Miami-Dade County
Epidemiology, Disease Control
Surveillance and Highlights
2010-2011

Vincent Conte, MD
Deputy Director, Epidemiology, Disease Control, and Immunization Services
Miami-Dade County Health Department
Cancer (except non-melanoma skin cancer, and including benign and borderline intracranial and CNS tumors) + (305)470-5660 (Tel) + (305)470-5533 (Fax)

Congenital anomalies (380)264-4444 (Tel) + (380)929-8471 (Fax)

Epidemiology (305)470-5660 (Tel) + (305)470-5533 (Fax)

15 Any disease outbreak
15 Any case, cluster of case, or outbreak of a disease or condition
15 from a hospital, healthcare institution, not listed in this Rule that is of severe public health significance. This includes those indicative of person to person spread, zoonotic spread, the presence of an environmental, food or waterborne sources of exposure and those that result from a deliberate act of terrorism.

A Seminar Encephalitis
15 Anthrax
15 Arsenic
15 Botulism (foodborne, wound, unspecified, other)
15 Botulism (infant)
15 Brucellosis
15 California serogroup virus (neuroinvasive and non-neuroinvasive disease)
15 Campylobacteriosis
15 Cheoler
15 Cholera
15 Ciguatera fish poisoning (Ciguatera)
15 Coniohelminthes in neonates ≤ 14 days old
15 Creutzfeldt-Jakob Disease (CJD)
15 Cryptosporidiosis
15 Cyanobacteria
15 Dengue
15 Diphtheria
15 Eastern equine encephalitis virus disease (non/neuroinvasive)
15 Ehrlichiosis/Anaplasmosis-undetermined or unspecified
15 Encephalitis, other (non-arboviral)
15 Escherichia coli disease due to E. coli 0157:H7
15 E. coli 0157:H7
15 E. coli Other (due to other pathogenic E. coli)
15 Giardiasis
15 Giardia
15 Group A strep
15 Haemophilus influenzae meningitis and invasive disease
15 Hansen’s Disease (Leprosy)
15 Hand, foot and mouth disease
15 Hemolytic Uremia Syndrome
15 HIV/AIDS
15 Influenza-associated pediatric mortality (in persons < 18 yrs)
15 Legionnaires disease
15 Leptospirosis
15 Lyme Disease
15 Malaria
15 Measles (Rubella)
15 Meningitis (bacterial, cryptococcal, mycotic)
15 Meningoencephalitis (includes meningitis and meningococcemia)
15 Mercury Poisoning
15 Mumps
15 Neurotoxic shellfish poisoning
15 Pertussis
15 Pesticide-related illness and injury
15 Plague
15 Peptostreptococcus (Ornithosis)
15 Poliomyelitis, paralytic and nonparalytic
15 Q Fever
15 Rabies (peroral exposure)
15 Rocky Mountain spotted fever
15 Rubella (Including congenital rubella)
15 St. Louis encephalitis virus disease (neuroinvasive and non-neuroinvasive)
15 Salmonellosis
15 Scabies
15 Scarlet Fever
15 Salmonella poisoning including paralytic shellfish poisoning (PSP)
15 Severe Acute Respiratory Syndrome-associated Coronavirus
15 (SARS-CoV) disease
15 Shigellosis
15 Smallpox
15 Streptococcus aureus- community associated mortality
15 Staphylococcus aureus (infection with intermediate or full resistance to vancomycin, VISA, VRSA)
15 Staphylococcus aureus (methicillin resistant, Group A)
15 Streptococcus pneumoniae (invasive disease)
15 Tetanus
15 Toxoplasmosis (acute)
15 Typhoid Fever
15 Trichinellosis (Trichinosis)
15 Tuberculosis
15 Typhus Fever
15 Typhus Fever (due to Rickettsia prowazekii infection)
15 Typhus Fever (due to Rickettsia typhi, R. felis infection)
15 Varicella
15 Varicella (Chickenpox)
15 Varicella morbidity
15 Venezuelan equine encephalitis virus disease (neuroinvasive)
15 Vibrioosis (Vibrio infections)
15 Viral hemorrhagic fevers (Ebola, Marburg, Lassa, Machupo)
15 West Nile virus disease (neuroinvasive and non-neuroinvasive)
15 Western equine encephalitis disease (non/neuroinvasive)
15 Yellow Fever

Hepatitis (viral) (305)470-5533 (Tel) + (305)470-5533 (Fax)
15 Hepatitis A
15 Hepatitis B, C, D, E, and G
15 Hepatitis B surface antigen (HBsAg) (positive in a pregnant woman or a child up to 24 months old)

