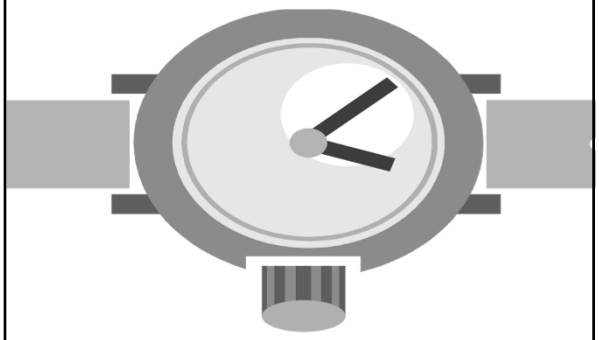

The Presentation will begin shortly, until then there will be no audio.

Health Care Workers and Influenza Vaccination

1) Policies and Coverage Rates of North Dakota Facilities
2) Influenza Vaccine Effectiveness

NORTH DAKOTA DEPARTMENT of HEALTH

- CDC (Centers for Disease Control), ACIP(Advisory Committee on Immunization Practices) and NFID(National Foundation for Infectious Diseases) all recommend that healthcare personnel be vaccinated against influenza
- In addition, ACIP and CDC recommend that Healthcare Personnel be vaccinated against Hepatitis B, Measles, Mumps and Rubella, Varicella, and Tetanus, Diphtheria, and Pertussis

Recommendations for Health Care Personnel

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- According to a publication released by the Joint Commission:
  - Health care workers lose between <1 - 4.3 working days per influenza illness episode
  - The cost savings associated with Health care personnel influenza vaccination programs generally outweigh the costs associated with providing the vaccine and also protects patients

Research shows…

- According to Hayward et al. vaccinating health care personnel is equivalent to preventing the following for every 100 residents:
  - 5 Deaths
  - 2 Hospital Admissions
  - 7 General Practitioner Consultations
  - 9 cases of influenza like illness
- Research by Nichol et al. found that in adults who received the influenza vaccine there were:
  - 25% fewer respiratory infections
  - 43% fewer sick days
  - 44% fewer visits to the physician for upper respiratory infections

Research shows…

- Arguments in favor of requirement:
  - Immunity to vaccine-preventable diseases is critical to disease prevention and infection control
  - Low vaccination rates persist in voluntary vaccination programs despite recommendations
  - Health Care Personnel are at a greater risk for becoming ill
    - Also more likely to transmit the virus while working
  - There is an obligation to protect patients from harm and to act in their best interests
  - Liability issues concerning knowledge of benefits of vaccine and not requiring it
  - The vaccine is safe and systemic effects are no more common than those of a placebo

Mandatory Influenza Vaccination

- Arguments in favor of requirement:
  - Influenza vaccination programs are the most cost-effective of all adult preventative health programs
  - Mandatory programs do work, as evidenced by several programs
  - If applied fairly and used judiciously, requiring influenza vaccination is an appropriate public health practice

Mandatory Influenza Vaccination

- Arguments against requirement:
  - Would have a negative effect on workplace relationships
  - Possible legal challenges concerning civil liberties
  - Liability issues concerning side effects
  - May minimize focus of infection prevention measures
  - Using declination statements and incentives could beneficial

Mandatory Influenza Vaccination

- To determine influenza vaccination rates among North Dakota Health Care Workers
- Identify the policies in place concerning mandatory influenza vaccination of employees
- Identify strategies used to encourage employee vaccination

Survey: Objectives

- Designed survey using SurveyMonkey®
- Distributed survey to infection control nurses across the state using a listserv
- Hospitals, clinics, public health units were included in the study
  - Long term care facilities and Rehabilitation centers were not included

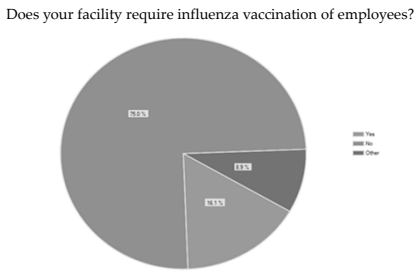
Survey Methods

- Questions included
  - Is influenza vaccination of employees mandatory?
  - Which strategies are used to encourage vaccination?
  - How many employees?
  - How many vaccinated?
- What infection control measures are employed for those who are not vaccinated?

