

# Maine CDC/DHHS Update on 2009 H1N1 Influenza Virus

## November 20, 2009

### Highlights

- H1N1 continues to expand and worsen amid increasing vaccine shortages relative to demand for it as well as under-utilization of antiviral medicines.
- There have been a total of 143 schools with reported high absentee rates, including 44 this past week; ER visits for flu account for about 1 in 6 ER patients; there have been 50 hospitalizations this week, with half of them among children; and there have been 2 deaths (both previously reported), for a total of 5 since August.
- Vaccine administered appears to be very under-reported by health care providers, with only about 45% of doses distributed having been reported as administered.
- Flu infections can make people more likely to develop pneumococcal infections, which can cause serious complications, including death. All children younger than 5, all people between ages 5 and 64 with certain high risk conditions, and all people age 65 and older should receive a pneumococcal vaccine.
- Information on treatment with intravenous antiviral medicines is available.

### Continued Surge of Flu Activity in Maine and the US

Two deaths this week were reported publicly over the weekend, bringing the total deaths due to H1N1 in the state since August to five. Four of these have been in the past two weeks. The average age among those who have died is 47; by comparison, 90% of deaths related to seasonal flu are among those older than 64.

There were 50 hospitalizations this week, accounting for more than half of the hospitalizations due to H1N1 since April. Half of the new hospitalizations were children, two of whom have been or currently are in intensive care; 23 were adults ages 19-65, seven of whom were or are in intensive care; and 2 people were older than 65, neither of whom needed intensive care. Counties of those hospitalized this past week are: Androscoggin and Penobscot both 11; Cumberland 9; York 8; Hancock 3; Kennebec, Oxford, Piscataquis all 2 each; Aroostook and Washington 1 each.

One in every six visits to an emergency department this week was flu-related, and rates of visits to other outpatient settings continue to be elevated.

A total of 143 schools have reported high absenteeism (> 15%) due to flu, and 44 of them were from this past week. A school in Kennebec County and another in Washington County chose to close as a result of absenteeism. An outbreak of H1N1 in a long-term care facility was reported over the weekend. There were five other institutional outbreaks this week.

The timing, spread, and severity of flu viruses is uncertain with outbreaks often occurring in waves. In past pandemics, the first wave is usually a smaller wave followed by a larger peak wave, which can be followed by subsequent waves. Even after flu activity peaks during the current wave, it is possible that other waves of activity may occur – caused by either H1N1 or regular seasonal flu viruses.

There have been confirmed cases of H1N1 in every county in Maine. People should assume that they will be exposed to the flu at some point, and with vaccine for less than one-third of those most prioritized to receive it in the state, we should all take precautions to prevent serious illness by staying home when sick, covering coughs and sneezes, washing hands frequently, and getting vaccinated against both seasonal and H1N1 flu when vaccine is available.

### Pneumococcal Illness and Vaccine

**Increases in pneumococcal disease were seen during all three of the flu pandemics that occurred in the twentieth century. A report released in September showed that bacterial pneumonia is contributing to fatalities in people with H1N1 flu, similar to previous pandemics**

([http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58e0929a1.htm?s\\_cid=rr58e0929a1\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58e0929a1.htm?s_cid=rr58e0929a1_e)).

All children less than 5 years of age should receive the pneumococcal conjugate vaccine. The polysaccharide vaccine should be administered to all persons 2-64 years of age with high risk conditions and everyone 65 years and older.

Although there is no evidence that this vaccine is harmful to either a pregnant woman or to her fetus, it is not recommended during pregnancy. Women who have underlying conditions known to put them at risk of pneumococcal disease should be vaccinated before becoming pregnant, if possible.

US CDC issued a letter to health care providers urging them to make sure all their adult patients with indications have received the pneumococcal polysaccharide vaccine.

(<http://www.cdc.gov/h1n1flu/vaccination/provider/lettertoprovider.htm>)

CDC has also issued a Q&A on influenza and invasive pneumococcal disease

([http://www.cdc.gov/h1n1flu/vaccination/qa\\_pneumococcal\\_disease.htm](http://www.cdc.gov/h1n1flu/vaccination/qa_pneumococcal_disease.htm)).