HIV/AIDS

Acquired Immune Deficiency Syndrome (AIDS)

HIV infection and Related Conditions (HIV) (all, including neonates born to an infected woman, exposed newborn)

Lead Poisoning (305)470-6877 (Tel) + (305)470-5536 (Fax)

STD

Sexually Transmitted Diseases
15 Chancroid
15 Chlamydia
15 Gonorrhea
15 Granuloma inguinale
15 Herpes Simplex Virus (HSV) [in neonates and infants up to 60 days old with disseminated infection with involvement of liver, encapsulated and infected tissues limited to skin, eyes and mouth, and genital in children ≤ 12 years]
15 Human Papillomavirus (HPV) [associated laryngeal papillomas or recurrent respiratory papillomatosis in children ≤ 8 years of age; genital in children ≤ 12 years]
15 Lymphogranuloma Venereum (LGV)
15 Syphilis (in pregnant women and neonates)

Tuberculosis (TB) (305)470-2402 (Tel) + (305)647-6574 (Fax)

Report immediately upon initial suspicion or laboratory test result.

15 Syphilis
15 Report immediately upon diagnosis or test result, 24/7 by phone
15 Syphilis
15 Report next business day
15 Other reporting time frame

Section 351.003(1)(c)(2), Florida Statutes provides that "Any practitioner, licensed in Florida to practice medicine, surgery, osteopathy, or veterinary medicine, who diagnoses or treats any of the diseases or conditions listed in this rule shall report such a diagnosis or treatment to the Department of Health. The DOH counties health departments serve as the Department's representative in this regard. This section provides that "Periodically, the Department of Health shall issue a list of diseases determined by it to be of public health significance and shall furnish a copy of said list to the practitioners." This list of diseases is updated periodically. The Department of Health shall continue to maintain this list and make the list available to the public. You are an invaluable part of Florida's disease surveillance system. For more information, please call the Miami-Dade County Health Department, Epidemiology, Disease Control and Immunization Services at (305) 470-5660. Visit www.dadehealth.org
Reporting Sources

- Laboratories (Electronic Lab Reporting available directly to MERLIN)
- Hospitals (ICP’s)
- Doctor’s Offices
- Urgent Care Clinics
- Miami-Dade County Animal Control
- Food-borne Illness Hotline (FDOH)
Reporting Sources

Less common sources are:
- Medical Examiners Office
- CDC Quarantine Station at MIA
- Cruise Lines
- FDOH - some people call Tallahassee directly and bypass the local health dept.
Epidemiology, Disease Control and Immunization Services (EDC-IS)

- Bioterrorism
  - Alvaro Mejia
- General Surveillance
  - Gigi Rico Coordinator
- Foodborne
  - Juan Suarez
- Animal Bite
  - Ana Torredilla
<table>
<thead>
<tr>
<th>Disease</th>
<th>Primary</th>
<th>Back-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arboviral Disease</td>
<td>Pedro</td>
<td>1-Rene; 2-Dr. Conte</td>
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<tr>
<td>Anthrax</td>
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<td>Botulism</td>
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<td>Brucellosis</td>
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<tr>
<td>Campylobacter</td>
<td>Debbie</td>
<td>1-Sergio; 1-Debbie</td>
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<td>Campylobacter &lt; 5 yo</td>
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<td>Cholera, vibrio</td>
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<td>Ciguatera</td>
<td>Juan</td>
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<td>Diptheria</td>
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<td>Escherica coli, Stiga toxin producing</td>
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<td>Glanders</td>
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<td>Haemophilus influenzae (Inv)</td>
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<td>Hemolytic Uremic Syndrome</td>
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<td>Influenza A, pandemic strain, ped. death</td>
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<td>Mercury poisoning</td>
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<td>Mumps</td>
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<td>Neurotoxic Shellfish poisoning</td>
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<td>Pesticide-related illness &amp; Injury</td>
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<td>1-Anthony; 2-Gigi</td>
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<td>Q Fever</td>
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<tr>
<td>Rabies (animal bite)</td>
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<td>1-Dr. Conte; 2-Sergio</td>
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<thead>
<tr>
<th>Disease</th>
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<tbody>
<tr>
<td>Cinic toxicity</td>
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<td>Rubella</td>
<td>Henry</td>
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<td>Salmonellosis</td>
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<td>Salmonellosis &lt; 5 yo</td>
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<td>Saxtoxin Poisoning</td>
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<td>Smallpox</td>
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<td>Staphylococcus aureus, Vancomycin non-susceptible</td>
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<td>Streptococcus Enterotoxin (SEB)</td>
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<td>Streptococcus pneumonia, &lt; 5 yo</td>
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<td>Typhus fever</td>
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<td>Vaccinia Disease</td>
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<td>Varicella (Chickenpox)</td>
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<td>Vibrio infections</td>
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<td>Viral Hemorrhagic fever</td>
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<td>Yellow fever</td>
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<td>1-Rene; 2-Dr. Conte</td>
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<thead>
<tr>
<th>Disease</th>
<th>Primary</th>
<th>Back-up</th>
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<td>Daycare (enteric &amp; other)</td>
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<td>Nursing home</td>
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<td>Other (ex. jail)</td>
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<td>Schools</td>
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<tr>
<td>Fax review</td>
<td>Pedro</td>
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<td>Merlin-Date entry for fax/mail</td>
<td>Vivian</td>
<td>1-Admin. Staff</td>
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<td>Merlin-electronic labs/cases</td>
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<td>JMH search</td>
<td>Debbie</td>
<td>Pedro, Marie, Janet, Dr. Zhang, Anne</td>
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<td>On-call schedule</td>
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<td>Gigi</td>
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<tr>
<td>Out of Jurisdiction</td>
<td>Gigi</td>
<td>Pedro</td>
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*Isolate/specimens are required to be submitted to State Lab*
Reporting Form

