THE CSTE WASHINGTON REPORT

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

April 13, 2007 Volume 11, Number 8

INSIDE THIS ISSUE

EDITOR'S NOTE: Almost one-fourth of all stays in U.S. community hospitals for patients age 18 and older—7.6 million of nearly 32 million stays—involved depressive, bipolar, schizophrenia and other mental health disorders or substance use related disorders in 2004, according to a new report by HHS' Agency for Healthcare Research and Quality. This study presents the first documentation of the full impact of mental health and substance abuse disorders on U.S. community hospitals. According to the report, about 1.9 million of the 7.6 million stays were for patients who were hospitalized primarily because of a mental health or substance abuse problem. In the other 5.7 million stays, patients were admitted for another condition but they also were diagnosed as having a mental health or substance abuse disorder -- 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 http://www.thomas.loc.gov Regulations cited can be accessed via http://www.gpo.gov

KEY MEMBERS OF CONGRESS RESPOND TO CSTE INPUT ON SURVEILLANCE – In response to legislation introduced in the 109th Congress (S. 3, S. 2792, S. 3898/H.R. 6086) that would have federalized the current disease reporting system, CSTE has been working to develop its own legislative proposal. In recent meetings with Members of Congress and the CSTE Executive Committee, Senator Hagel (R-NE) and Rep. Terry (R-NE) have expressed interest in incorporating into legislation they would introduce, CSTE's recommendations for authorizing current grant programs that strengthen state and local epidemiology and laboratory capacity; electronic reporting; and epidemiology, laboratory and informatics fellowship programs. CSTE also recommended creation of a best practices committee at CDC to assess state and local surveillance methodologies for infectious disease and environmental health threats and to assess and develop recommendations for ways to improve integration of animal and human surveillance. Other Democratic Members of Congress have also expressed interest in supporting CSTE's approach to improving early detection of and response to infectious diseases and other urgent conditions of public health importance. A discussion draft version of a bill reflecting CSTE's provisions is in process.

SENATE VERSION OF 9/11 BILL CREATES A NATIONAL BIOSURVEILLANCE INTEGRATION CENTER AT THE DEPARTMENT OF HOMELAND SECURITY -- S. 4, known as the 9/11 bill because it seeks to implement recommendations of the 9/11 Commission that assessed the September 11, 2001 attacks and made numerous recommendations for national security investment and government reorganization, has passed the Senate and includes a provision creating a National Biosurveillance Integration Center (NBIC) within the Department of Homeland Security. A corresponding House bill, H.R. 1, does not include a similar provision. The bills are currently in conference. CSTE has assessed the provisions and expressed its concerns to Committee staff. The provisions do not appear to interfere with the current local-state-federal disease reporting system, but rather stress coordination at the federal level of minimal clinical data, animal, plant and environmental data to help provide information about an unfolding national biological event. However, if NBIC is included in final legislation and signed into law by the President, how its functions are implemented will bear watching.

HHS AWARDS $1.1 BILLION TO HELP STATES, TERRITORIES DELIVER HIV/AIDS CARE-- HHS Secretary Mike Leavitt has announced more than $1.1 billion in funding to help states and territories provide care, medications and services for low-income individuals living with HIV/AIDS.

The grants are awarded under Part B of Title XXVI of the Public Health Service (PHS) Act, as amended by the newly enacted Ryan White HIV/AIDS Treatment Modernization

Act of 2006. Part B of Title XXVI of the PHS Act was previously referred to as Title II of the Ryan White Comprehensive AIDS Resources Emergency Act, the predecessor statute.

“For more than 15 years, Ryan White programs have been the lifeline for thousands of individuals living with HIV/AIDS,” Secretary Leavitt said. “The new legislation will greatly expand our ability to serve them with more effective care and services.”

The awards includes Part B base grants, AIDS Drug Assistance Program (ADAP) grants, and Emerging Community (EC) grants. Most of the funds, $775 million, will support state ADAP programs, which provide life-saving medications to HIV/AIDS patients.