### **H1N1 Vaccine Supply and Prioritization**

The US Food and Drug Administration (FDA) this week approved an additional vaccine for H1N1 flu (<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm190783.htm>). **We expect this vaccine to arrive sometime in mid-late December.**

The FDA also approved the use of an additional vaccine already in use for those 18 and older to be administered to infants and children. It is produced by the company CSL.

(<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm190359.htm>) **Vaccine administrators should note that this new approval for CSL vaccine is not reflected on the vaccine's package inserts as of yet.**

We have 210,500 doses of vaccine in Maine – **which is about 30% of what is needed for priority populations in the state.** For this reason, Maine CDC has had to prioritize within US CDC's priority groups for vaccine, based on trends in infections, the type and amount of vaccine available, and readiness of partners to administer vaccine.

**Currently, Maine CDC priority groups for vaccination are:**

- **All children 6 months – 18 years of age**
- **Pregnant women**
- **Caregivers and household members of infants younger than 6 months old**
- **Adults 18 – 64 years of age with the most severe chronic medical conditions\*\***
- **Health care personnel with frequent direct contact with infectious materials and hospital inpatients who are at high risk (pregnant women, children, and high-risk adults older than 65)**

\*\*At this point in time we are only distributing vaccine for this category to some specialists who care for adults with the most severe chronic medical conditions. Chronic medical conditions that confer a higher risk for influenza-related complications include chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, cognitive, neurologic/neuromuscular, hematologic, or metabolic disorders (including diabetes mellitus) or immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus).

We continue to distribute vaccine in K-12 schools; among health care providers who care for children, pregnant women and/or very high-risk adults; colleges and universities for their high-risk students; and some pre-school settings such as preschool programs for high-risk children and Head Starts.

By the end of the week, we expect:

- About 95% of all K-12 schools, which is all schools that signed up to provide H1N1 vaccines, will have administered their first doses to **children**. The second doses for children ages nine and younger we anticipate will begin to be distributed in the next several weeks, but not until sometime in December. US CDC recommends that the two doses of H1N1 vaccine for children 9 years of age and younger be separated by 4 weeks, but there is no maximum number of days between doses.
- All health care providers that ordered H1N1 vaccine for **pregnant women** will have received some supply for their pregnant patients.

Over the next several weeks, we expect that it will be easier for **household members of infants younger than six months old, pre-school aged children, and people younger than 65 at high risk due to underlying medical conditions** to access vaccine through several channels:

- Vaccine has been shipped to pediatric health care providers that placed orders for H1N1 vaccine. Public Health Nurses are conducting vaccine clinics in preschool settings for high-risk children and will soon be conducting vaccine clinics in Head Start locations. Other organizations are also starting to organize clinics for preschool aged children.
- The limited amount of vaccine formulation that is ideal for adults is being distributed to **specialists** serving those **adults who are at the highest risk** – pulmonologists, cardiologists, oncologists, neurologists, rheumatologists, infectious disease physicians, and dialysis centers. We hope in the next week to be able to distribute increasing amounts of vaccine to other adult practices, such as internal medicine physicians. In addition, clinics for high risk groups will be starting in the coming weeks, and will be posted on the flu clinic locator at [www.maine-flu.gov](http://www.maine-flu.gov).
- We hope to provide more vaccine for **health care workers** in the next several weeks as the vaccine formulations for adults become more available. Any health care worker who fits into another high-risk group (pregnant, household member of an infant younger than six months, younger than 65 with an underlying health condition) should try to access vaccine now.

Once all of the prioritized groups have been vaccinated, we anticipate that there will be enough vaccine for anyone who wants it. However, vaccine may not be available to those not included in the priority groups until early in 2010.

### Holiday Distribution

Please note that CDC is not delivering vaccine the day after Thanksgiving. Maine CDC's Immunization Program has asked all registered H1N1 vaccine providers about holiday closings into February so that holiday closings will not affect vaccine shipment.

