

H1N1 Influenza

2009/2010 Influenza Season



Colorado Department
of Public Health
and Environment

Help slow the spread of H1N1 flu

- Cover your cough or sneeze (with tissue or sleeve)
- Wash your hands frequently
- Stay home when you're sick (at least 24 hrs after fever goes down without meds)
- Get the H1N1 vaccine when available

✓ Get your **seasonal** flu vaccination ASAP.

Symptoms of H1N1

- Fever, chills
- Sore throat
- Cough
- Congestion
- Headache, body aches
- Fatigue
- Vomiting, diarrhea (esp. in children)

✓ H1N1 symptoms are the same as seasonal flu symptoms.

When to contact your doctor - adults

- Difficulty breathing, shortness of breath
- Sudden dizziness or confusion
- Severe or persistent vomiting
- Pre-existing medical conditions (like pregnancy, diabetes, asthma) that could be worsened by flu
- Symptoms improve then return

Contact your doctor's office before going.

✓ Your best option may be to stay home and rest.

When to contact your doctor - children

- Difficulty breathing, fast breathing
- Bluish or gray skin color
- Not drinking enough fluids
- Severe or persistent vomiting
- Pre-existing medical conditions (like diabetes, asthma) that could be worsened by flu
- Not waking up, not interacting, irritability
- Symptoms improve then return

Contact your doctor's office before going.

✓ Colorado's home care guide now online.

Antiviral medications

- Tamiflu and Relenza
- May decrease duration and severity of illness
- Must be given within first 24-48 hours
- **Colorado has 170,000 courses of Tamiflu**
 - Pre-positioned at local distribution points statewide
- **H1N1/seasonal viruses have shown some resistance to antivirals**

✓ Antivirals are not the magic bullet for flu.

Family preparedness

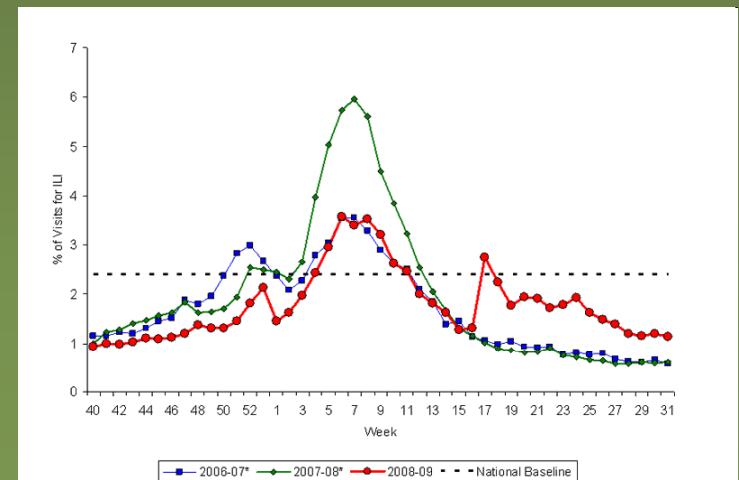
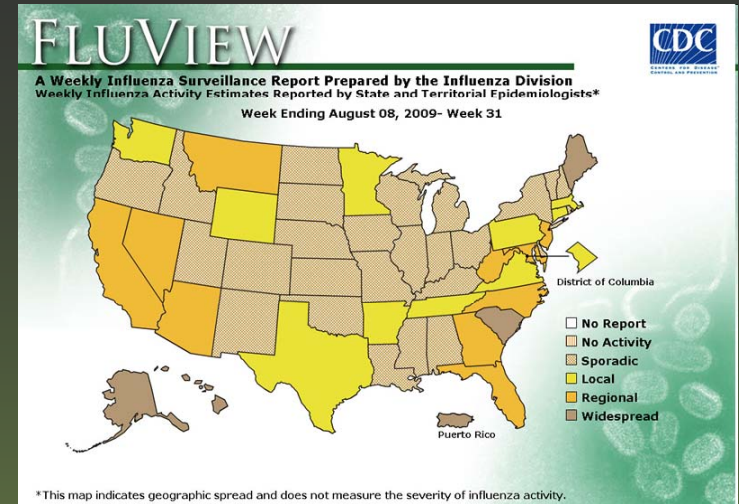


- Prepare for an emergency that might require staying at home a week or more
- Keep basics like food/medications and the necessities to care for ill family members
- Prepare to keep your family functioning and supervised if you get sick

H1N1 update – U.S.

- 475+ deaths reported*
- 7,500+ hospitalized*
- Estimated 1 million+ cases
- Tracking and case counts
 - Hospitalizations and deaths only
- Pediatric flu deaths
 - 100+ since 09/08
 - 33 were H1N1

* as of August 14



*There was no week 53 during the 2006-07 and 2007-08 seasons, therefore the week 53 data point for those seasons is an average of weeks 52 and 1.

