



**Communicable Disease and Epidemiology News**

Published continuously since 1961

Krista Rietberg, MPH Editor (krista.rietberg@kingcounty.gov)

Return Services Requested

**Vol. 49, No. 4**

**July 2009**

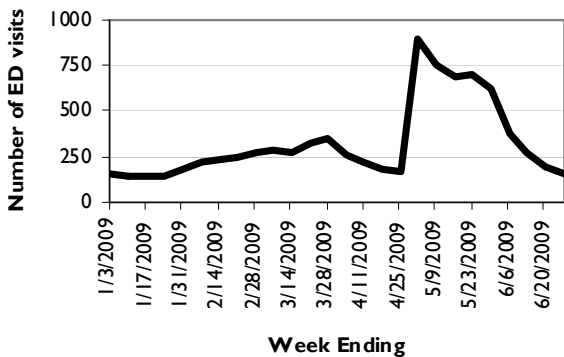
**Novel Influenza A H1N1 in King County**

**Novel Influenza A H1N1 in King County**

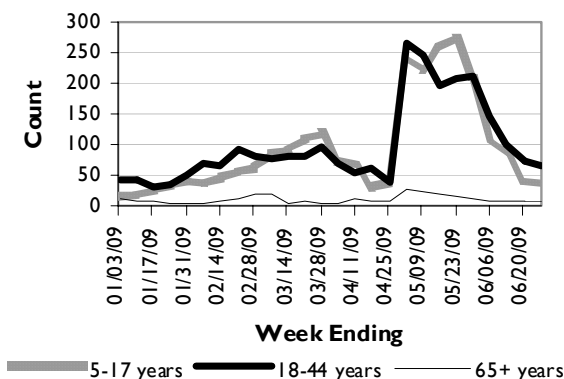
The springtime swine flu outbreak in King County resulted in approximately 6 weeks of sustained high-level influenza activity, from late April through mid-June when influenza-like illness (ILI) levels dropped towards baseline. In this issue of the *Epi-Log*, we present preliminary data from the outbreak in King County, and discuss preparations for a possible return of novel influenza in the early fall.

**Syndromic Surveillance Data**

Data gathered from 18 of 19 King County emergency departments (EDs) through Public Health's syndromic surveillance system showed that visits by patients with complaints or diagnoses of ILI exceeded the numbers seen during a typical seasonal influenza outbreak, and lasted over one month. The highest volumes were from patients in the 5-17 years and 45-64 years age groups (Figures 1 and 2).



**Figure 1 – Total weekly ED visits for ILI in King County**



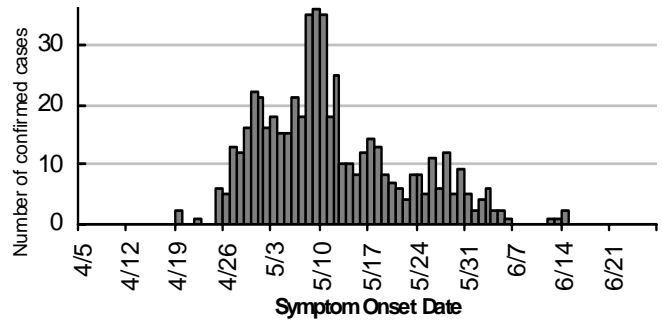
**Figure 2 – Weekly Count of ED visits for ILI by age groups**

At its peak, weekly ED visits for ILI were 5 times higher compared with pre-outbreak levels, and 2.5 times higher than during the peak of this year's seasonal influenza period. The percent of ED patients with ILI who were admitted remained stable compared with the pre-outbreak period and the seasonal influenza period.

