



# NJ Communi- CABLE

Summer 2012

## Communicable Disease Service Mission Statement

Our mission is to prevent communicable disease among all citizens of New Jersey, and to promote the knowledge and use of healthy lifestyles to maximize the health and well-being of New Jerseyans.

We will accomplish our mission through our leadership, collaborative partnerships, and advocacy for communicable disease surveillance, research, education, treatment, prevention and control.

Chris Christie, Governor  
Kim Guadagno, Lt. Governor  
Mary E. O'Dowd, MPH  
Commissioner

## COMMUNICABLE DISEASE SERVICE

Christina Tan, MD, MPH  
State Epidemiologist/  
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Editor, Research Scientist

## West Nile Virus

By: Shereen Semple, Epidemiologist

**W**est Nile virus (WNV) is a mosquito-borne disease that was first introduced to the United States in 1999 and has since become established throughout North America. The virus is primarily spread through the bite of an infected mosquito that has fed on a WNV-infected bird. Humans, horses and other infected mammals cannot spread the disease, only mosquitoes. WNV is active in New Jersey (NJ) April through October, although the risk for human illness is only present late-July through mid-October. Since the virus first appeared in NJ in 2000, an average of 12 human WNV cases are identified by the New Jersey Department of Health (NJDOH) each year, with peaks seen in 2003 (34 cases) and 2010 (30 cases). As the majority of WNV cases have no symptoms or mild illness, these numbers represent only the tip of the iceberg and do not capture the loss of productivity and true burden of disease. Predicting how many cases will be seen in a given season is not possible, as so many different variables influence the WNV cycle, such as ambient temperature, precipitation, mosquito species and habitats and bird populations.



infected with WNV are asymptomatic, meaning they show no signs / symptoms of disease. Approximately 20% of infected individuals show signs of a mild, flu-like illness that may include fever, headache, body aches, rash and swollen lymph glands. Symptoms appear three to fourteen days following the infected mosquito bite. One in five individuals infected come down with West Nile neuroinvasive disease (WNND), which may include swelling of the brain (encephalitis), swelling of the spinal cord (poliomyelitis) or swelling of the membrane surrounding the brain and spinal cord (meningitis). Symptoms of WNND may include sudden onset of high fever, stiff neck, confusion, loss of consciousness, muscle

The vast majority (80%) of persons

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# Provider Resources for Addressing Parental Concerns about Immunizations

By: Jennifer Smith, Health Educator

New parents often have many questions regarding the health of their newborn child. Vaccine safety may be one of their primary concerns. Health care providers often have little time in their busy schedules to have lengthy conversations with parents about vaccines. However, health care providers remain parents' most trusted source of information. Parents receive information about child health and vaccines from a variety of sources including the news, the Internet social media, other parents and family members. Helping parents distinguish between credible and non-credible sources, and directing parents to sites of trusted information is an important first step when educating parents.

Although each conversation will be different, anticipating responses to common questions may help with communicating more effectively. Below are some suggested responses to frequently asked questions that may help to guide provider/parent discussions:

## Does the measles/mumps/rubella (MMR) vaccine and thimerosal cause autism?

No. Studies have shown that MMR vaccine and thimerosal do not cause autism. The question about a possible link between MMR vaccine and autism has been extensively reviewed by independent groups of experts in the United States including the National Academy of Sciences' Institute of Medicine. These reviews have found no link between MMR vaccine and autism.

The MMR-autism theory had its origins in research by Dr. Andrew Wakefield and colleagues in England. This small study (consisting of only 12 children) stated that MMR caused inflammatory bowel disease and autism. The validity of this study was later called into question when it could not be reproduced by other researchers. In February 2010, The Lancet medical journal retracted Dr. Wakefield's 1998 research paper and considered his work fraudulent. Since then Dr. Wakefield has lost his license to practice medicine.

Valid scientific studies have shown there is no link between autism and thimerosal, a mercury-based preservative once used in several vaccines (and still used in some flu vaccine). However, since thimerosal was removed from childhood vaccines in 2001, autism rates have actually increased, supplying further evidence that thimerosal does not cause autism.

