

Public Health Views... and News

A Newsletter for Regional Health Professionals

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***From the desk of:*
Jeff Phillips, M.D.
Medical Director**

**Branch Hillsdale St. Joseph
Community Health Agency**

How important is Public Health funding?

Americans take for granted safe food, water, and sanitary conditions in the community. Present day society is shocked if a child dies from a contagious disease. One hundred years ago overall health conditions in the country were remarkably worse. We are in debt to public health officials who pressed local, state and federal agencies to invest money to protect us from preventable illnesses. Through sanitation and infectious disease control they rid the nation of cholera, malaria, and typhus. The development of immunizations reduced childhood illnesses, and eliminated smallpox and polio. AIDS was discovered by public health investigations and the HIV virus was isolated in record time thanks to the premier public health agency in the world – the CDC. Despite so many success stories, governmental support for

basic public health activities is decreasing. The field of Public Health has been underappreciated and as a result the infrastructure has been allowed to deteriorate over the last few decades. In Michigan, the once renowned public health system has been dismantled and funding cut year by year. Often politicians have equated public health activities with "hand outs" to the poor. Several years ago the Michigan Department of Public Health was disassembled and merged with Medicaid and Mental Health to form the giant MDCH. Several highly trained professionals have left the department in part because of this dismantlement. Not too long ago, Michigan had its' own vaccine producing facility. It is doubtful that the frequent vaccine shortages now plaguing us would be a problem had the State continued with this activity.

The short-sighted privatization or elimination of essential governmental services continues to this day. The State has cut funding for HIV prevention, counseling and surveillance in our counties while continuing to mandate this function. Funding for school vision and hearing

screening has recently been recommended for elimination. Your local health department has been forced to release dedicated personnel and eliminate programs. The current state of the department is not healthy. Essential staff for communicable disease surveillance and control is spread too thin; the important family planning clinic may be replaced by a private operation; environmental protection staff is overwhelmed with state requirements and stagnant funding to conduct their mandated activities.

Our counties are not immune from resurgent epidemics or emerging infectious disease. We have many travelers and immigrants from countries where tuberculosis, diphtheria and hepatitis are endemic. The current epidemic of pertussis attests to the failure to achieve adequate immunization in the Amish community. A more serious measles outbreak is also possible if herd immunity drops sufficiently in this population. We have high unemployment, high teenage pregnancy, and high obesity rates in the district. Twenty percent of us are not covered by health insurance. There remain significant public health threats here at home.

A wise public health pioneer one said that governmental support is essential and that improvement in health status is directly related to the level of public funding. We will achieve adequate community health status only if we are willing to make the financial commitment. Adequate dental, medical and public health care should be a birthright of all Americans. The current health care financing system is in disarray and money is being spent unwisely. Essential health

services should be insured by the government, taking this burden from businesses, schools and others employers. Under a revamped tax code approved by the voters (perhaps by a citizens' initiative) monies could be raised for these essential health imperatives.

It is time for us to demand that our government support public health with adequate funding. Adequate public health requires coverage of "essential" hospital, dental, and medical expenses for all people. Our health, our children's health, and our nation's health is dependant on it.

News from the Bunker

By

Jim Cook

**Emergency Preparedness
Coordinator**

Now I am not a doctor, nor have I ever played one on TV, but when it comes to terrorism I do know a thing or two. One of the things I know is that chemical terrorism and bio-terrorism are two of the most insidious ways that our enemies can use to undermine our way of life. Sometimes we get into the mindset that all terrorist look and sound like Osama bin Laden, but this is just not true. We have many "home-grown"



organizations who may seek to do us harm, and their minions look (and often sound) just like everyone else. It is not inconceivable that this stuff can end up on our doorstep or in our clinics. For example did you know that Ricin (one of the deadliest poisons known to mankind) is popular among the anti-government set right here in Michigan?

On **25 August 1998**, Dwayne Lee Kuehl, 38, was arrested in Escanaba, Michigan, for producing ricin with intent to use it against an Escanaba city official. Kuehl was under investigation in connection with a February 1988 fire that destroyed a business that he owned. While carrying out a search warrant at Kuehl's home and his rental property, police interviewed him. During the interview, Kuehl indicated that he had obtained the recipe and ingredients for the manufacture of ricin and made the poison in 1993. He also admitted that he made the ricin in order to kill James O'Toole, an Escanaba housing inspector. Police later found the ingredients for ricin manufacture, along with other toxic substances, at two separate residences owned by Kuehl.