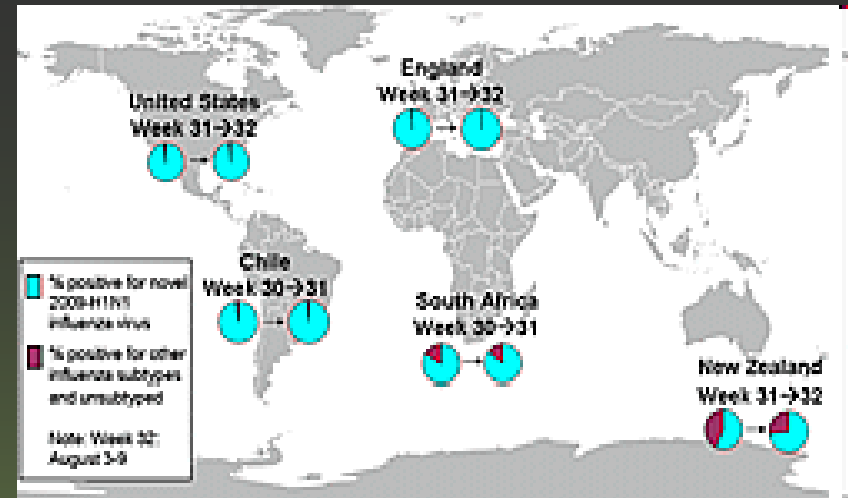
H1N1 update – Colorado



- 40+ Colorado H1N1 hospitalizations
 - 30+ cases under age 40
 - At least 1 death
- No Colorado H1N1 pediatric flu deaths to date
 - 5 from seasonal flu in 2008-09 season
- H1N1 virus continues to circulate
 - 24 summer camps closed; 2 hospitalizations
 - 100+ first-year cadets at Air Force Academy

H1N1 update – international

- Southern Hemisphere
 - Middle of flu season
 - H1N1 circulating with seasonal viruses
- Overall severity similar to seasonal flu
 - Anecdotal evidence for severe illness in younger adults
- School closures
 - Many in Southeast Asia and South America
 - Not predominant strategy in other areas (i.e., Australia)



H1N1 predictions for fall and winter

- H1N1 continues to circulate
 - H1N1 likely to co-circulate with seasonal virus
 - CDC expects surge of illnesses from H1N1 in fall
- Novel H1N1 can cause severe disease, death
 - People with underlying health problems associated with a high risk of flu complications
 - Young people affected disproportionately; few cases among elderly
 - Showing resistance to antivirals

✓ The most predictable characteristic of flu viruses is their unpredictability.

Colorado's key operations

- Vaccination
- Communication
- Community mitigation
- Situational awareness
- H1N1 surveillance



H1N1 vaccine updates

- H1N1 vaccine production underway
 - Production process similar to seasonal vaccine
 - H1N1 vaccine needed because too late in flu vaccine production cycle to add new antigen
- Clinical trials in progress
 - Vaccine efficacy (effectiveness)
 - Vaccine safety
- Plan to produce enough vaccine for everyone
 - Shipping expected to begin mid-October 2009

✓ The immune system recognizes germs that enter the body as "foreign" invaders, or *antigens*, and produces protein substances called *antibodies* to fight them.

H1N1 vaccine updates (continued)

- Clinical trials
 - Likely to have adequate vaccine efficacy data by September
 - Two doses may be needed
 - :: clinical trials will determine if that's necessary
 - :: expect 21-28 days between first and second dose
 - Production exactly like seasonal vaccine and as safe as seasonal vaccine.....
 - ...unless clinical trials show that adjuvants are needed

✓ Vaccines contain same antigens that cause diseases, but the antigens in vaccines are either killed or greatly weakened.

H1N1 vaccine updates (continued)

- Vaccine adjuvants
 - Adjuvants are vaccine components added to improve the vaccine's immune response
 - Adjuvants can help stretch quantity when limited supplies
 - H1N1 vaccine not expected to require adjuvants; decision to be based on results of clinical trials

✓ An H1N1 vaccine is not a magic bullet, either.
“Community-based interventions” most effective.

H1N1 vaccine updates (continued)

- Vaccine preservatives
 - Preservatives allow manufacturers to package vaccine in multi-dose vials, as opposed to single-use syringes
 - Majority of vaccine will be in multi-dose vials; remainder in single dose syringes or nasal sprayers
 - Goal is to have enough preservative-free for pregnant women and young children

✓ The H1N1 vaccine is not intended to replace the seasonal flu vaccine.

H1N1 vaccination strategy

Prioritization

The goal of vaccinating priority groups is to provide a circle of protection for all citizens.