### Reporting Vaccine Administration

Maine CDC asks all H1N1 vaccine providers and/or administrators to submit the vaccine administration data into the Maine CDC's weekly vaccine reporting system. Currently, only 45% of doses distributed have been reported as administered. **This may start impacting the flow of vaccine, since it indicates low uptake of the vaccine. We believe at this point in time these data are an indication of under-reporting and how busy health care providers are taking care of people sick with H1N1 as well as administering vaccine.**

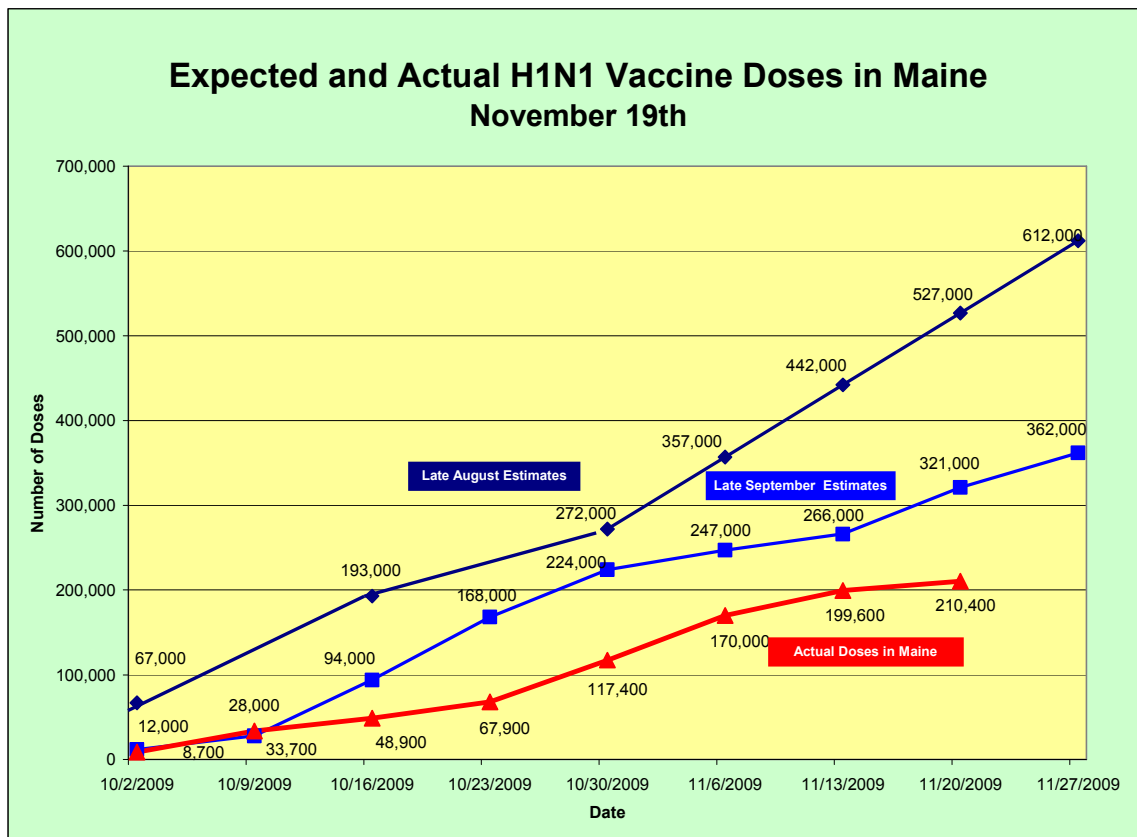
Maine CDC's Immunization Program is compiling a database that matches the vaccine distribution database with the vaccine administration database by provider so we can tell which providers are not reporting on vaccine administration (or not using their vaccine). We will then use this to help guide our vaccine distribution decision-making.

The weekly vaccine reporting form can be found at: <http://www.maine.gov/dhhs/boh/maine-flu/h1n1/health-care-providers.shtml>. The vaccine reporting periods on the form are the same timeframe as the dates for the vaccine clinics. This form is then compiled by us and submitted, as required, to US CDC.

