Adult Immunization Communications – Applying Lessons from COVID-19

National Adult and Influenza Immunization Summit, Atlanta GA

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Agenda

» Pre-COVID Adult Flu Vaccination Adoption and Attitudes

» COVID-19 Vaccination

» Factors Affecting the COVID-19 Adoption Arc

» Lasting Impact on Vaccination: Focus on Flu

» Communication Imperatives Going Forward
Pre-COVID Adult Flu Vaccination Adoption and Attitudes

- Flu Vaccine Policy and Public Acceptance/Rejection
- Incentives and Barriers to Compliance
Adult uptake for flu vaccination was just over four in 10 in the decade prior to COVID-19 other than 2017-2019 where it dipped and rebounded; uptake increased from 2020-2022 to five in 10.

In the 2020-2021 flu season a record high 50% of the adult population received a flu vaccine and in 2021-2022 it was 49%.

U.S. Adult Flu Vaccination Rate (End-of Season Coverage)

Source: CDC

https://www.cdc.gov/flu/fluvaxview/coverage-by-season.htm
Top barriers to getting a flu vaccine are concerns about efficacy, potential side effects, and the possibility of getting the flu from the vaccine.
Belief in health conspiracy theories is linked to lower likelihood of flu vaccination

A 2013 study identified that 18% of Americans agree with 3 or more health conspiracy theories

- The Food and Drug Administration is deliberately preventing the public from getting natural cures for cancer and other diseases because of pressure from drug companies.
- Health officials know that cell phones cause cancer but are doing nothing to stop it because large corporations won’t let them.
- The CIA deliberately infected large numbers of African Americans with HIV under the guise of a hepatitis inoculation program.
- The global dissemination of genetically modified foods by Monsanto Inc is part of a secret program, called Agenda 21, launched by the Rockefeller and Ford foundations to shrink the world’s population.
- Doctors and the government still want to vaccinate children even though they know these vaccines cause autism and other psychological disorders.
- Public water fluoridation is really just a secret way for chemical companies to dump the dangerous byproducts of phosphate mines into the environment.

Conspiracist Effect:
Among those believing 3+ health conspiracy theories, self-reported flu vaccination (25%) was over a third lower than among those who did not believe any of the conspiracy theories general public (39%).
COVID-19 Vaccination
From the outset, there was strong intent for the COVID-19 vaccine relative to other vaccines such as flu, although opinions fluctuated along with a flood of information and misinformation about the vaccines.

National Survey Results on Intent to Vaccinate
May 2020 to February 2021 and August 2021 (not asked June 2021)

National Survey Results on Self-Reported Vaccination Status (1+)
February 2021 to September 2022

<table>
<thead>
<tr>
<th>% Total Received, Definitely or Probably Would Get</th>
<th>May 2020</th>
<th>Sept 2020</th>
<th>Nov 2020</th>
<th>Feb 2021</th>
<th>June 2021</th>
<th>Aug 2021</th>
<th>Jan 2022</th>
<th>May 2022</th>
<th>Sept 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received at least one dose</td>
<td>72%</td>
<td>51%</td>
<td>60%</td>
<td>68%</td>
<td>67%</td>
<td>79%</td>
<td>78%</td>
<td>78%</td>
<td>77%</td>
</tr>
<tr>
<td>Definitely get vaccine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probably get vaccine</td>
<td>42%</td>
<td>21%</td>
<td>29%</td>
<td>19%</td>
<td>32%</td>
<td>73%</td>
<td>78%</td>
<td>78%</td>
<td>77%</td>
</tr>
<tr>
<td>Probably NOT get vaccine</td>
<td>16%</td>
<td>25%</td>
<td>21%</td>
<td>15%</td>
<td>15%</td>
<td>8%</td>
<td>12%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Definitely NOT get vaccine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Total Probably or Definitely Would NOT Get</td>
<td>27%</td>
<td>24%</td>
<td>39%</td>
<td>15%</td>
<td>30%</td>
<td>27%</td>
<td>24%</td>
<td>20%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Note: Respondents who did not give an answer are not shown.

