

Revisions to the Communicable Disease Reporting Rules

The Minnesota Department of Health (MDH) has made changes to the Rules Governing Communicable Disease, Minnesota Rules Parts 4605.7000 to 4605.7900. These rules are the backbone of MDH's ability to monitor and control infectious disease in Minnesota. Under the rules, physicians, health care facilities, laboratories, veterinarians, and other licensed health care providers notify MDH of cases, suspected cases, carriers, and deaths from infectious diseases and conditions of public health significance. Medical laboratories submit clinical materials for selected agents that permit the MDH Public Health Laboratory to confirm the disease-causing agent, conduct antimicrobial susceptibility testing, and by conducting molecular subtyping to potentially link cases of disease to a common source.

Purpose of Changes

The rules have not undergone a thorough revision since 1985. In the intervening 20 years, new diseases have appeared in the United States, such as Severe Acute Respiratory Syndrome (SARS) and West Nile virus. Further, over the past few years, the threat of bioterrorism has put MDH on alert for diseases that could be caused by intentional acts including diseases that previously were declared eradicated such as smallpox. Changes in clinical laboratory practices also have occurred that translate into improved public health disease investigation. These changes were not reflected in the old rules. The revisions also reflect a new climate created by the federal Health Insurance Portability and Accountability Act (HIPAA) in

which reporters of disease increasingly want explicit provisions on reporting to ensure they are protected when they provide health information to MDH. Rule revisions were critical for MDH to continue to effectively conduct disease surveillance and identify outbreaks; promptly respond to new and emerging infectious diseases; implement control measures to stop the spread of disease; and respond promptly to an act of bioterrorism.

The Rule Process

Making changes to administrative rules is a long and complicated process. MDH began work on the revisions in July 2003. The agency published a Request for Comments in the State Register on March 1, 2004. Public comments were accepted until May 10, 2004. During this time, MDH formed a Communicable Disease Rule Advisory Committee to represent the various parties affected by the proposed revisions including hospitals, infectious disease physicians, pediatricians, infection control practitioners, long-term care facilities, nurses including school nurses, veterinarians, medical laboratories, medical examiners, local public health agencies, HIV/AIDS advocates, and groups interested in personal privacy. The Advisory Committee met three times in the spring of 2004. These meetings provided participants an opportunity to provide their views and ask questions on the proposed amendments. After each meeting, MDH modified the proposed revisions in response to comments. MDH asked Advisory Committee members to distribute a draft of the revised rules to their organizational lists during the Request for Comments

period. On December 27, 2004, MDH published the notice of intent to adopt the proposed rule changes. The public had 30 days to comment. MDH received more than 25 requests for a public hearing that was held on February 14. Most of those present at the hearing were opposed to the rules and disease reporting as a whole rather than the revisions. The changes were then reviewed by a Minnesota Administrative Law Judge to ensure they met legal criteria. On April 13, the judge issued a report recommending that all revisions be adopted except for the deletion of one comma. The changes to the rules are the product of this administrative process.

Summary of the Revisions

The following is a summary of the substantive changes to the reporting rules. A complete copy of the rules follows.

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Inside:

Dramatic Increase in Lyme Disease and Other Tick-borne Diseases, 2004.....	30
Minnesota Cervical Cancer Update.....	32
Antimicrobial Susceptibilities of Selected Pathogens, 2004.....	34
Disease Control Newsletter-20 Years Ago.....	35
Mark the Date: 11th Annual Emerging Infections in Clinical Practice and Emerging Health Threats Conference, Minneapolis, November 10-11, 2005.....	36

Part 4605.7000: Definitions

“Deceased person” is now included in the definitions of “Case,” “Carrier,” and “Suspected Case.” A definition for contact was added. A contact is a person who may have been exposed to a case, suspected case, or carrier in a manner that could place the person at risk of acquiring the infection based on known or suspected modes of transmission. “Critical illness” has been added and is defined as the condition of a person who is hospitalized in an intensive care unit or who is critically ill in the judgment of a licensed healthcare provider.

Mandated disease reporters and medical laboratories must submit “clinical materials” rather than “isolates,” as previously required, to MDH. Clinical materials mean a clinical isolate or, if an isolate is not available, material containing the infectious agent for which the submission of material is required, in the following order of preference: a patient specimen, nucleic acid, or other laboratory materials. This change reflects changing laboratory technology and practice. If the laboratory does not isolate an organism, for those diseases requiring submission of clinical materials, material containing the viable infectious agent is still necessary in order for MDH to conduct molecular subtyping and other tests.

Part 4605.7030: Persons Required to Report Disease

A medical laboratory that sends clinical materials out-of-state for testing must ensure that the results are reported and clinical materials are submitted to MDH. This change will help ensure that MDH receives the laboratory information necessary to conduct thorough surveillance, disease investigation, and outbreak control.

Veterinarians and veterinary medical laboratories were already requested, under certain circumstances related to zoonotic disease, to report disease. They now also will be requested to submit clinical materials.

Part 4605.7040: Reportable Diseases
Changes to Previously Reportable Diseases:

Submission of clinical materials for some diseases that were already reportable that did not require submis-

sion of clinical isolated before is now required. These are anthrax, brucellosis, cryptosporidiosis, hemolytic uremic syndrome, human immunodeficiency virus (HIV) infection including acquired immunodeficiency syndrome (AIDS), influenza (unusual case incidence, critical illness, or laboratory confirmed cases), legionellosis, measles, plague, poliomyelitis, Q fever, rubella and congenital rubella syndrome, and tularemia.

Chancroid, mumps, pertussis, and syphilis no longer require immediate reporting but now must be reported within one working day. Brucellosis, diphtheria, hemolytic uremic syndrome, meningococcal disease (*Neisseria meningitidis*), plague, Q fever, rubella and congenital rubella syndrome, and tularemia are now required to be reported immediately.

To clarify ongoing confusion regarding tuberculosis, the rules now state that both pulmonary and extrapulmonary sites of tuberculosis, including laboratory confirmed or clinically diagnosed tuberculosis disease, are reportable. Latent tuberculosis infection is not reportable.

Addition of Diseases to be Reported

- Reportable immediately and submit clinical materials:
 - orthopox virus
 - severe acute respiratory syndrome (SARS)
 - smallpox (variola)
- Reportable within one working day:
 - arboviral disease
 - coccidioidomycosis
 - transmissible spongiform encephalopathy
- Reportable within one working day and submit clinical materials:
 - cyclosporiasis
 - *Enterobacter sakazakii* in infants under one year of age
 - *Kingella* spp.(invasive only)
 - neonatal sepsis (less than seven days after birth)
 - *Staphylococcus aureus* (including only, vancomycin-intermediate *Staphylococcus aureus* [VISA], vancomycin-resistant *Staphylococcus aureus* [VRSA], and death or critical illness due to community-associated *Staphylococcus*

aureus in a previous healthy individual)

- varicella zoster disease (primary [chickenpox]: unusual case incidence, critical illness, or laboratory-confirmed case; or recurrent [shingles]: unusual case incidence or critical illness). All varicella zoster would be reportable only if MDH determines that sentinel surveillance (see below) can no longer provide adequate data for epidemiological purposes.
- *Vibrio* spp.

Part 4605.7044: Chronic Infections: Perinatally Transmissible

Pregnancy in a previously reported case-patient with hepatitis B, HIV (including AIDS) or other reportable perinatally transmissible disease must be reported within one working day of knowledge of the pregnancy.

Part 4605.7406: Sentinel Surveillance

MDH may select certain diseases for sentinel surveillance if sentinel surveillance will provide adequate data for epidemiological purposes and the surveillance is necessary for characterization of the pathogen, monitoring vaccine effectiveness, or achieving other significant public health purposes for a disease or syndrome that can cause serious morbidity or mortality. MDH shall select, after consultation, sentinel surveillance sites that have epidemiological significance to each disease or syndrome selected. In selecting the sites, MDH shall consider: the potential number of cases at the site; the geographic distribution of cases or potential cases in Minnesota, if indicated by the epidemiology of the disease or syndrome; the epidemiology of the disease or syndrome; and the overall impact of sentinel surveillance on a site and the benefit to public health in conducting sentinel surveillance at the site.

