

Livingston County Department of Public Health

COMMUNICABLE DISEASE NEWS

Spring, 2007

Ted Westmeier, RS, MPH, Director/Health Officer

Volume 11, No. 2

Donald W. Lawrenchuk, MD, MPH, Medical Director

What's New in Emergency Preparedness

Aaron Aumock, Sanitarian, Emergency Preparedness

Livingston Animal Response Group (LARG)

Livingston County has established the Livingston Animal Response Group (LARG) in order to address animal issues and concerns that could arise during disasters. Our first meeting was held on Nov 17, 2006. The LARG is comprised of local veterinarians, Michigan State University Extension office, Animal Control, Red Cross and Health Department staff who have expertise with animals - domestic and wild. By combining their knowledge, the group hopes to establish plans and procedures to accommodate all animals in an emergency event.

Failure to plan for animals prior to an emergency may lead to serious public health concerns and affect the viability of disaster plans for people. Many people will not evacuate without their animals and these refusals or delays cause a reaction that can seriously jeopardize any disaster plan. Injured, ill or dead animals can pose disease and injury hazards to the public, which may add strain to an already over-taxed emergency response effort. The next LARG meeting is on Thursday, March 29, 2007. For further information, contact Aaron Aumock at 517-552-6873 or aarona@co.livingston.mi.us.

School Closing as a Potential Means to Counter Pandemic Influenza

The Livingston County Department of Public Health (LCDPH) conducted a tabletop exercise with public school stakeholders on January 31, 2007. The Centers for Disease Control (CDC) provided the exercise materials, newscast videos, and PowerPoint slides to create an escalating scenario of how pandemic influenza could happen. The LCDPH Medical Director and Michigan Department of Community Health Region 1 Epidemiologist provided the necessary medical and epidemiologic background. The exercise created an open discussion among all participants on the positive and negative aspects of school closures in the event of a pandemic influenza outbreak, as well as other restrictive movement policies available to local Public Health Authorities. These valuable lessons will help us all be better prepared for the future if such an incident occurs.

This newsletter also discusses a CDC-developed community strategy using early targeted layered use of non-pharmaceutical interventions, including such techniques as social distancing, school closure and cancellation of mass group events. See the insert for a description of the document and a copy of the Pandemic Index.

In This Issue

What's New in EP	Page 1
2007 Immunization Schedule Change Summary	Page 2
Rabies Report	Page 3
TB Skin Testing Training & TB Chart	Page 3
Community Strategy for Pandemic Influenza	Insert
Select CD Activity Trends in Livingston County	Page 4

Summary of Changes to 2007 Centers for Disease Control and Prevention Childhood and Adolescent Immunizations Schedule

Sue Worek, RN, Immunization Supervisor

(changes here are outlined in January 5, 2007 issue of the Morbidity and Mortality Weekly Report with figures, etc.)

From this link, retrieved from <http://www.cdc.gov/nip/recs/child-schedule.htm> March 5, 2007, the 2007 Childhood & Adolescent Immunization Schedule may be downloaded and there is access to the link for the Vaccines for Adults (adult immunization schedule).

Key Points:

- The new rotavirus vaccine (Rota Teq) is recommended in a 3-dose schedule at ages 2, 4, and 6 months. The first dose should be administered at ages 6 weeks through 12 weeks, with subsequent doses given at 4-10 week intervals. Rotavirus vaccination should not be initiated for infants aged >12 weeks and should not be given after age 32 weeks.
- The influenza vaccine is now recommended for all children aged 6-59 months.
- Varicella vaccine recommendations are updated. The first dose should be administered at age 12-15 months, and a newly recommended second dose should be administered at age 4-6 years.
- The new human papillomavirus vaccine (HPV) is recommended in a 3-dose schedule with second and third doses administered 2 and 6 months after the first dose. Routine vaccination with HPV is recommended for females aged 11-12 years; the vaccination series can be started in females as young as age 9 years; a catch-up vaccination is recommended for females aged 13-26 years who have not been vaccinated previously or who have not completed the full vaccine series.
- The main change to the format of the schedule is the division of the recommendation into two schedules: one for persons aged 0-6 years, and another for persons aged 7-18 years. Special populations are represented with purple bars; the 11-12 years assessment is emphasized with bold, capitalized fonts in the title of that column. Rota, HPV, and varicella vaccines are incorporated in the catch-up immunization schedule.