Funk, C. & Tyson A. (2020, Dec. 3) Intent to Get a COVID-19 Vaccine Rises to 60% as Confidence in Research and Development Process Increases. (2022, Oct. 5)
Top reasons for hesitancy in getting a COVID-19 vaccine before the roll-out centered on potential side effects, safety and efficacy concerns as well as trust

<table>
<thead>
<tr>
<th>Reason for not getting a COVID-19 vaccine</th>
<th>Major</th>
<th>Minor</th>
<th>% Total (Net)</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are worried about possible side effects</td>
<td>59%</td>
<td>21%</td>
<td>81%</td>
</tr>
<tr>
<td>You do not trust the government to make sure the vaccine is safe and effective</td>
<td>55%</td>
<td>21%</td>
<td>76%</td>
</tr>
<tr>
<td>The vaccine is too new and you want to wait and see how it works for other people</td>
<td>53%</td>
<td>16%</td>
<td>69%</td>
</tr>
<tr>
<td>Politics has played too much of a role in the vaccine development process</td>
<td>51%</td>
<td>19%</td>
<td>71%</td>
</tr>
<tr>
<td>The risks of COVID-19 are being exaggerated</td>
<td>43%</td>
<td>23%</td>
<td>66%</td>
</tr>
<tr>
<td>You don't trust vaccines in general</td>
<td>37%</td>
<td>25%</td>
<td>62%</td>
</tr>
<tr>
<td>You do not trust the health care system</td>
<td>35%</td>
<td>25%</td>
<td>60%</td>
</tr>
<tr>
<td>You are worried that you may get COVID-19 from the vaccine</td>
<td>27%</td>
<td>21%</td>
<td>48%</td>
</tr>
<tr>
<td>You don't think you are at risk of getting sick from COVID-19</td>
<td>20%</td>
<td>30%</td>
<td>51%</td>
</tr>
</tbody>
</table>
The national effort to vaccinate adults against COVID-19 was effective overall; according to the CDC 87% of adults have at least one shot.
The adult COVID-19 vaccination rate is nearly twice the adult flu vaccination rate.

https://www.cdc.gov/vaccines/imz-managers/coverage/covidvaxview/interactive/adults.html
https://www.cdc.gov/flu/fluvaxview/coverage-by-season.htm
Factors Affecting the COVID-19 Adoption Arc

1. Fear about pandemic
2. Skepticism about efficacy
3. Anti-science campaign
4. Anti-government campaign
5. Tribal badges
6. Media attention
Fear About Pandemic

A consistent majority of Americans have been worried about themselves or a family member getting coronavirus although the level of concern dropped notably in April 2021 when the vaccine became widely available and has fluctuated with subsequent variant surges.

Portion Worried About Self or Family Member Being Infected with…

Source
Associated Press
NORC Center for Public Affairs Research
June 2022
Efficacy

Measurement on COVID-19 vaccine effectiveness has changed over time with the emergence of new variants and has been focused on reducing risk of death, hospitalization and severe illness.

The first COVID-19 vaccine data indicated very high efficacy rates of 90% (Pfizer) and 94.5% (Moderna) reduction in risk of infection.

Flu Vaccine Efficacy Comparison

Question: How effective are flu vaccines?

CDC conducts studies each year to determine how well influenza (flu) vaccines protect against flu.

- While vaccine effectiveness (VE) can vary, recent studies show that flu vaccination reduces the risk of flu illness by between 40% and 60% among the overall population during seasons when most circulating flu viruses are well-matched to those used to make flu vaccines.

- In general, current flu vaccines tend to work better against influenza B and influenza A(H1N1) viruses and offer lower protection against influenza A(H3N2) viruses.
Anti-Science Campaign

Growing partisan polarization in confidence both in science and medicine

There is growing polarization in confidence in science with Democrats (64%) more confident than Republicans (34%). This 30-point gap is up from 9 points in 2018.