The reauthorized Ryan White law requires that Part B grantees spend 75 percent of their grant award on core medical services and that ADAPs maintain a core list of antiretroviral drugs in their formularies. For more information on the new legislation, visit http://hab.hrsa.gov/treatmentmodernization/default.htm.

HHS’ Health Resources and Services Administration administers the Ryan White HIV/AIDS Program. More than 530,000 people receive help from Ryan White programs (http://hab.hrsa.gov) every year. For information on all Federal HIV/AIDS programs, visit www.aids.gov.

ONE IN FOUR HOSPITAL PATIENTS IS ADMITTED WITH A MENTAL HEALTH OR SUBSTANCE ABUSE DISORDER -- Almost one-fourth of all stays in U.S. community hospitals for patients age 18 and older—7.6 million of nearly 32 million stays—involved depressive, bipolar, schizophrenia and other mental health disorders or substance use related disorders in 2004, according to a new report by HHS’ Agency for Healthcare Research and Quality.

This study presents the first documentation of the full impact of mental health and substance abuse disorders on U.S. community hospitals. According to the report, about 1.9 million of the 7.6 million stays were for patients who were hospitalized primarily because of a mental health or substance abuse problem. In the other 5.7 million stays, patients were admitted for another condition but they also were diagnosed as having a mental health or substance abuse disorder.

Nearly two-thirds of costs were billed to the government: Medicare covered nearly half of the stays, and 18 percent were billed to Medicaid. Roughly 8 percent of the patients were uninsured. Private insurers were billed for the balance. The study also found that one of every three stays of uninsured patients was related to a mental health or substance abuse disorder.

"Community hospitals play an important role in the treatment of people with mental health and substance abuse disorders," said AHRQ Director Carolyn M. Clancy, M.D. "This report gives health care policymakers an in-depth look at the impact of mental health and substance abuse care on the health care system."

Substance Abuse and Mental Health Services Administration Administrator Terry Cline, Ph.D., said, "The significant number of hospital stays related to mental health and substance use disorders signals the need for an increased national effort to identify and intervene early before the conditions require a hospital stay. Too often because of social stigma or lack of understanding, individuals and health care providers don't recognize the signs or treat mental health or substance use disorders with the same urgency as other medical conditions."

AHRQ found that most patients with mental health and substance abuse disorders were older. For example, although people age 80 and older comprised only 5 percent of the U.S. population in 2004, they accounted for nearly 21 percent of all hospital stays for these conditions—principally for dementia. There were also gender differences. The most frequent admitting diagnosis for women was mood disorders, while that for men was substance abuse.

AHRQ also found that patients who have been diagnosed with both a mental health condition and a substance abuse disorder—those with "dual diagnoses"—accounted for 1 million of the nearly 8 million stays. Nearly half of these cases with dual diagnoses involved drug abuse, a third involved alcohol abuse, and one in five involved both drug and alcohol abuse.

In addition, 240,000 women hospitalized for childbirth or pregnancy also had mental health or substance abuse problems. Four of every 10 of these patients were between 18 and 24 years of age.

Suicide attempts accounted for nearly 179,000 hospital stays. Of these, 93 percent involved a mental health condition—most commonly mood disorders—and/or substance abuse. Nearly three-quarters of these patients were between ages 18 and 44 and more than half were women. Poisoning, by overdosing prescription medicines or ingesting a toxic substance was the most common way patients attempted suicide.

The report is based on 2004 data—the latest currently available—from AHRQ's Healthcare Cost and Utilization Project Nationwide Inpatient Sample, a database of hospital inpatient stays that is nationally representative of all short-term, non-federal hospitals. The data are drawn from hospitals that comprise 90 percent of all discharges in the United States and include all patients, regardless of insurance type, as well as the uninsured. For details, see *Care of Adults with Mental Health and Substance Abuse Disorders in U.S. Community Hospitals, 2004* at http://www.ahrq.gov/data/hcup/factbk10/.