TB Trends Locally, Statewide, and Nationally

Donald Lawrenchuk, MD, MPH, Medical Director

The accompanying chart of TB cases reported shows some interesting trends, including:

- A continued low prevalence of tuberculosis in Livingston County, especially in comparison with statewide and national figures
- A moderate increase of TB cases statewide and nationally for 2006, following several years of decline
- A continued lower prevalence of tuberculosis in the state of Michigan, compared to national figures

TB Cases 2002- 2006
in Livingston County, Michigan and the United States

Year	LIVINGSTON COUNTY		STATE OF MICHIGAN+		UNITED STATES+	
	Rate	Cases	Rate	Cases	Rate	Cases
2006	0.0	0	2.47*	246*	4.70*	13,250*
2005	1.09	2	2.10*	209*	4.04*	11,370*
2004	0.64	1	2.74	273	5.17	14,517
2003	0.0	0	2.45	243	5.28	14,874
2002	0.64	1	3.17	315	5.36	15,075

2006 & 2005 Provisional cases and rates as of weeks ending December 31, 2006 and SEMCOG 2006 estimate for Livingston County; 2002-2006 Rates calculated using 2000 U.S. Census Bureau data; Incidence rates per 100,000 + State of Michigan and United States cases and rates are obtained from the MMWR and Summary of Notifiable Diseases, United States 2000-2006

Rabies Report 2006

Rebecca Cook, RN, Communicable Disease Supervisor

The Michigan Department of Community Health (MDCH) Bureau of Laboratories (BOL) received 111 specimens for rabies testing from Livingston County in 2006. Specimens tested were 28 dogs, 38 cats, 4 raccoons, 34 bats, 2 opossums, 3 skunks, 1 fox and 1 goat. We had 1 positive bat this year compared to 4 positive bats and 1 positive skunk in 2005.

The MDCH Lab received 2874 specimens for rabies testing in Michigan in 2006. There were a total of 49 animals found to be positive for rabies including 39 bats, 4 horses, 3 skunks, 1 cat, 1 fox and 1 cow. The lab tested a record number of bats for 2 consecutive weeks in August this past year. Of the 1022 bats tested last year, 3.8% were positive, a rate similar to previous years.

For terrestrial non-bat species of animals that test positive, the BOL performs an additional test to determine the strain of rabies involved. The North Central skunk-strain of rabies was identified in all cases of rabies in terrestrial mammals this past year. This reflects a continuation of higher than normal cases of rabies due to the skunk-strain detected last year in Southeast Lower Michigan. The spike in the number of horses testing positive (4) for skunk-strain rabies this past year is unusual, and prompted a press release by the Michigan Department of Agriculture to alert horse owners to the danger rabid skunks pose to unvaccinated horses in Southeast Michigan. Additional information is available via the Internet at the CDC website www.cdc.gov/ncidod/dvrd/rabies. Check www.lchd.org for more information throughout the spring.

Tuberculin Skin Testing Workshop (TST)

The Livingston County Department of Public Health will be offering a TST workshop to certify health care personnel who administer, read, and record the Mantoux Tuberculin Skin Test. In addition to a detailed presentation and practicum on Mantoux skin testing, this workshop covers all aspects of TB including history, transmission, pathogenesis, epidemiology, diagnosis, treatment and prevention.

Where: Livingston County Department of Public Health
2300 E. Grand River Avenue
Suite 102, Room D
Howell, Michigan 48843

When: Thursday, April 19, 2007

Time: 8:30 a.m. - 1:00 p.m.

Certification: 4.1 contact hours

Cost: No charge

To register call Rebecca Cook, Communicable Disease Supervisor at 517-552-6808.