### H1N1 Vaccination Distribution as of November 19:

County	H1N1 Doses Distributed As of 11/19	% of Population Covered by Doses	% of Doses Reported as Administered
Cumberland York Sagadahoc	93,800	18%	42%
Androscoggin	18,000	17%	46%
Kennebec	20,200	17%	52%
Washington	5,600	17%	29%
Penobscot	24,000	16%	53%
<b>STATE</b>	<b>210,500</b>	<b>16%</b>	<b>45%</b>
Knox Lincoln Waldo	17,100	15%	48%
Aroostook	9,900	14%	38%
Oxford	6,800	12%	61%
Franklin	3,200	11%	69%
Somerset	5,100	10%	19%
Piscataquis	1,800	10%	41%
Hancock	5,000	9%	52%

- 231 health care providers statewide have received H1N1 vaccine
- This means there is now 1 dose for every 6 people, and 1 dose for every 3 people in the high priority groups



## Antiviral Treatment

The groups at risk for complications from the flu are slightly different from the groups prioritized to receive H1N1 vaccine. Those at highest risk for complications from the flu include:

- **Children younger than 2 years-old**
- **Pregnant women**
- **Adults age 65 and older**
- **People with underlying medical conditions (such as asthma, heart failure, chronic lung disease, diabetes, HIV)**

People who fall into one or more of these groups and you have signs of the flu, should contact their health care providers as soon as possible to get a prescription for antiviral medications (such as Tamiflu®). People who fall into one of more of these groups, have not gotten an H1N1 vaccination yet, and live with someone who has the flu, should contact their health care providers. In some cases, the health care provider may want to prescribe antiviral medications before the person exhibits symptoms. **These medicines can significantly reduce severity (including hospitalization and death) as well as duration of illness.**

Maine CDC encourages physicians to prescribe antiviral medications as appropriate. In an effort to minimize financial barriers, Maine CDC has mobilized a significant portion of the state-purchased stockpile of antiviral medications for outpatient use by those who cannot afford them. For more information:

<http://www.maine.gov/dhhs/boh/maineflu/h1n1/anti-viral.shtml>

### Pediatric Suspension:

The FDA has issued guidance on compounding an oral suspension of Tamiflu® to provide multiple prescriptions:

<http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm188629.htm>

MaineCare is promulgating emergency rules increasing the reimbursement for compounding pediatric suspension from \$4.35 to \$10. Pharmacies can put through paper claims and they will be back dated to October 1 to receive the \$10 copay. The full stockpile of pre-prepared pediatric suspension in the stockpile has been fully deployed to hospitals, health centers, and Hannaford's pharmacies and other willing pharmacies. Additional syrup used to compound the pediatric suspension has also been deployed.

Mixing Tamiflu® with Sweet Liquids, a short video that demonstrates how to prepare a sweet liquid mixture for children who cannot swallow capsules, is now available at <http://www.cdc.gov/CDCTV/MixingTamiflu/index.html>.

### Intravenous Treatment for Hospitalized Patients with Antiviral Medicines – Peramivir:

<http://www.cdc.gov/h1n1flu/eua/peramivir.htm>

<http://h1n1.nejm.org/?p=1188&query=TOC>

## Resources for Health Care Providers

Maine CDC has updated its H1N1 web site for Health Care Providers

(<http://www.maine.gov/dhhs/boh/maineflu/h1n1/health-care-providers.shtml>) to include links to current testing information, clinical guidance, billing information related to administration of H1N1 vaccine, and information on requested 1135 waivers. A webpage on Infection Control Measures, including the process for accessing the Strategic National Stockpile supply of N95 respirators is now available at:

<http://www.maine.gov/dhhs/boh/maineflu/h1n1/infection-control.shtml>.

A fact sheet about H1N1 vaccine prioritization and health care workers in Maine can be found at

[http://www.maine.gov/dhhs/boh/maineflu/h1n1/factsheet\\_HCW.pdf](http://www.maine.gov/dhhs/boh/maineflu/h1n1/factsheet_HCW.pdf).

Current information on H1N1 vaccine for health care providers – including links to ingredients, training videos for vaccine administration, and information on reporting Vaccine Adverse Events can be found at:

<http://www.maine.gov/dhhs/boh/maineflu/h1n1/hc-providers/vaccine-info-hcp.shtml>.

