



Kathleen Babineaux Blanco
GOVERNOR

Louisiana Morbidity Report

Louisiana Office of Public Health - Infectious Disease Epidemiology Section
P.O. Box 60630, New Orleans, LA 70160 - Phone: (504) 219-4563
<http://www.dhh.louisiana.gov/offices/reports.asp?ID=249&Detail=306>



Frederick P. Cerise, M.D., M.P.H.
SECRETARY

May-June 2006

Volume 17 Number 3

Eosinophilic Meningitis and *Angiostrongylus cantonensis*

Penny Cuneo, RN BSN; Sally Clement; Theresa Sokol, MPH

In March, 2006, a twenty-two year old male living in Lafourche Parish, hospitalized for muscle, neck and back aches and hypersensitivity to touch was suspected of having meningitis. The CSF showed 304 WBC /mL with thirty-six percent eosinophils, high protein and low glucose. He was diagnosed as having eosinophilic meningitis. None of the non-parasitic causes of eosinophilic meningitis were found. Nine days before the onset of symptoms, the patient had eaten on a dare, two raw legs from a green tree frog (*Hylidae cinerea*).

Causes of eosinophilic meningitis include malignancies (Hodgkin's disease, non-Hodgkin's lymphoma, eosinophilic leukemia), medications (ciprofloxacin, ibuprofen, intraventricular vancomycin, gentamicin, iophendylate dye) ventriculo-peritoneal shunts, sarcoidosis, *Coccidioides immitis* disseminated disease, neurosyphilis, tuberculous meningitis, Rocky Mountain spotted fever, viral meningitis due to acute Coxsackie B4 virus or chronic lymphocytic choriomeningitis virus. In an endemic area, the most common causes of eosinophilic meningitis are due to parasites, particularly *Angiostrongylus cantonensis*.

The principal etiologic agent of human eosinophilic meningitis, *A. cantonensis*, was first detected in rats in Canton, China in 1933. It was then described in following years in the Western Pacific Region (Micronesia, Melanesia and Polynesia), and in Southeast Asia (Indonesia, Philippines, Taiwan, mainland China, Vietnam, Thailand, Cambodia, Japan and India). Beyond the Indopacific region, the worm has been found in rodents in Madagascar, Egypt, Cuba, Puerto Rico and New Orleans, Louisiana (1987).

Adult worms reside and lay eggs in the pulmonary arteries of rats. First-stage larvae hatch and migrate via the trachea and gastrointestinal tract into the feces. Snails and slugs that feed on rodent excrement serve as intermediate hosts and allow the larvae to molt into infective third-stage forms. Rats and humans become infected by consuming third stage infective larvae.

Humans accidentally acquire infection by consuming

- raw tissues of infected mollusks: by ingesting improperly cooked intermediate hosts (snails and slugs)
- food (salad greens) containing minute slugs
- raw, paratenic hosts (freshwater shrimp, land crabs, frogs) that have eaten infected mollusks

In humans, the third-stage larvae are transported via the bloodstream to the central nervous system where they penetrate the neural tissue, triggering an inflammatory response that eventually kills the parasites.

The first report of *A. cantonensis* in North America was from Campbell BG and Little MD in 1988. Twenty-one percent of *Rattus norvegicus* trapped in New Orleans, between April, 1986 and February, 1987 were infected with *A. cantonensis*. Several local gastropods (slugs and snails) were successfully infected experimentally. Laboratory-reared gastropods were able to support the development of small numbers of larvae to the third stage.

In 1990, *A. cantonensis* was reported in a howler monkey, *Alouatta caraya*, at the Audubon Park and Zoological Gardens, New Orleans, who died twenty-one days after the initial clinical symptoms. The monkey had access to free-ranging gastropods within the zoo.

A case of autochthonous *A. cantonensis* infection was reported in an eleven year-old boy at Children's Hospital in New Orleans on June 24, 1993. The child presented with myalgia (which he had had for seven days), headache, low-grade fever, vomiting and a stiff neck. He had always lived in Louisiana and had not traveled abroad. The CSF showed 215 leukocytes, with eosinophilia at sixteen percent in his blood. On specific questioning, the boy admitted that he had, on a dare, eaten a raw snail from the street some weeks earlier. A serologic test for *A. cantonensis* was positive by enzyme immunoassay.

In 2002, *A. cantonensis* was also reported in a horse from Pica-yune, Mississippi, in a lemur (*Varencia variegata rubra*) from New Iberia, Louisiana and in a wood rat (*Neotomafloridanus*) and four opossums (*Didelphis virginiana*) from Baton Rouge, Louisiana.

