

## Calicivirus testing has big impact

by Jan Schneider, WSLH  
Public Affairs

**A** catered luncheon. A daycare center. A dormitory floor. A college football field. What do all these locations have in common? They have all been the site of a calicivirus outbreak.

Also known as Norwalk-like viruses, the highly infectious, but rarely life-threatening caliciviruses are the leading cause of non-bacterial gastrointestinal illness in adults and one of the primary causes of foodborne outbreaks in Wisconsin. But until a few years ago the Wisconsin Division of Public Health's Communicable Disease Epidemiology Section (CDES) had no way to definitively identify calicivirus as the cause of an outbreak.

That changed in 1997 when the WSLH Virology Laboratory began performing reverse transcriptase polymerase chain reaction (RT-PCR) testing for calicivirus. The WSLH is one of only 14 state laboratories in the country performing this type of molecular testing to identify calicivirus.

Before the WSLH began the testing, CDES would classify an outbreak as "Norwalk-like" if the incubation period was 24-48 hours, stool cultures for routine bacterial pathogens were negative and clinical symptoms included vomiting or diarrhea and at least one of the following: nausea, abdominal

cramps, headache, myalgia and low-grade fever. During 1988-1997, CDES investigated 56 outbreaks of "Norwalk-like" virus infection involving 2,457 ill individuals, 28 of whom were hospitalized.

"Although before the SLH began testing for caliciviruses we would classify outbreaks as "Norwalk-like" if they met the criteria, we still didn't have a conclusive identification of the outbreak's cause," said Dr. Mary Proctor, chief of DPH's Communicable Disease Epidemiology Section. "During 1998-99 since the testing began, we have been able to confirm that 43 percent of the outbreaks with a known etiology that we've investigated were caused by calicivirus."

Because the duration of calicivirus infection is usually short-lived (24-48 hours), the testing is really more for epidemiological purposes rather than clinical diagnosis, said Carol Kirk, WSLH virology program coordinator.

"Public health, rather than individual diagnosis, is the real issue," said Kirk. "Because the virus is so

infectious – only a very small amount is needed to cause infection – we want to find out what is causing the outbreak in order to assist the Division of Public Health and local health departments in identifying and possibly eliminating the source of the outbreak."

The testing performed by the WSLH is based on a molecular method developed at the CDC. Although caliciviruses were identified a few decades ago, it wasn't until the advent of molecular methods that they could be tested for, explains Erik Reisdorf of the WSLH Virology Laboratory.

"Caliciviruses don't routinely grow in cell culture and there are no FDA-approved commercial tests available," said Reisdorf.

In addition to aiding CDES investigations, the WSLH also participates in the CDC's national CaliciNET program. The primary goal of CaliciNET is to provide an electronic system to identify and compare calicivirus strains in "real

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*Peggy Hintzman, MBA, is assistant director at the WSLH. She recently finished serving a two-year term as a facilitator and resource to the Division of Public Health's Turning Point initiative.*

## Public health systems need your help

The State Laboratory of Hygiene has multiple identities. As a member of the laboratory community, the WSLH works with other laboratories to achieve excellence in laboratory science and technology: as a member of the public health community, the WSLH works with local, state and national public health departments and environmental protection agencies to carry out statutory responsibilities for improving health and quality of life for all.

Since 1900 the life expectancy of Americans has increased from 45 to 75 years; 25 of the 30 year gain is attributed to public health measures such as improvements in personal hygiene, public sanitation and lifestyle choices.

But despite undisputed evidence of the effectiveness of public health interventions, an Institute of Medicine study, *The Future of Public Health*, reported that the public health system was in disarray and our nation had lost sight of its public health goals. Twelve years after the IOM report, we find the public health system still suffering from decades of budget cuts and neglect.

Though infectious diseases were supposed to be eradicated in the 1970's, we all know they were not, and we know that new and re-emerging infectious agents, including antibiotic drug-resistant organisms, challenge our resources.

Many fear that the current public health infrastructure may not be prepared to handle major public health outbreaks such as those already occurring in other parts of the world.

