Disclosure: Session D3

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Judy Klein of Unity Consortium wishes to disclose within past 12 months, she has consulted for a vaccine manufacturer and Unity Consortium receives funding from Vaccine Manufacturers, including funding from Pfizer for the Adolescent Health and Immunization Survey.

Planning committee discussed conflict of interest with each presenter to ensure there is no bias.

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CDC did not accept commercial support for this continuing education activity.
Increasing Influenza Immunization Rates Among College Students

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May 15, 2018
Influenza and College Students

• Per the Centers for Disease Control and Prevention (CDC), annual vaccination is the best way to reduce the chance that an individual will get influenza (flu)

• On US college campuses, influenza vaccination rates remain strikingly low, hovering between 8 and 39%, and fall far short of the 70% Healthy People 2020 target recommendation

• College students are at particularly high risk of getting and spreading the flu because of constant exposure to high-touch areas and through social activities

• But, motivating college students to get an annual influenza vaccination can be challenging
In 2016, NFID convened a College Influenza Stakeholder Summit to discuss the challenges of influenza vaccination on US college campuses. Of the recommendations put forth as part of the Summit, emphasis was placed on best practice models and improved sharing of resources. In 2017, NFID issued a grant to Weill Cornell Medicine to help quantify student attitudes and learn from schools who were active in their own on-campus influenza prevention programs.
Methods and Methodology

**Phase I: Collegiate Quantitative Research (Q4 2017)**
- Quantitative survey conducted online by Harris Poll among 1,005 US undergraduate college students ages 18-24 on student attitudes toward influenza, influenza vaccination and barriers to immunization

**Phase II: Health Services Qualitative Research (Q1 2018)**
- Qualitative interviews among college/university health service stakeholders to assess influenza vaccination programs on campus; identify trends in best practices

**Goal:** Help guide best practice implementation on college campuses with the larger goal of improving influenza immunization rates
Phase I: College Student Attitudes Toward Influenza and Influenza Vaccination
GENERAL INFLUENZA PERCEPTIONS

1 In 2 College Students Are Not Concerned about Influenza
59% Do Not Find It Likely That They’ll Get The Flu In The Next Year

Health Concerns

<table>
<thead>
<tr>
<th>Health Concern</th>
<th>Not at all concerned</th>
<th>Not very concerned</th>
<th>Somewhat concerned</th>
<th>Very concerned</th>
<th>Concern (NET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting into a car accident</td>
<td>12%</td>
<td>28%</td>
<td>37%</td>
<td>24%</td>
<td>60%</td>
</tr>
<tr>
<td>Getting the flu</td>
<td>19%</td>
<td>32%</td>
<td>35%</td>
<td>13%</td>
<td>49%</td>
</tr>
<tr>
<td>Getting food poisoning</td>
<td>26%</td>
<td>35%</td>
<td>27%</td>
<td>11%</td>
<td>38%</td>
</tr>
<tr>
<td>Getting a sexually transmitted disease</td>
<td>44%</td>
<td>25%</td>
<td>16%</td>
<td>18%</td>
<td>33%</td>
</tr>
<tr>
<td>Getting meningococcal meningitis</td>
<td>50%</td>
<td>28%</td>
<td>12%</td>
<td>11%</td>
<td>22%</td>
</tr>
<tr>
<td>Getting mononucleosis</td>
<td>50%</td>
<td>28%</td>
<td>12%</td>
<td>10%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Likelihood of Getting Influenza in Next 12 Months

- **41% Likely**
  - Very likely: 13%
  - Somewhat likely: 28%
- **59% Not Likely**
  - Not very likely: 41%
  - Not at all likely: 17%

**BASE:** ALL QUALIFIED RESPONDENTS (n=1005)

Q705 How concerned are you about each of the following?
Q900 How likely do you think it is that you will get the flu in the next 12 months?
GAP BETWEEN WORDS AND ACTION

Less Than Half Of Students Typically Prepare For Flu Season By Getting Vaccinated; The Top Barrier Is A Perceived Lack Of Necessity

Typically Receives Influenza Vaccine Ahead of Flu Season?

