numbers saw the vaccination of young people (eight percent) or the elderly (three percent) as most important. To get a more precise sense of public priorities, we also asked those who chose a particular group (i.e., did not answer "all equally") to specify the second most important group to immunize. Once again, slightly more chose young people (31 percent) than the elderly (28 percent), with nine percent apiece choosing infants and children and adults.

By combining these responses into a single table, we were able to determine the proportion ranking each group as either first or second most important to vaccinate. Just under half (49 percent) see the immunization of infants and children as first or second most important, compared to about one in four (26 percent) who ascribe this importance to immunizing young people and one in five (19 percent) who place the elderly as first or second on their list.

### Most important goal is to protect the most people, but protecting against rare but severe diseases and avoiding serious side effects also viewed as important

We then turned from asking who should be vaccinated to *why* they should be vaccinated. We provided five options for respondents to select as the most important goal in developing a new vaccine. A plurality of 33 percent chose protecting many people against a disease as most important, followed by 27 percent who felt protecting people against a rare but fatal disease was most important, and 21 who chose the absence of serious side effects as most important. Trailing far behind were the options of insuring that the protection lasts for a long time (eight percent) and that it requires only a few doses (one percent).

As we did in the preceding question, we probed more deeply by asking people to choose a second most important option. This time the absence of serious side effects was mentioned most often (27 percent), while three other options were bunched closely together – lasting a long time (22 percent), protecting many people (21 percent), and protecting against rare but severe diseases (19 percent).

Finally, we combined these responses into a table showing the proportion who chose each goal as either first or second most important. The result: A majority of 52 percent chose protecting

many people as one of their top two choices, followed closely by the 45 percent apiece who chose protecting against severe diseases and the absence of severe side effects. Another 28 percent placed long-lasting protection as first or second most important, while only eight percent accorded this much importance to the number of doses required.

We had expected to find widespread support among the public for protecting the greatest number of people on utilitarian grounds, but these forced-choice responses indicate nearly as much public concern over protecting people against rare but severe diseases, as well as insuring against serious side effects.

#### Health benefits of immunizing infants/children worth the monetary costs

Having established the high priority that the public places on immunizing children and infants, we sought to determine whether this commitment would be affected by drawing attention to the costs involved.

We first asked respondents whether they believed the health benefits of immunizing children were worth the costs of purchasing and administering vaccines. Eighty-six percent agreed they were worth the costs, compared to only nine percent who disagreed.

#### Children have a right to this basic healthcare service

Next we asked whether they regarded immunizing children as a basic healthcare service that everyone has a right to. Even higher numbers – 91 percent – agreed, compared to only seven percent who disagreed.

#### **Strong Support for Vaccines for Children Program**

Finally we asked whether they favored or opposed the Vaccines for Children Program, through which the federal government helps families in need of financial assistance to pay for their children's vaccines. A similar proportion – 89 percent – expressed support for this program.

Thus, we found nearly universal support among the public for immunizing children as their basic right, even after taking account of the cost involved, and for government assistance to those families who cannot afford it. It is also notable that the proportion of the public who dissented from this consensus is only slightly smaller than the proportion who earlier expressed their opposition vaccination altogether. The reluctance by a small portion of the public to support children's vaccinations may be tied to a more general rejection of vaccination by many of the same individuals. We will examine this question in our future analysis of these data.

### Government should add meningococcal meningitis vaccine to those given routinely to children

In the final portion of the interview, we addressed public attitudes toward government support for immunizing children against meningococcal meningitis. Respondents were first provided with the information that this is "a rare but deadly disease that strikes about 300 infants a year,

killing some and leaving others disabled." They were then informed that a new vaccine exists that could prevent many of these cases, but it would cost around \$300 for each child who is vaccinated.

Based on this information about the likely monetary costs and health benefits of a new vaccine, respondents were asked whether the government should recommend that doctors add it to the vaccines that are routinely given to infants. Sixty-six percent supported this change in government policy, compared to 24 percent who opposed it.

#### Meningitis vaccine should be included in Vaccines for Children Program

In addition, we asked whether they believed the government should make such a vaccine available to low income children by including it in the Vaccines for Children Program, which would help cover the costs. A higher proportion – 78 percent – said they would support this additional government action, while 17 percent would oppose it.

