

# Outbreak of *Pseudomonas aeruginosa* Associated with Ear Piercings at a Commercial Body Art Facility



Fred M. Jacobs, MD, JD  
Commissioner

**NJ Communi-CABLE**

In June 2005, Hunterdon County Department of Health (HCDH) and the New Jersey Department of Health and Senior Services (NJDHSS) received notification of *Pseudomonas* infections possibly associated with ear piercings at a commercial body art facility.

HCDH and NJDHSS launched an investigation to assess the situation. Clinicians in the area were contacted via the New Jersey Health Alert Network in an effort to identify additional cases. All piercing activities were suspended at the facility in question. Potential case-patients were interviewed using a standardized questionnaire.

The NJDHSS Public Health and Environmental Laboratories (PHEL) provided laboratory analysis. Environmental samples were sent to PHEL for culture, and one clinical isolate was sent to PHEL for molecular typing.

As a result of the investigation, four confirmed and four suspect cases\* were identified among 123 people who had piercing procedures performed between February 8 – June 17. All of the cases required incision and drainage or surgical debridement. Half of the cases required hospitalization.

Questioning of the piercing facility revealed that both employees used the same supplies and techniques, yet only one employee was associated with the eight infections. The facility prepared a 50/50 mixture of Techni-care® and Arctic Mist® and stored it in a squirt bottle. The 50/50 mixture had been “topped off” (i.e., refilled without

emptying or cleaning) since 2002. A multi-use bottle of gentian violet was used as a marking solution for all clients.

The laboratory analysis of environmental samples revealed that samples of the 50/50 Techni-care®, Arctic Mist® and gentian violet grew *P. aeruginosa*.

\*Confirmed case: ear infections occurring February—July 2005 with *Pseudomonas* identified by culture

Suspect case: clinically compatible illness without lab confirmation

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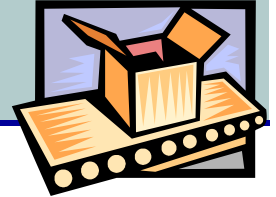


## **NJDHSS Communicable Disease Service**

- Eddy A. Bresnitz, MD, MS, Deputy Commissioner/ State Epidemiologist
- Janet DeGraaf, MPA, Director, Communicable Disease Service
- Christina Tan, MD, Deputy State Epidemiologist/ Medical Director, Communicable Disease Service
- Suzanne Miro, MPH, CHES, Editor, Health Educator, Communicable Disease Service

# Out of the Box!

## Partnering for Joint Disease Investigation



### David A. Papi, Director, Middlesex County Public Health Department

In February 2005 the Middlesex County Public Health Department produced a document titled, "Procedures for Parallel and Interactive Investigations between Public Health and Law Enforcement Officials in Middlesex County." This document was created out of the need for public health and law enforcement to perform joint investigations during a biological terrorist attack.

Forensic epidemiology elements of situational assessment will involve the Middlesex County Public Health Department and the Middlesex County Prosecutor's Office as "partners in preparedness".

The document's principles and forms were utilized and implemented during the TOPOFF 3 exercise. Through conducting joint investigations with Middlesex County Public Health Department, Middlesex County Prosecutor's Office and the Federal Bureau of Investigation, information was

collected for public health and law enforcement purposes. The information was then analyzed with other intelligence by law enforcement which led to the discovery of a simulated terrorist laboratory.

In addition, through the cooperation of the various departments, utilizing the forensic epidemiology elements of the document, the lab was raided and its operation ceased. Once again, public health and law enforcement worked together during the raid when the Middlesex County Public Health Department's Hazardous Materials Unit performed decontamination of the officers involved in the simulated operation.

Forming these critical partnerships with other agencies and departments is vital to achieve the goal of protecting public health and safety during any emergency event. Only through protocols, training and exercising can we strengthen our existing and future partnerships.

## Advanced Forensic Epidemiology Course

More than 200 law enforcement and public health professionals attended the "Advanced Forensic Epidemiology (AFE) Joint Training for Law Enforcement and Public Health Officials on Investigative Responses to Bioterrorism" course in June. The course was designed to identify

similarities and differences in public health and law enforcement investigative goals and methods.

This full-day interactive training, sponsored by the New Jersey Department of Health and Senior Services Communicable Disease Service and the Federal Bureau of Investigation, focused on criminal and epidemiological investigative methods, operations and procedures and communications during a public health emergency.

Courses were held in both northern and southern locations; tentative plans to offer another training are planned for early spring 2006. Keep an eye on the *NJ Communi-CABLE* for more information!