• The link to the form is:
  http://www.dadehealth.org/downloads/5_Provider%20Report%20Form_NEW%202009.pdf

• Otherwise go to www.dadehealth.org; left side under Disease Control, next go to Notifiable Diseases and Conditions, and then to Report a Disease and highlight the Disease Report form link.
Influenza 2011-2012
Seasonal Flu Vaccine 2011-2012

• Essentially is unchanged from last year
• Trivalent; 2 A’s and 1 B
  (an A/California/7/2009 (**H1N1**) -like virus)
  (an A/Perth/16/2009 (**H3N2**) -like virus)
  (a B/Brisbane/60/2008-like virus)
• Still recommended for EVERYONE six months of age and older
New Strain of H3N2

- In August/September 2011, 4 cases of a new strain of Swine-related flu have been discovered.
- All were in children under 12.
- 3 out of the 4 attended an agricultural fair or farm and were in close contact with swine.
- Unfortunately one of the patients had no swine contact but was cared for by a person with swine contact but who never exhibited any symptoms.
New Strain of H3N2

- Work done at the CDC has identified this new strain as an H3N2 Swine-origin Influenza
- Genetic analysis done shows that the virus is a product of recombination between the old H3N2 and the most recent pandemic strain of H1N1 (2009)
- One of its eight genetic elements is definitely H1N1 in origin, the other seven are from H3N2
New Strain of H3N2

- All four patients survived and only had mild to moderate symptoms so it initially does not appear to be a particularly virulent strain.
- No other household contacts became ill so right now it is felt that person-to-person transmission is not a major factor as well.
New Strain of H3N2

- All of the research being done is in its very early stages
- As more information becomes available, we will send out Health Advisories or a Health Alert depending on what the CDC does
- http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e0902a1.htm

(Swine-Origin Influenza A (H3N2) Virus Infection in Two Children --- Indiana and Pennsylvania, July--August 2011)
New Strain of H3N2

• This is a subject that we will be watching very closely
• It has the potential to become another Pandemic Strain if it develops person-to-person transmission properties
• Remember, keep washing those hands every chance you get!!!!!!
Department Highlights
2010-2011
Salmonella Typhi in a family member of a food handler

- Our office was alerted by an electronic lab report of a 3 year old who tested positive for Typhoid Fever
- As per protocol, an investigation was started immediately
- It was discovered that a family member of the child who lived in the same household was a food handler in a VERY busy (and pricey!!) Miami Beach restaurant
Typhoid Fever Investigation

- Initially we had difficulty contacting the food handler
- He was not returning our calls at all
- An epidemiologist went to the home and waited for him but he never showed when he was supposed to
- Finally, a team of 2 lawyers, 2 epidemiologists, and 2 interns went to his place of work and basically pulled him out of work and escorted him to his house
Typhoid Fever Investigation

• Just to make you familiar with the testing procedure for Typhoid Fever, 3 consecutive stool samples need to be collected and placed in sterile containers and submitted to the state lab for culture and ID