For references or more information, please call (504) 219-4563.

Contents

Eosinophilic Meningitis and <i>Angiostrongylus cantonensis</i>	1
Nationwide Syphilis Elimination Program: Focus on LA, 1988-2005	2
OPH Training Offerings	2
School-Based Health Center Post Katrina and Rita Needs Assessment Survey: LA, 2006	2
Additions to Disease Reporting Requirements: Pesticide-Related Illness & Injury and Heavy Metals (Arsenic, Cadmium, Lead and Mercury)	4
Pesticide Exposure and Toxicity	4
Heavy Metal Exposure and Toxicity	5

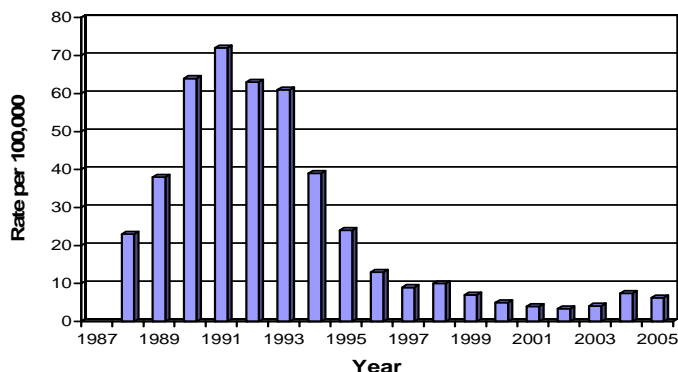
Nationwide Syphilis Elimination Program: Focus on Louisiana, 1988-2006

Lisa Longfellow, MPH

With syphilis rates decreasing among women and African-American populations (most cases being concentrated in the South and in urban areas), there is a brief window of opportunity to eliminate syphilis in the United States. One of the challenges in taking advantage of this window will be maintaining support at the local, state and federal levels until elimination is achieved. The Syphilis Elimination Effort (SEE) is a national initiative organized by the Centers of Disease Control and Prevention (CDC) bringing together health care providers, community organizations and community leaders to eliminate syphilis in this country. This nationwide effort aims to reduce the total number of primary and secondary syphilis cases to less than 0.4 cases per 100,000 people (approximately 78 cases in Louisiana) and to make at least ninety percent of the United States syphilis-free.

During 2004, Louisiana ranked highest in the nation for rates of primary and secondary syphilis. Between January and December, 2005 the rates of primary and secondary syphilis decreased to 6.22 per 100,000 from 7.43 per 100,000 in 2004. (Figure 1)

Figure 1: Primary and secondary syphilis rates Louisiana, 1988-2005



The rate appears to be continuing to decrease for the first quarter of 2006.

Syphilis continues to affect lives in a few communities across the country with ours being one of them. Despite reaching record low rates of reported syphilis cases in 2000 within the United States, this disease has since been on the rise. As syphilis tends to rebound in seven-year to ten-year cycles, now is the time to eliminate it - while rates are still relatively low.

For references or more information contact Lisa Longfellow at (504) 219-4429 or llongfe@dhh.la.gov.

OPH Training Offerings

VIDEOCONFERENCE

Infectious Diseases Surveillance and Investigation in Health Care Facilities

The OPH Infectious Disease Epidemiology Section is offering

the fourth and final section of the videoconference series began in 2005, focusing on infection control. The title of Part IV is 'Outbreak Investigation'. This presentation is targeted towards public health nurses, physicians, infection control professionals and health care providers. It will be accessible at nine sites throughout Louisiana from 9:00AM - Noon, July 19, 2006. Applications have been placed for Nursing and Physician Continuing Education Units. **Registration Deadline is July 12th!**

This videoconference is free of charge but must be registered for as seating is limited in certain sites. Site information, a registration form and agenda is available at <http://www.dhh.louisiana.gov/offices/publications.asp?ID=249&Detail=1180>. For more information please contact Ethel Davis at edavis@dhh.la.gov, phone (504) 219-4543 or Rosemarie Robertson at rroberts@dhh.la.gov, phone (504) 219-4548

School-Based Health Center Post Katrina and Rita Needs Assessment Survey: LA, 2006

Georgina Richard, MD; Parham Jaber, MD;
Richard Garfield, RN DrPH

Introduction

In the late 1980's, prompted by a decline in health indicators, Louisiana policy makers became increasingly concerned over the adolescent segment of the population. As a result in 1991, the Louisiana State Legislature enacted the Adolescent School Health Initiative Act (R.S.40.31.3), which authorizes the Office of Public Health (OPH) to facilitate the establishment of school-based health centers (SBHCs) through funding, quality assurance and technical assistance. The role of SBHCs is to provide convenient access to comprehensive primary and preventive care for meeting the physical and emotional needs of public school students. Prior to the 2005 hurricane season, there were fifty-five SBHCs operating in twenty-three parishes across the state of Louisiana, providing access to care for approximately 50,000 students.