NIDA-SUPPORTED STUDY SHOWS SIGNIFICANT ASSOCIATION BETWEEN SMOKING, MENTAL DISORDERS IN PREGNANT WOMEN--New research has identified an association between mental disorders and nicotine dependence among pregnant women in the United States, not unlike what has been reported in the general population. The presence of these mental disorders in nicotine addicted pregnant women may make quitting smoking more difficult. Published in the April 2007 issue of *Obstetrics and Gynecology*, this study was supported in part by the National Institute on Drug Abuse (NIDA), part of the National Institutes of Health.

The study included 1,516 pregnant women at least 18 years old who took part in the 2001–2002 National Epidemiologic Survey of Alcohol and Related Conditions, a nationally representative survey of more than 43,000 U.S. adults administered by the National Institute on Alcohol Abuse and Alcoholism (NIAAA).

Researchers found that 21.7 percent of the pregnant women in the study used cigarettes and among those women, 57.2 percent were nicotine dependent. These results indicate that in the United States an estimated 12.4 percent of pregnant women are addicted to cigarettes. Women with nicotine dependence were more likely to meet criteria for at least one mental disorder compared to those that did not use cigarettes during pregnancy. Significant associations were found for dysthymia (a chronic depressive condition), major depressive disorder, and panic disorder.

“Understanding that these co-morbidities exist may shed light on why some women are unable to abstain from smoking during pregnancy even though they understand the negative health impact for them and their unborn children,” says NIDA Director Dr. Nora D. Volkow. "There is tremendous value in screening pregnant women who are unable to abstain from smoking for mental disorders — to not only identify and treat those who have been undiagnosed but also to improve successful quit smoking attempts.” Encouraging women to quit smoking before they become pregnant is important to the health of the fetus, in addition to improving the health of the mother. Pregnant women who smoke cigarettes run an increased risk of having infants with low birth weight and their children face an increased risk for learning and behavioral problems.

The National Institute on Drug Abuse is a component of the National Institutes of Health, U.S. Department of Health and Human Services. NIDA supports most of the world’s research on the health aspects of drug abuse and addiction. The Institute carries out a large variety of programs to ensure the rapid dissemination of research information and its implementation in policy and practice. Fact sheets on the health effects of drugs of abuse and information on NIDA research and other activities can be found on the NIDA home page at www.drugabuse.gov.

RAPID RESPONSE WAS CRUCIAL TO CONTAINING THE 1918 FLU PANDEMIC -- One of the persistent riddles of the deadly 1918 Spanish influenza pandemic is why it struck different cities with varying severity. Why were some municipalities such as St. Louis spared the fate of the hard-hit cities like Philadelphia when both implemented similar public health measures? What made the difference, according to two independent studies funded by the National Institutes of Health (NIH), was not only how but also how rapidly different cities responded.

Cities where public health officials imposed multiple social containment measures within a few days after the first local cases were recorded cut peak weekly death rates by up to half compared with cities that waited just a few weeks to respond. Overall mortality was also lower in cities that implemented early interventions, but the effect was smaller. These conclusions — the results of systematic analyses of historical data to determine the effectiveness of public health measures in 1918 — are described in two articles published

online this week in the journal *Proceedings of the National Academy of Sciences*.

“These important papers suggest that a primary lesson of the 1918 influenza pandemic is that it is critical to intervene early,” says Anthony S. Fauci, M.D., director of NIH’s National Institute of Allergy and Infectious Diseases (NIAID), which funded one of the studies. “While researchers are working very hard to develop pandemic influenza vaccines and increase the speed with which they can be made, nonpharmaceutical interventions may buy valuable time at the beginning of a pandemic while a targeted vaccine is being produced.”

The historical analyses are part of an ongoing effort called the Models of Infectious Disease Agent Study (MIDAS), which is supported by NIH’s National Institute of General Medical Sciences (NIGMS). Through MIDAS, researchers have developed computer models to examine how a future pandemic influenza virus might spread and what interventions could minimize the impact.

