THE CSTE WASHINGTON REPORT

Marcia S. Mabee, MPH, PhD
Editor
11479 Waterview
Reston, Virginia 20190
mmabee@ix.netcom.com
703-709-3001

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INSIDE THIS ISSUE

EDITOR'S NOTE: School closures and other community strategies designed to reduce the possibility of spreading disease between people during an epidemic can save lives, particularly when the measures are used in combination and implemented soon after an outbreak begins in a community, according to a new study based on public records from the 1918-1919 influenza pandemic. The findings, which are published in the Aug. 8 issue of the *Journal of the American Medical Association*, provide vital clues to help public officials planning for the next influenza pandemic and highlight the importance of community strategies. These strategies are particularly important because the intervention most likely to provide the best protection against pandemic influenza -- a vaccine -- is unlikely to be available at the outset of a pandemic. Community strategies that delay or reduce the impact of a pandemic (also called non-pharmaceutical interventions) may help reduce the spread of disease until a vaccine that is well-matched to the virus is available-- additional details are provided in this *Washington Report*.

The *CSTE Washington Report* is provided as an information resource for members of the Council of State and Territorial Epidemiologists on federal legislation and regulation affecting public health and epidemiology in the U.S. Legislation cited in the report can be

accessed via _ HYPERLINK "http://www.thomas.loc.gov" _http://www.thomas.loc.gov_ Regulations cited can be accessed via http://_ HYPERLINK "http://www.gpo.gov" _www.gpo.gov_

RECENTLY INTRODUCED LEGISLATION OF INTEREST -- The bills that follow have been introduced in the past three months. They have been selected because they address issues of interest to CSTE members, have strong sponsorship, e.g., Leadership, Chairmen or Members of key health Committees, usually have companion bills, and usually have bipartisan support. These features make action on these bills more likely, but as we enter the Presidential season in January, 2008, the second session of the 110th Congress is unlikely to produce very much additional health-related legislation.

ALS (amyotrophic lateral sclerosis) Registry Act (S. 1382/H.R. 2294) – Introduced on May 14 by Senator Harry Reid (D-NV) and Rep. Eliot Engel (D-NY). A Congressional Research Service summary states the Act "…amends the Public Health Service Act to require the Secretary of Health and Human Services, acting through the Director of the Centers for Disease Control and Prevention (CDC), to: (1) develop a system to collect data on amyotrophic lateral sclerosis (ALS) and other motor neuron disorders that can be confused with ALS, misdiagnosed as ALS, or progress to ALS; and (2) establish a national registry for the collection and storage of such data." There is $25 million authorized for FY 2008 and such sums for FY 2009-2012 for grants to public or private entities to develop the registry. The bills have, respectively, 41 and 268 bipartisan co-sponsors and have been referred to the Senate Health, Education, Labor and Pensions Committee and the House Energy and Commerce Committee. No further action has occurred.

Hepatitis C Epidemic Control and Prevention Act (S. 1445/H.R. 2762) -- Introduced on May 22th by Senator Edward Kennedy (D-MA) and Rep. Towns (D-NY). A CRS summary states: "Amends the Public Health Service Act to direct the Secretary of Health and Human Services to develop and implement a plan for the prevention, control, and management of hepatitis C virus (HCV).

Requires the Secretary, acting through the Director of the Centers for Disease Control and Prevention (CDC), to: (1) implement programs to increase awareness of HCV; and (2) support activities to promote the early detection of HCV infection, identify risk factors for infection, and conduct surveillance of HCV infection trends.

Directs the Secretary, acting through the Director of CDC and the Director of the National Institutes of Health (NIH), to: (1) conduct epidemiologic research to identify best practices for HCV prevention; (2) establish a Hepatitis C Clinic Research Network to conduct research related to the treatment and medical management of HCV; and (3) conduct basic research to identify new approaches to prevent and treat HCV.

Requires the Secretary to: (1) promote state, local, and tribal programs to provide referrals for medical evaluation and management to HCV-positive individuals; and (2) develop benchmarks for evaluating the programs and activities conducted under this Act.

Authorizes the Secretary to award grants to states, political subdivisions of states, Indian tribes, or nonprofit entities to carry out activities under this Act." A total of $90 million is authorized for FY 2008 and $72 million for each year from FY 2009-2012. The bills have minimal, but bipartisan support and have been respectively referred to the Senate Health, Education, Labor and Pensions Committee and the House Energy and Commerce Committee.