## What are the chemicals and ingredients in vaccines?

Hearing the list of certain ingredients (such as aluminum, thimerosal, antibiotics, and formaldehyde) may cause parents to feel apprehensive about giving their child vaccines. Rest assured that these ingredient amounts are very miniscule and serve a specific purpose for ensuring the efficacy of the vaccines. Below is a brief description of these ingredients:

- **Aluminum:** Aluminum salts are used as adjuvants. Adjuvants are substances added to a vaccine to

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The NJDOH Communicable Disease Service includes:

Infectious and Zoonotic Disease Program (IZDP): 609-826-5964

Vaccine Preventable Disease Program (VPDP): 609-826-4860

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West Nile Virus, continued from page 1



initiatives target mosquito breeding habitats. In New Jersey, every county has a local mosquito control agency that is tasked with performing mosquito surveillance and control activities, and these agencies use a variety of methods to reduce mosquitoes and mosquito breeding sites. In addition, residents should take measures to reduce mosquito-breeding habitats in their yards by removing or frequently draining items that may collect water, such as flowerpots, tire swings, toys, pool covers, pet dishes and bird baths. Rain gutters and screens should be kept unclogged and in good repair. Personal protective measures include using an EPA-approved insect repellent containing DEET and limiting outdoor exposure during dawn and dusk when mosquitoes are most active.

weakness, paralysis and coma. Adults over 50 years and immune-compromised individuals have a higher risk of contracting WNV. There is no cure or human vaccine for WNV (a vaccine exists for horses only); flu-like symptoms usually resolve in ten to fourteen days. Symptoms of neuroinvasive disease may persist longer; individuals with WNV are usually hospitalized and infection is sometimes fatal.

The risk of contracting WNV can be minimized by following simple prevention measures that fall under two broad categories: environmental initiatives and personal protective measures. Environmental

For more information:

NJDOH website:

<http://www.state.nj.us/health/cd/westnile/index.shtml>

CDC WNV website:

<http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

CDC insect repellent:

<http://www.cdc.gov/ncidod/dvbid/westnile/RepellentUpdates.htm>

To get the phone number for your local mosquito control agency, call **1-888-NO NJ WNV** and follow the prompts to enter your area code.



Standing pools of stagnant rain water may contain several species of mosquito larvae.

**Wash Your Hands**

NEW JERSEY DEPARTMENT OF HEALTH SENIOR SERVICES

Get more information at <http://nj.gov/health/cd/handwashing.shtml>.

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# Health Care Providers Learning to Protect the Power of Antibiotics

By: Suzanne Miro, Health Educator

## Did You Know?

- 50% of all antibiotics are unnecessarily or inappropriately prescribed.
- Antibiotic exposure is the most important risk factor for *Clostridium difficile*-associated disease.
- Antibiotic use may impact on bacterial resistance for up to 12 months.

The New Jersey Department of Health (NJDOH), in cooperation with the Centers for Disease Control and Prevention (CDC), is working toward reducing antibiotic resistance through the promotion of appropriate prescribing by health care providers and adherence to antibiotic regimens by consumers. This is a multi-faceted problem which requires a multi-faceted approach. For 2012, a majority of the NJDOH's focus is on impacting prescribing behaviors by health care providers.

Building awareness among the medical community is the first step and is a major component of NJDOH efforts this year. Several traveling educational opportunities including grand rounds, conferences, poster display, and "office calls" (a physician detailing visit in the physician's office) are available to health care providers across the

state. One of our more successful initiatives has been the delivery of presentations for hospital grand rounds. Dr. Ed Lifshitz, Medical Director for the Communicable Disease Service, has been hitting the road and reaching hundreds of health care providers as a grand rounds and conference guest speaker since January 2012. According to Dr. Lifshitz, "Grand rounds and conferences are ideal

opportunities to educate, and interact with, medical professionals. Education is an essential element of antimicrobial stewardship, although education needs to be combined with multiple

other strategies to achieve maximal effect." If you are interested in any of the educational initiatives mentioned, please contact Suzanne Miro at

[Suzanne.miro@doh.state.nj.us](mailto:Suzanne.miro@doh.state.nj.us)

*"...the microbes are educated to resist penicillin and a host of penicillin-fast organisms is bred out...In such cases, the thoughtless person playing with penicillin is morally responsible for the death of the man who finally succumbs to infection with the penicillin-resistant organism. I hope this evil can be averted."*

*Sir Alexander Fleming, 1945*

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## COMING SOON!