As laboratorians, health care professionals and public health professionals, you can help improve the public health system by helping to build a bold and compelling public health improvement plan for Wisconsin—a plan that will address infrastructure priorities as well as health priorities. On page 4 of this issue of *Results*, Project Leader Margaret Schmelzer updates you on Wisconsin's public health improvement plan called Turning Point and provides specific information on how you can participate. Staff members from the WSLH will be participating. Please join us.

The ability of the public health system to protect and promote health in the 21st century will depend on our collective ability to create strong and effective public-private partnerships that share a vision of healthy people in healthy communities and environments. We all need to be concerned about the health of the public health system. By coordinating our skills and knowledge, we can assure that the health and well being of the people of Wisconsin continue to improve.

## Caliciviruses... *from page 1*

time" in hopes of identifying and tracking identical outbreaks in other parts of the country.

### *Caliciviruses in the environment*

Although caliciviruses are incapable of growing outside of a suitable host cell, they are fairly stable in the environment and can be passed along via other sources, such as food and water. Dr. David Battigelli, director of the WSLH Environmental Virology Unit, is involved in two research projects involving caliciviruses.

The first is a collaboration with Dr. Gregory Harrington of the UW Engineering School on an American Water Works Research Foundation grant to determine how efficiently water treatment plants can remove emerging pathogens, including caliciviruses. The results of this study are intended to contribute to the public health assessment of emerging pathogens in drinking water, offer guidance for the design of future research efforts and aid in the development of future regulatory policies. The final report is due to be published in the next few months.

The second project involves an ongoing surveillance program with the Wisconsin Department of Natural Resources and the Minnesota Division of Health to determine the level of virus occurrence in their respective state water supplies using groundwater as a source.

According to Battigelli, groundwater contaminated with calicivirus is suspected by the environmental

virology community to be a large cause of waterborne outbreaks.

"It has not been possible to identify the etiologic agent in more than half of the waterborne outbreaks which have been documented in the United States," said Battigelli. "However, we suspect that caliciviruses may play an important role in many of these epidemics. Combine this with the fact that more than 50 percent of outbreaks are from groundwater, and caliciviruses in groundwater start to look like a growing public health issue."

The surveillance program samples water from wells around Wisconsin and Minnesota. Battigelli and his fellow researchers use the same molecular methods as the WSLH Virology Laboratory to test for calicivirus.

"So far, the surveillance has found that 1 out of 20 wells in Wisconsin show some evidence of viral intrusion, but we don't know if those viruses are infectious," Battigelli explains. "Unfortunately the only way to know if the virus is infectious is to give it to a human. On the positive side, our surveillance shows a much lower level of viral intrusion in Wisconsin groundwater than the national average which could be as high as 1 in 3."

Battigelli said he doesn't know why Wisconsin's groundwater has such a lower level of virus. He speculates it could be due to the state's hydrogeology or the state's strict well construction guidelines. The current treatment for water systems that do have a viral intrusion is disinfection with chlorine.

## Wash your hands!!!

According to DPH Communicable Disease Epidemiology Section Chief Dr. Mary Proctor, good hygiene practices are vital to stopping the spread of calicivirus infections.

"Many outbreaks spread because people don't do a proper job of washing their hands, disposing of contaminated material and disinfecting," Proctor said.

Calicivirus outbreaks most commonly affect school-aged children and adults and are most commonly caused by contaminated shellfish, foods that do not require cooking and water. Secondary or person-to-person transmission can occur, hence the need for good hygiene practices.

The most common symptoms are diarrhea, vomiting and nausea. About 30 percent of cases also experience headache, fever and abdominal pains. The duration of the illness is usually 24-48 hours and the incubation period is 24-48 hours. Asymptomatic infection can also occur. Infections are generally seasonal with peaks most often in late spring and fall.

Because the illness is usually self-limited, treatment usually consists of replacement of fluid loss; severe dehydration occurs rarely. Prevention measures consist of thorough hand washing and disposal or disinfection of contaminated material.