- Yes: 46%
- No: 49%
- Don't know: 5%

Reasons for Not Regularly Getting the Influenza Vaccine
(Among those who do not typically get the influenza vaccine)

- I'm healthy, I don't need it: 36%
- I do not like needles: 31%
- I do not think it works: 30%
- I'm worried about the risks: 27%
- I forget: 24%
- I do not have the time to get the vaccine: 16%
- I do not believe in getting vaccinations: 13%
- It is too hard for me to get the vaccine: 13%
- I do not know where to go to get vaccinated: 7%
- I cannot afford to get the vaccine: 7%
- My health insurance plan does not cover it: 6%
- Other: 3%

TOP REASON (single response)

- Efficacy/Risk (NET): 44%
- 17%
- 13%
- 16%
- 14%
- 12%
- 6%
- 6%
- 3%
- 2%
- 1%
- 1%
- 9%

BASE: ALL QUALIFIED RESPONDENTS (n=1005)
Q905: Do you typically receive the influenza vaccination in preparation for the flu season?
BASE: DOES NOT TYPICALLY RECEIVE THE INFLUENZA VACCINATION EACH YEAR (n=475)
Q915: Why don't you get the flu vaccine on a regular basis? Please select all that apply.
Q920: What is the top reason preventing you from getting the flu vaccine on a regular, yearly basis?
Improving Vaccination Rates Among Students May Hinge On Offering A Combination of Incentives and Access

**Affect on College Students’ Likelihood of Getting the Influenza Vaccine**

| Access to the vaccine at low or no cost | 61% |
| A monetary or other incentive | 61% |
| Access to the vaccine in multiple locations on campus | 48% |
| Knowing that friends or other students received & recommend getting the vaccine | 32% |
| Fall health clinics for flu virus education and vaccines ahead of the flu season | 31% |
| Reminder email/texts from the college/university to get vaccinated | 26% |
| Knowing that campus “celebrities” received & recommended getting the flu vaccine | 18% |

**BASE: ALL QUALIFIED RESPONDENTS (n=1005)**

Q925 How much do you think each of the following would affect college students’ likelihood of getting the flu vaccine?

**BASE: DOES NOT REGULARLY GET VACCINE (n=475)**

Q930 How much do you agree or disagree with the following statements when it comes to getting the flu vaccine?
INCENTIVES

Free Food Tops The List Of Specific Solutions That Might Encourage More Students To Get The Vaccine

Most Effective Way to Encourage Influenza Vaccination Among Students

- Free food: 31%
- A big campus event where students can receive the flu vaccine and get free food/listen to live music/meet n’ greet with campus “celebrities”/etc.: 26%
- Discount towards school bookstore: 13%
- Raffle entry to win gifts: 11%
- A school sponsored Student Health Day with extended hours for flu virus education and vaccination services: 8%
- Opportunity to give back: 8%
- In-school competitions for who can vaccinate the most students: 2%
- Other: 1%

“IIf my university were to host an event where people can get vaccinated at a reduced cost, or even better, for free, with free food, people would definitely come. I would appreciate it if they would offer information about the flu and the vaccine so people can become educated. Free food is an excellent incentive because college students, by [and] large, have little money and appreciate free food.”
- Male, Junior
TRUSTED SOURCES

Parents and Healthcare Providers Matter Most in Influencing Influenza Vaccine Decisions

Reliance on Sources for Influenza Vaccine Decisions

Parent/guardian or other family member | 15% | 38% | 48%
Healthcare providers | 15% | 40% | 44%
Student health center on your campus | 30% | 46% | 24%
Friends/peers | 31% | 49% | 20%
The internet (excluding social media) | 45% | 39% | 16%
Professors | 51% | 35% | 13%
Media | 53% | 34% | 13%
Social media | 58% | 30% | 11%
Student groups/associations | 55% | 34% | 10%
Public figures and celebrities | 72% | 21% | 7%
On-campus student “celebrities” | 75% | 20% | 6%

BASE: ALL QUALIFIED RESPONDENTS (n=1005)
Q935 How much do you rely on each of the following for information when making flu vaccine decisions?
Phase II: Health Services Qualitative Research
About the Schools

What We Asked

• Program efforts related to influenza prevention at their specific college
• What works? Where are there opportunities for improvement?