• Sample kits had been delivered to the family, and the rest of the family were complying with our requests except the food handler
Typhoid Fever Investigation

- So, now the team of 6 health dept. workers escorted the food handler home and asked him to give his first stool specimen.
- He was, how to say, not ready to comply at that point in time.
- So, one of our team asked if they had any laxatives in the household.
- Some were found and administered.
Typhoid Fever Investigation

• Now, there was our team of 6 people as well as about another 7 family members in a tiny two-bedroom apartment with one bathroom.
• The laxative had been given, but they had nothing to do but sit and wait.
• Finally, after about three hours, the laxative achieved its ultimate goal and the first of three specimens was collected successfully.
• The food handler was restricted from returning to work until all three samples were collected and tested negative for *Salmonella Typhi*. 
Typhoid Fever Investigation

• The end results were that the food handler was negative for *Salmonella Typhi*

• It was found however that another member of the household, an 11 yo, was positive for *Salmonella Typhi* but had no symptoms

• He was treated as a precaution and on follow-up testing, his carrier state had been eradicated

• The public was safe from infection with *Salmonella Typhi* because of the dedication of our hard working staff

• Our motto: **“We always get our stool”**
Toxic Lead Levels in a Miami Park
Toxic Lead Investigation

Background

• In the 1940’s and 1950’s there was a common practice in use that had to do with landfills and quarries
• Once a landfill or quarry became full, it was covered with dirt and grass and was turned into a park
• At that time there were no restrictions on Lead or its usage in any number of products
• There was also no practice (as there is now) to place fabric and impermeable barriers OVER the landfills and quarries to prevent seepage of any toxic materials to the surface
Lead Investigation

- There are about 20 or so such sites throughout Miami-Dade County that are consistently sampled and monitored by the EPA and our local DERM (Department of Environmental Resource Management)
- One such site is Olinda Park, on NW 22 Ave and NW 54 Street
- Consistent monitoring of the site by the EPA done every 2-3 years yielded acceptable lead, arsenic and barium levels
Lead Investigation

• Samples taken in April of 2011 at three sites within the park, however, showed elevated levels of both Arsenic and Lead.
• The EPA informed DERM and they did follow-up sampling of 30 different sites within the park.
• They also drilled 5 test wells to measure possible contamination of ground water under the park.
Lead Investigation

- Of the 30 samples taken, 26 showed lead levels above acceptable limits, with 10 showing lead levels in excess of 30 times the acceptable limit allowed.
- Arsenic was also found to be elevated in 5 samples, but just barely above the acceptable limits.
- DERM immediately closed the park once the test results were obtained.
Lead Investigation

• DERM also contacted the Health Dept. to alert us of a possible threat to the people who live in and around the park.
• We immediately began putting together a plan that would have two goals: Inform the public of the possible threat and somehow offer testing to the people whose children played in the park on a regular basis.
Lead Investigation

- We set up a perimeter limit of two miles (how far someone would probably walk to get to a park?) and sent teams of 2’s out into this area and went door to door passing out informational flyers.
- We passed out approx. 45,000 flyers and informational sheets to the residents surrounding the park.
Lead Investigation

• We also held a Town-Hall type meeting to inform and answer questions
• In cooperation with the Jessie Trice Neighborhood Health Center (directly across the street from the park) we established a blood lead testing task force
• This task force was in place for 2 weeks including Saturdays and after hours to accommodate those people that worked during the day
In all, 268 children were tested for blood lead poisoning and not one was above the accepted threshold of 10mcg/dl.

There were also 22 adults tested and only one was above the threshold with a level of 11.2mcg/dl.

This person also had an occupation that exposed him to many possible environmental sources of lead, so it would be difficult to show that his exposure came solely from the park.
Lead Investigation

- The history of the park is very interesting
- In the 1930’s, the land was deeded from MD County to the city of Miami and the property was used as a disposal site for incinerator ash
- In the late 1940’s, the site was full and was converted to a park and deeded back to the county
- Since then the EPA has had the site on its list of possibly hazardous sites and has done periodic soil testing of the site
Lead Investigation

• It is not contaminated enough to be considered a “Superfund” site like the Love Canal, but it was contaminated enough to be on the “Let’s wait and see if the place eventually kills someone” list

• DERM is in the process of replacing the top 12” of soil with clean, lead free soil, and eventually the park will be reopened
Dengue Fever Update
Department Highlights - Dengue