Visit the Livingston County
Department of
Public Health
website at:
www.lchd.org

CD Newsletter Team

Dr. Donald Lawrenchuk, Medical Director
Elaine Brown, PPHS Director
Rebecca Cook, CD Supervisor
Sue Worek, Immunization Supervisor
Jennifer Lavelle, Health Education
Supervisor/Editor
Kimberly White, Administrative Specialist
Lucy Sikora, Communicable Disease Clerk

A Community Strategy for Pandemic Influenza Mitigation in the United States - Early Targeted Layered use of Non-Pharmaceutical Interventions from Centers for Disease Control (CDC)

By Jennifer Lavelle, CHES, MS, Health Education Supervisor

- CDC has released a new planning guidance which describes a strategy for using non-pharmaceutical interventions (NPI), taking into account variability in severity of pandemics. It introduces the Pandemic Severity Index to characterize the severity of a pandemic. The guidance also provides planning recommendations for specific interventions that communities may use for a given level of pandemic severity, and suggests when these measures should be started and how long they should be used.
- The strategy has three primary goals:
 1. to delay the spread of a pandemic and allow time for vaccine production,
 2. to lessen the demand for and preserve scarce healthcare resources, and
 3. to reduce the overall number of people who become sick and ultimately, reduce suffering, illness and death
- In the early phase of an influenza pandemic, an effective influenza vaccine is unlikely to be available. NPIs are personal and community-level public health measures that don't involve vaccines or drugs that may serve as a first line of defense to help reduce the spread of disease.
- In addition to specific recommendations on the use of antivirals and vaccine, health officials may recommend:
 1. Advising people to stay home if they are sick (or in a hospital or infirmary setting, depending on the severity of an individual's illness) and treating them with available medications
 2. Asking people who have been exposed to a sick person in their household to stay at home
 3. Dismissing children and teenagers from schools and preventing them from re-congregating in the community
 4. Asking people to work from home if possible and use other measures to increase the distance between people at the workplace
 5. Closing of mass gatherings such as theaters, sporting events, concerts, churches or other places where people gather
- The Pandemic Severity Index (Figure A, abstracted and reprinted from Figure 4 in the main text is on the reverse side) categorizes a pandemic by severity. The index is divided into five categories: a category 1 pandemic is as harmful as a severe seasonal influenza season, while a pandemic with the same intensity as the 1918 flu pandemic (thought to have killed anywhere from 20 million to 100 million people around the world), would be classified as category 5. Estimating the severity of a pandemic will be primarily based on the percentage of deaths among ill persons.
- LCDPH encourages all county health professionals to become more familiar with the concept of the Community Mitigation Strategy by Pandemic Severity. The full document is posted at www.pandemicflu.gov.

Table A. Summary of the Community Mitigation Strategy by Pandemic Severity

Interventions* by Setting	Pandemic Severity Index		
	1	2 and 3	4 and 5
Home			
Voluntary isolation of ill at home (adults and children), combine with use of antiviral treatment as available and indicated	Recommend †§	Recommend †§	Recommend †§
Voluntary quarantine of household members in homes with ill persons †¶ (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient	Generally not recommended	Consider **	Recommend **
School			
Child social distancing			
-dismissal of students from schools and school based activities, and closure of child care programs	Generally not recommended	Consider: ≤4 weeks ††	Recommend: ≤12 weeks §§
-reduce out-of school social contacts and community mixing	Generally not recommended	Consider: ≤4 weeks ††	Recommend: ≤12 weeks §§
Workplace / Community			
Adult social distancing			
-decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings)	Generally not recommended	Consider	Recommend
-increase distance between persons (e.g., reduce density in public transit, workplace)	Generally not recommended	Consider	Recommend
-modify, postpone, or cancel selected public gatherings to promote social distance (e.g., stadium events, theater performances)	Generally not recommended	Consider	Recommend
-modify work place schedules and practices (e.g., telework, staggered shifts)	Generally not recommended	Consider	Recommend

Generally Not Recommended = Unless there is a compelling rationale for specific populations or jurisdictions, measures are generally not recommended for entire populations as the consequences may outweigh the benefits.