Overview of Schools

• 10 participants representing US colleges
• ~2 interviews per region (Northeast, Southeast, Midwest, Southwest, West)
• 6 private; 4 public schools
• All schools administer vaccine
• Most schools thought they were doing a good job at establishing influenza prevention initiatives, rating themselves above average in this area

The findings from this study, or any qualitative study, are intended to be directional due to the exploratory nature of this method. As such, these findings are not projectable to the population at large nor can they suggest statistical reliability/accuracy. The value of this method is to gain understanding and explore some of the dynamics of attitudes, usage and behaviors that can not always be obtained via quantitative methods.
Critical Success Factors: On-Campus Influenza Prevention Efforts

Schools with successful on-campus influenza prevention efforts had these elements in common:

- Prioritize vaccination clinics
- Emphasize the importance of staying healthy
- Use a variety of partners and platforms to get the word out
- Make influenza prevention a year-round endeavor
Prioritize On-Campus Influenza Vaccination Clinics

Vaccination events and clinics are the most utilized approach to on-campus influenza prevention

“"It’s a one-day event that occurs maybe four to five times over the Fall quarter. There are different places on campus.”

“"We have a kick-off event usually at the end of October. We have it right in the center of campus. We do it from 8-5 for two days back to back and usually do about 3,000 vaccinations.”

“"We have pop up flu fairs. We mostly do them in front of our building because it is located right in the center of campus. Students are constantly walking past it all day from the residence halls to the rest of the campus. We usually schedule one to two fairs a week during peak flu season.”

Best practices:

• Multiple high-traffic locations across campus
• Flexibility in hours conducive to student schedules
• One big event OR multiple smaller clinics
• Free or “no cost” shots during clinics
Emphasize the Importance of Staying Healthy

As evidenced in the quantitative research, feeling healthy is a main reason students don’t get vaccinated, but staying healthy is also the main reason they do (e.g., not missing class or social engagements)

Only 49% are concerned about getting the flu.

Top Reasons for Regularly Getting Vaccinated
among those who typically get the influenza vaccine

- I do not want to get sick: 69%
- I want to do everything I can to stay healthy: 54%
- I always get the flu vaccine each year: 53%
- My doctor recommends it: 50%

As a college student, how important is to...

- Exercise regularly: 36% Very important, 59% Somewhat important
- Eat a healthy, well-balanced diet: 30% Very important, 64% Somewhat important
- Get regular check-ups or physicals: 40% Very important, 45% Somewhat important
- Take vitamins: 38% Very important, 34% Somewhat important
- Get an annual flu vaccine: 32% Very important, 39% Somewhat important

“I think the message, ‘This is how you stay healthy so you can go skiing’ or ‘This is how you stay healthy so that you can take your midterm’ is more effective... because these kids don’t think they are ever going to get sick.”
Communicate via a Variety of Partners and Platforms

**CAMPUS PARTNERSHIPS**
- Residence life
- Dining services
- Student groups and associations
- Athletics

“We have a peer education program and they’re helping us to educate and promote flu prevention shots as well as other behaviors that will reduce the spread of flu.”

“We have a close relationship with the athletics dept. Our nurses will vaccinate all the athletes. They just line up and get vaccinated.

“We also work with departments on campus that have large populations of students living close together.”