*Margaret Schmelzer, RN, MS, is Director of Public Health Nursing and Chief of the Turning Point Initiative for the Wisconsin Division of Public Health.*

## Turning Point: Transforming public health in Wisconsin

*Editor's Note: The following description of Turning Point provides a brief look at this vital public health initiative. Several members of the WSLH staff have been involved in the Turning Point process, including Dr. Ron Laessig who serves on the State Reactor Panel, John Pfister who is a member of the Data Expert Advisory Group and Peggy Hintzman who served for two years as a member of the Turning Point Strategic Planning Team.*

### **What is Turning Point?**

Turning Point is a statewide initiative to transform Wisconsin's public health system to address current and emerging 21st century health problems and issues. The goal is to create a healthier Wisconsin through a transformed public health system. Turning Point is funded by the Robert Wood Johnson Foundation and the Wisconsin Division of Public Health. Its foundation is anchored in public health science, strategic planning, quality improvement, and collaborative partnerships. Turning Point is a planning process that will generate the following important products:

- ❖ A definition of public health to include what it is, what it does, and how it should be structured;

- ❖ Identification of Wisconsin's top health and system (infrastructure) priorities;

- ❖ A Public Health Improvement Plan for 2010, which meets the statutory requirement of producing a state health plan every ten years as set forth in s. 250.07 Stats;

- ❖ Recommendations regarding necessary policy changes; and

- ❖ Implementation action steps that identify how the framework, and the five system and 11 health priorities will be implemented over the next ten-year period.

### **Why is Turning Point needed in Wisconsin?**

There is no one commonly accepted definition of "public health." Many state and community leaders as well as citizens do not understand what public health means and how they benefit from it.

Wisconsin has not identified or communicated statewide priorities regarding the health of the public. The last state health plan, published in 1990, contained over 300 objectives but had no priorities.

Categorical funding streams are often not linked to community priorities.

Available resources are not directed to building/sustaining infrastructures to support public health core functions and essential services.

There are separate organizational and institutional cultures of public health, medicine, and environment health. We have not identified shared interests, policy linkages, and incentives to work together as partners for the public's interest.

Wisconsin's public health system is at an opportune point, given the sweeping changes in how government conducts its business.

### **Who are the Turning Point Partners?**

Because public health affects all of us, Turning Point is grounded in nontraditional partnerships and the involvement of citizens and interested organizations throughout the state. The primary committee of Turning Point, called the Transformation Team, is made up of approximately 45 people representing diverse sectors. The Transformation Team is responsible for developing the 10 year health plan for Wisconsin.

Nearly 200 people are engaged in Turning Point as members of five regional Community Review Teams. These teams increase communities' impact on suggested changes to the public health system. The Community Review Teams provide input to the Transformation Team regarding the health of their communities and provide feedback on the recommendations proposed by the Transformation Team. Community Review Teams are comprised of citizens, local health departments, local elected officials and boards of health, private and non-profit organizations and others.

A State Reactor Panel provides a mechanism by which key state policy leaders can have input into the recommendations of Turning Point. This panel is comprised primarily of state legislators and Secretaries or administrators from other state agencies. DHFS administrators and the Office of the Secretary will also review and provide input on the recommendations drafted by the Transformation Team.

Information has been disseminated widely, and input has been sought from Wisconsin's public health system partners. These partners include governmental, public, private, nonprofit, and voluntary agencies and organizations throughout Wisconsin.

*Continued on page 5*

### *Progress to Date...Vision, Principles, Mission, Goals, Priorities*

The Transformation Team has proposed a framework for the plan which includes a definition of public health. This framework will guide the transformation and subsequent implementation planning. Implementation planning is expected to commence in January 2001. The framework includes a definition of public health, and the following major components.

**The Vision:** Healthy People in Healthy Wisconsin Communities

**The Mission:** To protect and promote the health of the people of Wisconsin

#### **The Overarching Goals:**

- ❖ Protect and promote health of all
- ❖ Eliminate health disparities
- ❖ Transform Wisconsin's public health system

#### **The Essential Services of the Public Health System:**

- ❖ Monitor health status
- ❖ Investigate & control health problems and environmental health hazards
- ❖ Educate the public
- ❖ Promote community partnerships
- ❖ Create policies and plans that support health
- ❖ Enforce laws and regulations that protect health
- ❖ Link people to needed health services
- ❖ Provide a competent, sufficient workforce
- ❖ Evaluate health services
- ❖ Conduct research
- ❖ Promote access to health care
- ❖ Promote social and economic conditions that support good health