In **March 1998**, three members of a splinter group of the North American Militia in Michigan were arrested on weapons and conspiracy charges. The April 1998 indictment was the result of an investigation involving an Alcohol, Tobacco, and Firearms (ATF) agent who infiltrated the group in March 1997. When federal law enforcement raided the homes of these men, they discovered an arsenal of weapons and a videotape. Produced in a cooking-show format, the tape gave instructions on how to manufacture bombs and other assorted militia-type weaponry, including a feature segment on how to extract ricin from castor beans. During the court proceedings, prosecutors drew attention to the ricin segment, stating that the men were "collecting information on the manufacture and use of ricin." However, other than the videotape, no materials

associated with ricin production were found in any of the raids.

So we can see that just looking for "Jihad" isn't enough, we need to be vigilant at all times to the symptoms of Chemical Terrorism. For example, the above Ricin cases, would many recognize the symptoms of Ricin poisoning? Did you know that it need not be ingested but can also be inhaled? The symptoms of ingested Ricin include profuse vomiting and diarrhea, which might be bloody, followed by hypovolemic shock and multi-system organ dysfunction. Weakness and influenza-like symptoms, fever, myalgia, and arthralgia, might also be reported. Inhalation of Ricin typically leads to cough and respiratory distress followed by pulmonary edema, respiratory failure, and multi-system organ dysfunction. Weakness and influenza-like symptoms of fever, myalgia, and arthralgia might also be reported. The largest problem with Ricin is that there is no cure it is a sure killer and may only show up after the autopsy.

One of the more common chemicals available to terrorists (and other criminals) is Ammonia. Typically the variety used for agriculture "anhydrous ammonia". This is often stolen by persons less than skilled in handling such chemicals from agri-business locations for use in the production of Methamphetamine. Truly wicked stuff, the majority of exposures occur by inhalation and typically lead to symptoms of ocular, nasal, and respiratory irritation. Signs and symptoms of poisoning might include eye redness and lacrimation, nose and throat irritation, cough, suffocation or choking sensation, and dyspnea.

Cyanide is another chemical commonly found in industrial applications around our state. Although most usually seen as an "industrial accident" the intentional release of this gas in an enclosed place such as a church or auditorium could wreak serious havoc. Inhalation of cyanide gas or ingestion of cyanide salts typically leads to lethargy or coma (possibly sudden collapse), dyspnea, tachypnea, tachycardia, and hypotension. Severe cyanide poisoning can result in bradypnea, bradycardia, cardiovascular collapse, and death. Nonspecific laboratory findings include metabolic and lactic acidosis.

Qualifying my previous statement, I am not a doctor, but all the above clinical information came from the CDC MMWR. In further installments I will examine some more of the wonderful stuff that is all around us that can be used as weapons of opportunity. Until then just remember, sometimes when you hear hoof beats outside your window, you have to consider the fact that it may be zebras, not horses...

A Shameless plug

If you haven't been to our web site recently, I think you ought to give it a look. If you want up-to-date communicable disease information, current national and local influenza data, a Q & A on sex and myths about sex for your teen clients, need health data or statistics on virtually any current health ailment, or just want to find out what is happening currently in public health, the Community Health Agency website provides a wealth of



information on all of these topics. If you DON'T see health information on this site that you think you should be able to get locally, we would love to hear from you. If you have comments or suggestions to help make our web site more useful and informative, do not hesitate to e-mail me with those comments at:

robertsonj@bhsj.org

John Robertson
Director of Health Promotion & Education.

End of shameless plug.