## Health Powers Act Signed

On September 14, 2005 the Emergency Health Powers Act (PL 2005, c. 222) was signed into law. This law has been identified as the pre-eminent legal structure fundamental to enabling a rapid and effective response to any threat to the public's health. This law formally clarifies and organizes powers enumerated in previous pieces of legislation.

Upon the Governor's declaration of a public health emergency, the Governor designates the Commissioner, New Jersey Department of Health and Senior Services (NJDHSS), as the leader and decision maker of the state's public health and health care related response. Authorized activities include:

- requiring pharmacists to report unusual increases or types of prescriptions;
- establishing an Emergency Health Care Provider Registry;
- prioritizing target groups for vaccines;

- immune products and treatment medications;
- controlling and redistributing resources e.g., facilities, supplies, commodities and personnel;
- implementing isolation and quarantine procedures, and
- acquiring access to medical information of individuals.



In addition, this law specifies that LINCS agencies are to assist NJDHSS with planning and coordination of all activities related to public health preparedness, at the direction of the Commissioner. In this capacity, the LINCS agencies serve all municipalities and local health agencies within their county or city, as applicable.

## Influenza Pandemic Plan

Influenza viruses are unique in their ability to cause sudden, serious illness in all age groups on a global scale. Global influenza epidemics are referred to as "influenza pandemics." Three such pandemics occurred in the 20<sup>th</sup> century, causing millions of deaths. Experts consider them to be an inevitable fact of nature.

A pandemic will cause both widespread and sustained effects and is thus likely to stress the health care and other resources of every state. Reluctance to travel to affected areas may impact the delivery of food supplies and other essential materials in some communities. In addition, the emotional effects of a pandemic are expected to be severe.

The time between pandemics provides an opportunity to plan to ensure that New Jersey is prepared to implement an effective response before an influenza pandemic arrives. The intent of the

plan is to help minimize morbidity and mortality, and maintain the operations of essential community services in the event of a pandemic. The plan was developed to complement the State Emergency Operations Plan. It includes the duties of the New Jersey Department of Health and Senior Services as well as the actions that local health departments, LINCS agencies, hospitals and other public health care partners need to take to prepare for and respond to an influenza pandemic.

The plan is a "work in progress" that will be updated when new information and guidelines from the World Health Organization and Centers for Disease Control and Prevention are available. The current plan can be found online at:

<http://nj.gov/health/flu/pandemic.shtml>

## Influenza Update 2005-06

Once again influenza season is around the corner. The final available amounts of influenza vaccine for the 2005-06 flu season remain to be seen, although four manufacturers expect to provide vaccine. Three of the four manufacturers (sanofi pasteur, Inc., GlaxoSmithKline, and MedImmune Vaccines) have received approval by the Food and Drug Administration (FDA) and combined would provide 68 million trivalent inactivated influenza vaccine (TIV) and approximately 3 million live attenuated influenza vaccine (LAIV) . The fourth manufacturer (Chiron Corporation) is expecting to provide 26 million doses of TIV, but has not yet received FDA approval. Since the total amount is uncertain, the Centers for Disease Control and Prevention (CDC) has taken steps to ensure that the nation's highest priority groups are the target for vaccine. The CDC has proposed a tiered approach to the delivery of influenza vaccine until October 24, 2005. Until that date the priority groups are as follows:

- Persons aged  $\geq 65$  years with comorbid conditions;
- Residents of long-term care facilities;
- Persons aged 2 – 64 years with comorbid conditions;
- Persons aged  $\geq 65$  years without comorbid conditions;
- Children aged 6-23 months;
- Pregnant women;
- Health care personnel who provide direct patient care;
- Household contacts and out-of-home caregivers of children aged  $< 6$  months.

The CDC has encouraged the promotion of the nasal spray LAIV among eligible adults in an effort to keep supplies of the injectable vaccine available for people at risk of developing complications from the LAIV (tiered prioritization is not necessary for LAIV). Even most health care workers can receive the LAIV. Health care workers seeking vaccination with LAIV should check with their employee health service to verify their eligibility and to ensure the safety of their patients.

In an effort to keep all public health partners informed of the situation as it unfolds, the New Jersey Department of Health and Senior Services (NJDHSS) will continue to issue periodic influenza updates via LINCIS. All LINCIS health officers are encouraged to share these updates with their CHAINS.

The NJDHSS has updated information for 2005-06 on its influenza website ([www.nj.gov/flu](http://www.nj.gov/flu)). The website contains guidance documents for influenza planning, pandemic information, educational materials, surveillance information and links to websites where the public can find a flu shot. A limited supply of influenza education materials is available on a first come, first served basis. To order materials, please contact Suzanne Miro, Health Education Coordinator at 609-588-7500. In addition, the CDC influenza website has updated information and revised education materials.