#### **The Health Status Priorities (11):\*** (The following health priorities are not ranked in priority order.)

- ❖ Tobacco use and exposure
- ❖ Adequate and appropriate nutrition
- ❖ Overweight, obesity, and lack of physical exercise
- ❖ High risk sexual behavior
- ❖ Inappropriate use and abuse of alcohol and other substances
- ❖ Environmental and occupational hazards
- ❖ Existing, emerging and re-emerging communicable diseases
- ❖ Intentional and non-intentional injuries
- ❖ Social and economic factors that impact health
- ❖ Access to primary and preventive health services
- ❖ Mental health

#### **The System Priorities (5): \***

- ❖ Integrated electronic data/information systems
- ❖ Health improvement processes and plans
- ❖ Coordination of the public health partnerships
- ❖ Sufficient and competent workforce
- ❖ Equitable, adequate and stable financing

(\* ) Note: The eleven health priorities influence both health and illness and each have behavioral, environmental, and societal dimensions. The health and system priorities are complementary and overlapping.

#### Key Dates – Who to Call – How to Get Involved:

The Turning Point plan is expected to be ready for publication in December 2000.

Implementation planning for the health and system priorities will commence in January 2001.

If you are interested in becoming involved in implementation planning please contact the Wisconsin Turning Point Initiative Program at **(608) 267-9007**.

Learn more about Turning Point on the web at: <http://www.dhfs.state.wi.us/health/TurningPoint/Tpindex.htm>

# Arbovirus update: LAC and West Nile Virus



**Bob Bennin** is a supervisor in the WSLH Communicable Disease Division. He's been with the WSLH for 28 years and has a bachelor's degree in biology from the UW-Madison.

## *LaCrosse Encephalitis (LAC)*

In Wisconsin, arbovirus activity this past summer has been limited to the expected cases of LaCrosse encephalitis, a Bunyavirus of the California serogroup.

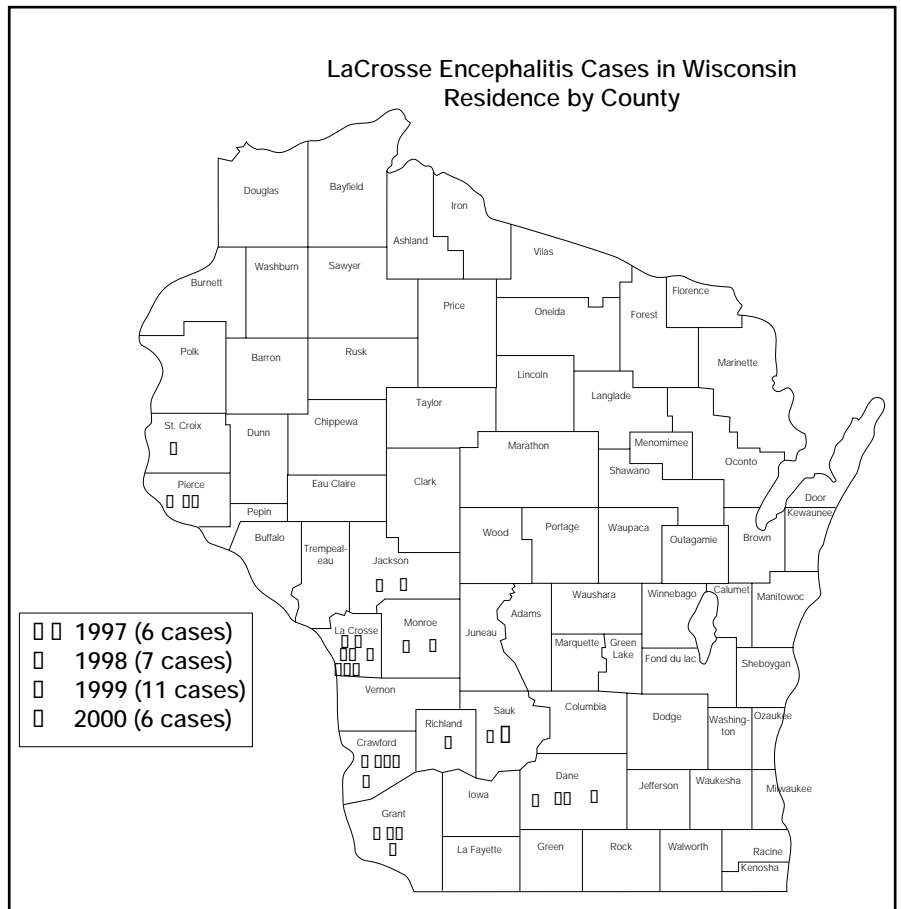
As of November 10th, there have been six presumptive cases of LAC in the state. They range in age from 4-15, with all known onsets in August and September. The map below shows the counties of residence for the year 2000 cases as well as for previous years.