Meth: A Community Dialogue

Meth; just the mention of this word should send a chill down your spine in this day and age. Meth, or methamphetamine, has become the new drug of choice with too many of our fellow citizens. Meth has replaced cocaine and marijuana as the new drug of choice. Low production cost, easily available products used in the manufacture of meth, has caused meth use to explode (no pun intended) onto the drug scene. While meth is not a new drug, its proliferation into rural Michigan is relatively recent. If you would like to know more about enormous impact that meth is having with too many of our citizens, plan on attending a public forum on this topic on March 31, 2005 in Coldwater. The Branch County Methamphetamine Task Force is sponsoring a community forum on meth. Tony Saucedo from the Michigan State Police Methamphetamine Investigation Team will be presenting information on the problem statewide. Tony is an excellent speaker and knows the meth situation first hand. Following

Tony's remarks there will be a community forum to discuss the impact in Branch County. This event will be held from 6:00 to 7:30pm at the Branch Area Carreers Center, 366 Morse St. in Coldwater. Please don't miss this opportunity to become educated on the scope of this problem and what we all can do to help assist in finding solutions.

CDC News: Life expectancy for Americans has reached an all-time high

According to the latest mortality data released February 28, 2005, in a report titled, "Deaths: Preliminary Data for 2003", life expectancy in the U.S. now stands at 77.6 years in 2003, up from 77.3 in 2002. Record-high life expectancies were found for white males (75.4 years) and black males (69.2 males), as well as for white females (80.5 years) and black females (76.1 years). Other key findings in the report included age-adjusted death rates declined for eight of the 15 leading causes of death, including declines for heart disease (down 3.6 percent) and cancer (down 2.2 percent). Declines were also noted for stroke (4.6 percent), suicide (3.7 percent), flu/pneumonia (3.1 percent), chronic liver disease and cirrhosis (2.1 percent), and accidents/unintentional injuries (2.2. percent).

After the first infant mortality rate increase in 44 years in 2002, the rate for 2003 did not change significantly (6.9 deaths per 1,000 live births in 2003 compared to a rate of 7.0 per 1,000 in 2002.)

Mortality increased for the following leading causes of death: Alzheimer's disease, kidney disease, hypertension, and Parkinson's disease.

This report is based on data recorded from approximately 93 percent of state death certificates issued in 2003. The report is available on-line at:

www.cdc.gov/nchs.

How are food borne diseases diagnosed? It's you!

Did you know the CDC estimates that 38 cases of salmonellosis actually occur for every case that is diagnosed and reported to public health authorities? In



environmental health with the onset of spring our attentions turn to picnics, ballgames, and yes food borne disease (we need to get a life). Food borne infections are usually diagnosed by specific laboratory tests that identify the causative organism. Bacteria such as campylobacter, salmonella, E. coli 0157 are found by culturing stool samples in the laboratory and identifying the bacteria that grow on the agar or other culture medium. Parasites can be identified by examining stools under the microscope but viruses are often more difficult to identify, as they are too small to see under a light microscope and are difficult to culture. Viruses are usually identified by testing stool samples for genetic markers that indicate a specific virus is present. Many food borne infections are not identified by routine laboratory procedures and require specialized, experimental, and/or expensive tests that are not generally available. If the diagnosis is to be made, the patient has to seek medical attention, the physician must decide to order diagnostic tests, and the laboratory must use the appropriate procedures. Because many ill persons do not seek

medical attention, and of those that do, many are not tested, many cases of food borne illness go undiagnosed. The collective we, you and I, need to step-up our educational efforts with the public to get the word out about safe food handling, food temperatures, cross contamination and the like. While we like to think in the public health community that we can do it all, we cannot. We need our partners in the medical community to assist us when we see or hear of unsafe or unsanitary practices that can lead to illness. Help us protect the public's health; it's why we (all) do what we do. To contact the Communicable disease staff or Environmental Health staff in your County, you can call the following numbers:

Branch – 517-279-9561
Hillsdale – 517-437-7395
St. Joseph – 269-273-2161

World TB Day: March 24, 2005

World TB Day, held on March 24th each year, is an occasion to raise awareness about the world health threat presented by tuberculosis (TB). Many Americans think TB is a disease of the past. But TB is still a leading killer of young adults worldwide. Some **2 billion people** – one-third of the world's population – are infected with the TB bacterium. In a world where travel to distant (or not so distant) countries is commonplace, people move about the world more freely than ever before, the awareness of TB and its transmission is important in stopping the spread of this disease. To find out more about World TB Day, visit the CDC at:

www.cdc.gov/nchstp/tb/WorldTBDay/2005/default.htm