Louisiana Morbidity Report

Volume 17 Number 3

May-June 2006

The Louisiana Morbidity Report is published bimonthly by the Infectious Disease Epidemiology Section of the Louisiana Office of Public Health to inform physicians, nurses, and public health professionals about disease trends and patterns in Louisiana. Address correspondence to Louisiana Morbidity Report, Infectious Disease Epidemiology Section, Louisiana Department of Health and Hospitals, P.O. Box 60630, New Orleans, LA 70160.

Assistant Secretary, OPH Sharon Howard, MSW

State Epidemiologist Raoult Ratard, MD MPH

Editors
Susanne Straif-Bourgeois, PhD MPH
Theresa Sokol, MPH
Rosemarie Robertson, BS MT(C) CNMT

Layout & Design Ethel Davis, CST

Methods

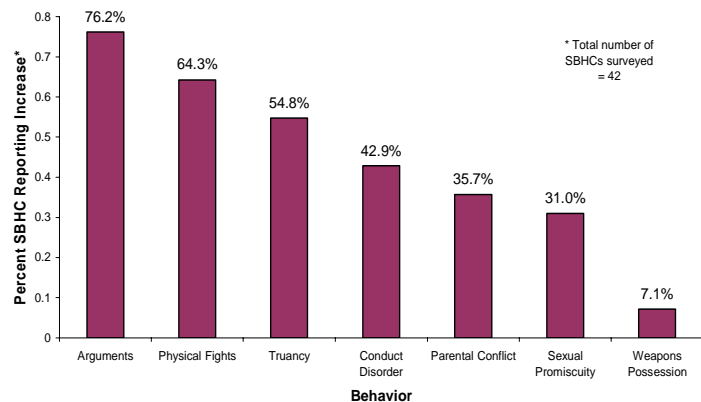
As a result of Hurricanes Katrina and Rita, there were six SBHC closures, including one site in Cameron Parish and five in Orleans Parish. (One site currently has a vacant mental health provider position.)

In April, 2006, forty-three mental health practitioners (MHPs) serving the forty-eight SBHCS, (5 MHPs serve 2 sites) were sent a survey regarding the mental/behavioral health conditions and needs of their students, particularly as related to the influx of students from hurricane-ravaged areas. This survey was created in collaboration with Columbia Mailman School of Public Health, The Children’s Health Fund, Tulane Preventive Medicine Residency and the Adolescent School Health Initiative-OPH, Louisiana). A total of forty-two responses were collected from forty-one MHPs (one MHP who covers two sites, filled out a separate survey for each site). Data was stored and analyzed using Microsoft Excel 2000.

Results

All forty-two responding SBHCs had students relocated to their schools as a result of the hurricanes. The number of new students by individual site ranged from nine to 850, with a median of sixty. (The majority (86%) of sites did report a decrease in that number from December, 2005 to May, 2006.) Half (53%) of the SBHCs have had some increase in patient volume since the hurricanes. Of those reporting an increase, eighteen percent felt it increased by a great deal. Since the hurricanes, MHPs have also seen an increase in negative behaviors among students served by their SBHCs. (Figure 1)

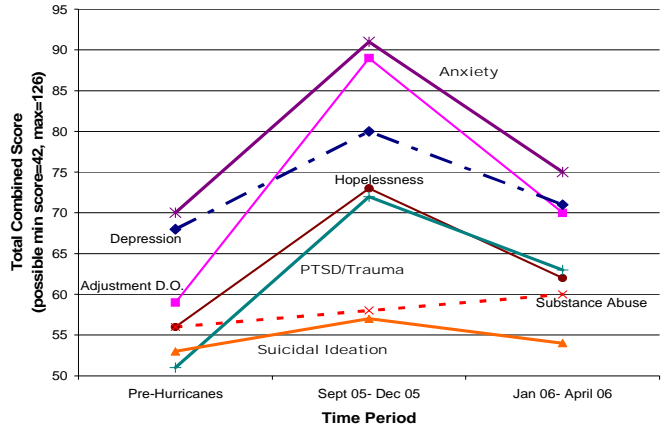
Figure 1: Increase in negative behaviors among students at school-based health centers - Louisiana, 2005-2006