One of the most important things you can do this flu season is stay informed. Periodic influenza updates will be distributed via LINCIS in order to provide the most up-to-date information regarding vaccine supplies and related issues.

**Reminder!!! The Antimicrobial Resistance Symposium will be held October 31, 2005 at The Conference Center at Mercer, Mercer County Community College, 9 am—1pm. To register send an email to [njbtraining@doh.state.nj.us](mailto:njbtraining@doh.state.nj.us), or for more information call 609-588-7500**





# Winter 2005 Infectious Disease Summit

The New Jersey Department of Health and Senior Services (NJDHSS) Communicable Disease Service, in conjunction with the New Jersey Society for Public Health Education invites all public health and health care professionals to attend the Winter 2005 - Infectious Disease Summits. This day-long symposium will address issues and provide updates concerning emerging and re-emerging infectious diseases, epidemiologic surveillance and other communicable disease initiatives and activities taking place in New Jersey.

**New format includes a national guest speaker, morning plenary sessions and afternoon breakout sessions!**

**Special guest speaker:** Matthew Moore, MD, MPH from the Centers for Disease Control and Prevention

**Informative morning presentations:**

- Statewide Epidemiology & Surveillance Update
- *Pseudomonas aeruginosa* Outbreak: County and State Investigation and Response



**Exciting afternoon breakout sessions:**

- Reducing *Clostridium difficile* outbreaks in New Jersey
- Conducting outbreak investigations: State and Locals working together
- Immunization Update: Surveillance, Vaccine for Children Program, Varicella and Pertussis Initiatives

**North**

**Monday, December 5, 2005 from 9am-3pm at the Birchwood Manor, 111 North Jefferson Road, Whippany, NJ 07981**

**South**

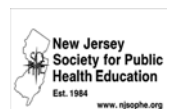
**Tuesday, December 6, 2005 from 9am-3pm at the Mansion at Main Street, Evesham & Kresson Roads, Voorhees, NJ 08043**

**Register on-line at: <http://njlmn.rutgers.edu>**

Registration opens October 3, 2005

The Summits are FREE to attend but pre-registration is required; space is limited.  
Registration and continental breakfast begin at 8:15am  
Program begins promptly at 9am

For more information, contact the NJDHSS Communicable Disease Service at (609) 588-7500



## 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

NJ Department of Health & Senior Services  
PO Box 369  
Trenton, NJ 08625-0369  
Phone: (609) 588-7500

### The NJDHSS Communicable Disease Service Includes:

- Infectious & Zoonotic Disease Program (IZDP)
- Vaccine Preventable Disease Program (VPDP)
- Sexually Transmitted Disease Program (STDP)
- Tuberculosis Program (TBP)

**Past editions of the NJ Communi-CABLE are available on the Communicable Disease Service website:**

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

## **Outbreak of *Pseudomonas aeruginosa* Associated with Ear Piercings at a Commercial Body Art Facility**

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Several steps should be recommended in an effort to prevent future infections and are as follows:

- Use antiseptic solution according to the manufacturer's instructions
  - Do not dilute
  - Allow to dry completely before piercing
  - Store in the original container
- Use only one antiseptic during a single procedure
- Replace the multi-use gentian violet bottle with disposable, single-use markers

- Use proper hand-washing technique
- Report piercing complications to the local health authority within 24 hours of notification to the body art facility as per state regulations
- Improve infection control practices and demonstrate improved piercing technique to health officials before resuming piercing

In light of the growing popularity of body art procedures, including piercing, the public health community should:

- Develop, implement and enforce more stringent licensing for commercial body art facilities;
- Develop and enforce standardized, comprehensive inspection criteria;
- Develop and disseminate best practices to facilitate adherence to infection control procedures;
- Educate clients about potential complications related to piercing procedures and the need to seek medical attention;
- Educate health care providers to recognize and appropriately treat complications of body art procedures.

### **Welcome to new NJDHSS Communicable Disease Service Staff!!**

**Stella Tsai**—Research Scientist 1, Infectious and Zoonotic Disease Program

**Vernard Green**—CDC Public Health Advisor, TB Program, Vaccine Preventable Disease Program

**Essam Fekry**—Public Health Representative 3, Vaccine Preventable Disease Program

**Katherine Melnicki**-Public Health Representative 3, Vaccine Preventable Disease Program

**Sandra Bernard**-Supervising Public Health Representative, Vaccine Preventable Disease Program