Let's keep sick kids home and well kids in school. The New Jersey Department of Health, Communicable Disease Service is working collaboratively with Rutgers University to develop a free on-line education module for school and day-care outbreak management. This hour-long training will provide a basic understanding of communicable and infectious disease transmission and prevention in addition to reporting and managing outbreaks. Having a plan and knowledge before an outbreak occurs is vital in limiting the transmission of illness in the school setting. The target audience will include school nurses, teachers, administrators, daycare directors and public health professionals. The module will be posted on New Jersey Learning Management Network (NJLMN) at <https://njlmn.rutgers.edu/>.

STAY TUNED!



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### Immunizations, continued from page 2

- strengthen the body's immune response to the vaccine.
- **Thimerosal:** Thimerosal/mercury is used as a preservative to help prevent bacterial contamination. Since 2001, all routinely recommended children's vaccines being made in the United States (except some influenza vaccines) contain no thimerosal, or only trace amounts.
- **Antibiotics:** Antibiotics may be used to help prevent bacterial contamination.
- **Formaldehyde:** Formaldehyde is used to inactivate viruses and detoxify bacterial toxins during the making of vaccines.

These vaccine additives have been tested for safety and contribute to the effectiveness of the vaccine.

### Will giving my baby all these vaccines overwhelm his/her immune system?

No. There is no evidence to suggest that the recommended childhood vaccines can "overload" the immune system. An infant's immune system is more than ready to respond to the very small number of weakened and killed infectious agents (antigens) in vaccines. From the time they are born, babies are exposed to thousands of germs and other antigens in the environment and their immune systems are readily able to respond.

Although the childhood immunization schedule may look intimidating, we are fortunate to have vaccines available that can protect babies from fourteen serious diseases. It is best to follow the Centers for Disease Control and Prevention (CDC)/Advisory Committee on Immunization Practices recommended schedule since delaying a vaccine can leave your baby vulnerable to disease.

### Why does my child need these vaccines if most of the diseases they prevent no longer exist?

Immunization is one of the most successful public health achievements of the twentieth century. Due to the success of immunizations, some may question the need to continue vaccinating since we rarely see the dire consequences of these diseases.

Although these diseases are not seen as frequently in the past, these diseases do still exist. As a recent example, this past year in the United States there have been several identified cases and outbreaks of measles in international travelers due to ongoing measles transmission in other countries. The United States normally encounters about 50 cases of measles per year. During 2011, more than 220 cases were reported from more than 30 states, including New Jersey and New York City, the highest reported number for the same period since 1996. Of the reported cases, approximately 89% were import associated, and 87% were unvaccinated or had undocumented vaccination status. Of those known to be unvaccinated, half were due to personal belief exemptions and 20% were due to missed opportunities for vaccination. The increased number of measles importations into the United States demonstrates how quickly disease could spread through international travel.

During this time, the New Jersey Department of Health initiated an intense public health investigation and response. In New Jersey, a total of four confirmed cases were reported

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compared to no confirmed cases for the same time period in 2010. In addition to responding to the confirmed cases, New Jersey public health officials had to investigate numerous measles exposure situations which could have impacted many New Jersey residents.

Unvaccinated children are unprotected children. Although some diseases still occur in the United States at very low levels, decreasing levels of immunity could lead to a resurgence of diseases for which vaccines have been developed. In order for vaccines to protect everyone, an estimated 85-95% of the population must be vaccinated. The number of people that need to be vaccinated depends on the communicability of the particular disease and the effectiveness of the particular vaccine. The concept of herd immunity is that if enough people in the community are vaccinated, these diseases cannot spread. Parents should not rely on herd immunity to protect children from these diseases since factors such as vaccine hesitancy have resulted in lower levels of vaccination.