H1N1 vaccine updates (continued)

- H1N1 vaccine supplies will not be available all at once
 - Priorities for first vaccinations cover half of state
 1. Pregnant women
 2. Healthcare and emergency medical services
 3. Household contacts/caretakers of children < 6 mos
 4. Children, adolescents, young adults 6 mos to 24 yrs
 5. Adults 25 to 64 yrs with chronic disease

✓ The Vaccine Adverse Event Reporting System (VAERS) is a national program to monitor vaccine safety.

H1N1 response planning - schools

- CDPHE working with Department of Education
 - Support plans to keep schools open but isolating or sending ill students home
- CDPHE working with school nurses and school-based health clinics
 - Guidance, surveillance, response plans
- CDPHE working with Dept of Higher Education
 - Verify that plans are in place, especially for dorm residents

✓ **Vaccines protect children by helping prepare their bodies to fight often serious, and potentially, deadly diseases.**

H1N1 response planning - media and public

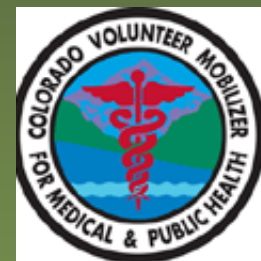


- Public outreach
 - Establishing open communications now
 - Promoting preparedness and wellness
 - COHELP hotline (Q&As)
- Media communication
 - Provide avenues for communication and information through new tools, new media



H1N1 response planning - private sector

- CDPHE organized business coalition
 - Support private sector plans for business continuity
 - Created guidance for business owners
 - Educate business leaders, promote health messages
- CDPHE recruiting and training volunteers
 - Colorado Volunteer Mobilizer registers and credentials potential volunteers in advance
 - Expanding numbers of Medical Reserve Corps units statewide
 - Partnering with READYColorado



<https://covolunteers.state.co.us>

H1N1 response planning - communities

- Faith-based groups
 - Christian, Jewish, Muslim, Buddhist
 - Encouraging preparedness among communities as well as individuals
 - Developing relationships with community leaders
- Colorado Cross-Disability Coalition
 - Encouraging persons with disabilities to plan for special needs
 - Recruiting community leaders to help educate peers

✓ Be flexible - guidance may change as situation evolves.

Seasonal influenza



- Expect seasonal flu to circulate with H1N1
- Every year in the U.S....
 - 226,000 hospitalized
 - 36,000 deaths
- Seasonal flu vaccine can prevent illness
- Get seasonal flu vaccine as soon as available to stay as healthy as possible
- Clinical trials to determine if seasonal vaccine can be given at the same time as H1N1 vaccine

✓ If you get the flu, you probably don't need to get tested for H1N1 or seasonal.

Who should get seasonal flu vaccine?

- Anyone who wants to reduce likelihood of getting influenza
- Recommended for all children age 6 months –18 years-old
- Anyone 50 years or older
- Anyone at risk of complications from influenza (asthma, heart disease, lung disease)
- Anyone with weakened immune systems
- Women who will be pregnant during influenza season
- Anyone who lives with or cares for people at high risk for influenza-related complications
- **All** healthcare workers

✓ **You can't get the flu from a flu shot.
There is no live virus in the shot.**

Vaccine distribution and administration

- Federal plans for distribution
 - Current plans to use large distribution warehouse operated by McKesson
 - Physicians order as normally do
 - States identify sites for receipt of shipments
- State/CDPHE involvement in distribution
 - Ensure distribution to local public health
 - Support local plans for distribution and administration
 - Move vaccination supplies statewide

✓ Find out where to get your flu shot at www.immunizecolorado.com.

Vaccine distribution and administration (continued)

Four major strategies for Colorado vaccinations

1. Hospitals for healthcare/EMS
2. Schools/colleges for student vaccinations
 - May use pediatric care providers for chronically ill children, adolescents and young adults
3. OBs for pregnant women
4. Typical seasonal flu sites for all other adults

✓ **Ask your doctor now if they plan to order H1N1 vaccinations.**

Community mitigation

Guidance documents for

- Schools/colleges
- Workplaces
- Emergency personnel
- Community settings
- Child care providers
- Home Care Guide

✓ The risks of serious disease from NOT vaccinating are far greater than the risks of serious reaction to a vaccination.

H1N1 surveillance

- Information sources
 - Hospitals
 - Healthcare providers
 - Local public health agencies
 - Laboratories
- Guidance
 - Reporting and testing guidance
 - Antiviral drug guidance
 - Infection control guidance
 - Case tracking

✓ Calling H1N1 a pandemic only means it has spread worldwide.

H1N1 surveillance (continued)

- Surveillance data
 - Collect, track, analyze
 - Notify partners and public
 - Suspect and confirmed cases
 - Notify providers and LPHAs of positive test results
- Influenza testing kits – distributed to epidemiologists statewide

✓ Epidemiologists are the disease detectives of public health.

For more information

- www.cdphe.state.co.us
- www.cdc.gov
- www.flu.gov



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