All six patients have had positive IgM serology on an acute serum

specimen, but confirmation with paired serum testing is still pending.

All of the testing that has been done at the WSLH for arboviruses includes IgM-IFA and capture IgM EIA for not just LAC, but also for Eastern Equine Encephalitis, Western Equine Encephalitis, St Louis Encephalitis and West Nile virus. The WSLH also has diagnosed three presumptive cases of LAC in out of state residents, two in Iowa and one in Minnesota.

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*West Nile virus (WNV)*

As of Novembr 10th, there have been 18 human cases of West Nile virus reported--13 in New York, one in Connecticut and four (including one death) in New Jersey. This compares to 55 cases and seven deaths reported for WNV last year in the New York metropolitan area. This virus, a member of the Flavivirus family, had not been reportd in the Western Hemisphere prior to 1999.

While the human cases have remained somewhat localized, the evidence mounts that the mosquito-borne WNV continues to extend its range. Infected birds (primarily crows) mosquitoes and mammals have been found in 135 counties in 12 states.

The perceived nature of the spread may be due to a multitude of factors including mosquitoes being blown by the wind, infected birds migrating or variable surveillance activities. There are few counties in New York state not showing WNV activity in wild birds, yet adjacent counties in Pennsylvania and Vermont show little or no activity, pointing out the probable effect of inconsistent surveillance activities.

In looking at the total number of West Nile virus positive specimens

### Geographic Distribution of WNV human cases (as of 11/10/00)

New York state . . . . .13 cases

New Jersey . . . . .4 cases (1 death)

Connecticut . . . . .1 case

from New York State as of October 27th, we find 1,231 dead birds (including dozens of American bird species), 334 mosquito pools, two sentinel chickens, eight live wild birds, 14 bats, 13 horses, two cats, two raccoons, three domestic rabbits, three squirrels, one chipmunk and 13 human cases.

With the onset of freezing temperatures, the numbers of human and non-human cases is expected to drop significantly. Coincidentally, an outbreak of WNV is also occurring in Israel this year. As of October, there have been 237 confirmed cases and 17 deaths. The New York strain of the WNV has been shown to be very similar to an earlier Israeli strain.

If there were any doubts last year as to the virus' potential for spread,

those doubts have been replaced by a realization that the WNV is here to stay, and the only question is how far and how rapid will be its spread.

Patients infected with these agents may have mild, flu-like symptoms, such as fever, head and body aches, and in severe cases confusion, neck stiffness, encephalitis, loss of consciousness and even paralysis. Testing for the most common arboviruses endemic to the U.S., including LAC and WNV, is available at the WSLH. Both serum and CSF may be submitted for serology. CSF also may be submitted for LAC culture. Any additional questions about testing should be directed to the WSLH Serology Lab at (608) 262-0248.

### WNV positive specimens from New York State (as of 10/27/00)

- ❖ 1,231 dead birds
- ❖ 334 mosquito pools
- ❖ 2 sentinel chickens
- ❖ 8 live wild birds
- ❖ 14 bats
- ❖ 13 horses
- ❖ 2 cats
- ❖ 2 raccoons
- ❖ 3 domestic rabbits
- ❖ 3 squirrels
- ❖ 1 chipmunk
- ❖ 13 humans

## Another influenza season

As we approach yet another influenza season, we are faced with the usual uncertainties. It is at this time of year that many of us make private predictions of what the influenza season will bring; in January or February, however, we are usually very relieved that we didn't succumb to the temptation to print those predictions.