- 2nd case of “Locally Acquired” Dengue
- The case was Type 1, whereas the previous locally acquired case was Type 2
- Type 3 was found late last year in Broward County’s only locally acquired case
- Key West has been exclusively Type 1
Department Highlights - Dengue

- As a result of the 2nd locally acquired case, the county-wide Mosquito Warning was kept in place.
- Mosquito control canvassed the neighborhood of the patient in a 2 mile radius from the residence and eliminated all standing water sources and applied larvacide to those sources that could not be drained.
Meningococcal Meningitis Update
Department Highlights – Meningococcal Disease

• There have been 8 confirmed cases of *Neisseria meningitidis* so far this year (2011)
• The presentation in 4 have been with classic meningeal signs and symptoms
• In the other 4 cases, the presenting symptoms have been more systemic and along the lines of a general sepsis without classic meningeal signs and symptoms
Department Highlights – Meningococcal Disease

- The serotype distribution of the cases for 2011 have been 3 Group B and 5 Group W135
- If you recall, Group B is the only group NOT covered in the quadravalent vaccine (A,C,Y and W135 are covered)
- Group B infections also tend to be much more virulent and more dangerous with a higher morbidity and mortality rate
Department Highlights – Meningococcal Disease

- The age distribution of the cases have been from 23 to 67
- The mortality rate has been 1 out of 8 or 12.5% which follows national norms of 8-15% even with aggressive treatment
- Prophylaxis of adult contacts has been with Ciprofloxacin 500mg x 1 (Primary) or Rifampin 600mg BID x 2 days (Secondary)
- In children, Rifampin is used at 10mg/kg per dose, with 4 doses total, 2 BID x 2 days
Department Highlights – Meningococcal Disease

- **PROBLEM:** Several of the *Neisseria* cases were initially reported as GRAM + cocci
- Either the gram stain was repeated or another technician examined them and the diagnosis was changed to GRAM - diplococci
- We are in the process of launching a study to look at the various factors that can affect the results of a gram stain when it is done
Department Highlights – Meningococcal Disease

• Of very important note: One of the cases of *Neisseria meningitidis* was reported as Cipro “RESISTANT” from a local hospital
• This isolate, a type B, was sent to the CDC and we are awaiting the sensitivity results, so nothing is official yet
• Several cases of Cipro resistance have been reported nationwide but they are very few and far between
• Cipro sensitivity is NOT routinely tested on *Neisseria* cultures so there could possibly be more that we are missing
Department Highlights – Meningococcal Disease

- There has been no advisory as of yet from the CDC to stop using Cipro as a post-exposure prophylaxis treatment for *Neisseria meningitidis*
- Any changes in this situation and we will immediately send out a Health Advisory to notify the local medical community
Cholera Update
Department Highlights - Cholera

- Cholera cases reported in Miami-Dade County for 2010-2011 were 5 (2010 with 3 and 2011 with 2)
- In all cases, they were imported with positive exposure in Haiti
- Luckily, all recovered completely without any complications
Department Highlights - Cholera

- Origins of the outbreak are still being debated but the most likely cause was relief workers and soldiers from Nepal.
- Samples of the strain of Cholera found in Haiti were tested against Cholera strains found in other parts of the world.
- There is a 99% genetic match to a strain found in Nepal.
Department Highlights - Cholera

- The prevailing theory is that there was an asymptomatic carrier(s) in the Nepalese contingent of relief workers.
- Their camp was located right on the banks of the major river and water source for that region of Haiti.
- Since there was no infrastructure available for waste management of any kind, the soldiers dumped their waste into the nearby river and then it contaminated the water.
Department Highlights - Cholera

- Of course, then the people of the area drank from the river and used the water for bathing, cooking, etc.
- So the infectious cycle began and then spread throughout the region and eventually to the majority of the country.
- Then it crossed borders into the Dominican Republic as well.
- At this point in time, the outbreak seems to have stabilized, but still has a steady flow of new patients daily.
West Nile Virus
Update
Department Highlights - WNV

- On July 19, 2011, the department was notified by the BOL that a sentinel chicken who was bled on 07/11/2011 was positive for WNV.
- This was confirmed twice.
- Mosquito control was notified to the zip code of the positive chicken to enhance their surveillance and treatment measures.
- A BBQ was planned for the chicken.
Department Highlights - WNV

- A Health Advisory was written and was distributed to practitioners, ER’s and ICP’s with this information.
- We will continue to work closely with Environmental Health and Mosquito Control on this issue as time progresses.
Department Highlights - WNV