Comprehensive Tuberculosis Elimination Act of 2007 (S. 1532/H.R. 1532) -- Introduced on June 5, by Senator Sherrod Brown (D-OH) and Rep. Gene Green (D-TX). A CRS Summary states: "Amends the Public Health Service Act to set forth research and demonstration projects for the prevention, treatment, control, and elimination of tuberculosis that shall receive priority from the Secretary of Health and Human Services in awarding research grants.

Requires the Advisory Council for the Elimination of Tuberculosis to make recommendations on the development, revision, and implementation of a comprehensive plan to eliminate tuberculosis in the United States.

Requires the Secretary, acting through the Director of the Centers for Disease Control and Prevention (CDC), to develop new tools for the elimination of tuberculosis. Requires the Federal Tuberculosis Task Force to make recommendations on the development of a comprehensive plan for the creation of such tools.

Requires the Director of the National Institutes of Health (NIH) to expand, intensify, and coordinate tuberculosis research and development. Allows the Director of NIH to provide awards for: (1) the development of curricula in schools of medicine or osteopathic medicine regarding the principles and practices of preventing, managing, and controlling tuberculosis; and (2) supervised study and research for clinically trained professionals who are committed to research regarding pulmonary infections and tuberculosis.

Requires the Director of the National Institute of Allergy and Infectious Diseases to conduct research activities to develop a tuberculosis vaccine.

Requires the John E. Fogarty International Center for Advanced Study in the Health Sciences to carry out an international training program regarding tuberculosis.

Requires the Secretary to seek to ensure that a portion of amounts appropriated for loan repayment for qualified health professionals conducting research is reserved for contracts with individuals to conduct tuberculosis research." The legislation does not provide a specific funding authorization, just such sums as necessary. The bill has 9 Senate co-sponsors, only one Republican, Sen. Kay Bailey Hutchison (R-TX), and the House has 37 co-sponsors with one Republican, Rep. Heather Wilson (R-NM). Each bill has been referred respectively to the Senate Health, Education Labor and Pensions Committee and the House Energy and Commerce Committee.

Healthy Lifestyles and Prevention America Act or the HeLP America Act (S. 1342/H.R. 2633) – Introduced on May 9 by Senator Tom Harkin (D-IA) and June 7 by Rep. Tom Udall (D-NM), the bill amends the tax code to provide incentives and funding to improve the health of Americans and reduce health care costs by reorienting the Nation's health care system toward prevention, wellness, and self care. The bill addresses obesity, smoking prevention and

cessation, among other behaviors. The bill has been referred to the Senate Finance Committee and to the House Committees on Energy and Commerce, Ways and Means, Education and Labor, Oversight and Government Reform, Administration, and Transportation and Infrastructure. While the bill is unlikely to be adopted as a whole, the authors hope that sections of the bill could be adopted piecemeal.

Lyme and Tick-Borne Disease Prevention, Education, and Research Act of 2007 (S. 1708; H.R. 741) – Introduced in the House on January 31 by Christopher Smith (R-NJ) and in the Senate by Senator Chris Dodd (D-CT) on June 27. A CRS summary states: "Requires the Secretary of Health and Human Services to establish the Tick-Borne Diseases Advisory Committee. Requires the Committee to advise the Secretary and the Assistant Secretary for Health regarding how officials can: (1) ensure interagency coordination and communication and minimize overlap regarding efforts to address tick-borne diseases; (2) identify opportunities to coordinate efforts with other federal agencies and private organizations addressing such diseases; (3) ensure interagency coordination and communication with constituency groups; (4) ensure that a broad spectrum of scientific viewpoints is represented in public heath policy decisions and that information disseminated to the public and physicians is balanced; and (5) advise relevant federal agencies on priorities related to Lyme and tick-borne diseases.

Requires the Secretary, acting through the appropriate federal officials, to provide for the coordination of all federal programs and activities related to Lyme and other tick-borne diseases, including: (1) developing sensitive and accurate diagnostic tools and tests, (2) improving the efficient utilization of diagnostic testing currently available; (3) accurately determining the prevalence of such diseases; (4) evaluating the feasibility of creating a national uniform reporting system; (5) providing and promoting access to a clearinghouse of information on such diseases; (6) increasing public education related to such diseases; (7) creating a physician education program; (8) establishing epidemiological research objectives to determine the long term course of illness for Lyme disease; and (9) determining the effectiveness of different treatment modalities by establishing treatment outcome objectives." The bills authorize $20 million each year for FY 2008-2012 for research and prevention activities. The Senate bill has 5 co-sponsors including one Republican (Sen. Chuck Hagel, R-NE) and has been referred to the Health, Education, Labor and Pensions Committee; the House bill has 88 bipartisan co-sponsors and has been referred to the Energy and Commerce Committee.