What we do and don't know about the upcoming influenza season:

❖ We can expect to see influenza in Wisconsin by late November or early December, but we don't know when activity will peak.

❖ We can expect to see at least one type or subtype of influenza this winter, but we don't know which type or subtype will predominate.

❖ We can expect that influenza will affect our work, school, shopping, and social activities, because even if we do not

become ill, others around us will.

❖ We can expect that influenza will cause 10,000 – 40,000 deaths in the U.S. again this year (most of them elderly).

The WSLH will monitor influenza activity in Wisconsin, through the Wisconsin Virology Laboratory Information Network and the Clinician Education Network specimen submission sites.



*Carol Kirk is the WSLH Virology program Coordinator. She has 29 years of professional laboratory experience at the WSLH.*

## Recommendations for the use of rapid influenza tests

As laboratory staff and clinicians prepare for another influenza season, they are faced with more questions than ever before in terms of testing for influenza.

There are now five rapid test kits on the market, in addition to traditional influenza culture, shell vial culture and direct specimen immunofluorescence testing.

The rapid test kits employ EIA or EIA-like technology, specifically three of the tests employ lateral-flow immunoassay, optical immunoassay or endogenous viral-encoded enzyme assay technology.

The test kits now on the market (Directigen Influenza A and Directigen Influenza A & B by Becton Dickinson, ZstatFlu by ZymeTx, Flu OIA by Biostar, and Quickvue Influenza by Quidel) allow the rapid (within 10-40 min-

utes) detection of influenza with less technical expertise than required by the other methods. These tests potentially make widespread testing more feasible, allow the rapid detection of outbreaks, and can impact patient management.

The performance characteristics of these tests vary over a broad range, with sensitivity ranging from 57 percent to 90 percent, and specificity from 65 percent to 99 percent.

In addition to concerns about sensitivity and specificity, other concerns about these tests include the potential impact of their inappropriate use or interpretation and the potential loss of specimens or isolates to public health for characterization of influenza viruses, which is critical to current and future vaccine selection.

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Of particular concern is the use of these test kits out of season and early in the influenza season. False positive results are likely, and could lead to unnecessary treatment, modifications in vaccination schedules and inaccurate reports to the media.

False positive test results, particularly this season, could potentially lead to changes or redistribution of available vaccine. In addition, people may be reluctant to be vaccinated later, as people assume that influenza is already circulating in the community. A false positive test result in a longterm care facility could result in unnecessary treatment, prophylaxis and isolation of residents to prevent further spread of influenza.

The performance characteristics of a test, namely sensitivity and specificity, are more or less constants and do not change with the prevalence of disease during the influenza season. However, the parameters of clinical importance to the physician are the *predictive value positive* (PVP, the probability that a positive result accurately indicates the presence of disease) and *predictive value negative* (PVN, the probability that a negative result accurately indicates the absence of disease); the PVP and PVN do vary with prevalence.

For example, when the prevalence of influenza is low, a positive test result is likely to be a false result, even in a test with 95 percent sensitivity and 96 percent specificity. The PVP of such a test approaches zero during periods of low (<1 percent) influenza prevalence as found out of season and early in the season.

On the other hand, the predictive value of a negative result is high when the prevalence of influenza is low. If we view the negative result as the meaningful result in times of low prevalence, we can utilize these tests appropriately.

We recommend that anyone utilizing these tests only perform them during influenza season, preferably when influenza is known to be in the community; bi-weekly reports of the status of influenza in Wisconsin and the nation are available on request from the WSLH.

When influenza is not present or is present only at low prevalence rates, we recommend that you rely on the negative result as an indication that influenza is not present, but confirm all positive results with viral culture. Confirmatory testing may require collection of a second specimen.

Influenza culture is available at a number of virology laboratories around the state. If the cost of confirmatory testing is an issue, culture confirmation of selected positives can be performed at the WSLH with prior arrangement for fee-exempt transport and testing.