In 2021, 45% of Democrats and 34% of Republicans had a great deal of confidence in medicine. There was no partisan gap in 2018 when 37% of Democrats and 36% of Republicans had a great deal of confidence.
### North Carolina - Vaccine Risk Perceptions Among Remaining Unvaccinated
April 2022

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree somewhat likely</th>
<th>Agree strongly</th>
<th>% NET Total Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t want to be forced or mandated to get a vaccine.</td>
<td>16%</td>
<td>63%</td>
<td>79%</td>
</tr>
<tr>
<td>I don’t trust the government to ensure that a COVID-19 vaccine would</td>
<td>24%</td>
<td>48%</td>
<td>72%</td>
</tr>
<tr>
<td>be safe enough.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It seems like the CDC is changing their recommendations all of the time</td>
<td>29%</td>
<td>42%</td>
<td>71%</td>
</tr>
<tr>
<td>so I don’t pay much attention to what they say anymore.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don’t trust the government knowing all of the personal information I</td>
<td>26%</td>
<td>36%</td>
<td>62%</td>
</tr>
<tr>
<td>would have to give them in order to get a vaccine.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

North Carolina Department of Health and Human Services (DHHS) research conducted by Artemis Strategy Group.
(2022, April) BASE: Unvaccinated/No appointment N=816
NEW3Q6. Below is another series of statements about COVID-19 based on recent news or events. Please indicate the extent to which you agree or disagree with each using the scale shown.
Self-identified Republicans increasingly make up a larger share of unvaccinated Americans.

### Partisan Identification of Unvaccinated Adults

<table>
<thead>
<tr>
<th>Month in 2021 (%) Unvaccinated</th>
<th>April (43%)</th>
<th>May (33%)</th>
<th>June (33%)</th>
<th>July (31%)</th>
<th>September (25%)</th>
<th>October (27%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democrats</td>
<td>36%</td>
<td>29%</td>
<td>29%</td>
<td>23%</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>Republicans</td>
<td>42%</td>
<td>49%</td>
<td>48%</td>
<td>51%</td>
<td>59%</td>
<td>60%</td>
</tr>
<tr>
<td>Pure Independents</td>
<td>16%</td>
<td>17%</td>
<td>19%</td>
<td>20%</td>
<td>17%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Note: Party identification includes independents who lean towards either party. The difference between percent unvaccinated in September (25%) and October (27%) is within the margin of error.
Media Attention

Impact depends on channels and that has played out in vaccination rates

Effect of Network Viewership on Weekly Vaccination Rates
Aged Between 18 and 65

Source
Pinna, M., Picard, L. & Goessmann C.

Article published in
Nature: Scientific Reports
October 2022

Pinna, M., Picard, L. & Goessmann C. (2022, Oct. 7) Effect of network viewership on weekly vaccination rates by age group. Nature: Scientific Reports - Cable news and COVID-19 vaccine uptake. Note: Coefficient plots with 95% CIs from 2SLS regressions showing the effect of one standard deviation changes in viewership on weekly vaccinations per 100 people, by age group. Viewerships are instrumented using the lineup channel positions. Regressions include demographic and cable-system controls. Standard errors are clustered by state. https://www.nature.com/articles/s41598-022-20350-0/figures/3
Lasting Impact on Vaccination:

Focus on Flu
COVID-19 vaccination has had an impact on flu vaccination rates – negative in some states and positive in others

A correlation analysis done by UCLA in a Study of State Vaccinations indicated that a state’s COVID-19 vaccination rate could predict 60% of its flu vaccination rate in the 2021-22 season.