MHPs were then asked to rate the importance of the following seven conditions as they pertain to students at their SBHCs: depression, adjustment disorder, suicidal ideation, substance abuse, anxiety, hopelessness, post traumatic stress disorder (PTSD). Each condition was assessed for three periods of time: pre-hurricane, September-December, 2005 and January-April, 2006. A score of one, two or three was assigned to indicate whether the condition was of minimal, moderate, or high importance, respectively. All conditions experienced an increase in importance from the pre-hurricane to the September-December, 2005 time period. The sharpest increases occurred in adjustment disorder, PTSD and depression conditions. From September, 2005 to April, 2006, all conditions decreased in importance and did not fully return to pre-hurricane baseline levels. An exception to that trend was substance abuse, which continued to rise from January to April, 2006. Also of note is that anxiety and depression began, pre-hurricane, at relatively higher levels of im-

portance when compared to other conditions. (Figure 2)

Figure 2: Importance of mental health conditions at school-based health centers over time - Louisiana, 2005-2006



MHPs were also asked to identify any other mental/behavioral health issues or conditions occurring among students that may be related to the hurricane. Family disruption and conflict were felt to be major concerns, with one MHP specifically noting child abuse. Another issue frequently commented on was academic underachievement and related behaviors such as inattention, tardiness, sleeping in class and not cooperating with teachers. Emotional responses, particularly anger and grief, were also commonly reported. Additionally noted were possible physical manifestations of underlying mental illness such as hypersomnia, insomnia and non-specific headaches and stomachaches.

Finally, while the following two conditions are not truly “other” issues as they were addressed earlier in the survey, they were commented on with the highest frequency. The first of the two conditions was anxiety, specifically over separation from family, friends and community, as well as over how these individuals and groups will fare in the future, particularly in face of upcoming hurricanes. The other condition can best be summarized as aggressive behavior, with peer conflict between local students and evacuees comprising a significant portion of it. Additional survey questions focused on those mental/behavioral health issues MHPs were least prepared to deal with, not only in the immediate weeks after the hurricanes, but also currently.

Immediately following the storms, MHPs felt least prepared to address the basic needs of families such as locating housing, food and financial resources. Furthermore, the sheer increase in the volume of students suddenly needing services, without a corresponding increase in staff, left them ill-equipped. Specific conditions that the MHPs commonly cited being least prepared for were adjustment issues and PTSD. Two providers discussed adjustment particularly in terms of cultural diversity and the transition of moving from an urban environment to a rural one. When asked which conditions the provider was least prepared to deal with now, the responses changed and were more likely to involve peer conflict, aggressive behavior and high-risk behavior, such as sexual promiscuity and substance abuse.

Since SBHCs serve a broad age spectrum of students, ranging from Pre-Kindergarten to Grade Twelve, MHPs were asked to distinguish between the mental health conditions and needs of younger versus older children. (Figure 3).

(Continued on page 6)

Additions to Disease Reporting Requirements: Pesticide-Related Illness & Injury and Heavy Metals (Arsenic, Cadmium, Lead and Mercury)

Michelle Lackovic, MPH

Disease Reporting Requirements were recently amended to accommodate additional diseases and conditions of public health concern. Two newly added conditions include *pesticide-related illness and injury (all ages)* and *heavy metal (arsenic, cadmium, lead and mercury) exposure and/or poisoning (all ages)*.

Case definitions for these conditions: “*any medical condition/visit resulting from exposure as determined from the exposure history or patient statement and/or acute, subacute, or chronic illness or injury resulting from inhalation, ingestion, dermal exposure or ocular contact with the particular heavy metal or pesticide and laboratory test results regardless of test result.*”

Reporting requirements for heavy metal and pesticide poisoning: The State Health Officer must be notified within five business days. Reporting can occur via the web, telephone, or fax.

Note that cases of childhood lead poisoning should still be reported directly to the Louisiana Childhood Lead Poisoning Prevention Program within forty-eight hours after diagnosis. The amended list of reportable diseases and conditions is included on page 8.

For references or more information about this article, contact Michelle Lackovic: mlackovi@dhh.la.gov or (504) 219-4518.

