

# Public Health Emergency Preparedness

## BRAZORIA COUNTY HEALTH DEPARTMENT

# PUBLIC HEALTH MATTERS

NOVEMBER 2009



### MISSION STATEMENT

BRAZORIA COUNTY WILL BE PREPARED FOR AND READY TO RESPOND TO A HEALTH AND MEDICAL EVENT DUE TO EITHER A MAN-MADE OR NATURAL DISASTER

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### The 2009 H1N1 Vaccine: Proven Safe!

On October 5, 2009, clinics received the first available doses of the 2009 H1N1 vaccine. The first doses contained the live attenuated virus administered through a nasal spray, and at the beginning of this week the vaccine became available through a shot. Although limited quantities of the vaccine are currently available, the government plans to distribute 250 million doses. This means that everyone wanting the vaccine will eventually be able to receive it.

The best way to prevent infection from any flu and its complications is to get vaccinated. Currently, the 2009 H1N1 virus seems to be causing serious health problems for healthy young people from birth through age 24, pregnant women, and adults 25 to 64 years of age with underlying medical conditions. These groups especially could benefit from receiving the vaccine since several healthy individuals have wound

up hospitalized after complications caused from contracting the 2009 H1N1 virus.

Receiving the seasonal flu vaccine does not convey immunity for the 2009 H1N1 virus, so it is recommended individuals get both the seasonal and 2009 H1N1 vaccines. Still, many are wondering if the 2009 H1N1 vaccine is safe. The 2009 H1N1 vaccine is produced and manufactured exactly the same way as the seasonal flu vaccine. The Food and Drug Administration (FDA) along with the Centers for Disease Control (CDC) have approved both forms of the 2009 H1N1 vaccine for use and have subjected the vaccine to rigorous testing. After such tests, the CDC has determined that any side effect from any form of the vaccine would be rare. If side effects do occur they generally last only 1 to 2 days and are mild in nature. They include soreness, redness, or swelling at the injection site. *Continue page 2.....*

### H1N1 INFLUENZA VACCINE UPDATE

H1N1 Vaccine is being distributed differently than most vaccines. The Centers for Disease Control and Prevention (CDC) is shipping doses of vaccine to state health departments. The Texas Department of State Health Services (DSHS) is distributing vaccine to those physicians and clinics who have requested vaccine.

At this time, vaccine distribution is directed primarily toward private practitioners and clinics. The CDC assures there will be enough vaccine produced for those wanting vaccine.

The goal at this time is to vaccinate those persons who are at high risk for complications.

Jennifer Solis, MPH, Regional Public Health Preparedness Planner for the Department of State Health Services reports:

- 1,793,800 of doses allocated to the state of Texas as of 10-29-09
- 1,542,700 of orders have been placed
- This week Texas received approximately 543,500 doses
- 7,755 [Texas] providers have ordered doses as of last week

**The 2009 H1N1 Vaccine: Proven Safe!**

ion site, headache, muscle aches, fever, and nausea. Life-threatening allergic reactions are rare and would only occur in individuals severely allergic to chicken or eggs. However, in these incidences, it is recommended that such individuals do not receive the vaccine.

Overall though, the FDA and CDC believe that the benefits of the vaccine far outweigh any possible risk. Even the media scare that vaccines could potentially cause Guillain-Barré Syndrome (GBS) is not likely after several tests found no correlation between the two. GBS, a rare disease in which the body damages its own nerve cells, causing muscle weakness and sometimes paralysis, is not fully understood but generally results from infection by the bacterium, *Campylobacter jejuni*, which is usually contracted from food poisoning.

Although already tested for safety, the CDC plans to monitor any adverse reactions to the 2009 H1N1 vaccine and encourages those receiving the vaccine to report any side effects to their doctors. Vaccinations administered so far have proven safe, and it is requested doctors report any adverse reaction by filling out a Vaccine Adverse Event Reporting System (VAERS) form at [www.vaers.hhs.gov/](http://www.vaers.hhs.gov/).

The CDC reminds everyone that talking openly with your healthcare provider and checking the CDC website, [www.cdc.gov/H1N1flu](http://www.cdc.gov/H1N1flu), and your local health department website, [www.BrazoriaCountyFlu.com](http://www.BrazoriaCountyFlu.com), for the latest updates will be the best way to determine whether the vaccine is right for you.

Information taken from the CDC website: [http://www.cdc.gov/h1n1flu/vaccination\\_safety\\_qa.htm](http://www.cdc.gov/h1n1flu/vaccination_safety_qa.htm)

**INSERVICE PROVIDED FOR SCHOOL NURSES AT PEARLAND INDEPENDENT SCHOOL DISTRICT**

On October 12, 2009, Jan Prejean and Barbara Perkins presented an inservice for 22 nurses and nurses' assistants in Pearland ISD. The inservice included information on public health emergency preparedness, pandemic influenza, immunizations, influenza and disease reporting, and bioterrorism and the "Big Six".

In an email, Karen Medway, RN, wrote: "Everyone said it was the best ever in-service day. They appreciated all the information and felt it was very worth while."