This quasi-experimental observational ecological study used national CDC data to measure the relationship between contemporary state-level COVID-19 vaccination rates and state-level influenza vaccination rates from all flu seasons from the 2010-2011 season through January 29, 2022, of the 2021-2022 season.
Communications Imperatives
Going Forward
Factors affecting COVID-19 vaccinations

1. Fear about pandemic
2. Skepticism about efficacy
3. Anti-science campaign
4. Anti-government campaign
5. Tribal badges
6. Media attention
North Carolina outperformed expectations

Intent to Vaccinate
November 2020 – 59%
February 2021 – 79%

Completed Primary Vaccine
73%
Message
Messenger
Method
Measurement
Recuperemos el verano en Carolina del Norte.

Ofréctese como voluntario para ayudar a otros en nuestra comunidad a vacunarse contra el COVID-19.

Fecha del evento
Ubicación del evento de voluntariado
Dirección del sitio
Continuación de la dirección del sitio
Contacto a [nombre, teléfono, correo electrónico] para saber cómo puedes participar.

BRING SUMMER BACK TO NORTH CAROLINA.
Get a safe, effective and free COVID-19 vaccine and help others do the same.

En español: responden dudas sobre vacunas COVID-19 en vivo

El Departamento de Salud y Servicios Humanos de Carolina del Norte (NCDHHS) tendrá un evento en español llamado "Col❤te. Vacunas contra el COVID-19" el día 30 p.m. donde profesionales sanitarios del estado y empresarios del sector de la salud responderán a las vacunas. Fue el martes 30 de junio. Los detalles han sido el evento a las 8:45 de la medida en Carolina del Norte para personas que crean importantes casas de 10% de la población, según se discute por el coronavirus de vacunas.

Además, se realizará en las agencias de vacunas.

Se entregará a los citas representando el 44% de los casos de COVID-19 confirmados desde el inicio de la pandemia. Seguir las medidas del NCDCSS.

Noticias: "Vacunación contra el COVID-19"

Coronavirus - 2Fe.

State and local leaders aim to ease skepticism around vaccines

En NC, a pesar de la vacuna contra el COVID-19, algunos lideres están buscando formas de aumentar la vacunación.

Vacuna de la vacuna contra el COVID-19. Los líderes de estado y local están buscando formas de aumentar la vacunación.

Iniciales de vacuna contra el COVID-19. Los líderes de estado y local están buscando formas de aumentar la vacunación.

Vacunación de la vacuna contra el COVID-19. Los líderes de estado y local están buscando formas de aumentar la vacunación.

Vacunación de la vacuna contra el COVID-19. Los líderes de estado y local están buscando formas de aumentar la vacunación.

Vacunación de la vacuna contra el COVID-19. Los líderes de estado y local están buscando formas de aumentar la vacunación.

Vacunación de la vacuna contra el COVID-19. Los líderes de estado y local están buscando formas de aumentar la vacunación.
MEASUREMENT

Engagement matters

<table>
<thead>
<tr>
<th>Effort</th>
<th>Dose 1 Vaccinations Per Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagements</td>
<td>33.18</td>
</tr>
<tr>
<td>Presentation</td>
<td>6569.5*</td>
</tr>
<tr>
<td>Impressions</td>
<td>0.0005**</td>
</tr>
<tr>
<td>Emails Sent</td>
<td>1.6477</td>
</tr>
</tbody>
</table>
COVID had unprecedented resources

- Money
- Data
- Operations
MONEY, DATA, OPERATIONS

We could identify which populations in which communities were being hardest hit; partner with community organizations and trusted messengers to get reliable information to people through activities like robocalls, canvassing, presentations, direct mail, social media ads, and local townhalls; and we could coordinate with operations to ensure that shots would be available in accessible places to deliver on our promise.
Ask yourself

• Is communications fully integrated into your operations as equal partners?
• Are you meeting people where they are or making them come to you?
• Are you doing the ongoing work of transparency, simplicity and frequent communications 365 days per year?
COMMUNICATIONS IS A PUBLIC HEALTH STRATEGY
Thank You!