Screening for Health of Infants and Newborns Act or the SHINE Act – Introduced on June 27 in the Senate by Sen. Hillary Rodham Clinton (D-NY) and in the House on June 27 by Rep. Tom Reynolds (D-NY). A CRS summary states, "Amends the Public Health Service Act to require the Director of the Centers for Disease Control and Prevention (CDC) to develop guidelines that states may follow in reporting data from newborn screening tests.

Requires the Secretary of Health and Human Services, acting through the Administrator of the Health Resources and Services Administration (HRSA), to develop guidelines to: (1) monitor and evaluate newborn screening activities; and (2) coordinate the results of surveillance activities.

Requires the Secretary, acting through the Director of CDC and the National Center on Birth Defects and Developmental Disabilities, to develop a surveillance system for newborn screening.

Directs the Advisory Committee on Heritable Disorders and Genetic Diseases in Newborns and Children to advise the Secretary on the guidelines and on monitoring and evaluating newborn screening and surveillance activities.

Requires the Secretary to: (1) direct the Maternal and Child Health Bureau of HRSA to establish a central clearinghouse of current education and family support and services information, materials, resources, research, and data on newborn screening; (2) award grants for demonstration projects that increase state capacity to screen for all of the core conditions; (3) award Hunter Kelly Newborn Screening grants for demonstration projects that develop screening tests for additional newborn conditions or develop multiple markers to increase the specificity of such tests; and (4) appoint an Interagency Grant Review Panel to select grant applications and provide oversight on the grant program." A total of $40 million in capacity grants and screening test development grants is authorized for FY 2008; such sums as necessary is authorized for FY 2009-2012. The legislation does not currently have any co-sponsors. It has been referred, respectively to the Senate Health, Education, Labor and Pensions Committee and the House Energy and Commerce Committee. A complimentary newborn screening bill (S. 1858) providing grants that assist with coordinated follow-up after completed screening was introduced on July 23 by Sen. Chris Dodd (D-CT). Three co-sponsors for that bill include Sen. Clinton, as well as Sen. Kennedy (D-MA) and Sen. Hatch (R-UT).

Public Health Preparedness Workforce Development Act of 2007 (S. 1882) – Introduced on July 26 by Sen. Chuck Hagel (R-NE), this bill is the Hagel-Durbin public health workforce bill from the 109th Congress. The bill amends the Public Health Service Act to establish various programs for the recruitment and retention of public health workers and to eliminate critical public health workforce shortages in Federal, State, local, and tribal public health agencies. It does not include recommended CSTE changes to permit CDC/CSTE Applied Epidemiology Fellows who qualify for a scholarship or loan under the terms of S. 1882 to meet their work obligations through their fellowship assignments in state or local health departments. However, CSTE has included those provisions as part of its integrated surveillance bill which is in process. The bill currently has three co-sponsors, but no companion bill in the House. It has been referred to the Senate Health, Education, Labor and Pensions Committee.

TCE Reduction Act of 2007 (S. 1911) – Introduced on August 1 by Sen. Hillary Rodham Clinton (D-NY). The bill amends the Safe Drinking Water Act to protect the health of susceptible populations, including pregnant women, infants, and children, by requiring a health advisory, drinking water standard, and reference concentration for trichloroethylene vapor intrusion, and for other purposes. The bill does not currently have a companion bill, but has four bipartisan co-sponsors. It has been referred to the Committee on Environment and Public Works.

Secondhand Smoke Education and Outreach Act of 2007 – Introduced on August 3 by Senator Hillary Rodham Clinton (D-NY). The bill amends the Public Health Service Act to provide education on the health consequences of exposure to secondhand smoke, and for other purposes. The bill, introduced the day before the start of the traditional August Congressional recess has two co-sponsors, no Republicans and no companion measure as yet in the House.

CDC RESEARCHERS FIND POSSIBLE ANIMAL SOURCE FOR MARBURG VIRUS -- Scientists at the Centers for Disease Control and Prevention and their collaborators have for the first time successfully identified Marburg virus infection in a common species of African fruit bat (Rousettus aegyptiacus). Marburg virus causes severe, often fatal, hemorrhagic fever in people and non-human primates. Bats have been suspected of carrying the virus, but until now, evidence of Marburg virus infection in bats had not been detected. These research results were published Wednesday in the open access journal PLoS ONE (_HYPERLINK "http://www.plosone.org/" _www.plosone.org_).