Part 4605.7050: Unusual Case Incidence Reporting

Emerging drug resistance has been added as a condition that might trigger unusual case incidence reporting. In addition to requiring reporting of an unexplained death that might be caused by an infectious agent, an unexplained critical illness in a previously healthy individual that might

continued on page 29

CHAPTER 4605 DEPARTMENT OF HEALTH COMMUNICABLE DISEASES

4605.7000 DEFINITIONS.

Subpart 1. **Case.** "Case" means a person or deceased person infected with a particular infectious agent or having a particular disease diagnosed by a physician.

Subp. 2. **Carrier.** "Carrier" means a person or deceased person identified as harboring a specific infectious agent and who serves as a potential source of infection.

Subp. 3. **Clinical materials.** "Clinical materials" means:

- A. a clinical isolate containing the infectious agent for which submission of material is required; or
- B. if an isolate is not available, material containing the infectious agent for which submission of material is required, in the following order of preference:
 - (1) a patient specimen;
 - (2) nucleic acid; or
 - (3) other laboratory material.

Subp. 4. **Commissioner.** "Commissioner" means the state commissioner of health or authorized officers, employees, or agents of the Minnesota Department of Health.

Subp. 5. **Contact.** "Contact" means a person who may have been exposed to a case, suspected case, or carrier in a manner that could place the person at risk of acquiring the infection based on known or suspected modes of transmission.

Subp. 6. **Critical illness.** "Critical illness" means the condition of a person who is hospitalized in an intensive care unit or who is critically ill in the judgment of a licensed health care provider.

Subp. 7. **Infection control practitioner.** "Infection control practitioner" means any person designated by a hospital, nursing home, medical clinic, or other health care facility as having responsibility for prevention, detection, reporting, and control of infections within the facility.

Subp. 8. **Isolation.** "Isolation" means the separation, for the period of communicability, of an infected person from others in places and under the condition as to prevent or limit the direct or indirect transmission of the infectious agent to those who are susceptible or to those who may spread the agent to others.

Subp. 9. **Board of health.** "Board of health" means authorized administrators, officers, agents, or employees of the county, multicounty, or city board of health organized under Minnesota Statutes, sections 145A.09 to 145A.14.

Subp. 10. **Medical laboratory.** "Medical laboratory" means any facility that receives, forwards, or analyzes specimens of original material from the human body, or referred cultures of specimens obtained from the human body, and reports the results to physicians who use the data for purposes of patient care.

Subp. 11. **Physician.** "Physician" means any person who is licensed by the Minnesota Board of Medical Practice to practice medicine.

Subp. 12. **Sentinel surveillance.** "Sentinel surveillance" means monitoring a disease or syndrome through reporting of cases, suspected cases, and carriers and submission of clinical materials by selected sites under part 4605.7046.

Subp. 13. **Suspected case.** "Suspected case" means a person or deceased person having a condition or illness in which the signs and symptoms resemble those of a recognized disease.

Subp. 14. **Veterinarian.** "Veterinarian" means any person who is licensed by the Minnesota Board of Veterinary Medicine to practice veterinary medicine.

Subp. 15. **Public health hazard.** "Public health hazard" means the presence of an infectious agent or condition in the environment which endangers the health of a specified population.

4605.7010 PURPOSE.

This chapter establishes a process and assigns responsibility for reporting, investigating, and controlling disease.

4605.7020 APPLICABILITY.

This chapter applies to cases, suspected cases, carriers, and deaths from communicable diseases and syndromes, reporting of disease, and disease control.

REPORTING REQUIREMENTS

4605.7030 PERSONS REQUIRED TO REPORT DISEASE.

Subpart 1. **Physicians.** When attending a case, suspected case, carrier, or death from any of the diseases in part 4605.7040 or a pregnancy under part 4605.7044, a physician shall report to the commissioner according to part 4605.7040 or 4605.7044, unless previously reported, the information specified in part 4605.7090.

Subp. 2. **Health care facilities.** Hospitals, nursing homes, medical clinics, or other health care facilities shall designate that all individual physicians report as specified in subpart 1; or the health care facility shall designate an infection control practitioner or other person as responsible to report to the commissioner, according to part 4605.7040 or 4605.7044, knowledge of a case, suspected case, carrier, or death from any of the diseases and syndromes in part 4605.7040 or a pregnancy under part 4605.7044, and the information specified in part 4605.7090.

Subp. 3. **Medical laboratories.**

A. All medical laboratories shall provide to the commissioner, within one working day of completion, the results of microbiologic cultures, examinations, immunologic assays for the presence of antigens and antibodies, and any other laboratory tests, which are indicative of the presence of any of the diseases in part 4605.7040 and the information specified in part 4605.7090 as is known.

B. All medical laboratories shall forward to the Minnesota Department of Health, Public Health Laboratory all clinical materials specified in this chapter upon a positive laboratory finding for the disease or condition, or upon request of the commissioner in relation to a case or suspected case reported under this chapter.

C. If a medical laboratory forwards clinical materials out of state for testing, the originating medical laboratory retains the duty to comply with this subpart, either by:

- (1) reporting the results and submitting the clinical materials to the commissioner; or
- (2) ensuring that the results are reported and materials submitted to the commissioner.

Subp. 4. **Comprehensive reports.** Any institution, facility, or clinic, staffed by physicians and having medical laboratories which are required to report, as in subparts 1, 2, and 3, may, upon written notification to the commissioner, designate a single person or group of persons to report cases, suspected cases, carriers, deaths, or results of medical laboratory cultures, examinations, and assays for any of the diseases listed in part 4605.7040 or a pregnancy under part 4605.7044 to the commissioner.

Subp. 5. **Veterinarians and veterinary medical laboratories.** The commissioner of health shall, under the following circumstances, request certain reports of clinical diagnosis of disease in animals, reports of laboratory tests on animals, and clinical materials from animals:

- A. the disease is common to both animals and humans;
- B. the disease may be transmitted directly or indirectly to and between humans and animals;
- C. the persons who are afflicted with the disease are likely to suffer complications, disability, or death as a result; and
- D. investigation based upon veterinarian and veterinary medical laboratory reports will assist in the prevention and control of disease among humans.

Subp. 6. **Others.** Unless previously reported, it shall be the duty of every other licensed health care provider who provides care to any patient who has or is suspected of having any of the diseases listed in part 4605.7040 or a pregnancy under part 4605.7044 to report to the commissioner, according to part 4605.7040 or 4605.7044, as much of the information specified in part 4605.7090 as is known.

Subp. 7. **Out of state testing.** Persons and entities that are required to report under subpart 1, 2, or 6 and that send clinical materials out of state for testing are responsible for ensuring that results are reported and clinical materials are submitted to the commissioner as required under this chapter.

4605.7040 DISEASE AND REPORTS; CLINICAL MATERIALS SUBMISSIONS.

Cases, suspected cases, carriers, and deaths due to the following diseases and infectious agents shall be reported. When submission of clinical materials is required under this part, submissions shall be made to the Minnesota Department of Health, Public Health Laboratory.

A. Diseases reportable immediately by telephone to the commissioner:

- (1) anthrax (*Bacillus anthracis*). Submit clinical materials;
- (2) botulism (*Clostridium botulinum*);
- (3) brucellosis (*Brucella* spp.). Submit clinical materials;
- (4) cholera (*Vibrio cholerae*). Submit clinical materials;
- (5) diphtheria (*Corynebacterium diphtheriae*). Submit clinical materials;
- (6) hemolytic uremic syndrome. Submit clinical materials;
- (7) measles (rubeola). Submit clinical materials;
- (8) meningococcal disease (*Neisseria meningitidis*) (all invasive disease). Submit clinical materials;
- (9) orthopox virus. Submit clinical materials;

- (10) plague (*Yersinia pestis*). Submit clinical materials;
- (11) poliomyelitis. Submit clinical materials;
- (12) Q fever (*Coxiella burnetii*). Submit clinical materials;
- (13) rabies (animal and human cases and suspected cases);
- (14) rubella and congenital rubella syndrome. Submit clinical materials;
- (15) severe acute respiratory syndrome (SARS). Submit clinical materials;
- (16) smallpox (variola). Submit clinical materials; and
- (17) tularemia (*Francisella tularensis*). Submit clinical materials.

