What CHRs Should Know
Protecting the Community from Influenza

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What you should know about flu viruses
What is influenza?

- Caused by influenza viruses
- Infects the nose, throat, and lungs
- Usually causes mild to severe illness, but can also lead to death
  - Leading cause of pneumonia
- Contagious (can catch from other people and can give it to other people)
- Best prevented by the flu vaccination
How is the flu spread?

- Mainly spread by droplets when people cough, sneeze, or talk
- Can catch by touching your nose, eyes, or mouth after you have touched something with flu viruses on it
- Can pass flu viruses onto someone else even when you don’t have symptoms
When can you spread the flu virus to others?

- Most likely to pass flu viruses to someone else between 1-2 days before symptoms start and 4-5 days after symptoms start.
How serious is the flu?

- Up to 49,000 deaths each year in the U.S.
- 90% of deaths occur in people 65 years and older
- Average of 200,000 people hospitalized each year due to flu-associated respiratory and heart conditions
How are AI/AN people affected by the flu?

- AI/AN people are at high-risk for influenza and its complications.
- Influenza and pneumonia is a top 10 leading causes of death for AI/AN people.
- AI/AN people die from pneumonia and influenza almost twice as much as Non-Hispanic white people do.
What makes someone high-risk of getting serious complications from the flu?

- Being pregnant
- Having the following health conditions:
  - Heart disease
  - Diabetes
  - Kidney disorders
  - Liver disorders
  - Morbid obesity
  - Weakened immune system due to disease or medication
  - Other health conditions, too!
- Being younger than 5 years-old or older than 65 years-old
- Being American Indian or Alaska Native
AN INFLUENZA VIRUS

Source: CDC. http://www.cdc.gov/flu/images.htm
Are there different types of flu viruses? YES.

- Three types: A, B, and C

- Influenza A viruses can infect birds, animals, and humans
  - H1N1 and H3N2 are Influenza type A viruses

- Influenza B viruses only found in humans

- Influenza type A and B viruses causes seasonal epidemics almost every winter in the United States

- Influenza type C viruses cause mild respiratory illness
Do flu viruses stay the same? NO.

- Viruses replicate causing small genetic changes

- Because of these changes, we sometimes have to change the flu vaccine to protect against the new form of viruses
What you should know about flu vaccines
### What should I know about the flu vaccine?

| Who should get the vaccine?                        | ▪ **Everyone** over 6 months of age  
|                                                    | ▪ High risk people, including pregnant women, elders, young children, and people with diabetes |
| How often should people get the vaccine?           | Every year (as soon as vaccine becomes available, preferably by October) |
| What disease does the vaccine protect against?     | Influenza |
| What symptoms does this disease cause?             | Headache, chills, fever, body aches, extreme tiredness, dry cough |
In most cases, vaccines lower your risk of getting a disease more than any other behavior does.
But I can’t get a flu shot! I’m allergic to eggs.

You’re in luck!
There is an egg-free flu vaccine available!
Is there more than one type of flu vaccine? 
YES.

Including, but **not** limited to:

- **Standard-dose trivalent shot**
- **High-dose trivalent shot** (for people 65 years and older)
- **Egg-free recombinant trivalent shot** (for people 18 years and older)
- **Intradermal quadrivalent shot, which uses much smaller needle than regular flu shot** (for people 18 through 64 years)
- **Quadrivalent nasal spray vaccine** (for people 2 through 49 years who aren’t pregnant)
- **Quadrivalent flu shot** (some approved for people as young as 6 months)
What are more details about the different types of flu vaccines?

- **Flu shot**
  - Made with inactivated (killed) influenza virus
  - Usually injected into the muscle
  - Everyone 6 months and older can get it
  - “Intradermal flu vaccine” for adults, 18-64 years
    - Smaller needle than regular flu shot
    - Injected into skin, rather than muscle

- **Flu nasal spray**
  - Made with live influenza virus that has been weakened, so it can’t grow
  - For healthy* people ages 2 through 49 years-old who aren’t pregnant
    - *Healthy means people who don’t have an underlying medical condition, such as asthma or diabetes
What are the side effects from the flu vaccine?

- Serious side effects are rare
- Most side effects are minor and resolve in 1-2 days

**Flu Shot**
- Soreness, redness, or swelling where the shot was given
- Fever (low grade)
- Aches

**Nasal Spray**
- **Children**
  - runny nose
  - wheezing
  - headache
  - muscle aches
  - fever
- **Adults**
  - runny nose
  - headache
  - sore throat
  - cough
How does the flu vaccine affect pregnant women?

- Pregnant women pass on protection to their newborn

- Studies have shown babies born to moms who were vaccinated with flu
  - Are less likely to get admitted to the hospital for flu than babies of unvaccinated mothers
  - Have a lower chance of catching the flu and getting admitted to the hospital for Influenza-Like-Illness

Additional protection of flu vaccine
What you should know about people getting vaccinated for the flu
What are reasons people get and don’t get the flu vaccine?