#### Government should educate the public on importance of meningitis vaccinations

Support was higher still for the federal government to insure that the states educate the public on the importance of meningitis vaccinations for children. Eighty-three percent said they would support this policy, compared to only 14 percent who would oppose it.

#### Government should not curb access to meningitis vaccine to cut healthcare costs

We then returned to the issue of monetary costs associated with immunization by asking whether the federal government should try to save money on health care costs by curbing access to new vaccines, such as a meningitis vaccine for infants. Only eight percent supported such a cost-cutting measure, while 88 percent believed that the government should look for other ways to cut costs.

The fact that large majorities of respondents support government action to immunize children against such a rare disease is especially notable in light of the fact that, three of the four questions we asked specifically included references to the costs of doing so. Public support for government programs tends to drop once people are they are reminded that such programs come with a cost.

In this case, respondents' support for government assistance in providing for immunization was lowest on the question that included the most precise statement of costs (approximately \$300 per child who is immunized). Even under these conditions, however, two out of three people supported government action to make vaccinations available, compared to one out of four who opposed it.

#### Public opinion not strongly affected by knowledge of programs in other countries

Finally, we provided respondents with the information that more than a dozen other developed countries already have such policies in place. When asked about the effect of this information on

their own attitudes toward the routine immunization of infants, a majority of 57 percent said it would make no difference, compared to 37 percent who said it would make them more likely to support such a policy, and three percent who said it would make them less likely to do so.

This suggests that public opinion on this issue is relatively stable, with only a minority of respondents being influenced by the policies of other countries. It may also reflect the widespread existing support that we found for immunization in this country. Since most respondents already expressed support for immunizing infants against meningitis, this may have left less room for upward movement in support levels.

#### **CONCLUSION**

Immunization is one of the most effective tools ever discovered for preventing infectious diseases. Despite its widespread use, however, questions have recently been raised about the safety and cost-effectiveness of some vaccines. Despite the thorough refutation of charges linking vaccines to autism, this controversy may have produced lingering safety concerns among the public. A more legitimate issue concerns the cost-effectiveness of vaccines that target severe diseases that strike a relatively small number of victims.

To address such concerns, and get a broader picture of how the public views immunization, we surveyed public attitudes on various vaccine-related issues. We found broad support for immunization, with only one American in ten rejecting the use of vaccines. Nearly half of the public views infants and children as the most important group to vaccinate. When asked to choose the most important goal in developing new vaccines, a plurality is most concerned to protect a large number of people, but nearly as many see protection against rare but severe diseases as a paramount goal, followed by those who are most concerned to avoid serious side effects.

We also found a widespread public consensus that families have a right to immunize their children as a basic healthcare service, that the health benefits are worth the monetary costs, and that the federal government should assist families who cannot bear those costs alone.

These attitudes were echoed in public support for using a new vaccine to combat a rare form of meningitis, despite the costs associated with it. Two out of three individuals surveyed support vaccination against this disease despite the relatively small number of victims and relatively high cost of administering this vaccine. Even larger majorities believe that the federal government should help educate the public on the importance of these vaccinations, and that the government should look elsewhere to curb healthcare costs.

In sum, we found strong and consistent evidence of public support for immunization against disease in general and immunizing children and infants in particular. This support extends to an endorsement of government programs to make vaccines available to all Americans, even in the case of a rare disease that is relatively costly to control.

#### **ORGANIZATION PROFILES**

#### THE CENTER FOR HEALTH AND RISK COMMUNICATION

The Center for Health and Risk Communication (CHRC) at George Mason University is committed to using evidence-based strategic communication to reduce health risks and promote well being. Its goal is to stimulate innovative health and risk communication research, health promotion intervention projects, and community interventions.

http://chrc.gmu.edu/

#### THE CENTER FOR MEDIA AND PUBLIC AFFAIRS

The Center for Media and Public Affairs (CMPA) at George Mason University is a nonpartisan research and educational organization which conducts surveys of public and expert opinion and content analyses of news and entertainment media. CMPA's goal is to provide an empirical basis for ongoing public debates through well-documented, timely, and readable studies.

http://www.cmpa.com

#### HARRIS INTERACTIVE

<u>Harris Interactive</u> is one of the world's leading custom market research firms, leveraging research, technology, and business acumen to transform relevant insight into actionable foresight. Known widely for the Harris Poll and for pioneering innovative research methodologies, Harris offers expertise in a wide range of industries including healthcare, technology, public affairs, energy, telecommunications, financial services, insurance, media, retail, restaurant, and consumer package goods. Harris serves clients in over 215 countries and territories through our North American and European offices and a network of independent market research firms.