B. Diseases reportable within one working day:

- (1) amebiasis (*Entamoeba histolytica/dispar*);
- (2) anaplasmosis (*Anaplasma phagocytophilum*);
- (3) arboviral disease, including, but not limited to, LaCrosse encephalitis, eastern equine encephalitis, western equine encephalitis, St. Louis encephalitis, and West Nile virus disease;
- (4) babesiosis (*Babesia* spp.);
- (5) blastomycosis (*Blastomyces dermatitidis*);
- (6) campylobacteriosis (*Campylobacter* spp.). Submit clinical materials;
- (7) cat scratch disease (infection caused by *Bartonella* species);
- (8) chancroid (*Haemophilus ducreyi*);
- (9) *Chlamydia trachomatis* infections;
- (10) coccidioidomycosis;
- (11) cryptosporidiosis (*Cryptosporidium* spp.). Submit clinical materials;
- (12) cyclosporiasis (*Cyclospora* spp.). Submit clinical materials;
- (13) dengue virus infection;
- (14) *Diphyllobothrium latum* infection;
- (15) ehrlichiosis (*Ehrlichia* spp.);
- (16) encephalitis (caused by viral agents);
- (17) enteric *Escherichia coli* infection (*E. coli* O157:H7, other enterohemorrhagic (Shiga toxin-producing) *E. coli*, enteropathogenic *E. coli*, enteroinvasive *E. coli*, and enterotoxigenic *E. coli*). Submit clinical materials;
- (18) *Enterobacter sakazakii* in infants under one year of age. Submit clinical materials;
- (19) giardiasis (*Giardia lamblia*);
- (20) gonorrhea (*Neisseria gonorrhoeae* infections);
- (21) *Haemophilus influenzae* disease (all invasive disease). Submit clinical materials;
- (22) hantavirus infection;
- (23) hepatitis (all primary viral types including A, B, C, D, and E);
- (24) histoplasmosis (*Histoplasma capsulatum*);
- (25) human immunodeficiency virus (HIV) infection, including acquired immunodeficiency syndrome (AIDS). Submit clinical materials;
- (26) influenza (unusual case incidence, critical illness, or laboratory confirmed cases). Submit clinical materials;
- (27) Kawasaki disease;
- (28) *Kingella* spp. (invasive only). Submit clinical materials;
- (29) legionellosis (*Legionella* spp.). Submit clinical materials;
- (30) leprosy (Hansen's disease) (*Mycobacterium leprae*);
- (31) leptospirosis (*Leptospira interrogans*);
- (32) listeriosis (*Listeria monocytogenes*). Submit clinical materials;
- (33) Lyme disease (*Borrelia burgdorferi*);
- (34) malaria (*Plasmodium* spp.);
- (35) meningitis (caused by viral agents);
- (36) mumps;
- (37) neonatal sepsis (bacteria isolated from a sterile site, excluding coagulase-negative *Staphylococcus*) less than seven days after birth. Submit clinical materials;
- (38) pertussis (*Bordetella pertussis*). Submit clinical materials;
- (39) psittacosis (*Chlamydia psittaci*);
- (40) retrovirus infections;
- (41) Reye syndrome;
- (42) rheumatic fever (cases meeting the Jones criteria only);
- (43) Rocky Mountain spotted fever (*Rickettsia rickettsii*, *R. canada*);
- (44) salmonellosis, including typhoid (*Salmonella* spp.). Submit clinical materials;
- (45) shigellosis (*Shigella* spp.). Submit clinical materials;
- (46) *Staphylococcus aureus* (only vancomycin-intermediate *Staphylococcus aureus* (VISA), vancomycin-resistant *Staphylococcus aureus* (VRSA), and death or critical illness due to community-associated *Staphylococcus aureus* in a previously healthy individual). Submit clinical materials;
- (47) streptococcal disease (all invasive disease caused by Groups A and B streptococci and *S. pneumoniae*). Submit clinical materials;
- (48) syphilis (*Treponema pallidum*);

- (49) tetanus (*Clostridium tetani*);
- (50) toxic shock syndrome. Submit clinical materials;
- (51) toxoplasmosis (*Toxoplasma gondii*);
- (52) transmissible spongiform encephalopathy;
- (53) trichinosis (*Trichinella spiralis*);
- (54) tuberculosis (*Mycobacterium tuberculosis* complex) (pulmonary or extrapulmonary sites of disease, including laboratory confirmed or clinically diagnosed disease). Latent tuberculosis infection is not reportable. Submit clinical materials;
- (55) typhus (*Rickettsia* spp.);
- (56) varicella zoster disease:
 - (a) primary (chickenpox): unusual case incidence, critical illness, or laboratory-confirmed cases. Submit clinical materials; and
 - (b) recurrent (shingles): unusual case incidence or critical illness. Submit clinical materials;
- (57) varicella zoster disease in addition to reportable disease under subitem (56), effective upon the commissioner's determination that the disease is reportable under part 4605.7042;
- (58) *Vibrio* spp. Submit clinical materials;
- (59) yellow fever; and
- (60) yersiniosis, enteric (*Yersinia* spp.). Submit clinical materials.

4605.7042 VARICELLA ZOSTER DISEASE.

The commissioner shall require reporting of varicella zoster disease under part 4605.7040, item B, subitem (57), if the commissioner determines that sentinel surveillance can no longer provide adequate data for epidemiological purposes.

4605.7044 CHRONIC INFECTIONS; PERINATALLY TRANSMISSIBLE.

Pregnancy in a person chronically infected with hepatitis B, human immunodeficiency virus (HIV) infection, including acquired immunodeficiency syndrome (AIDS), or other reportable perinatally transmissible diseases shall be reported to the commissioner within one working day of knowledge of the pregnancy.

4605.7046 SENTINEL SURVEILLANCE.

Subpart 1. **Disease selection.** The commissioner may select an infectious disease or syndrome for sentinel surveillance, other than a disease or syndrome for which general reporting is required under this chapter, if the commissioner determines that sentinel surveillance will provide adequate data for epidemiological purposes and the surveillance is necessary for:

- A. characterization of the pathogen;
- B. monitoring vaccine effectiveness; or
- C. achieving other significant public health purposes for a disease or syndrome that can cause serious morbidity or mortality.

Subp. 2. **Site selection.** The commissioner shall select, after consultation with the sites, sentinel surveillance sites that have epidemiological significance to each disease or syndrome selected under subpart 1. In selecting the sites, the commissioner shall consider:

- A. the potential number of cases at the site;
- B. the geographic distribution of cases or potential cases in Minnesota, if indicated by the epidemiology of the disease or syndrome;
- C. the epidemiology of the disease or syndrome; and
- D. the overall impact of sentinel surveillance on a site and the benefit to public health in conducting sentinel surveillance at the site.

Subp. 3. **Removal from sentinel surveillance.** The commissioner shall remove a disease or syndrome from sentinel surveillance under this part if the commissioner determines that the disease or syndrome no longer meets the criteria in subpart 1.

Subp. 4. **Surveillance mechanism.** The commissioner shall provide a description, in writing, to sentinel surveillance sites of a specific, planned mechanism for surveillance of the disease or syndrome, including the rationale for site selection, a time frame for reporting, and protocols for the submission of test results and clinical materials from cases and suspected cases to the Minnesota Department of Health, Public Health Laboratory.

4605.7050 UNUSUAL CASE INCIDENCE.

Subpart 1. **Cases, suspected cases, or increased incidence.** Any pattern of cases, suspected cases, or increased incidence of any illness beyond the expected number of cases in a given period, which may indicate a newly recognized infectious agent, an outbreak, epidemic, emerging drug resistance, or public health hazard, including suspected or confirmed outbreaks of food or waterborne disease, epidemic viral gastroenteritis, and any disease known or presumed to be transmitted by transfusion of blood or blood products, shall be reported immediately by telephone, by the person having knowledge, to the commissioner.