“Although the MIDAS models can’t predict the exact spread of a potential influenza pandemic, they have all suggested that introducing public health measures soon after the first cases appear could greatly reduce the number of people who get sick,” says NIGMS Director Jeremy M. Berg, Ph.D. “The historical analyses help validate the models’ conclusion and their potential usefulness in preparing for a pandemic.”

The ideal way to contain a potential influenza pandemic would be to vaccinate large numbers of people before they were exposed to an influenza virus strain that is easily transmitted from person to person. Developing such a vaccine in advance, however, is difficult because an influenza virus mutates as it replicates, and over time these mutations can alter the virus enough that older vaccines are no longer effective. With current technologies, it would take months to develop a new vaccine after the first cases of pandemic influenza appear.

Nonpharmaceutical interventions may limit the spread of the virus by imposing restrictions on social gatherings where person-to-person transmission can occur. The first of the two historical studies, conducted by a team of researchers from NIAID, the Department of Veterans Affairs, and the Harvard School of Public Health, looked at 19 different public health measures that were implemented in 17 U.S. cities in the autumn of 1918. The second study, undertaken at Imperial College London, looked at 16 U.S. cities for which both the start and stop dates of interventions were available.

Schools, theaters, churches and dance halls in cities across the country were closed. Kansas City banned weddings and funerals if more than 20 people were to be in attendance. New York mandated staggered shifts at factories to reduce rush hour commuter traffic. Seattle’s mayor ordered his constituents to wear face masks. The first study found a clear correlation between the number of interventions applied and the resulting peak death rate seen. Perhaps more importantly, both studies showed that while interventions effectively mitigated the transmission of influenza virus in 1918, a critical factor in how much death rates were reduced was how soon the measures were put in

place.

Officials in St. Louis introduced a broad series of public health measures to contain the flu within two days of the first reported cases. Philadelphia, New Orleans and Boston all used similar interventions, but they took longer to implement them, and as a result, peak mortality rates were higher. In the most extreme disparity, the peak mortality rate in St. Louis was only one-eighth that of Philadelphia, the worst-hit city in the survey. In contrast to St. Louis, Philadelphia imposed bans on public gatherings more than two weeks after the first infections were reported. City officials even allowed a city-wide parade to take place prior to imposing their bans.

If St. Louis had waited another week or two, they might have fared the same as Philadelphia, says the lead author on the first study, Richard Hatchett, M.D., an associate director for emergency preparedness at NIAID. Despite the fact that these cities had dramatically different outcomes early on, all the cities in the survey ultimately experienced significant epidemics because, in the absence of an effective vaccine, the virus continued to spread or recurred as cities relaxed their restrictions.

The second study also shows that the timing of when control measures were lifted played a major part. Cities that relaxed their restrictions after the peak of the pandemic passed often saw the re-emergence of infection and had to reintroduce restrictions, says Neil Ferguson, D.Phil., of Imperial College, London, the senior author on the second study. In their paper, Dr. Ferguson and his coauthor used mathematical models to reproduce the pattern of the 1918 pandemic in different cities. This allowed them to predict what would have happened if cities had changed the timing of interventions. In San Francisco, which they found to have the most effective measures, they estimate that deaths would have been 25 percent higher had city officials not implemented their interventions when they did. But had San Francisco left its controls in place continuously from September 1918 through May 1919, the analysis suggests, the city might have reduced deaths by more than 90 percent.

The fact that the early, nonpharmaceutical interventions were effective at the height of the pandemic can inform pandemic planners today, the authors of both studies say. In particular, the two studies lend weight to guidance that the Centers for Disease Control and Prevention recently released on the use of nonpharmaceutical interventions during a pandemic (http://www.pandemicflu.gov/plan/community/mitigation.html), which recommends precisely such a rapid early response.