**Are vaccines safe?**

Yes. Today's vaccines are safer than any in history.

Before a vaccine is licensed, it is studied in thousands of children and in combination with other vaccines. After licensure, the federal government continues to monitor a vaccine's safety. The Food and Drug Administration and CDC maintain the Vaccine Adverse Events Reporting System (VAERS) through which health care professionals and the

general public can report adverse events that occur after vaccination. This continuous monitoring ensures researchers will uncover any rare side effects, even if they affect only a small number of children. Today's recommended vaccines have been shown to be safe and effective for millions of children.

Some basic communication strategies may assist during conversations with parents. When speaking with parents, try to participate in active listening by acknowledging their concerns and welcoming any questions they may have. It is also helpful to know your audience—some parents may find scientific/medical data more compelling while others may be more persuaded by hearing personal stories. Conversations can become more relevant by discussing any local or regional outbreaks of vaccine-preventable diseases. This will remind parents that these diseases have not been eliminated and still remain a threat to the community. Most importantly, let these parents know that you have their child's best interest at heart! 🇯🇵

**Please review the following resources:**

**Centers for Disease Control and Prevention (CDC) Provider Resources for Vaccine Conversations with Parents**

[www.cdc.gov/vaccines/conversations](http://www.cdc.gov/vaccines/conversations)

**Immunization Action Coalition (IAC) List of science-based materials for help in responding to vaccine-hesitant parents**

<http://www.immunize.org/catg.d/p2070.pdf>

**Southern Regional Governmental Public Health Partnership/New Jersey:**

<http://www.sjhealthapp.org/>

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### Soles 4 Souls

In April, the employees of the Communicable Disease Service donated 243 pairs of gently used shoes to Soles 4 Souls, an organization that collects new shoes to give relief to victims of abject suffering and collects used shoes to support micro-business efforts to eradicate poverty.



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## Reporting Zoonotic Disease in Domestic Companion Animals


By Colin T. Campbell, Deputy State Public Health Veterinarian and Renee Cirillo, Animal Facility Inspector/Senior Rabies Technician

The New Jersey Department of Health (NJDOH) has amended the disease reporting regulations to include the reporting of zoonotic diseases and disease outbreaks in domestic companion animals by veterinarians, animal control officers, and animal facility managers to local health departments. Zoonotic diseases are those that can be transmitted between animals and humans. Domestic companion animals are dogs, cats and other pets that are not considered to be livestock, poultry or wildlife.

This initiative will promote collaboration between state and local health departments and animal health care professionals to identify zoonotic diseases that may pose a threat to human health, and implement public health measures to prevent disease spread to humans and other animals. The NJDOH also works closely with the

Division of Animal Health in the New Jersey Department of Agriculture when livestock or poultry are impacted, and the New Jersey Department of Environmental Protection when wildlife and exotic animals are impacted.

The NJDOH developed guidelines for disease reporting and investigation in collaboration with regional epidemiologists and health officers. The information is accessible from the NJDOH "Disease Reporting Requirements / Regulations" web page, <http://www.state.nj.us/health/cd/reporting.shtml>. Click on the "Domestic Companion Animal Reportable Diseases" link and you can select from several guidance documents. The document titled "Guidelines for the Investigation of Zoonotic Disease in Domestic Companion Animals" is available at [http://www.state.nj.us/health/cd/documents/zoonotic\\_guidelines.pdf](http://www.state.nj.us/health/cd/documents/zoonotic_guidelines.pdf). Case definitions are also posted for the reportable zoonotic diseases.

Please contact Dr. Campbell or Dr. Sorhage of the Veterinary Public Health unit of the NJDOH if you have questions concerning zoonotic disease at 609-826-4872. 