Subp. 2. **Unexplained death or critical illness.** Any unexplained death or unexplained critical illness in a previously healthy

individual which may be caused by an infectious agent shall be reported by the attending physician, medical examiner or coroner, or by the person having knowledge about the death or illness to the commissioner within one day.

Subp. 3. **Submissions.** Upon request of the commissioner, medical laboratories shall submit test results and clinical materials for cases and suspected cases reported under subparts 1 and 2 to the Minnesota Department of Health, Public Health Laboratory.

4605.7060 CASES, SUSPECTED CASES, CARRIERS, AND DEATHS DUE TO DISEASE ACQUIRED OUTSIDE THE STATE.

A physician shall report to the commissioner cases, suspected cases, carriers, and deaths due to any infectious disease that a physician determines has been acquired outside the state and that is considered:

- A. rare or unusual in Minnesota; or
- B. a public health problem in the geographic area of presumed acquisition.

4605.7070 OTHER REPORTS.

It shall be the duty of any person in charge of any institution, school, child care facility or camp, or any other person having knowledge of any disease which may threaten the public health, to report immediately the name and address of any person or deceased person suspected of having the disease to the commissioner.

4605.7075 TUBERCULOSIS; SPECIAL REPORTING.

A physician or other person required to report under part 4605.7030 or Minnesota Statutes, section 144.4804, shall within one working day report to the commissioner of health the name, address, and essential facts of the case if the physician or other person required to report under part 4605.7030 or Minnesota Statutes, section 144.4804, has reason to believe that a person with active pulmonary tuberculosis:

- A. refuses treatment for active tuberculosis; or
- B. has not complied with prescribed therapy for active tuberculosis.

4605.7080 NEW DISEASES AND SYNDROMES; REPORTING AND SUBMISSIONS.

Subpart 1. **Disease selection.** The commissioner shall, by public notice, require reporting of newly recognized or emerging diseases and syndromes suspected to be of infectious origin or previously controlled or eradicated infectious diseases if:

- A. the disease or syndrome can cause serious morbidity or mortality; and
- B. report of the disease or syndrome is necessary to monitor, prevent, or control the disease or syndrome to protect public health.

Subp. 2. **Surveillance mechanism.** The commissioner shall describe a specific, planned mechanism for surveillance of the disease or syndrome including persons and entities required to report, a time frame for reporting, and protocols for the submission of test results and clinical materials from cases and suspected cases to the Minnesota Department of Health, Public Health Laboratory.

4605.7090 DISEASE REPORT INFORMATION.

Reports that are required under this chapter shall contain as much of the following information as is known:

- A. disease (whether a case, suspected case, carrier, or death);
- B. date of first symptoms;
- C. primary signs and symptoms;
- D. patient:
 - (1) name;
 - (2) birthdate;
 - (3) gender;
 - (4) ethnic and racial origin;
 - (5) residence address, city, county, and zip code;
 - (6) telephone number; and
 - (7) place of work, school, or child care;
- E. date of report;
- F. physician name, address, and telephone number;
- G. name of hospital (if any);
- H. name of person reporting (if not physician);
- I. diagnostic laboratory findings and dates of tests;
- J. name and locating information of contacts (if any);
- K. vaccination history for the disease reported;
- L. pregnancy status and expected date of delivery, if the infection can be transmitted during pregnancy or delivery; and
- M. other information pertinent to the case.

4605.7100 REPORTS TO STATE AND LOCAL BOARDS OF HEALTH.

Upon receipt of information or other knowledge of a case, suspected case, carrier, or death or any disease or report required under this chapter, the board of health as defined in Minnesota Statutes, section 145A.02, subdivision 2, shall immediately forward same to the commissioner.

4605.7200 RECORDS OF DISEASE.

The commissioner shall maintain records of reports of cases, suspected cases, carriers, and deaths for the disease reports required in this section and shall prepare statewide summary information which shall be made available for each board of health as defined in Minnesota Statutes, section 145A.02, subdivision 2, on request.

4605.7300 COPIES OF DISEASE REPORTS.

Local boards of health operating under agreements in part 4735.0110, subpart 2, shall be forwarded copies of all disease reports and information received by the commissioner which pertain to the jurisdiction and biennial agreement between the commissioner and the board of health as defined in Minnesota Statutes, section 145A.02, subdivision 2.

PREVENTING SPREAD OF DISEASE

4605.7400 PREVENTION OF DISEASE SPREAD.

Subpart 1. **Isolation.** The physician attending a case, suspected case, or carrier (or in the absence of a physician, the commissioner) shall make certain that isolation precautions are taken to prevent spread of disease to others.

Subp. 2. **Report of noncompliance.** Physicians shall report immediately to the commissioner the name, address, and other pertinent information for all cases, suspected cases, and carriers who refuse to comply with prescribed isolation precautions. The commissioner shall then seek injunctive relief under Minnesota Statutes, section 145.075, if the person represents a public health hazard.

4605.7500 DISEASE INVESTIGATIONS.

The commissioner shall investigate the occurrence of cases, suspected cases, or carriers of reportable diseases or unusual disease occurrences in a public or private place for the purpose of verification of the existence of disease, ascertaining the source of the disease causing agent, identifying unreported cases, locating and evaluating contacts of cases and suspected cases by assessing relevant risk factors and testing and treatment history, identifying those at risk of disease, determining necessary control measures, and informing the public if necessary.

SEXUALLY TRANSMITTED DISEASE CONTROL

4605.7700 SEXUALLY TRANSMITTED DISEASE; SPECIAL REPORTS.

The following special reports shall be given by physicians to the commissioner:

A. Notwithstanding any previous report, physicians who have reason to believe that a person having chlamydial infection, syphilis, gonorrhea, or chancroid has not completed therapy shall notify the commissioner immediately of that person's name, address, and other pertinent information.

B. Notwithstanding any previous report, physicians who treat persons infected with chlamydial infection, syphilis, gonorrhea, or chancroid shall ensure that contacts are treated or provide the names and addresses of contacts who may also be infected to the commissioner. If known, persons named as contacts to a person with human immunodeficiency virus (HIV) infection, including acquired immunodeficiency syndrome (AIDS), shall be reported to the commissioner.

C. Notwithstanding any previous report, physicians shall immediately report to the commissioner the name, address, and essential facts of the case for any person known to have or suspected of having chlamydial infection, syphilis, gonorrhea, or chancroid who refuses treatment.

D. If resources are available, the commissioner may authorize specific outpatient or inpatient facilities to report cases of specific sexually transmitted diseases and clinical syndromes in addition to those specified in part 4605.7040. The diseases and clinical syndromes to be reported shall include urethritis in males, pelvic inflammatory disease, genital herpes simplex infection, ectopic pregnancy, and other sexually transmitted disease as requested by the commissioner.

4605.7800 HEALTH EDUCATION.

Health care providers working with patients having chlamydial infection, syphilis, gonorrhea, chancroid, or human immunodeficiency virus infection (HIV), including acquired immunodeficiency syndrome (AIDS), shall tell the patients how to prevent the spread of the infection and inform them of the importance of complying with treatment instructions and of the need to have all relevant contacts promptly tested and treated for the infection.

OPHTHALMIA NEONATORUM CONTROL

4605.7900 OPHTHALMIA NEONATORUM.

Subpart 1. **Definition.** Any condition of the eye or eyes of an infant, independent of the nature of the infection, in which there is any inflammation, swelling, or redness in either one or both eyes of any such infant, either apart from, or together with, any unnatural discharge from the eye or eyes of any such infant within two weeks of the birth of such infant, shall be known as ophthalmia neonatorum.

Subp. 2. **Prophylaxis.** The licensed health professional in charge of the delivery at the time of the birth of any newborn infant shall instill or have instilled, within one hour of birth or as soon as possible thereafter, a one percent solution of silver nitrate, or tetracycline ointment or drops, or erythromycin ointment or drops.

Subp. 3. **Treatment.** A licensed health professional who is not a licensed physician but who is in charge of the care of a newborn infant shall immediately bring to the attention of a licensed physician every case in which symptoms of inflammation develop in one or both eyes of an infant in his or her care.