## Other Updates from Federal Partners

- Flu.gov has a new Self-Evaluation widget: <http://www.flu.gov/news/socialmedia/index.html#evaluationwidget>
- Considerations Regarding 2009 H1N1 Influenza in Intrapartum and Postpartum Hospital Settings: <http://www.flu.gov/professional/hospital/index.html>
- FDA Questions and Answers for Health Care Providers: Renal Dosing and Administration Recommendations for Peramivir IV: <http://www.cdc.gov/h1n1flu/eua/peramivir.htm>

## Updates for Special Populations

- Information for Pregnant Women Working in Education, Child Care, and Health Care Settings: <http://www.cdc.gov/h1n1flu/guidance/pregnant-hcw-educators.htm>
- H1N1 Flu Information for People with Disabilities and Their Caregivers or Personal Assistants.: <http://www.cdc.gov/h1n1flu/disabilities/> and <http://www.flu.gov/individualfamily/healthconditions/disabilities/index.html>

## Maine CDC H1N1 Activities This Past Week

Calls received by the phone bank.	558
Questions coming into <a href="mailto:flu.questions@maine.gov">flu.questions@maine.gov</a>	168
Hits on the webpages associated with <a href="http://www.maine-flu.gov">www.maine-flu.gov</a>	52,957
Lab tests we (HETL at Maine CDC) conducted	488
Lab tests we (HETL) conducted total since April.	6,622
Calls coming into the clinical consultation line	231
Maine CDC employees whose jobs do <u>not</u> normally involve anything related to H1N1 who have volunteered with the phone bank and other related efforts	124
Maine CDC employees who have been redeployed from other activities to focus on H1N1	97

Many Maine CDC posters and magnets are now available for order online:

<http://www.maine.gov/dhhs/boh/flu-poster-orders.shtml>

## How to Stay Updated

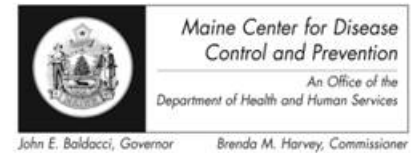
- **Flu News:** View current Maine CDC press releases, Thursday morning weekly updates, and urgent updates from our Health Alert Network (HAN) by visiting: <http://www.maine.gov/dhhs/boh/maineflu/flu-news.shtml>. RSS feeds are available for the weekly updates and HAN.
- **Follow Maine CDC's Social Media Updates:**
  - **Facebook** (search for "Maine CDC")
  - **Twitter** (<http://twitter.com/MEPublicHealth>)
  - **MySpace** ([www.myspace.com/mainepublichealth](http://www.myspace.com/mainepublichealth))
  - **Maine CDC's Blog** (<http://mainepublichealth.blogspot.com>)
- **H1N1 Conference Calls:** Maine CDC will be holding conference calls to provide updates and take questions on H1N1. The next call will be held **Monday, November 13, from noon to 1 pm**. To participate, call 1-800-914-3396 and enter pass code 473623#. During calls, please press \*6 to mute your line un-mute when you are actively participating.

## Call or Email Us

- For clinical consultation, outbreak management guidance, and reporting of an outbreak of H1N1 call Maine CDC's toll free 24-hour phone line at: 1-800-821-5821.
- General Public Call-in Number for Questions: 1-888-257-0990 / Deaf and Hard of Hearing: 1-800-606-0215  
Phone lines are open Monday - Friday 9 a.m. – 5 p.m.
- Email your questions to: [flu.questions@maine.gov](mailto:flu.questions@maine.gov)

# Maine Weekly Influenza Surveillance Report

November 18, 2009



## Cumulative data since April 27, 2009

- 1562 lab tested cases of H1N1 to date
  - 97 Maine residents have been hospitalized
- 5 deaths reported to date
- 92% of lab confirmed H1N1 cases in Maine residents are under the age of 50 (range 0-76 years, mean of 20 years)

## New\* This Week

- Federal Flu Code: Widespread
- 421 new confirmed and probable cases of H1N1 this week
  - 50 new hospitalizations
- 51 new outbreaks reported, 44 of which were in school settings