"This groundbreaking discovery aids us in our efforts to combat a virus that causes very severe illness," said Dr. Julie Gerberding, CDC director. "One of the challenges has been identifying how people get infected. This research brings us closer to understanding the transmission of Marburg virus and hopefully will help advance our efforts to prevent or reduce the spread of the virus to people. There is much more that we need to learn about hemorrhagic fever viruses, but this is an important step forward."

The work, done in collaboration with the International Center for Medical Research (CIRMF) and the Institute for Research and Development, both in Franceville, Gabon, represents the first time in which Marburg virus genetic material and specific antibodies have both confirmed Marburg infection in a specific bat species. There has been much speculation and scientific investigation of potential reservoirs for Marburg virus, but this is the first study to definitively document evidence of the virus in wild non-primates. It is also the first study to document evidence of Marburg virus in the Central African country of Gabon.

In this study, more than1,100 bats representing 10 different species were tested. Only one species of African fruit bat (R. aegyptiacus), tested positive for Marburg virus infection. No evidence of Marburg virus was identified in the other species of insect-eating or fruit bats tested. Further, viral genetic sequences obtained from the infected bats in this study were unique when compared to other known Marburg virus sequences from animals or humans. This species of African fruit bat is found throughout sub-Saharan Africa.

Marburg virus and the related Ebola virus have caused outbreaks of disease in both people and non-human primates (e.g., African green monkeys), and these outbreaks may result in the death of 80 to 90 percent of those infected. With no vaccine or drug therapy available, outbreaks of Marburg often start abruptly and spread from person-to-person until infection control measures can be implemented. Reports of Marburg hemorrhagic fever are rare, with recent occurrences limited to countries in sub-Saharan Africa.

The publication of this research coincides with a recent investigation of Marburg infection among miners in Uganda. CDC recently deployed a six-person team to investigate the source of the infection, help identify and find people who may have been exposed to the virus or to infected people, and offer guidance on infection control. The team is also working to determine if the same bat species (R. aegyptiacus) or other species of bats might be the source of the infection among the Ugandan miners, and potential routes of transmission between the bats and humans.

"This recent discovery is helping to guide our current outbreak investigation in Uganda," said Dr. Jonathan Towner, lead author of the publication and a member of CDC′s Ugandan investigation team. "We′re trapping bats that live in the mine to test them for evidence of Marburg virus infection. If infected bats are found, we′ll be looking at how they could have transmitted the virus to the miners."

To learn more about Marburg virus please visit: _HYPERLINK "http://www.cdc.gov/marburg" _www.cdc.gov/marburg_

COMMUNITY MEASURES PREVENT DEATHS DURING PANDEMIC, NEW STUDY FINDS -- School closures and other community strategies designed to reduce the possibility of spreading disease between people during an epidemic can save lives, particularly when the measures are used in combination and implemented soon after an outbreak begins in a community, according to a new study based on public records from the 1918-1919 influenza pandemic.

The findings, which are published in the Aug. 8 issue of the *Journal of the American Medical Association*, provide vital clues to help public officials planning for the next influenza pandemic and highlight the importance of community strategies. These strategies are particularly important because the intervention most likely to provide the best protection against pandemic influenza -- a vaccine -- is unlikely to be available at the outset of a pandemic. Community strategies that delay or reduce the impact of a pandemic (also called non-pharmaceutical interventions) may help reduce the spread of disease until a vaccine that is well-matched to the virus is available.

Scientists from the Centers for Disease Control and Prevention (CDC) and the University of Michigan Medical School′s Center for the History of Medicine completed an exhaustive review of public records such as health department reports, U.S. Census mortality data and newspaper archives.

"Communities that were most successful during the 1918 pandemic quickly enacted a variety of measures," said Dr. Martin Cetron, director of CDC′s Division of Global Migration and Quarantine and senior author of the study. "Those planning for the next pandemic need to carefully consider how to best use these strategies to protect people and decrease the potential impact of the next pandemic in their communities."

These strategies – voluntary isolation and quarantine, dismissal of students from school classrooms, and social distancing in the workplace and community – form the basis for CDC's guidelines for how American communities can empower themselves to confront the next influenza pandemic.

The JAMA study evaluated public health measures such as school closures and cancellation of public events, which 43 American cities took during the 1918 pandemic. The researchers sought to determine whether the timing, duration and combination of such measures impacted the city′s death rate during the pandemic.