Subp. 4. **Objections.** If a parent objects or both parents object to the prophylactic treatment of a newborn infant and the health professional has honored the objection, the health professional shall retain a record of the objection.

Revisions to the Communicable Disease Reporting Rules

(continued from page 22)

be caused by an infectious agent must be reported.

Part 4605.7075: Tuberculosis: Special Reporting

A patient with active tuberculosis who refuses treatment or has not complied with prescribed therapy must be reported within one working day, rather than immediately per the previous rule, to MDH.

Part 4605.7080: Reporting New Diseases and Syndromes

MDH may require, by public notice, reporting of newly recognized or emerging diseases and syndromes suspected to be of infectious origin or previously controlled or eradicated

diseases if the disease can cause serious morbidity or mortality, and reports of the disease or syndrome are necessary to monitor, prevent, or control the disease to protect public health. There must be a planned mechanism for this surveillance including information on the person and entities required to report, a time frame for reporting, and submission of test results and clinical materials.

Part 4605.7090: Disease Report Information

Gender, vaccination history for the disease reported, and pregnancy status and expected date of delivery if the infection can be transmitted during

pregnancy or delivery are additional data pieces that must be reported.

Part 4605.7500: Disease Investigations

In the course of disease investigation, MDH may also locate and evaluate contacts of cases and suspect cases.

Part 4605.7800: Health Education

HIV was added as a sexually transmitted disease for which healthcare providers must educate patients on preventing transmission. In addition, health care providers must tell patients with certain sexually transmitted diseases of the need to have all relevant contacts tested.

Dramatic Increase in Lyme Disease and Other Tick-borne Diseases, 2004

Record numbers of Lyme disease cases were reported to the Minnesota Department of Health (MDH) in 2004, including substantial numbers of case-patients exposed to infected *Ixodes scapularis* ticks (deer ticks or black-legged ticks) in some western and central Minnesota counties not previously considered high risk areas. Other diseases transmitted by *I. scapularis*, including human anaplasmosis (HA, formerly known as human granulocytic ehrlichiosis or HGE) and babesiosis, were also reported at record or near-record levels. This article will summarize the 2004 tick-borne disease season, focusing on epidemiologic characteristics pertinent to assisting medical providers with clinical assessment.

Lyme disease

Since MDH began Lyme disease surveillance in 1983, 5,833 cases of Lyme disease (agent, *Borrelia burgdorferi*) have been reported among Minnesota residents. In 2004, a record 1,023 Lyme disease cases were reported; this represents a 116% increase from the 473 cases reported in 2003, and an 18% increase from the prior high of 867 cases in 2002 (Figure 1). As recently as 1999, Lyme disease incidence was 6.0 per 100,000 Minnesota residents, versus the 20.0 per 100,000 observed in 2004.

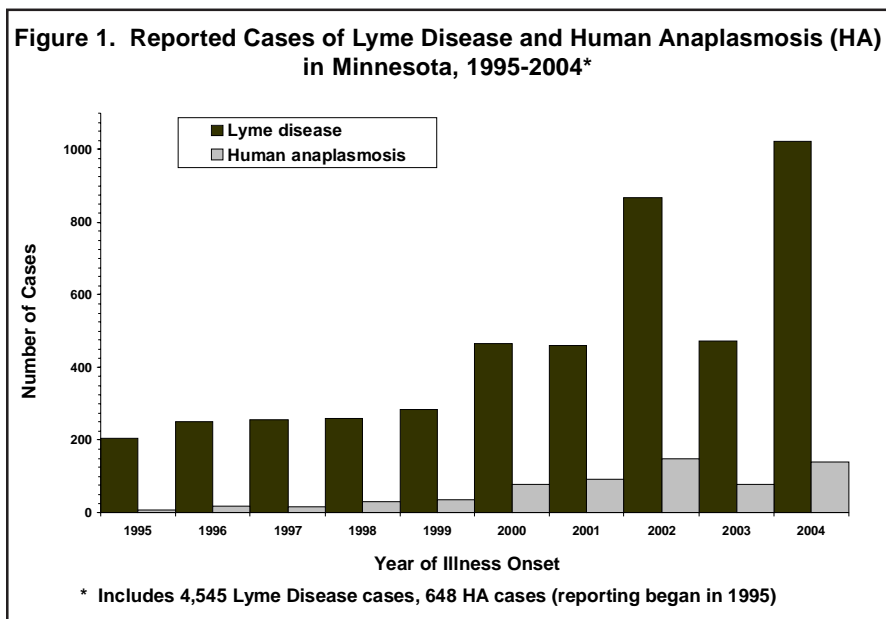
During 2004, 644 (63%) Lyme disease case-patients were male. The median age of case-patients was 39 years (range, 1-94 years). Two hundred fifty-four (25%) cases occurred in children under the age of 12 years. During 2004, 880 case-patients (86%) had a history of erythema migrans (EM), the bullseye-like rash consistent with early-stage Lyme disease. However, 200 (20%) case-patients had at least one disseminated or late manifestation of Lyme disease before they were diagnosed and began treatment. Of those 200 case-patients, 132 (66%) had a history of objective joint swelling, and 54 (27%) reported cranial neuritis. Fifty-seven (29%) of the disseminated or late manifestation case-patients recalled a history of possible EM. For case-patients with a known disease onset date (n=865), illness onset peaked in July (301 cases, 35%), corresponding to the mid-May through mid-July peak activity of *I. scapularis* nymphs; 77% (663 cases) had onset from May through August. Case-patients with a late manifestation were more likely to be diagnosed during September-April than early stage cases (112 [56%] of 200 disseminated/late stage cases, vs. 188 [23%] of 823 early stage cases).

Four hundred forty-two (43%) of the Lyme disease case-patients in 2004

resided in the seven-county Twin Cities Metropolitan area. However, of the 736 (72%) case-patients with location of tick exposure that could be identified at least to the county level, only 40 (5%) exposures occurred in the Metro area. Most of the Metro area exposures (31 cases, 77%) occurred in Anoka and Washington Counties. As in past years, the majority of Lyme disease case-patients in Minnesota were exposed in the east-central region of the state (Figure 2) with Crow Wing, Cass, Aitkin, and Pine Counties accounting for 309 (42%) known exposures. One hundred and forty-two (19%) case-patients were likely exposed to infected ticks in Wisconsin. Four northern counties (Becker, Beltrami, Hubbard, and Itasca) with a history of sporadic Lyme disease case exposure had higher numbers of exposures in 2004 (21, 16, 25, and 26 case-patient exposures, respectively) than in previous years, suggesting that *I. scapularis* and/or *B. burgdorferi* are becoming established or more common in areas not previously considered to be high risk for Lyme disease. These data stress the importance of ascertaining travel history for patients when determining the likelihood of Lyme disease.