Survey Methods

- Total of 56 facilities surveyed
  - 51 facilities provided vaccination status of their employees
    - Vaccination status of 24,775 employees
    - 80.55% of health care workers vaccinated against influenza in the 2012-2013 season
- Of the 56 facilities surveyed, 16.1%(9) required influenza vaccination of employees
  - 97.27% of the employees at these facilities were vaccinated against influenza
- Of the 42 facilities that do not require influenza vaccination
  - 72.81% were vaccinated against influenza

Summary of Results



Policies

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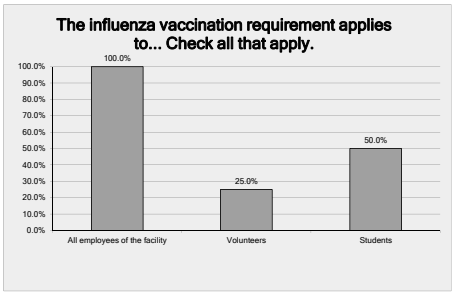

Staff required to comply

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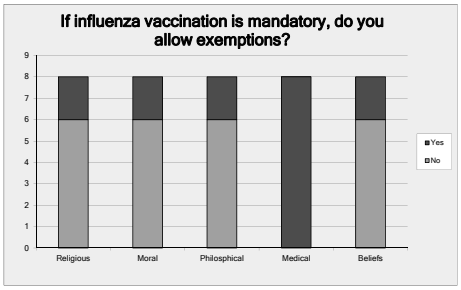

Exemptions Allowed

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- 80.55% of all health care employees included in survey were vaccinated against the influenza
  - Coverage rate for hospitals not requiring vaccination: 71.4%
  - Coverage rate where vaccination is a requirement: 97.27%

North Dakota Coverage Rates

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- Promote and administer seasonal flu vaccine
- Take steps to minimize potential exposures
- Monitor and manage ill healthcare personnel
- Adhere to standard precautions
  - Hand Hygiene
  - Gloves
  - Gowns
- Adhere to droplet precautions
- Practice caution when performing aerosol-generating procedures
- Manage visitor access and movement within the facility
- Monitor influenza activity
- Implement environmental infection control
- Implement engineering controls
- Train and educate Health Care Personnel
- Administer antivirals and chemoprophylaxis to patients and personnel as needed

Flu Prevention Recommendations

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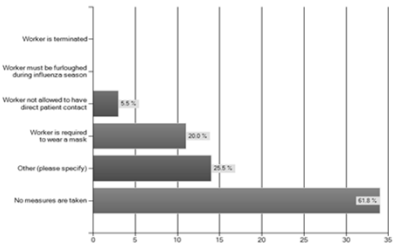
Infection prevention methods enforced among unvaccinated workers.



Infection Prevention

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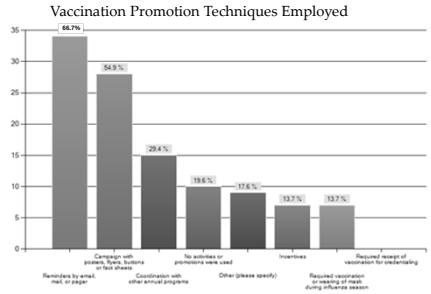

Methods to increase coverage

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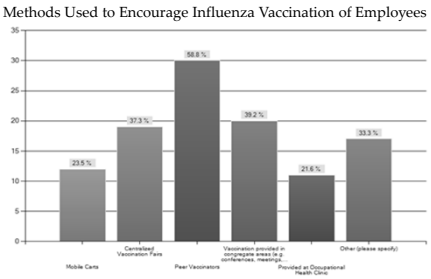

Methods to encourage vaccination

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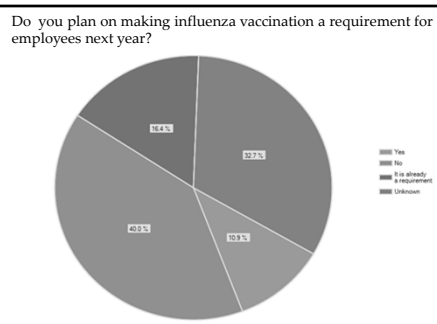