To determine the public health measures′ effectiveness, the researchers analyzed each

city′s excess death rate - the number of pneumonia and influenza deaths in excess of the amount expected for the time period.

During a 24-week period in 1918-1919, more than 115,000 excess pneumonia and influenza deaths in the 43 cities were attributed to the pandemic. Cities that began interventions earlier had more success in decreasing excess deaths than those that implemented the measures later, regardless of how long the later interventions were in place or how they were executed.

In a telling example, New York City′s early and sustained response, including isolation and quarantine and staggered business hours, resulted in the lowest excess death rate for any city on the East Coast during the time period reviewed. By contrast, Pittsburgh was well into its outbreak before implementing the interventions and experienced the highest excess death rate of any of the 43 cities.

"In a world faced by the threat of avian influenza or other novel strains of influenza, it is critical to determine if such costly and socially harsh measures as school closures and cancellation of public gatherings might not only lower death and case rates, but also delay the spread and allow time for the development and distribution of effective vaccines and antivirals," said Dr. Howard Markel, director of the University of Michigan Medical School′s Center for the History of Medicine and lead author of the study. "We have demonstrated that these measures can have a real impact."

The interventions assessed fell into three major categories: school closures, bans on public gatherings and isolation of sick people and quarantine of their healthy household contacts. The most common approach was closing schools combined with banning public gatherings. All but three of the 43 communities closed schools during the 24-week period studied.

Influenza pandemics occur when a new influenza virus emerges to which most people have little or no immunity and the virus gains the ability to spread easily between people. The 1918 pandemic sickened about 20 percent of the world′s population and caused an estimated 40 million deaths worldwide, about 550,000 of them in the United States.

For more information about community strategies for pandemic influenza, please _HYPERLINK "http://www.pandemicflu.gov/plan/community/community_mitigation.pdf" _http://www.pandemicflu.gov/plan/community/community_mitigation.pdf_.

CDC WILL PROVIDE INVESTIGATIONAL NEW MEDICINE FOR TREATMENT OF SEVERE MALARIA -- The Centers for Disease Control and Prevention (CDC) has received permission from the Food and Drug Administration (FDA) to provide intravenous artesunate for emergency use in the United States for persons with severe malaria. Artesunate, a derivative from the "quing hao" or sweet

wormwood plant, has been used worldwide for more than 20 years for the treatment of malaria. HHS/FDA has not approved artesunate for marketing in this country. CDC′s investigational new drug application limits the use of artesunate to the emergency treatment of severe malaria, and the drug can be provided only through CDC.

"The introduction of artesunate marks an important improvement in the way we are able to treat those with the most severe cases of malaria," said Paul Arguin, head of the domestic malaria unit at CDC. "Intravenous drugs are the most effective way to treat those with severe malaria. Until now, quinidine was the only IV drug that could be used and it was often not readily available in hospitals. Artesunate is considered to be more effective and has fewer side effects than quinidine, and we′re hopeful that its use will cause a decrease in the number of deaths from malaria."

Although eliminated from the United States in 1951, malaria can still affect U.S. residents who travel or work abroad. Approximately 1,400 cases of malaria are diagnosed in this country each year; approximately 10 percent of them are cases of severe malaria. The World Health Organization (WHO) has recommended artesunate in preference to quinidine for treatment of severe malaria since 2000.

The Walter Reed Army Institute for Research (WRAIR) within the U.S. Department of Defense collaborated with HHS/CDC on the development of the artesunate protocol as an investigational new drug to expedite its availability, and will now be providing a supply of the medication to CDC. Artesunate may be used to treat malaria patients who need IV treatment because of severe disease, who have high levels of malaria parasites in the blood, who are not able to take oral medications, who do not tolerate quinidine, who may have an adverse reaction to quinidine, or in those whom quinidine treatment has proven ineffective.

The CDC Drug Service or one of the CDC Quarantine Stations located around the country will provide the drug to hospitals upon request and on an emergency basis. Physicians who receive the drug will be requested to notify CDC of any adverse event following administration of the drug. To enroll a patient with severe malaria in this treatment protocol, contact the HHS/CDC Malaria Hotline: 770-488-7788 (M-F, 8 a.m.-4:30 p.m., Eastern Time), or after hours, call: 770-488-7100, and request to speak with a HHS/CDC Malaria Branch clinician. To learn more about malaria, please visit: _HYPERLINK "http://www.cdc.gov/malaria/" _http://www.cdc.gov/malaria/_.