# Injection Safety Ambassador Program Takes Off!

By: Laura Taylor, Health Educator

In January, the New Jersey Injection Safety team held a daylong training for 25 health professionals in infection prevention, nursing and public health to become "Safe Injection Ambassadors." Those who attended enjoyed a full day of presentations surrounding issues about safe injection practices. After all presentations were complete, participants took a qualifying exam to become "Ambassadors."

The program has been a success. As of May 15, the Ambassadors have educated more than 500 health professionals in various settings (dialysis, acute care, long term care, ambulatory care) using the slides and materials provided at the training. A special thank you to all of our Ambassadors for their continued support and willingness to assist with spreading the safe injection message throughout the state!

## Two NEW Injection Safety Toolkits Available

The *One & Only Campaign* offers evidence-based toolkits for health professionals that focus on important aspects of injection safety. The toolkits were developed for two different audiences: Healthcare providers and staff at State/Local Health Departments. Both toolkits are on-line resources and can be accessed on the *One & Only* website at [www.oneandonlycampaign.org](http://www.oneandonlycampaign.org)

As Ambassadors, participants agree to conduct at least two workshops within one year of being trained. They also are provided three slide presentations and other resources, including pre/post tests and national *One & Only Campaign* materials to use during their education sessions. Providing slides and other materials ensures that the safe injection message is consistent.



**ONE NEEDLE,  
ONE SYRINGE,  
ONLY ONE TIME.**

**HEALTHCARE PROVIDER  
TOOLKIT**

*Educating healthcare providers  
about safe injection practices*

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silive.com  
City alerts 450 patients of Hylan Boulevard clinic to hepatitis C concern  
Friday, June 17, 2011 12:24 AM

MailOnline News  
Parents' horror as they are told to test their infants for HIV after flu vaccine mix-up  
Last updated at 10:59 PM on 12th April 2011

Outpatient Surgery | Nurse Accused of Stealing Pain Meds Gets Probation  
September 20, 2011

nj.com  
NJ doctor loses license after hepatitis B outbreak  
By Associated Press Thursday, September 15, 2011

**It's Real. It's Recent.**  
It could become YOUR problem



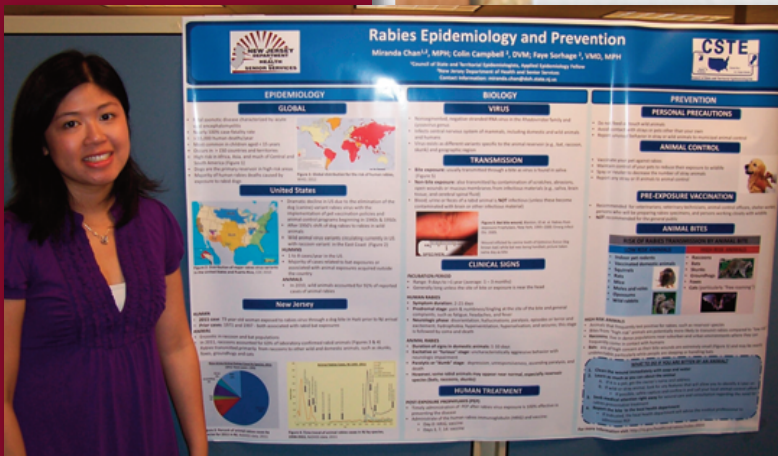




## CSTE Fellow Wins Award

**M**iranda Chan, an applied epidemiology fellow assigned to the Communicable Disease Service from the Centers for Disease Control and Prevention (CDC) and the Council for State and Territorial Epidemiologists (CSTE), won the “Best Content” award for her poster presentation at the New Jersey Mosquito Control Association annual convention on March 28-30, 2012. The poster, entitled “Rabies Epidemiology and Prevention,” highlighted the public health importance of rabies in New Jersey and provided prevention education to attendees who are exposed to potentially rabid wild and domestic animals through their environmental work.

The annual meeting brings together association members, researchers, industry and government agencies to focus on not only the biology and control of mosquitoes and insect pests, but also environmental management strategies and zoonotic diseases of public health importance.



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