\* "New" defined as not included on last week's report

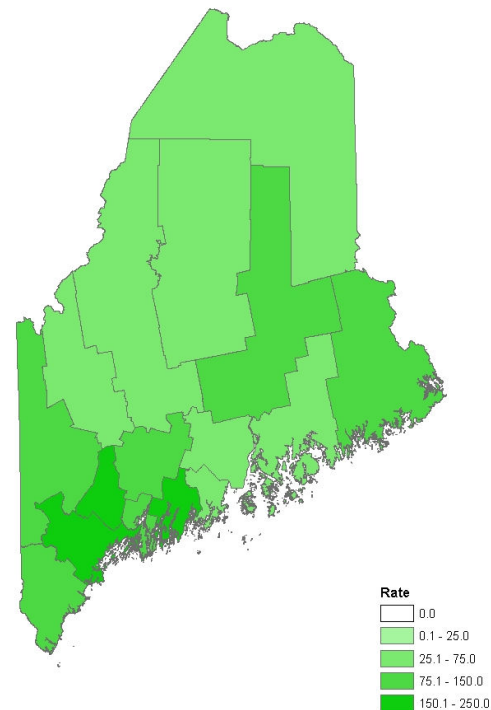
## Characteristics of Lab Confirmed H1N1 Influenza Cases - Maine Residents, 2009

Age Group	Age		At Risk				Hospital Care				Deaths	
	#	New	HCW	New	Pregnant	New	Hospitalized	New	ICU	New	#	New
<5	149	58	0	0	0	0	17	12	0	0	0	0
5 to 18	802	200	1	0	0	0	21	13	3	2	0	0
19 to 24	173	37	7	1	3	1	7	1	1	1	1	0
25 to 49	309	90	30	7	17	9	23	11	3	2	1	1
50 to 64	115	30	10	0	0	0	24	11	8	4	2	0
≥65	14	6	0	0	0	0	5	2	1	0	1	1
<b>Total</b>	<b>1562</b>	<b>421</b>	<b>48</b>	<b>8</b>	<b>20</b>	<b>10</b>	<b>97</b>	<b>50</b>	<b>16</b>	<b>9</b>	<b>5</b>	<b>2</b>

## Lab confirmed H1N1 Influenza Cases by County – Maine Residents, 2009

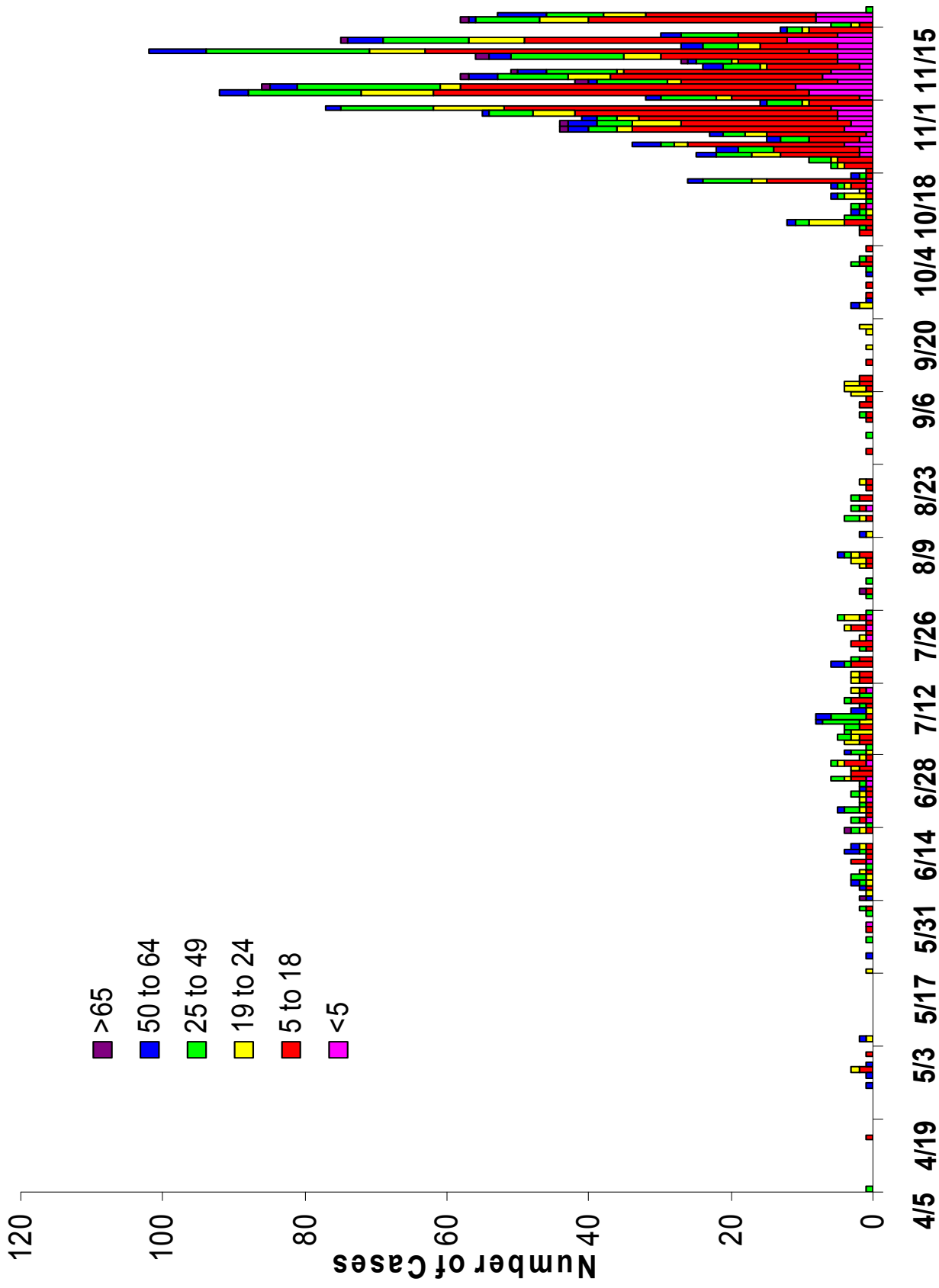
County	Maine Residents	New
Androscoggin	179	50
Aroostook	22	17
Cumberland	464	158
Franklin	12	3
Hancock	34	7
Kennebec	118	25
Knox	18	10
Lincoln	85	14
Oxford	45	6
Penobscot	215	21
Piscataquis	12	7
Sagadahoc	30	6
Somerset	22	2
Waldo	24	16
Washington	25	6
York	257	73
<b>Total</b>	<b>1562</b>	<b>421</b>