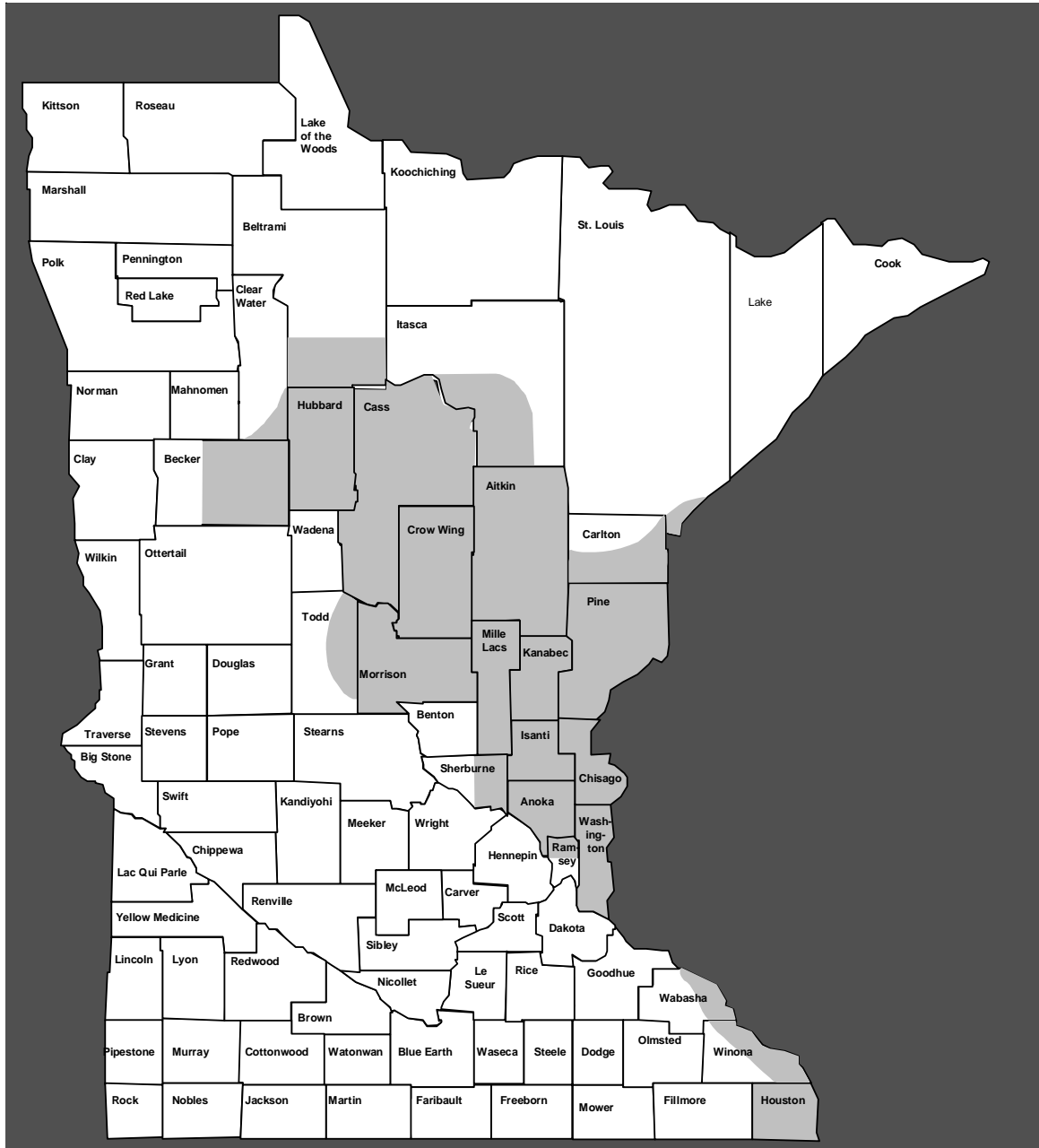
Human Anaplasmosis

Reported cases of human anaplasmosis (HA, agent *Anaplasma phagocytophilum*) also increased in 2004, with 139 reported cases (incidence of 2.8 per 100,000 Minnesota residents) (Figure 1). This represented a 78% increase from the 78 cases reported in 2003. Reported HA cases peaked in 2002 at 149 cases (incidence of 3.0 per 100,000). In 2004, two (1.4%) HA case-patients had objective evidence of a co-infection with Lyme disease. However, co-infection with Lyme disease has been more striking as recently as 2002, when 20 of 149 (13%) HA patients also had objective evidence of Lyme disease. Incidence of HA cases and HA/Lyme disease coinfections is likely under-estimated in Minnesota, because many of the reported HA case-patients with clinically compatible illness were treated empirically without



continued on page 32

Figure 2. Areas of Highest Risk for Lyme Disease in Minnesota



The designation of highest-risk areas is based on 2,499 Minnesota residents who contracted Lyme disease from 2000 to 2004 and who indicated their likely exposure to *I. scapularis* ticks could be determined.

- The majority (74%) of cases were exposed in the areas of Minnesota highlighted on the map: all of Aitkin, Anoka, Cass, Chisago, Crow Wing, Houston, Hubbard, Isanti, Kanabec, Mille Lacs, Morrison, Pine, and Washington Counties; the southern portions of Beltrami and Carlton Counties; the eastern portions of Becker, Sherburne, Todd, Wabasha, and Winona Counties; the southeastern portions of Clearwater and St. Louis Counties; the southwestern portion of Itasca County; and northern Ramsey County.
- Twenty-one percent of Minnesota cases were exposed in the western half of Wisconsin. Among Wisconsin residents, the majority of recently reported cases occurred in northwestern Wisconsin, although cases have been reported throughout the western half of the state.
- A small proportion (5%) of cases likely were exposed in several other Minnesota counties primarily those adjacent to endemic counties), and 1% were exposed in states other than Minnesota and Wisconsin or in other countries.

sufficient laboratory evidence (positive antibody or blood smear test) to meet the surveillance case definition.

Of the 139 HA case-patients in 2004, 81 (58%) were male. The median age of case-patients was 59 years (20 years older than the median age of Lyme disease case-patients [Figure 3]) and ranged from 1-89 years; 120 (86%) of the case-patients were over 40 years of age. Of the 139 HA case-patients, 33 (24%) lived in the seven-county Twin Cities Metropolitan area, and 106 (76.3%) lived in Greater Minnesota.

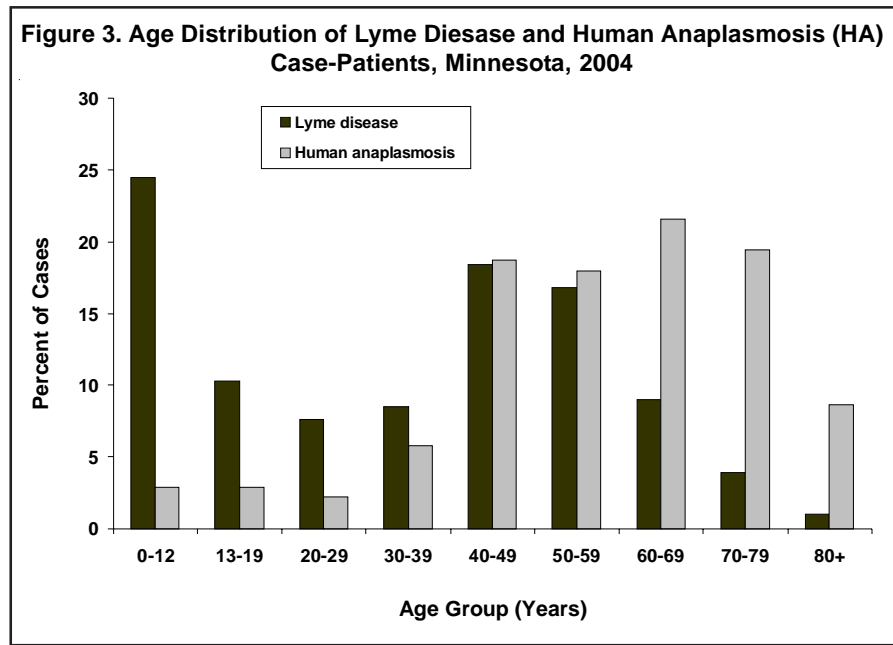
In 2004, 56% of HA case-patients (77 of 137 with known onset) had onset of illness in June or July, indicating exposure to infected *I. scapularis* in early summer. However, lower numbers of cases occurred until December, likely due to continued exposure risk through the fall months from adult female *I. scapularis*.

Location of *I. scapularis* exposure was known for 118 HA case-patients. Most exposures occurred in the same Minnesota counties as the majority of Lyme disease exposures (111 cases, 94%); the remaining seven (6%) were likely exposed in Wisconsin. Eighty-four HA case-patients (76%) were exposed in the following four counties: Aitkin (10 cases), Cass (23), Crow Wing (40), or Hubbard (11). The recent rise in exposures in Hubbard County (only two known exposures during 1998-2003) suggests a westward expansion of HA risk, similar to that of Lyme disease. Unlike tick exposures for Lyme disease, a majority of HA case-patients were exposed in their county of residence (76 HA cases [64%], vs. 323 [44%] of Lyme disease cases with known exposure). Notably, however, nearly all of the Twin Cities case-patients were exposed outside of the metro area in Minnesota (22 of 26 known exposures, 85%) or in Wisconsin

(three cases, 12%). Metro area clinicians should therefore suspect HA in patients with compatible symptoms who report outdoor activity in wooded or brushy tick habitat within HA-endemic areas.