If this collaborative approach can be applied, out-of-season testing and the loss of specimens for further characterization of influenza isolates will become non-issues. In fact, public health could benefit from potential early detection of influenza, recovery of specimens otherwise lost, and closer relationships with clinical laboratories. In essence, through this collaborative effort, we all become partners in public health.

## Definitions

Sensitivity and specificity are measures of a test's overall ability to provide the correct result when testing specimens representing populations known to be positive or negative for the disease.

Predictive value positive and predictive value negative are measures of the correctness of a specific test result and are dependent on the prevalence of the disease in a population, in addition to the sensitivity and specificity of the test.

## WSLH conducting rapid influenza test workshop

The WSLH will be conducting a workshop on the use and interpretation of rapid influenza tests on December 5 in Elkhorn, WI. Contact Carol Kirk (**phone (608) 262-1021**) or the Virology Laboratory (**phone (608) 262-3185**) for further information.

## How do I get flu reports?

If you wish to receive bi-weekly reports of influenza and other viral activity or to arrange confirmatory testing, please contact Carol Kirk at the WSLH (**phone (608) 262-1021**, e-mail: [cjk@mail.slh.wisc.edu](mailto:cjk@mail.slh.wisc.edu))

## WSLH On the Road: We'll come to your area to make presentations

If you would like to arrange a presentation in your area about influenza and rapid testing, please contact Carol Kirk at the WSLH (**phone (608) 262-1021**, e-mail: [cjk@mail.slh.wisc.edu](mailto:cjk@mail.slh.wisc.edu)).

# What's in the influenza vaccine?

Annual influenza vaccination remains the primary means of preventing influenza illness. The influenza vaccine for the 2000-2001 season is comprised of inactivated viruses representing the influenza B, influenza A (H1N1) and influenza A (H3N2) viruses most likely to circulate. The vaccine viruses have been inactivated (killed) and therefore do not cause influenza illness.

Two components of the vaccine (representing both the H1N1 and H3N2 subtypes of influenza A) have been changed since last year's vaccine. The 2000-2001 influenza vaccine consists of strains representing influenza A/Panama(H3N2), influenza A/New Caledonia(H1N1) and influenza B/Yamanashi

(unchanged from last year).

The availability of influenza vaccine for the 2000-2001 influenza season has been a topic of much discussion this autumn. As this newsletter goes to press, the most recent announcement by CDC indicates that the supply of influenza vaccine should be "approximately equal" to what was available last year, although a portion of the supply will be available later than usual.

The Advisory Committee on Immunization Practices (ACIP) has updated influenza vaccination recommendations to minimize the potential impact of vaccine delays on high risk persons. The updated recommendations are available at the CDC website ([www.cdc.gov](http://www.cdc.gov)).

The Wisconsin Influenza Vaccination Contingency Plan was distributed in September. The plan was developed by the Division of Public Health Immunization Program, an ad hoc influenza vaccine advisory committee and the Wisconsin Council on Immunization Practices. The highest priority for influenza vaccination is given to high-risk persons and persons who could transmit influenza to high-risk persons. A plan utilizing local health departments for redistribution of vaccine from those with vaccine surpluses to those with vaccine shortages is also provided. The Wisconsin plan is available at the Wisconsin Immunization Program website ([www.dhfs.state.wi.us/immunization/index.htm](http://www.dhfs.state.wi.us/immunization/index.htm)).

## A look back at past influenza seasons

A review of the past three influenza seasons in Wisconsin confirms the unpredictability of influenza.

The 1999-2000 influenza season represented the third consecutive season when influenza A/Sydney-like (H3N2) viruses predominated in the U.S. and in Wisconsin.

In Wisconsin, influenza was first confirmed in late October 1999, with

sporadic detections until activity began increasing in late November. Influenza activity (as measured by detections by the Wisconsin Virology Laboratory Information Network) reached peak levels during the last week of December and first week of January.

During the previous two seasons, influenza was first detected in

Wisconsin in early and late November, with activity increasing in January and reaching peak levels during mid-February (1997-98) and early March (1998-99). During the 1998-99 season, influenza B activity was first detected in mid-December and reached peak levels in February.