## Lab Confirmed H1N1 Infections per 100,000 People by County - Maine Residents, 2009



\*"New" defined as not included on last weeks report

Confirmed Cases of H1N1 Influenza By Onset Date\* and Age Group – Maine Residents, 2009

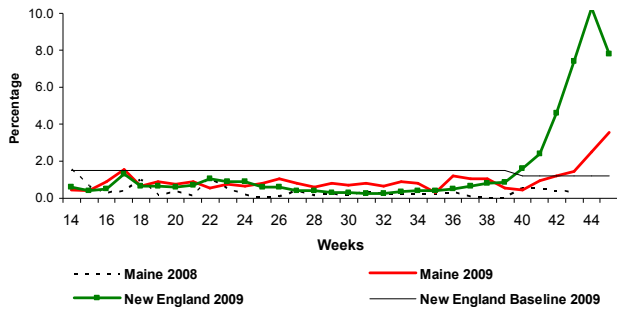


\*if onset date is not available, the date reported to the state is used as the onset date

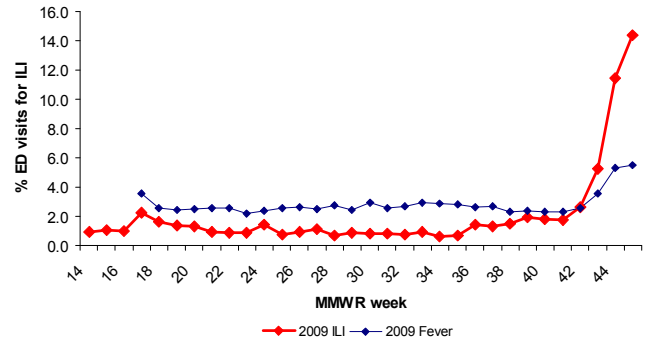


# Surveillance Information

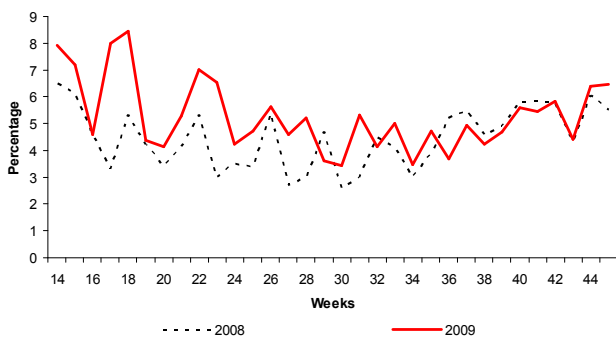
Outpatient Visits for Influenza-like Illness – Maine, 2008-09