Next Year

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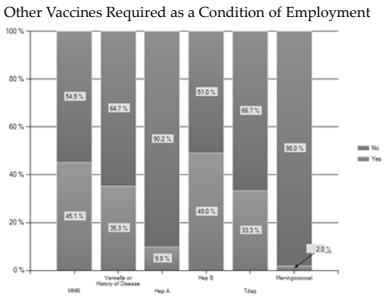

Other Vaccine Requirements

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- CDC Rates and Findings
  - The national coverage rate of health care personnel was approximately 63.5% for the 2010-2011 influenza season.
    - For facilities requiring vaccination, the coverage rate was 98.1%

National Vaccination Rates

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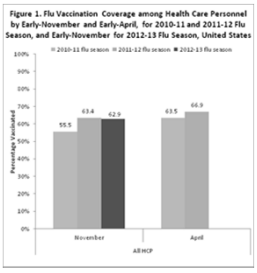

Coverage Rates

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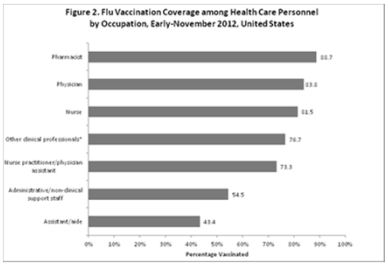
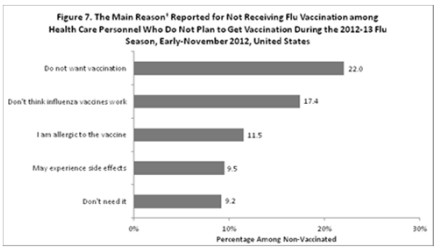


National Coverage Rates by Occupation



Barriers to Vaccination-National

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- Main reason HCP decided to get the vaccine was "to protect myself" at 47.1%
  - Followed by "employer requires me to" at 15.5%
- CDC also found that most Health Care Personnel receive their flu vaccination at work

Other Findings

- The source for nosocomial influenza outbreaks is often health care personnel
  - Able to contract influenza at the workplace and in the community
  - May work during illness or be unaware of symptoms
- Impacts healthcare costs
  - Prolongs hospital stays
  - Diagnostic costs
  - Treatment

Implications

- Facilities that require staff to be vaccinated against influenza have much higher coverage rates
  - Incentives help to raise rates but rates are still drastically lower than facilities that require immunization
- Requiring influenza vaccination protects patients and is cost effective

Conclusions

- Immunization Action Coalition (IAC) recognizes facilities that have a influenza vaccination mandate
- IAC says best way to prevent transmission of influenza to our patients is to mandate vaccination of healthcare workers.
- North Dakota Facilities on the Honor roll:
  - **Altru Health, Grand Forks, ND**
  - **St. Joseph's Hospital and Health Center, Dickinson, ND**
- Apply to be on Honor Roll at http://www.immunize.org/laws/mandates.aspx

Honor Roll for Patient Safety

- Vaccine effectiveness varies each year
  - Dependent on several things
    - Virus or subtype
    - The host immunity
    - Age
    - Season
    - The outcome being looked at (prevention of doctor's visits, hospital admissions, illness)

Influenza Vaccine Effectiveness

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- CDC conducts studies each year
  - Publish information on vaccine effectiveness
    - Beginning of Flu Season
    - Middle of Flu Season
    - End of Flu Season
  - Estimating how well flu vaccine prevents having to go to the doctor because of flu-like illness

Vaccine effectiveness studies

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- Mid-season effectiveness estimates indicate that the flu vaccine was 56% effective in preventing influenza in all age groups
  - 27% effective in adults 65 years and older
  - 64% in children(ages 6 months-17 years)
- The vaccine was 47% effective against Flu A and 67% effective against Flu B for all age groups
  - Effectiveness studies revealed that the vaccine was only 9%(95% confidence interval = 47%–63%)* effective against Flu A in adults 65 and older.