- Reasons for accepting vaccination:
  - Protect self
  - Protect patients
  - Convenience
  - Peer influence
  - Prior positive experiences with receiving the flu vaccine

- Reasons for rejecting vaccination:
  - Concerns about vaccine safety or efficacy
  - Belief their not at risk (healthy immune system)
  - Belief their not at risk (do not understand transmission of influenza)
  - Fear of needles
  - Not convenient (real or perceived)

Why do I need a flu vaccine?

- **Protect yourself**
  - Flu vaccination reduces sick days by 28%\(^1\)

- **Protect your family**
  - If you are infected with influenza you will also expose your family

- **PROTECT YOUR COMMUNITY**
  - By getting the flu vaccine, you also protect people who can’t get the vaccine and people with weak immune systems

\(^1\) Infection Control & Hosp Epidemiology 2005:26:883
How effective is the flu vaccine?

- Varies from year to year
- Depends on:
  - Patient (age, health status)
  - Match between influenza strains in population and influenza strains in vaccine
Does the flu vaccine work? YES.

- Flu vaccination can keep you from getting sick from flu and protects the people around you who are more vulnerable to serious flu illness.

- Flu vaccination also may make your illness milder if you do get sick
  - Can reduce the risk of more serious flu outcomes, like hospitalizations and deaths

- When vaccine and circulating viruses are well matched, vaccine is very effective in healthy adults younger than 65 years-old

- Vaccine can also protect against different, but related viruses²
Why wasn’t last year’s flu vaccine as effective as usual?

- Last year’s flu vaccine (2014-2015 flu season) did not work well to protect against some circulating H3N2 viruses.

- A flu vaccine protects against 3 or 4 viruses, so even if the protection against 1 virus is less than ideal, the vaccine may still protect against the other viruses.

- Experts must pick which viruses to use in the flu vaccine many months in advance so the vaccine can be produced and delivered on time.
Why do some people get sick after getting the flu vaccine?

- It takes 2 weeks for the flu vaccine to start working.
- The flu vaccine only protects against flu viruses, not other types of viruses.
- Some people (the elderly, for example) may not get good protection from the flu vaccine because they have weak immune systems.
Addressing concerns: Is the flu vaccine safe?

- You **cannot** get influenza from the vaccine
- Vaccine is safe – allergic reactions are **RARE**
- The vaccine has been used for 50 years and has been given safely to hundreds of millions of people in the U.S. and around the world
- A sore arm is the most common adverse reaction
- Persons with chronic illnesses **CAN** and **SHOULD** receive influenza vaccine
  - Including people with diabetes, heart disease and asthma
- Pregnant women **CAN** and **SHOULD** receive influenza vaccine
Addressing concerns: I’m healthy. Am I even at risk for the flu?

- In one study\(^1\), 23% of healthcare workers had evidence in their bodies of influenza infection after a mild influenza season
  - 59% could not recall being sick
  - 28% could not recall any respiratory infection

- Suggests a high proportion of illness without symptoms

1. JAMA 1999;281:908-13
Addressing concerns:

I hate needles!

- Intradermal vaccines, which use a much smaller needle, and nasal spray vaccines are available

- Check with your healthcare provider and see if you can get one of these vaccines

I have no idea where to go for the flu vaccine. / I don’t want to go to the clinic.

- Check with your Employee Health Nurse and/or Infection Control Coordinator to find out where and when you can receive a flu vaccine

- Flu vaccines are available at some pharmacies and grocery stores
How else can I prevent the flu?

- Cover your nose and mouth with a tissue when you cough or sneeze
  - Throw the tissue away after you use it

- Wash your hands often with soap and water, especially after you cough or sneeze. If you are not near water, use an alcohol-based hand cleaner.
  - Wash hands for as long as it takes to sing the “Happy Birthday” song twice
  - Gels should be rubbed into your hands until they are dry

- Stay away as much as you can from people who are sick

- If you get the flu, stay home from work
  - Do not go near other people, so you don't make them sick

- Try not to touch your eyes, nose, or mouth (germs often spread this way)
What can CHRs do?

- Encourage people in your community to receive the flu vaccine every year.
  - Tell people about the benefits of flu vaccines.
  - Correct misunderstandings about flu vaccines.
  - Let people know where they can receive flu vaccines.

- Work with public health nurses & local healthcare providers to target those at highest risk.
Where can I go for more information?

- Centers for Disease Control and Prevention (CDC)
  - Posters and print materials
    - [http://www.cdc.gov/flu/freeresources/print-native.htm](http://www.cdc.gov/flu/freeresources/print-native.htm)
  - Public Service Announcements
    - [http://www.cdc.gov/flu/freeresources/media-psa.htm](http://www.cdc.gov/flu/freeresources/media-psa.htm)

- Good Health TV video PSAs
Thank you for all you do to make our communities healthy!

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