DeAnn Jones, RN, Jan Prejean, RN, and Karen Medway, RN, Lead Nurse, Pearland ISD

**PHEP TEAM**

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**WE’RE ON THE WEB**

**[www.BrazoriaCountyFlu.com](http://www.BrazoriaCountyFlu.com)**

# Category A Bioterrorism Agents

## SMALLPOX

Smallpox has been around for centuries and was even used as a biological weapon during the mid-1700 French and Indian War. Fortunately, routine vaccination efforts in the US executed up until 1972 led to the eradication of the virus, and according to the World Health Organization (WHO), smallpox was finally eradicated in 1980. Today, the only known sources of the virus are confined to the Centers for Disease Control and Prevention (CDC) and former Soviet Union laboratories. With that said, smallpox still remains a very real bioterrorist threat. The US is still uncertain about stockpiles produced during the escalation of the Cold War. Moreover, if the population becomes infected with the virus, the disease spreads rapidly, and there is a 30% mortality rate.

In the 20<sup>th</sup> century there were 300 million deaths attributed to smallpox, which is transmitted from person to person and presents with high fever, rashes and lesions. Even a single case today would be considered a public health emergency, especially since routine vaccinations have not occurred since 1972. Typically, the vaccine only lasts three to five years, so physicians have no longer administered it regularly due to the virus' eradication. Unfortunately, immunity wanes with time, so most of the US population is now susceptible to the virus.

To be prepared for a possible event, the US has maintained a Strategic National Stockpile of approximately 200 million doses of the vaccine in order to vaccinate everyone in the US, or at least those living within areas of exposure, if there is even a single case. If the vaccine is administered within three days of exposure it will prevent or reduce the effects of the virus in most individuals.



Smallpox Rash



## VIRAL HEMORRHAGIC FEVER

Viral Hemorrhagic Fevers (VHFs) are tropical in origin and incorporate a number of different fevers including Ebola, Marburg, Rift Valley Fever, Dengue Fever, Lassa Fever, and Yellow Fever, among others. Although these VHFs can be passed from person to person, they were initially transmitted through natural vectors, such as mosquitoes, ticks, and rodents, and are still transmitted in this way. The first cases of Marburg, for example, stemmed from lab workers exposed to African Green Monkeys.

VHFs cause mildly high temperatures (101 °F) and target the vascular system leading to hemorrhagic manifestations, such as nose bleeding, vomited blood, bloody stools, and a purple rash. VHFs result in death for 0.5 to 90% of cases depending on the agent. Unfortunately, vaccines do not exist for most VHFs. Although research continues, the only vaccines currently available are for Yellow Fever and Argentine Hemorrhagic Fever. There are also no known medications to treat these diseases. The only treatment made available to an individual with a VHF is isolation and supportive medical care to treat symptoms.

In recent years small outbreaks of Ebola have occurred throughout tropical regions of Africa but typically remain isolated. Still, VHFs are considered a potential bioterrorist threat today since there are limited vaccines and no antiviral medications to treat most VHFs. With that said, there are specific reasons why it is highly unlikely terrorists would choose VHFs as a biological weapon. For one, many of the deaths from VHFs occur outside of their native tropical regions in scientists studying or treating patients affected with one. Moreover, using a VHF would necessitate a terrorist be well trained and funded since acquiring one from an outbreak would require extreme skill in handling it.



Ebola Virus



VHFs can be transmitted by mosquitos



Hemorrhagic fever bleeding

# TRAINING TOGETHER TO WORK TOGETHER

## Bioterrorism: Mass Prophylaxis Preparedness and Planning Training

Twenty-two people from across Brazoria County participated in a two-day training to prepare them to participate in mass prophylaxis. The training was presented by the Texas Engineering Extension Service (TEEX). Day one of the training included discussions of the role of epidemiology, the Division of the Strategic National Stockpile (SNS), the Receiving, Staging and Storage Site (RSS), and Point of Dispensing (POD) staffing, training, functions, and challenges.



Day two consisted of a mass prophylaxis Point of Dispensing (POD) game designed to test the Public Health Emergency Preparedness and Response Plan. Participants had to lay out the POD site, request assets and supplies, and exercise the four basic functions of successful POD operations. After the game, the group completed an After Action Report to assess their performance.

Representatives from hospitals, school districts, emergency management, BCDH Immunizations, cities, law enforcement, fire departments and the Public Health Emergency Preparedness and Response Team participated.

## Brazoria County-Reportable Diseases

Reportable Diseases	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Bacterial Meningitis										2			2
Campylobacteriosis		1	2							2			5
Chlamydia	3	8	9	6	7	9	5	7	4	4			62
Cryptosporidiosis	1	2											3
Dengue								1					1
Gonorrhea	2		2	4	3	3	2	1	4				21
Guardiasis								2					2
Hepatitis A, acute			2			1		1		1			5
Hepatitis B, acute		4	1	1		2	2	3	2	8			23
Hepatitis C, acute		15	5	6	2	7	6	9	7	19			76
HIV infection, Adult	1				1	2	2						6
Legionellosis													0
Lyme Disease													0
Malaria						1							1
Pertussis				1		1				1			3
Salmonellosis	2	1	5	1		6	7	1	1	9			33
Shigellosis	1			1		2	2			1			7
Streptococcus pneumoniae, invasive	2	2	5			2	3		1				15
Syphilis	2	4	3	2	2		3	1	1	1			19
Tuberculosis									8	1			9
Varicella (Chicken Pox)	7	3	4	4	3	6	5		6	4			42
West Nile Virus													0
													0



Dr. Leo O’Gorman, Brazoria County Health Authority, looks on as Barbara Perkins, PHEP, times BCHD staff as they practice repackaging bulk pills. In the event of a public health emergency, such as an anthrax attack, staff might need to repackage medication into individual doses to be distributed at a public clinic.



On October 24, 2009, SNS Coordinator David Stroud married Hannah Brown.