*non-significant

Vaccine Effectiveness for 2012-2013 season

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- Recently a study was published that indicated that the flu vaccine prevented severe illness in older adults during the 2011-2012 influenza season
  - Looks at hospitalization outcome instead of doctor visit outcome
- The study estimated that more than 200,000 people in the US are hospitalized each year from flu related illness
  - Adults 65 and older account for 60% of these hospitalizations and 90% of deaths
  - Reduced the risk of flu-related hospitalization by 71.4% in adults of all ages
  - Reduced the risk of flu-related hospitalization by 76.8% in adults 50 and older

Additional Study

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- Several new vaccines available for the 2013-2014 season
  - Quadrivalent
    - 4 strains
      - 2 Influenza A strains
      - 2 Influenza B strains
  - Egg allergy safe
    - Recombinant vaccine using protein
    - Cell culture incactivated
- Has led to new notation for vaccines

2013-2014 Flu Season Vaccines and Notations

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- **IIV3:** all inactivated influenza vaccines that are trivalent, formerly 'TIV'
- **IIV4:** Inactivated Influenza Vaccine Quadrivalent:
  - Fluarix-quadrivalent, Ages 3 and over
  - Currently only offered by GSK
- **LAIV4:** Live Attenuated Influenza Vaccine Quadrivalent
  - Flumist Quadrivalent
  - Only offered in quadrivalent ages 2-49
- **RIV3**: Recombinant Influenza Vaccine
  - Trivalent
  - Recombinant hemaglutinin Influenza Vaccine
  - Flublok, ages 18-49
  - completely egg free
  - For people with severe egg allergies,
- **CCIIV3:** Cell Culture Inactivated Influenza Vaccine
  - Novartis Flucelvax, ages 18+
  - Not 100% egg free because reference strain is grown in eggs

2013-2014 Flu Season Vaccines and Notations

NORTH DAKOTA DEPARTMENT of HEALTH

IV. IMMUNIZATIONS:

A. **Seasonal** Influenza: (See Policy #8023.063)

1. To avoid potential harm to our patients and to decrease the risk of influenza illness in employees and absenteeism during the flu season, Unity Medical Center requires all personnel who do not have a medical contra-indication to receive influenza vaccination annually by November 30th.
2. The vaccine will be offered to personnel based on guidelines set by the Center for Disease Control based on vaccine availability and level of direct patient care. (The 2011 CDC recommendation is that everyone 6 months and older should receive an annual influenza vaccination unless they have a medical contra-indication.)
3. Beginning in Flu Season 2012-2113, any staff member who declines vaccination must sign a declination statement annually and file it with Employee Health by November 30th (Policy 8023.063). Medical excuses will be kept on file but annual declination forms must still be signed and filed annually.
4. Staff members who decline vaccination will do so with the understanding that non-vaccinated employees will be required:
   1. to present the reason for their declination to the Infection Prevention and Control Committee at their November meeting.
   2. to mask for all direct patient contact from October-March during Influenza Season.
   3. to have an Influenza screening at UMC's expense for respiratory illness during flu season. They will not be eligible for sick pay if the screen is positive. Refusing to be screened will be deemed the same as having a positive result on the screen. They will not be allowed to return to work until after fever has been normal for 24 hours without taking fever-reducing medication.
5. If a staff member elects not to have a flu shot without a medical contra-indication by November 30th of each year, he/she will receive a deduction of 1% of the calculated annual salary increase earned for that year at the time of his/her annual evaluation.
6. Staff may choose at any time to receive vaccination. After November 30th of each year, they will follow the requirements for non-vaccinated staff until the time of their vaccination. They are advised to have any negative response documented by their healthcare provider and to provide Employee Health with a medical excuse if needed.

B. Diphtheria-Tetanus: Immunization recommended every 10 years and after injury determined by physician to be of risk for Tetanus. It is the employee's responsibility to keep this status current.

1. One dose of Tdap vaccine will be offered to employees as a "catch up"dose to provide pertussis immunity to prevent an outbreak per CDC recommendations based on availability of the vaccine.

Infection Preventionist — Date

Chief Executive Officer — Date

Infection Control Physician — Date

Policy

NORTH DAKOTA DEPARTMENT of HEALTH

Unity Medical Center
104 West 12th Street • Grafton, ND • 58237

Employee Influenza Vaccination
Year:_____
Policy 8025.063 attachment

Complete all questions on this form. Bring to Flu Shot Clinic or return to Employee Health by Nov 30th.