• On 08/29, we received a report from a local hospital of a positive IgM result for WNV in a 27 yo patient
• The patient had onset of fever, headache, neck pain, a blotchy body-wide rash and body aches on 08/17/2011
• On 08/19/2011 he presented to a hospital ER and was admitted with the diagnosis of possible viral meningitis
Department Highlights - WNV

- On admission he had a temp of 102.8, neck stiffness, and a fading blotchy rash
- His platelet count on admission was 246,000
- The next day his platelets had fallen to 118,000
- A spinal tap done showed moderate WBC’s but no organisms and none grew in cultures as of 72 hours
- Blood cultures were negative as well
Department Highlights - WNV

• Arboviral blood tests were sent with the following results:
  - IgM WNV positive
  - IgM Dengue positive
  - IgG Dengue positive
• A second sample to another private lab was positive for IgM WNV and neg for Dengue antibodies
A second convalescent blood sample was drawn to follow the antibody progressions.
Both blood samples were forwarded to the State lab in Tampa for arboviral PCR testing and antibody confirmation.
The initial test results were strongly positive for both samples for WNV IgM.
PCR and other tests are still pending.
Endophthalmitis following Intraocular Injections
Endophthalmitis from intraocular injections

On 07/11/2011 the department was notified by a hospital ICP that there had been 9 patients admitted to Bascolm Palmer Eye Institute all with Endophthalmitis (eye infection) after receiving Drug X intraocular injections on 07/08-09/2011
Endophthalmitis from intraocular injections

• Drug X is an agent that is used to treat primary and metastatic colon cancer

• It works by decreasing tissue growth of blood vessels into and around the tumors gradually depriving them of blood and oxygen

• An OFF-LABEL use that has been discovered is that it also inhibits endothelial cell growth on the retina in cases of macular degeneration

• It can slow the progression of the disease
Endophthalmitis from intraocular injections

- In this particular case, 3 separate ophthalmologists used the same lot or batch of Drug X for intraocular injections in 9 patients with macular degeneration.
- In one patient, both eyes were injected.
- In the others, only one eye was injected.
Endophthalmitis from intraocular injections

- The injections in that lot were all traced back to a compounding pharmacy in Broward County.
- We also found 3 more patients that developed eye infections after receiving the same medication from the same source who were being treated elsewhere.
- All were growing Strep as the causative agent of their endophthalmitis.
Department Highlights – Endophthalmitis from intraocular injections

- The procedure that was being followed involved taking a 10cc bottle of Drug X that was supposed to be a “single-use” vial and drawing up 10 – 1cc injections.
- These injections were to be used individually for 10 separate treatments.
- The procedure was done under a sterile hood, with all sterile equipment and in a sterile field.
Department Highlights – Endophthalmitis from intraocular injections

- During our research, we found a letter sent out by the company in 2009 that warned that any such usage of the Drug X such as what was being done at the pharmacy, was without documented research to support its application and use under these conditions.
Department Highlights – Endophthalmitis from intraocular injections

- The compounding pharmacy voluntarily shut down operations and sent all remaining syringes of the medication to BPEI for culture, and they all grew out Strep as well.
- The Ophthalmologists who did the injections sent the remaining waste syringes to BPEI for culture, and they also grew out Strep.
Department Highlights – Endophthalmitis from intraocular injections

- We contacted the FDOH Hospital Acquired Infections division to inform and to get directions of how to proceed
- They sent down a team of Epidemiologists from Tallahassee to assist
- Since then, MQA and the FDA have become involved and the investigation is expanding and ongoing
Department Highlights – Endophthalmitis from intraocular injections

- On a joint inspection done by the MQA, FDA, FDOH, and MDCHD, several policies and procedures were found to be faulty and most probably led to a contamination of Drug X used for the injections.

- The pharmacy was actually asked to shut down their operations with Drug X and similar drugs for 6 months pending a full investigation.
Department Highlights – Endophthalmitis from intraocular injections

- Unfortunately, the end results are not good
- Of the 12 patients, 8 have suffered complete blindness in the injected eye(s)
- The other 4 suffered at least a 50% reduction in visual acuity
- The patient that received bilateral injections ended up with complete blindness in both eyes
Strep Throat
Death
Department Highlights – Strep Throat Death

- Our office received a call from the Medical Examiner’s office on a Monday about a tragic incident that occurred over the previous weekend.
- A young adult had come down with a sore throat on the previous Wednesday.
- The patient finally went to their practitioner Friday afternoon.
Department Highlights – Strep Throat Death