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### PUBLIC ATTITUDES TOWARD VACCINATION QUESTIONNAIRE

### In general, do you favor or oppose the use of vaccines to immunize people against major diseases?

Favor	86
Oppose	10
Don't Know	4
	100%

# (If favor): Which age group do you feel is most important to vaccinate, so they are protected against major diseases?

Infants/children	43
Young People	8
Adults	
Elderly	3
All Equally	43
Other	2
DK/Ref	1
	100%

# (If respondent did not answer "all equally") And after that age group, which group do you feel is the second most important to vaccinate in order to protect against major diseases?

Infants/children	9
Young people	31
Adults	9
Elderly	28
All equally	19
Other	1
DK/Ref	2
	99%*

### Summary: Proportion ranking each group as either first or second most important to vaccinate

Infants/children	49
Young people	26
Adults	6
Elderly	19
All equally	43
DK/Ref	1
	145%**

### What goal do you think is most important in developing a new vaccine?

It protects many people against a disease	33
The protection lasts for a long time	8
The protection requires only a few doses	1
It doesn't have serious side effects	21
It protects people against a rare but severe or fatal	27
disease	
Don't know	9
	99%*

### And after that, what goal do you think is the second most important in developing a new vaccine?

It protects many people against a disease	21
The protection lasts for a long time	22
The protection requires only a few doses	8
It doesn't have serious side effects	27
It protects people against a rare but severe or fatal	19
disease	
Don't know	3
	100%

#### Summary: Proportion choosing each goal as either first or second most important

It protects many people against a disease	52
The protection lasts for a long time	28
The protection requires only a few doses	8
It doesn't have serious side effects	45
It protects people against a rare but severe or fatal	45
disease	
Don't know	9
	187%**

Now, I'd like to ask you a few questions about vaccines for children in particular.

# In general, do you believe the health benefits of immunizing children against major diseases are worth the money it cost to purchase and administer vaccines?

Yes	86
No	9
DK/ref	5
	100%

# Do you believe immunizing children against major diseases is a basic healthcare service that everyone has a right to?

Yes	91
No	7
DK/ref	2
	100%

# About half the nation's children are from families that are unable to pay for their children's vaccinations. The federal government helps them cover the cost through the Vaccines for Children Program. Would you say that you favor or oppose this program?

Favor	89
Oppose	9
DK/ref	2
	100%

Now, I'd like to ask you a few questions about meningococcal meningitis, which is a rare but deadly disease that strikes about 300 infants a year, killing some and leaving others disabled.

There is a new vaccine that could prevent many cases of meningitis, but it would cost around \$300 for each child who is vaccinated. Do you believe the government should recommend that doctors add the meningitis vaccine to the vaccines that are routinely given to infants?

Yes	66
No	24
DK/ref	10
	100%

Do you believe the federal government should make a meningitis vaccine available to low-income children by including it in the Vaccines for Children Program, which helps to cover the costs?

Yes	78
No	17
DK/ref	5
	100%

Should the federal government try to save money on health care costs by curbing access to new vaccines, such as a meningitis vaccine for infants, or should it look for other ways to cut costs?

Curb vaccine access	8
Other ways	88
DK/ref	5
	101%*

Do you believe the federal government should work to insure that the states educate the public on the importance of meningitis vaccinations for children?

Yes	83
No	14
DK/ref	2
	99%*

More than a dozen other developed countries already vaccinate infants to prevent meningitis. Does this make you be more likely or less likely to support the routine immunization of infants, or does it not make much difference?

More	37
Less	3
No difference	57
DK/ref	3
	100%

Source: Harris Interactive conducted this telephone survey within the United States between August 24 and August 28, 2011 among a nationwide cross section of 1,003 adults (aged 18 and over). The George Mason University Center for Media and Public Affairs and Center for Health and Risk Communication commissioned the research.

<sup>\*</sup> Percentages do not sum to 100 due to rounding error.

<sup>\*\*</sup> Percentages do not sum to 100 because respondents' first and second choices are both included.