Consider = Important to consider these alternatives as part of a prudent planning strategy, considering characteristics of the pandemic, such as age-specific illness rate, geographic distribution, and the magnitude of adverse consequences. These factors may vary globally, nationally, and locally.

Recommended = Generally recommended as an important component of the planning strategy.

*All these interventions should be used in combination with other infection control measures, including hand hygiene, cough etiquette, and personal protective equipment such as face masks. Additional information on infection control measures is available at www.pandemicflu.gov.

†This intervention may be combined with the treatment of sick individuals using antiviral medications and with vaccine campaigns, if supplies are available

§Many sick individuals who are not critically ill may be managed safely at home

¶The contribution made by contact with asymptotically infected individuals to disease transmission is unclear. Household members in homes with ill persons may be at increased risk of contracting pandemic disease from an ill household member. These household members may have asymptomatic illness and may be able to shed influenza virus that promotes community disease transmission. Therefore, household members of homes with sick individuals would be advised to stay home.

**To facilitate compliance and decrease risk of household transmission, this intervention may be combined with provision of antiviral medications to household contacts, depending on drug availability, feasibility of distribution, and effectiveness; policy recommendations for antiviral prophylaxis are addressed in a separate guidance document.

††Consider short-term implementation of this measure—that is, less than 4 weeks.

§§Plan for prolonged implementation of this measure—that is, 1 to 3 months; actual duration may vary depending on transmission in the community as the pandemic wave is expected to last 6-8 weeks.



2300 E. Grand River Avenue, Suite 102
 Howell, MI 48843-7578
 Phone (517) 546-9850
 Fax (517) 546-6995
 www.lchd.org

LARG & Tabletop with Schools ⇌ Imms Schedule Change Summary ⇌ TB Chart & Skin Testing
 ⇌ Strategy for Pandemic Flu ⇌ Rabies Report ⇌ CD Trends and Information ⇌

Communicable Disease Trends and Information

Donald W. Lawrenchuk, MD, MPH Medical Director

The Livingston County Department of Public Health investigated more than 300 reportable communicable diseases in 2006 and provided client education, treatment, and follow-up as indicated. We also provided education and referral for evaluation and treatment to 168 individuals with sexually transmitted infections. These numbers represent a 5-year high for Livingston County, and may be indicative of things to come as our population continues to increase.

The accompanying chart of reported cases of communicable diseases in Livingston County shows some of these trends including:

- A steady rise in genital chlamydia and gonorrhea and sexually transmitted infections
- An increase in chickenpox cases has been noted, following several years of decline
- The persistence of pertussis in our community
- A low prevalence of tuberculosis
- Continued activity with food and waterborne enteric diseases

Michigan's communicable disease rules require laboratories and physicians to report persons with certain infections or conditions to their local health department. Reporting can be done via Michigan Disease Surveillance System (MDSS), which allows easy electronic case reporting to LCDPH.

Communicable Disease Reporting in Livingston County

Name	2002	2003	2004	2005	2006
STD					
Chlamydia	101	131	142	145	144
Gonorrhea	15	17	14	19	24
Communicable Disease					
Chickenpox	186	111	86	82	136
Hepatitis A	2	1	1	1	1
Hepatitis B	2	1	1	1	0
Hepatitis C (acute)	0	0	0	1	1
Hepatitis C (chronic)	57	73	45	87	90
Meningitis (aseptic/viral)	20	31	20	32	21
Meningitis (bacterial)	3	1	1	3	1
Pertussis	0	4	2	16	6
TB	1	0	1	2	0
Enteric CD Activity					
Campylobacter	11	8	14	17	14
E coli	6	3	2	6	0
Giardiasis	14	19	4	10	11
Salmonella	13	16	13	29	15
Shigellosis	3	0	2	1	4
Source: LCDPH Select CD Activity, 2002-2006					