- The patient was seen by the practitioner, and a Quick Strep Test was done with **negative** results.
- Just as a follow-up, cultures were taken and sent, but no antibiotics were started and a diagnosis of Viral Pharyngitis was given.
Department Highlights – Strep Throat Death

- The cultures were picked up and delivered to the local lab at approx. 5pm and were plated out.
- Over Saturday, the patient’s condition worsened with a persistent fever, sore throat, weakness, malaise, and headache.
- The parents did not call anyone at that time because they were told it was a virus and it had to run its course.
Department Highlights – Strep Throat Death

- Unknown to all concerned, the results of the culture overnight was heavy growth of Group A, beta-hemolytic strep
- The lab’s policy was to report results on the next BUSINESS day (Monday) regardless of findings
- By Sunday morning the patient was unable to ambulate, was short of breath and had stopped urinating
Department Highlights – Strep Throat Death

• At that point the family took the patient to the ER at a local hospital
• The patient was found to be in shock with a BP of 60/40
• The patient was also found to be in Liver and Renal failure and DIC was developing
• Shortly after these findings, the patient arrested and aggressive attempts were made at resuscitation, but the patient expired in the ER.
Department Highlights – Strep Throat Death

- Blood cultures that had been drawn in the ER confirmed the findings of the private lab with heavy growth of Strep
- Monday morning the lab faxed the results to the practitioner’s office as per their protocol, but needless to say it was too late
Department Highlights – Strep Throat Death

- Since then at the insistence of the MDCHD, the lab has revised their protocols to now call with positive culture results ASAP to the doctor or the doctor’s service regardless of time or of day.
- This is an example of a completely preventable death that occurred because of old protocols that had not been updated since 2007.
Department Highlights – Strep Throat Death

- The clinical issue is that rapid strep tests have very high specificity – in the range of 98 percent to 99 percent – so patients with a positive test likely do have an infection.
- However, the sensitivity of most current rapid strep tests ranges from 90 percent to 95 percent.
- So about 5 – 10% of patients with a negative rapid strep test result would test positive on bacterial culture and have the disease.
Miami-Dade County’s Top 10 Diseases
# Top 10 Diseases

## Top Communicable Diseases in Miami-Dade County, 2008

<table>
<thead>
<tr>
<th>Disease</th>
<th>Miami-Dade County</th>
<th>Florida*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases</td>
<td>Rate</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>7399</td>
<td>298.1</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>2087</td>
<td>84.2</td>
</tr>
<tr>
<td>HIV</td>
<td>1580</td>
<td>64.2</td>
</tr>
<tr>
<td>AIDS</td>
<td>1096</td>
<td>44.3</td>
</tr>
<tr>
<td>Childhood Lead Poisoning</td>
<td>58</td>
<td>44.1</td>
</tr>
<tr>
<td>Other Syphilis</td>
<td>1380</td>
<td>43.5</td>
</tr>
<tr>
<td>Salmonelosis</td>
<td>548</td>
<td>22.8</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>262</td>
<td>14.6</td>
</tr>
<tr>
<td>Primary &amp; Secondary Syphilis</td>
<td>247</td>
<td>10.0</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>199</td>
<td>8.0</td>
</tr>
</tbody>
</table>

*Childhood Lead Poisoning: aged 0 and under

*Other Syphilis: Early Latent, Late Latent and Congenital Syphilis
Miami-Dade County’s Top 10 Diseases

• **#10 - Tuberculosis!** Still hanging in there in the top 10 and our new administration has decided to close our TB hospital in Lantana despite this fact!!

• They are turning over the management to the private sector and have no provisions to deal with the patients who refuse to take their meds or deny their disease
Top 10 Diseases

• #9 - Primary and Secondary Syphilis
• The syphilis epidemic is still going strong and shows no signs of letting up any time soon!
• The MD rate is 10/100,000 compared to 4.9/100,000 for the State of Florida (more than TWICE the state rate)
#8 - Giardiasis

- Also more than twice the state rate (14.6 vs. 6.8)
- Primary reason for high rate is high immigrant population arriving in MD county
- Main location of positive test samples are from the Refugee Health Center in MD
Top 10 Diseases

• #7 - **Salmonellosis**
• Food-borne illness which actually is on the rise in MD county and Florida
• Rate is a little less than the State as a whole
• Reason for rise is thought to be due to restaurants keeping food longer than before secondary to economic pressures
Top 10 Diseases

• **#6 - Other Syphilis** (Early latent, Late latent, Congenital)