**Data from confirmed cases of novel influenza A H1N1**

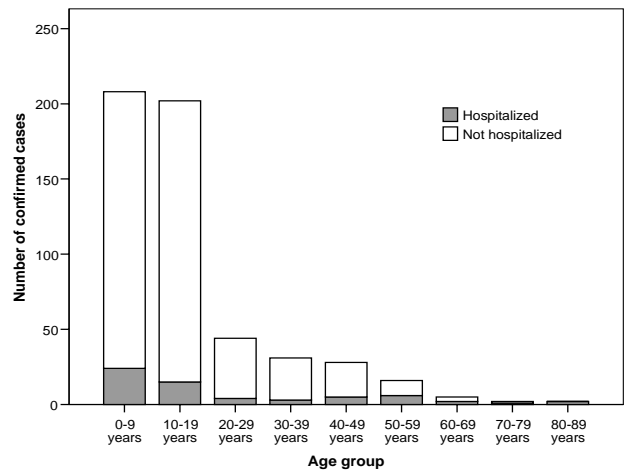
*This information may be revised as additional follow up interviews are completed.*

Between 4/25/09 and 7/6/09, Public Health received 547 reports of confirmed novel influenza A H1N1 (Figure 3). This underestimates the true number infected with the virus, as only a fraction of those with ILI were tested. Sixty-one patients (11%) were hospitalized. There was one death in an elderly male with chronic lung disease, resulting in a case fatality rate of 1.6% for hospitalized patients and 0.18% for confirmed cases overall (the fatality rate for seasonal flu is estimated to be approximately 0.1%, primarily the very young and elderly).



**Figure 3 – Confirmed cases of novel H1N1 flu in King County**

In King County, novel influenza A H1N1 affected school age children and young adults more than other age groups (Figure 4). Eighty-four percent of cases were under 18 years of age.



**Figure 4 – Age distribution of confirmed novel H1N1 flu in King County**

Forty-six percent of confirmed cases were female. Non-white racial groups were disproportionately represented (21% white, 18% Asian, 14% African-American, 12% Hispanic, 7% other, 0.4% Native American, 23% unknown).

The 61 hospitalized H1N1 cases were more likely to have a predisposing condition than non-hospitalized cases (57% vs. 16%), the most common being chronic lung disease including

asthma (33% vs. 13%) and metabolic disease including diabetes (13% vs. 3%). Hospitalized patients were also older (mean age of 22 years vs. 15 years). The average length of stay was 4.2 days. Twenty-one percent of hospitalized patients required care in an intensive care unit, and 11% were intubated at some time during their hospitalization. Among 7 adults hospitalized in the ICU, 5 were described as obese in their medical records.

**Current status and testing guidelines**

Sporadic cases of novel influenza continue to be reported and local transmission of the virus is still occurring. The potential for clusters and outbreaks of disease from the virus will continue throughout the summer particularly in summer camps and child care settings. Therefore, clinicians should continue to consider the possibility of infection with novel influenza A H1N1 among patients with ILI this summer (see box, "Testing for influenza A H1N1").

**Testing for Influenza A H1N1 (available through the Washington State Public Health Laboratory) is currently recommended for:**

- Outpatients with a positive rapid test for influenza A
  - Health care workers OR
  - Pregnant women
- Hospitalized patients with severe respiratory illness (fever > 37.8°C with shortness of breath, hypoxia, or radiographic evidence of pneumonia) without other explanation and suggestive of infectious etiology:
  - A positive rapid test for influenza A, OR
  - Critically ill (i.e. admitted to an intensive care unit) with a negative rapid test for influenza A
- Unexplained deaths due to severe respiratory illness, respiratory failure, or pneumonia
- Certain inpatients or outpatients who are associated with institutional outbreaks or nosocomial transmission (after discussion with Public Health)

Health care providers should report cases meeting the above criteria to Public Health by both faxing a copy of the current virology form to (206) 296-4803 and/or by calling (206) 296-4774 during business hours. Updated guidelines and forms are available at the Public Health H1N1 flu website ([www.kingcounty.gov/health/h1n1](http://www.kingcounty.gov/health/h1n1)).

**Note:** Influenza H1N1 testing is now available at some hospital and commercial laboratories and may be ordered by the healthcare provider if clinically indicated for patients who do not meet the above criteria.

**Preparing for future swine flu outbreaks: Implications for the Fall Season**

A more widespread and sudden outbreak is possible this fall when school resumes and the weather cools. It is not known if the virus will increase in severity while circulating in the Southern Hemisphere this summer. Even if virulence does not

change, more persons are expected to become infected and seek health care, with a corresponding increase in hospitalizations and deaths. Clinicians should be aware of the increased risk among pregnant women, persons with underlying medical conditions, and data suggesting increased risk among obese persons.