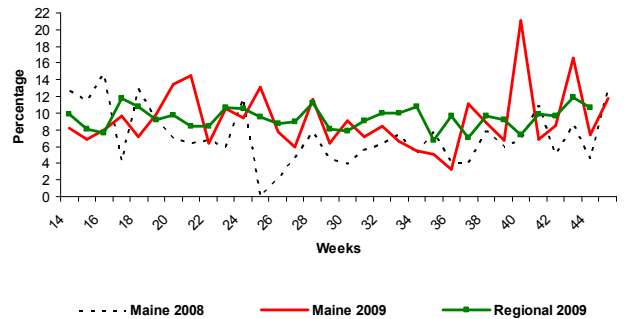
Emergency Department Visits for ILI or Fever at Twelve Hospitals – Maine, 2009



Hospital Admissions Due to Pneumonia or Influenza – Maine, 2008-09



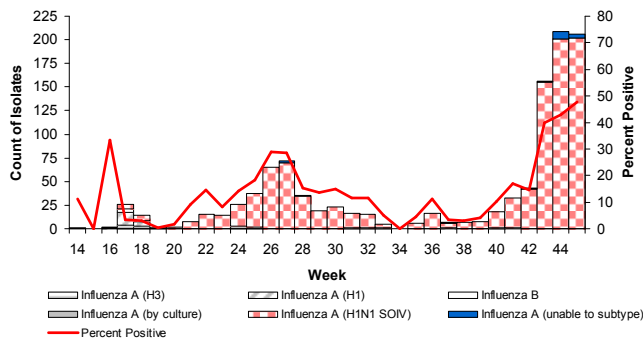
Percentage of Deaths Attributable to Pneumonia or Influenza – Maine, 2008-09



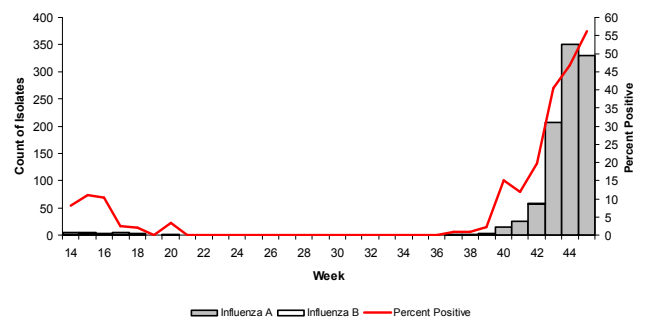
# Lab Data

- 6,694 influenza tests have been performed at HETL since April 27, 2009
  - 15.6% of tests have been positive for H1N1

Respiratory Specimens Positive for Influenza from HETL – Maine, 2009



Respiratory Specimens Positive for Influenza from Two Reference Laboratories - Maine, 2009





County	LTC	New	AC	New	K12	New	Univ	New	HCW	New	Inst	New
Androscoggin	0	0	1	1	17	3	1	0	0	0	0	0
Aroostook	0	0	0	0	6	4	0	0	0	0	0	0
Cumberland	1	0	1	1	11	4	1	0	1	0	1	0
Franklin	1	0	0	0	0	0	1	0	0	0	0	0
Hancock	0	0	0	0	6	3	0	0	0	0	0	0
Kennebec	1	1	0	0	22	6	0	0	1	0	0	0
Knox	0	0	0	0	1	1	0	0	0	0	0	0
Lincoln	1	0	0	0	5	1	0	0	0	0	1	0
Oxford	0	0	0	0	7	2	1	0	0	0	0	0
Penobscot	0	0	0	0	33	8	0	0	0	0	2	2
Piscataquis	0	0	0	0	4	3	0	0	0	0	0	0
Sagadahoc	0	0	0	0	3	2	0	0	0	0	0	0
Somerset	0	0	0	0	4	0	1	0	1	0	0	0
Waldo	0	0	0	0	6	2	0	0	0	0	1	0
Washington	1	0	0	0	4	2	1	1	0	0	0	0
York	1	0	0	0	14	3	1	0	0	0	1	1
<b>Total</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>143</b>	<b>44</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>3</b>