Babesiosis

During 2004, a record nine babesiosis (agent, *Babesia microti*) cases were reported to MDH. Six (67%) of these case-patients were male. The median case-patient age was 57 years (range 48-79 years). During 2002-2004, 13 of 17 (76%) babesiosis case-patients were diagnosed during July or August. Of the 17 case-patients identified during 2002-2004, eight (47%) were most likely exposed to infected *I. scapularis* ticks in their county of residence. Most babesiosis cases were exposed in the same counties that are high risk for Lyme disease and HA.



Key Points

- A dramatic increase in Lyme disease and other tick-borne diseases occurred in 2004.
- Risk for exposure to *Ixodes scapularis* ticks has expanded north and west into counties which were not previously considered high risk areas.
- Lyme disease risk peaks from May to July.
- Most cases of human anaplasmosis (HA) occur in June and July, but cases occur throughout the fall months. The majority of case-patients are over 40 years of age.
- Obtaining a travel history for tick-borne disease patients is important, since many patients are infected outside of their county of residence.

Minnesota Cervical Cancer Update

Cervical cancer is unique because we know both its primary cause – infection with the human papilloma virus (HPV) – and how to prevent it – early detection of precancerous lesions with the Pap test and their prompt treatment. Cervical cancer is a preventable disease.

Nonetheless, more than 170 Minnesota women were diagnosed with invasive cervical cancer in 2002.¹ The age-adjusted incidence rate for cervical cancer in 2002 in Minnesota was 6.9 new cases per 100,000 females. Cervical cancer caused the deaths of 34 Minnesota women in 2002.¹ The age-adjusted mortality rate for cervical cancer in 2002 in

Minnesota was 1.3 deaths per 100,000 females.

On January 1, 2000, an estimated 3,540 Minnesota women were living with a history of invasive cervical cancer, representing four percent of female and two percent of all cancer survivors in the state.²

Figure 1. Cervical Cancer Incidence and Mortality by Race and Ethnicity, Minnesota, 1998-2002

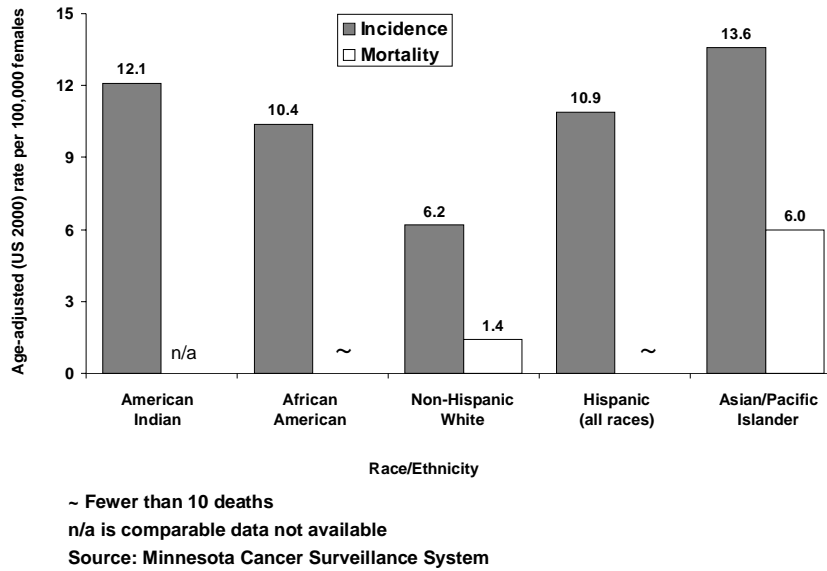
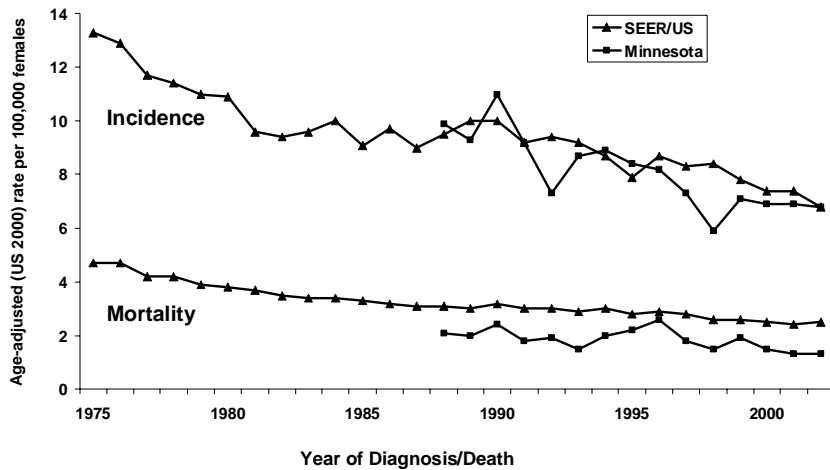


Figure 2. Trends in Cervical Cancer in Minnesota and the U.S.



Disparities in Cervical Cancer

In 1998-2002, the invasive cervical cancer incidence rate in Minnesota was about twice as high among American Indian, African American, Hispanic, and Asian/Pacific Islander women as among non-Hispanic white women³ (Figure 1). An elevated cervical cancer rate among women of color is seen nationally as well.⁴ Cervical cancer mortality in Minnesota was highest for Asian/Pacific Islander women. Cervical cancer mortality among non-Hispanic white women was 44 percent lower in Minnesota than nationally, but among Asian/Pacific Is-

lander women it was twice as high in Minnesota as nationally (data not shown). There were too few deaths among African American women to report a cervical cancer mortality rate, but based on incidence rates in Minnesota and mortality among African American women in the United States as a whole, it is likely to be significantly elevated as well.

Cervical cancer incidence rates have been somewhat lower in Minnesota than among the white population in the geographic areas reporting to the Surveil-

lance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute (Figure 2), which has collected cancer incidence data on about ten percent of the U.S. population since 1973. Cervical cancer mortality rates have been about 40 percent lower on average in Minnesota than among the white population in the U.S. as a whole.

Trends in Cervical Cancer

Cervical cancer incidence and mortality rates in Minnesota have declined steadily since 1988 by 30-40 percent, closely followed the pattern seen nationally.

Vaccines against HPV are being tested in clinical trials, and may be released in the near future. However, Pap tests will remain essential for cancer prevention because the vaccines in development do not protect against all cancer-causing strains of HPV, and will not eliminate existing infections.

Minnesota Cancer Update 2005 contains newly available information on other common cancers and cancer-related behaviors, and can be found on the Cancer Plan Minnesota web site <http://www.cancerplanmn.org>.

References:

1. Perkins C, Bushhouse S. Cancer in Minnesota, 2002: Preliminary Report. Minnesota Department of Health, Minnesota Cancer Surveillance System, Minneapolis, MN, December 2004. Available online at <http://www.health.state.mn.us/divs/hpcd/cdee/mcss>.
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4. Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2001. National Cancer Institute, Bethesda, MD, 2004. Available online at http://seer.cancer.gov/csr/1975_2001.

Antimicrobial Susceptibilities of Selected Pathogens, 2004


On the following pages is the *Antimicrobial Susceptibilities of Selected Pathogens, 2004* (aka the Minnesota Department of Health [MDH] Antibigram), a compilation of antimicrobial susceptibilities of selected pathogens submitted to MDH during 2004 in accordance with Minnesota Rule 4605.7040. Because a select group of isolates is submitted to MDH, it is important to read the notes entitled "Sampling Methodology" and "Trends, Comments, and Other Pathogens."

Please note the data on inducible clindamycin resistance for Group B *Streptococcus* and community associated methicillin resistant *Staphylococcus aureus*

We hope the MDH Antibigram will serve as a "Thank You" for the work that laboratorians, infection control practitioners, and providers do to support public health in Minnesota. We appreciate feedback on this initiative.

The MDH Antibigram is available on the MDH Web site at: www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/antibiogram.html.

Limited laminated copies can be ordered from: Antibigram, Minnesota Department of Health, Acute Disease Epidemiology Section, 717 Delaware St. SE, Minneapolis, MN 55414 or by calling (612) 676-5414.