Name:	Physician:
Last four digits of social security number:	Birth date:
Department:	Work Phone: ( ) -

YES	NO	
☐		1. Are you allergic to eggs or egg products?
☐		2. Are you allergic to thimerosal (a preservative) other than contact lens sensitivity?
☐		3. Have you ever had Guillian-Barre Syndrome within 6 weeks of taking a flu shot?
☐		4. Have you ever had an anaphylactic reaction to the influenza vaccine?

If you have had recent chemotherapy, radiation therapy, or steroids (except inhaled), these conditions may decrease the effectiveness of the vaccine. However, flu vaccination is still encouraged.

Flu vaccination is recommended for any woman who will be breastfeeding during the influenza season, or will be pregnant during the influenza season. Vaccination can occur in any trimester.

☐ **I have had a flu shot already this year:**
Provider:_____ Date vaccinated:_____
(Send a copy of the record of the vaccination to Employee Health, Unity Medical Center, and 104 W 12th St, Grafton, ND 58237 or FAX 352-5351)

☐ **I would like to have the influenza vaccine given to me.**

A copy of the appropriate Centers for Disease Control and Prevention Vaccine Information Statement dated _____ has been provided. I have read or have had explained to me, the information about Influenza Vaccine. I have had a chance to ask questions which were answered to my satisfaction. I believe I understand the benefits and risks of the vaccine and request that the vaccine is given to me.

☐ **I am not able to receive the flu shot due to a permanent contra-indication.**
☐ Physician excuse attached ☐ Physician excuse on file

☐ **I decline influenza vaccination at this time for the following reason:**
_____

If I decline, I understand:
1. I will need to present my reason to the Infection Prevention and Control Committee at their November meeting.
2. I will mask for all direct patient contact from October-March, Influenza Season.
3. I will need to have an influenza screening at Unity's expense for any respiratory illness during flu season and I will not be eligible for sick pay for leave if the screen is positive. I acknowledge that refusal to be screened will be deemed the same as having a positive result on the screen and that I cannot return to work until I have not had a fever for 24 hours without fever-reducing medication.
4. I will receive a deduction of 1% of my calculated annual salary increase earned for this year at the time of my annual evaluation for failure to follow UMC policy.

Signature:_____ Date:_____

Office Use Only
FLU VAX Manufacturer: _____ ☐ Lot #:_____ ☐ Exp Date _____
Site: ☐ Left deltoid ☐ Right deltoid ☐ Nasal Dose: 0.5 ml
Signature: _____ (RN/LPN/PA) Date: _____

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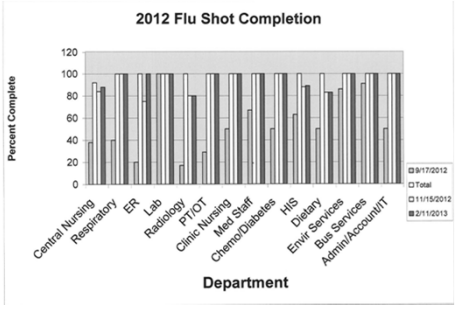

Compliance Journey

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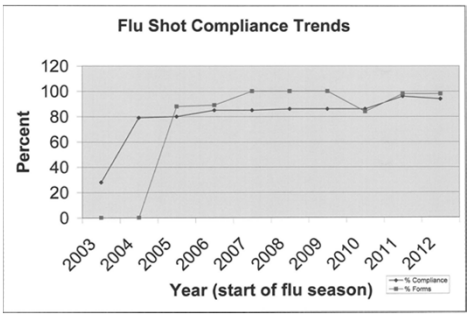

Compliance Trends

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- Post-test
  - Nurses interested in continuing education credit, visit www.ndhealth.gov/immunize/posttest/
  - Successfully complete the five-question post-test to receive your certificate
  - Credit for this session is only available until 5pm on May 18, 2013

Post-Test

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If you have any questions, type them into either of the chat windows on your right.

Molly Howell	mahowell@nd.gov
Abbi Pierce	apierce@nd.gov
Mary Woinarowicz	mary.woinarowicz@nd.gov
Janna Pastir	jlpastir@nd.gov
Stacy Lovelace	slovelace@nd.gov
Amy Schwartz	amschwartz@nd.gov
Rahel Gemmeda	rgemmeda@nd.gov

Or call 701.328.3386 to speak to someone in the Immunization Program

This presentation will be posted to our website: www.ndhealth.gov/immunize

Questions?

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