**COMMUNICATIONS VEHICLES**
- Website, social media, newsletters, signs
- Parents publications/events
- Competitions/mascots
- Student groups & survival kits

“We have a marketing person, she puts information on the website, Facebook, Twitter and when the students come in for another appointment, they are offered a flu shot.”

“Right now there is an article in the Parent’s Buzz. So that is another place, letting parents know because we know they are influential.”

“We also create flu kits – it is a plastic bag with stuff that you need if you were sick. Student groups help volunteer to assemble and distribute them across campus.”
Make Influenza Prevention a Year-Round Endeavor

Spring: Planning Begins

“Late May or early June... students are gone and that is the only time when I can really focus.”

Late Summer: Education Takes Place

“We start at orientation by informing students of our flu prevention efforts, essentially reminding them as part of our orientation to student health.”

Plan

Initiate

Fall to Winter: Clinics Take Place

“We have a kick-off event usually at the end of October. We have it right in the center of campus. We do it from 8-5 for two days back to back and usually do about 3,000 vaccinations.”

“We do one massive one and it’s usually 2.5 days.”

Promote
Recommendations
Provide Education First and Foremost

Students still hold misguided perceptions about influenza; education can be influential in shifting perceptions

According to schools:

“I think the challenge is mostly convincing people to actually get a flu shot, especially when there is a perception that it is not effective.”

“The fear of immunizations in general or apathy about the flu is an obstruction.”

One-third of students think they will get influenza if they get the vaccine

“I am afraid I will get the flu by getting the flu vaccine.”

35% agree with this statement

Students demonstrate far greater knowledge about the influenza virus compared to the vaccine

“The flu virus only affects young children & the elderly”

93% know this is NOT true

“Complications of the flu can include pneumonia, sinus infections and worsening of chronic medical conditions”

91% know this is true

“The flu vaccine causes the flu virus to mutate and become resistant to future vaccinations”

51% believe this is true
Engage in Quality Improvement Practices

Consider longer-term systems improvements to complement large-scale vaccination efforts, especially when resources are limited.

Offer influenza vaccination at all clinical encounters.

Create a referral pathway and/or partnerships with community vaccinators (e.g., local pharmacies).

Access immunization registries.

One school in New York State spoke of the success her university health services team saw after encouraging their staff to offer influenza vaccination to students who visit the medical center for other reasons.
Incentivize with Creativity

• Students said that small perks go a long way toward driving participation

“The only way I would get a flu vaccine is if there was a tangible incentive offered.” among those who do not typically receive the flu vaccine

49% agree with this statement

“They could inform their students in a fun and encouraging way. It could also reward them, since students are always in need of money, they could give discounts for textbook, food, and other expenses.”

- Female, Freshman

Other schools found competitions and collaboratives helpful to driving motivation, participation

Learn more: CollegeHealthQI.nyu.edu
Partner with the Influencers

- Even among college students, parents still either share or play a primary role in managing their child’s health.

- Students cited their parents as key driving forces on whether the child gets vaccinated.

- Staying connected to the parents may be a valuable mechanism influencing a student’s influenza vaccine choices.

- Providers should use the opportunity to discuss upcoming seasonal flu vaccination at the pre-college visit.

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Reliance on Sources for Influenza Vaccine Decisions

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<thead>
<tr>
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<th>Not at all</th>
<th>A little</th>
<th>A lot</th>
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<tbody>
<tr>
<td>15%</td>
<td>38%</td>
<td>48%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Healthcare providers</th>
<th>Not at all</th>
<th>A little</th>
<th>A lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>40%</td>
<td>44%</td>
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</table>
Remember... Inspiration Comes from Anywhere!

“We sometimes get ideas from just going into a pharmacy and seeing how they are drawing the attention of people to getting a flu vaccination. Our plan for next year is to partner with a pharmacy to deliver our flu clinics.”

“We benchmark with similar sized universities in our athletic conference... I think that will be benefited a bit by the Alana’s Foundation.”

“Learn what other schools are doing to overcome barriers. Meet with students to brainstorm what might work best at your campus.”