Influenza B viruses were detected sporadically in both the 1997-8 and 1999-2000 season.

## More coming attractions

Rhinoviruses and parainfluenza type 3 viruses are currently circulating in Wisconsin and are the likely viral culprits in the recent assortment of respiratory illnesses many of us have either observed or experienced. These viruses usually provide spring and fall peaks in activity.

In addition to influenza, we can expect to see the annual peak in respiratory syncytial virus (RSV) activity. RSV has already been detected in Wisconsin; we can expect sporadic detections throughout the winter, increasing to peak activity in February or March.

To divert our attention from respiratory ills, rotaviruses can also be expected to increase in activity this winter. Rotavirus activity traditionally increases through the winter months to reach peak levels in March and April in Wisconsin. Rotaviruses are a major cause of diarrhea in infants and young children.

### WSLH hosts successful national virology methods workshop

Staff representing eighteen public health laboratories across the country attended the week-long "Virology Methods for Public Health Laboratories" workshop in Madison during the week of August 7, 2000. An additional 25 virologists from hospital and public health laboratories in Wisconsin, Illinois, Minnesota and Kansas attended an afternoon lecture session of "Virology Hot Topics".

This was the second offering of the workshop, which was co-sponsored by the WSLH and the National Laboratory Training Network (NLTN) and was held at the UW Biotechnology Center on the University of Wisconsin-Madison campus.

Primary lecturers for the workshop were Dr. Peter Shult (WSLH), Dr.

David Schnurr (California Department of Health Services), and Dr. Danny Wiedbrauk (Beaumont Hospital, Royal Oak, MI). Dr. Steve Monroe (CDC), Dr. David Battigelli (WSLH), John Pfister (WSLH) and Dan Hopfensperger (Wisconsin Division of Public Health) provided additional lectures. Carol Kirk (WSLH) and Sandy Jirsa (University of Iowa Hygienic Laboratory) coordinated the laboratory sessions. Jane LaFlash and Kristin Drewieck, along with other WSLH Virology Laboratory staff, prepared materials and assisted faculty during the workshop.

The workshop again received enthusiastic praise from participants, both for the technical content and for the opportunity for discussion with others in the field.

### Smallpox anniversary

It passed quietly, with little or no fanfare, but this year marked the twentieth anniversary of the official announcement of the eradication of smallpox. The last documented human to human transmission of smallpox occurred in Somalia in 1977, although the last death attributed to smallpox occurred in 1978 in the United Kingdom.

Smallpox was the first (and so far, only) disease for which natural transmission has been eradicated. The lack of an animal reservoir,

ease of clinical diagnosis, availability of a vaccine and public and political support were factors which contributed to the success of eradication efforts.

Although there are now concerns about where remaining supplies of the virus might be located and whether it could be used in bioterrorist actions, the eradication of natural transmission of this virus remains a major achievement in public health during the twentieth century.

### Talk to Us on the Web about the WSLH strategic plan

The WSLH wants your input. We have posted the goals and strategies for our current strategic plan on our website and would be very interested in hearing your opinions and ideas about them.

Our strategic plan is always evolving to meet the needs of our customers, our partners and the public and environmental health needs of Wisconsin. You're an important part of that process. Please let us know what you think.

You can read the strategic plan at: <http://www.slh.wisc.edu/board/plan.html>

There is an e-mail link on this web page called *Talk to Us*. Just click it and an e-mail box will pop up for you to send us a message. We look forward to hearing from you.

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# Results

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send comments and questions  
to the address below:

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## WSLH Proficiency Testing programs approved by CAP

The WSLH Proficiency Testing program has received approval for its clinical PT programs by the College of American Pathologists (CAP). It is the first proficiency testing provider to have all of its programs accepted by the CAP.

This means that laboratories accredited by the CAP will be allowed to participate in WSLH PT programs, the WSLH will report their performance to the CAP and the laboratory will maintain CAP accreditation.

To receive a WSLH Proficiency Testing catalog and order form, call the Customer Service office at (800) 462-5261 or view the catalog on-line and download the order form from the WSLH PT website at: <http://www.slh.wisc.edu/pt/>

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