Antimicrobial Susceptibilities of Selected Pathogens, 2004												
Sampling Methodology		<i>Campylobacter</i> spp. ^{1*}	<i>Salmonella</i> Typhimurium ^{2†}	Other <i>Salmonella</i> serotypes (non-typhoidal) ^{2‡}	<i>Shigella</i> spp. [#]	<i>Neisseria gonorrhoeae</i> ³	<i>Neisseria meningitidis</i> ^{4§}	Group A <i>Streptococcus</i> ^{‡§}	Group B <i>Streptococcus</i> ^{§§}	<i>Streptococcus pneumoniae</i> ^{6¶§}	<i>Haemophilus influenzae</i> ^{7¶§}	<i>Mycobacterium tuberculosis</i> ^{8†}
Number of Isolates Tested		60	160	44	12	333	24	130	297	478	45	138
		% Susceptible										
β-lactam antibiotics	amoxicillin									96		
	ampicillin		61	93	33			100	100		76	
	penicillin					6	92	100	100	82		
	cefixime					100						
	cefuroxime sodium									88	100	
	cefotaxime							100	100	91	100	
	ceftriaxone		95	98	100	100	100			91		
	meropenem						100			89	100	
Other antibiotics	ciprofloxacin	86 ¹	99	100	100	92	100					100
	levofloxacin							99	99	99		
	azithromycin					61						100
	erythromycin	98						98	66	81		
	clindamycin							100	82/72 [§]	94		
	chloramphenicol		63	98	67		100			99	96	
	gentamicin	98										
	spectinomycin					100						
	tetracycline	35				26				94	96	
	trimethoprim/sulfamethoxazole		95	100	50		58			82	84	
	vancomycin							100	100	100		
	TB antibiotics	ethambutol										
isoniazid												88
pyrazinamide												95
rifampin							100				100	96

Trends, Comments and Other Pathogens	
1	Campylobacter spp. Ciprofloxacin susceptibility was determined for all isolates (n=823). Only 33% of isolates from patients returning from foreign travel were susceptible to quinolones. Susceptibilities were determined using 2004 CLSI (formerly NCCLS) breakpoints for <i>Enterobacteriaceae</i> . Susceptibility for erythromycin was based on an MIC \leq 4.0 μ g/ml.
2	Salmonella enterica (non-typhoidal) Antimicrobial treatment for enteric salmonellosis generally is not recommended.
3	Neisseria gonorrhoeae In 2004, we tested 333 <i>Neisseria gonorrhoeae</i> isolates for antibiotic resistance including 245 (74%) from a Minneapolis STD clinic and 88 (26%) from a St. Paul STD clinic. The 333 isolates tested comprised approximately 11% of total gonorrhea cases reported in 2004. 38% (127) isolates were intermediate and 1% (2) were resistant to azithromycin. 8% (28) isolates were resistant to ciprofloxacin.
4	Neisseria meningitidis Two isolates had intermediate susceptibility to penicillin (MIC of 0.12 μ g/ml) per the newly established CLSI (formerly NCCLS) breakpoints for <i>N. meningitidis</i> .
5	Group B Streptococcus (GBS) 85% (22/26) of early-onset infant, 94% (17/18) of late-onset infant, 62% (8/13) of maternal, and 86% (250/289) of other invasive GBS cases were tested. All 297 isolates had an MIC of \leq 0.5 μ g/ml to cefazolin. 82% (245/297) were susceptible to clindamycin by broth-microdilution. Among 50 erythromycin-resistant, clindamycin-susceptible strains, 31 isolates (62%) had inducible resistance to clindamycin by D-test. Overall 72% (214/297) were susceptible to clindamycin and were D-test negative (where applicable). 70% (21/30) of infant and maternal case isolates were susceptible to erythromycin and clindamycin and were D-test negative (where applicable).
6	Streptococcus pneumoniae * 97% (429/470) The 478 isolates tested represented 89% of 540 total cases. Of these, 9% (45/478) had intermediate susceptibility and 8% (40/478) were resistant to penicillin. Reported above are the proportions of case-isolates susceptible by meningitis breakpoints for cefotaxime and ceftriaxone (intermediate=1.0 μ g/ml, resistant \geq 2.0 μ g/ml). By nonmeningitis breakpoints (intermediate=2.0 μ g/ml, resistant \geq 4.0 μ g/ml) 97% (462/478) and 89% (425/478)* of isolates were susceptible to cefotaxime and ceftriaxone, respectively. Isolates were screened for high-level resistance to rifampin at a single MIC; all were \leq 2.0 μ g/ml. 13% (61/478) of isolates were resistant to two or more antibiotic classes and 8% (40/478) were resistant to 3 or more antibiotic classes.
7	Haemophilus influenzae Although 24% of the isolates were ampicillin-resistant, all ampicillin-resistant isolates produced β -lactamase and were susceptible to amoxicillin-clavulanate, which contains a β -lactamase inhibitor. Three isolates were resistant to 2 or more antibiotics.
8	Mycobacterium tuberculosis (TB) National guidelines recommend initial four-drug therapy for TB disease, at least until first-line drug susceptibility results are known. Of the 22 drug-resistant TB cases reported in 2004, 21 (95%) were in foreign-born persons, including four of five multidrug-resistant (MDR-TB) cases (i.e., resistant to at least INH and rifampin). None of the five MDR-TB cases was resistant to all four first-line TB drugs.
	Community-associated Methicillin-resistant Staphylococcus aureus (CA-MRSA) Of 432 CA-MRSA isolates tested (277 from 2003 and 155/182 isolates submitted through September 2004), 26% were susceptible to erythromycin, 69% were susceptible to ciprofloxacin, 93% were susceptible to tetracycline, 99% were susceptible to rifampin, and 99% were susceptible to mupirocin using provisional MDH breakpoints (MIC <4 μ g/ml). All isolates were susceptible to trimethoprim/sulfamethoxazole, gentamicin, linezolid, synergid, and vancomycin. 84% (362/432) were susceptible to clindamycin by broth-microdilution. 29% (73/249) of erythromycin-resistant, clindamycin-susceptible isolates had inducible clindamycin resistance by D-test. Overall 67% (289/432) were susceptible to clindamycin and were D-test negative (where applicable).
	Bordetella pertussis All 96 isolates tested were susceptible to erythromycin using provisional CDC breakpoints.
	Escherichia coli O157:H7 Antibiotic treatment for <i>E. coli</i> O157:H7 infection is not recommended.

Disease Control Newsletter-20 Years Ago

Looking back at the June 1985 (vol. 5, no.12) issue of the *Disease Control Newsletter* (DCN), we see how much things change yet remain the same. There were two articles in that issue that are still relevant and being updated in this issue. The June 1985 DCN included an article on Lyme disease. The statistics vary greatly with 94 reported cases in 1984 vs. 1,023 cases in 2004, and we have a better understanding of where people are exposed to infected ticks (e.g., we no longer say the area includes “the seven county

metropolitan area”, but instead, primarily northern metropolitan counties). However, prevention of tick-borne disease still relies on personal protection measures such as “checking yourself for ticks when in wooded areas”, and we also now stress the use of insect repellents. Onset of illness for Lyme disease patients still peaks in June and July, and the diagnosis continues to be based primarily on clinical findings with supplemental use of serology. In 1985, we did not talk about human anaplasmosis (formerly

human granulocytic ehrlichiosis), as it was not described until 1994.

In that same 1985 issue there was an article on a change in the Disease Reporting Rules, the last time major revisions were made. New diseases added to the list at that time include AIDS and babesiosis. Recognizing emergence of infectious diseases and changes in laboratory practices in the last 20 years, one sees how important it is for the Minnesota Department of Health (MDH) to update the rules.

Mark the Date: 11th Annual Emerging Infections in Clinical Practice and Emerging Health Threats Conference, Minneapolis, November 10-11(half-day), 2005

Topics Include:

STD's, Laboratory Diagnostics, Tuberculosis, Pediatric Vaccines, Neonatal Infections, CA-MRSA, Infection Control, Hot Topics and More.....

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