Healthcare providers and healthcare facilities should prepare now for the fall. Planning should include:

- Managing increased volumes of patients with ILI
- Ensuring adequate supplies of test kits, PPE for staff and patients, and antiviral medication
- Communicating with your patients about how to minimize risk for infection, how to care for influenza at home and when to seek health care
- Managing pregnant women and other high risk persons to reduce their exposure to the virus and ensure rapid treatment when indicated
- Aggressively encouraging early vaccination for seasonal flu
- Educating staff and patients on respiratory hygiene and infection control measures and ensuring implementation of measures to minimize risk to patients in health care settings such as triage procedures, instructional signage, and adequate supplies of masks, hand gel, and tissues

Public Health, in collaboration with the King County Healthcare Coalition, is working to improve our outbreak response, enhance communication with health care providers and facilities, provide information to the public to help minimize unnecessary use of health care resources, and plan for more efficient distribution of resources, including antiviral drugs and potentially H1N1 vaccine. Our Preparedness team is also actively engaged in public education and support activities, including reaching out to schools, child care centers, and other community-based organizations including those serving vulnerable populations.

Public Health recommends the following H1N1 flu resources:

- Public Health – Seattle & King County: [www.kingcounty.gov/health/H1N1](http://www.kingcounty.gov/health/H1N1)
- CDC website for clinical guidance: <http://www.cdc.gov/h1n1flu/guidance/>
- Pandemic preparedness information for health care providers: <http://pandemicflu.gov/plan/healthcare/index.html>

<b>Disease Reporting</b>	
AIDS/HIV.....	(206) 296-4645
STDs.....	(206) 744-3954
TB .....	(206) 744-4579
All Other Notifiable Communicable Diseases (24 hours a day) .....	(206) 296-4774
Automated reporting line for conditions not immediately notifiable.....	(206) 296-4782
<b>Hotlines</b>	
Communicable Disease .....	(206) 296-4949
HIV/STD .....	(206) 205-STDS

**Reported Cases of Selected Diseases, Seattle & King County 2009**

	Cases Reported In June		Cases Reported Through June	
	2009	2008	2009	2008
<b>Campylobacteriosis</b>	25	36	134	154
<b>Cryptosporidiosis</b>	4	4	10	18
<b>Chlamydial infections</b>	307	496	2841	2931
<b>Enterohemorrhagic E. coli (non-O157)</b>	1	1	2	1
<b>E. coli O157: H7</b>	2	5	10	9
<b>Giardiasis</b>	6	14	39	57
<b>Gonorrhea</b>	54	103	463	659
<b>Haemophilus influenzae (cases &lt;6 years of age)</b>	0	0	1	1
<b>Hepatitis A</b>	0	1	10	12
<b>Hepatitis B (acute)</b>	2	4	6	16
<b>Hepatitis B (chronic)</b>	58	60	329	463
<b>Hepatitis C (acute)</b>	0	2	2	7
<b>Hepatitis C (chronic, confirmed/probable)</b>	107	128	701	695
<b>Hepatitis C (chronic, possible)</b>	22	22	148	163
<b>Herpes, genital (primary)</b>	36	36	238	277
<b>HIV and AIDS (includes only AIDS cases not previously reported as HIV)</b>	35	26	190	168
<b>Measles</b>	0	0	0	0
<b>Meningococcal Disease</b>	0	1	2	3
<b>Mumps</b>	1	0	1	1
<b>Pertussis</b>	2	8	15	36
<b>Rubella</b>	0	0	0	0
<b>Rubella, congenital</b>	0	0	0	0
<b>Salmonellosis</b>	21	16	103	94
<b>Shigellosis</b>	3	2	35	24
<b>Syphilis</b>	4	18	57	96
<b>Syphilis, congenital</b>	0	0	0	0
<b>Syphilis, late</b>	1	6	38	48
<b>Tuberculosis</b>	25 (10)*	13 (9)*	48 (65)*	48 (55)*

\*A new system for counting TB cases was initiated January 1, 2009, and it is difficult to compare monthly case counts from 2009 to prior years. For this and future editions, TB case counts will include the monthly case count including cases reported at death as well as the number of high suspects started on TB treatment in parentheses.

The *Epi-Log* is available in alternate formats upon request.