• Again, another STD that will undoubtedly be on the rise secondary to budget cuts

• We continue to do our best with what we have but it is just a very frustrating situation
Top 10 Diseases

• **#5 - Childhood Lead Poisoning**
  - Our rate is just under three times that of the State as a whole
  - Our rate is 44.1/100,000 and the State is 16.3/100,000
  - The rate is so much higher in MD because of refugees from other countries
  - Approx. 50% of our cases come from refugees being screened at the Refugee Health Center
Childhood Lead Poisoning

- Last year, 134 cases were acquired OUTSIDE the US while 105 cases were acquired in FLA.
- Also, there was a spike last year due to the influx of refugees after the earthquake in Haiti.
- Most of the developing world has no restrictions on the use of lead, therefore it is found in gasoline, paint, toys, building supplies, etc.
- That's why such a high level of lead is found in the refugee population.
Top 10 Diseases

• **#4 - AIDS & #3 - HIV**
  
  A major STD on the rise within our community especially among young, male heterosexual African Americans

• Our rates in both are twice that of the State

• AIDS is 44.3 in MD/20.2 in FLA

• HIV is 64.2 in MD/31.9 in FLA
Top 10 Diseases

• #2 - **Gonorrhea**
• It is actually thought that there is a very high level of NON-reporting of this disease by private physicians
• Private patients become very concerned about anyone knowing of their infection, so they ask their practitioners to “keep it quiet”
• Also more and more reports are coming in of “Drug Resistant” strains of Gonorrhea and the CDC is actually doing active surveillance to assess the actual numbers
Top 10 Diseases

• **#1 - Chlamydia!!!!**
  - Similar situation as with Gonorrhea as far as under reporting by private physicians
  - Still very easy to treat and no drug resistance has developed
  - Unfortunately, the partner needs treatment as well or else it just keeps passing back and forth
Top 10 Diseases

- As you can see, the STD’s are still in the lead with 6 of the top 10 diseases.
- Unfortunately, our STD budget has been cut in about half since the new administration has come in.
- We have had to close two clinic locations and consolidate services to two rather than four main sites.
- This makes it more difficult to provide needed services and treatment.
Top 10 Diseases

- Contact tracing becomes much more difficult with fewer case workers and the same or greater number of cases!!
- We are expecting to see a rise in the numbers of STD’s in correlation with the budget cuts (more cuts, higher rates!!)
- They seem to be directly related (what a surprise; a fact that Tallahassee seems to have overlooked!!)
Miami-Dade County’s Top 10 Causes of Death

1) Cancer
2) Heart Disease
3) Stroke
4) Chronic Lower Respiratory Disease (COPD)
5) Alzheimer’s Disease
6) Diabetes
7) Kidney Disease
8) Unintentional Injuries and Accidents
9) Influenza & Pneumonia
10) Septicemia
US Top 10 Causes of Death

1) Heart disease: 616,067
2) Cancer: 562,875
3) Stroke (cerebrovascular diseases): 135,952
4) Chronic lower respiratory diseases: 127,924
5) Accidents (unintentional injuries): 123,706
6) Alzheimer's disease: 74,632
7) Diabetes: 71,382
8) Influenza and Pneumonia: 52,717
9) Kidney Disease: 46,448
10) Septicemia: 34,828
Comparisons

• Our #1 is Cancer; US is Heart Disease
• Our #5 is Alzheimer’s Disease and it comes in at #6 nationally; reason is that we have a larger than normal elderly population that retires to South Florida
• Unintentional accidents is #5 nationally, but is #8 in Miami-Dade (apparently we are more cautious as a population than the US population as a whole; hard to believe???)
Comparisons

- Kidney disease ranks at #7 in Miami-Dade but is #9 nationally.
- Diabetes ranks #6 in MD but #7 in US.
- That may also explain why Kidney disease is higher here as well since they both go hand in hand.
- Overall, basically the main causes do not differ that much in comparison.
Conclusion

• The world is a dangerous place out there between the viruses and bacteria that are just floating around waiting for an unwilling host.

• **Wash your hands whenever you can**, use your bacterial hand sanitizers, and try to do all the things that keep your immune system in tip top shape (eat right, get plenty of sleep, exercise, minimize stress).

• Count your blessings and appreciate your good health as long as possible!!!!!
Questions????

- Thanks to all for coming today
- Please feel free to contact me with any questions or concerns at:
  305-470-5660 or vincent_conte@doh.state.fl.us

HAVE A GREAT DAY!!!!