Additional resources:

Heavy metal exposure and toxicity: <http://www.atsdr.cdc.gov/toxfaq.html>

Louisiana fish advisories: (Mercury in Fish) <http://www.dhh.louisiana.gov/offices/page.asp?id=205&detail=5749>

Pesticide Poisoning: <http://www.epa.gov/oppfead1/safety/healthcare/handbook/handbook.htm>

Pesticide Exposure and Toxicity

Pesticides include insecticides, herbicides, fungicides and rodenticides, among others. Given their widespread agricultural and household use, human pesticide exposure is ubiquitous. Agricultural workers, pesticide mixers, handlers and applicators are occupations at highest risk of pesticide poisoning. Common pesticide exposure scenarios among the general public include drift of pesticide spray from an airplane onto people living near agricultural fields or other application sites and the improper use, storage and application of household pesticides.

Assessing the health impact of pesticides on people is a dynamic process. New pesticides are continually being licensed and hitherto unknown toxicities of existing pesticides often emerge. Classes of commonly used insecticides include organophosphates, carbamates and synthetic pyrethroids. Organophosphates and carbamates act through inhibition of the enzyme acetylcholinesterase in the nervous system. Related to nerve gases, cholinesterase-inhibiting insecticides can be acutely neurotoxic. Signs and symptoms of cholinergic overactivity - vomiting, diarrhea, incontinence, bronchorrhea, bronchoconstriction and bradycardia - occur in severe cases and can be fatal. Headache, fatigue, nausea and weakness predominate in less severe cases. Delayed and long-term neurotoxic effects have also been attributed to organophosphate insecticides.

Pyrethroid insecticides have little systemic toxicity in humans. However, they can be allergens and sensitizers, resulting in asthma attacks and contact dermatitis.

Common herbicides come from the chlorophenoxy (e.g., 2,4-D), triazine (e.g., atrazine), phosphonate (e.g., Roundup®), and thiocarbamate (e.g., molinate) classes. Many are skin, eye and respiratory tract irritants. Thiocarbamate herbicides can be weak cholinesterase inhibitors. Apart from acute toxicity, certain insecticides and herbicides have chronic effects, including developmental, reproductive, allergenic and carcinogenic.

Heavy Metal Exposure and Toxicity

MERCURY

The primary way people in the U.S. are exposed to mercury is by eating fish containing methylmercury. Since 1992, the Louisiana Office of Public Health (OPH) has issued consumption advisories for fish from Louisiana water bodies. (There are currently forty-one mercury fish advisories for Louisiana water bodies, including the Gulf of Mexico.) Because fish is an important dietary component of Louisianans and much of the fish consumed is caught locally, mercury toxicity is a legitimate health concern.

Other possible sources of mercury exposure include: breathing vapors from spills, incinerators and industries that burn mercury-containing fuels; release of mercury from dental work and medical treatments; breathing contaminated workplace air; skin contact during use in the workplace (dental, health services, chemical and other industries that use mercury). Elemental mercury vapor (commonly referred to as metallic or quicksilver mercury) accounts for most occupational exposures.

The nervous system is very sensitive to all forms of mercury. Methylmercury and elemental mercury vapors are more harmful than other forms because more mercury in these forms reaches the brain. Exposure to high levels of all forms of mercury can permanently damage the brain, kidneys and developing fetus. Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing and memory problems.

Short-term exposure to elemental mercury vapors can cause lung damage, nausea, vomiting, diarrhea, increased blood pressure or heart rate, skin rashes and eye irritation.

The frequent consumption of fish with high levels of methyl mercury may cause tremor, paresthesias, and/or disruptions in vision or hearing.

ARSENIC

Arsenic occurs naturally in soil and minerals. The most common exposure pathway is ingestion of arsenic-contaminated food or water. Children are also at risk of arsenic exposure by eating dirt. Concentration of arsenic in soil varies widely; however soils in the vicinity of arsenic-rich geological deposits, some mining and smelting sites, or agricultural areas where arsenic pesticides had been applied, may contain elevated levels of arsenic. Acute arsenic poisoning rarely occurs in the workplace today. Commercial use of arsenic includes wood preservative products and in the manufacturing of electronic components.

Arsenic intoxication can affect multiple organ systems and is strongly associated with lung and skin cancer. It may cause

other internal cancers as well. Skin lesions, peripheral neuropathy and anemia are hallmarks of chronic arsenic ingestion.

LEAD

Data reported to the CDC's Adult Blood Lead Epidemiology and Surveillance Program suggests that greater than ninety percent of elevated blood lead levels among adults results from workplace exposures. Occupational exposure to lead occurs via inhalation of lead-containing dust and fumes and ingestion from contact with lead-contaminated surfaces. Relevant occupations at risk of lead exposure, particularly in the aftermath of Hurricane Katrina, include construction and demolition workers, individuals involved in remodeling or renovation activities and people who work at municipal waste incinerators. Other high risk industries include: lead smelting and refining, brass and bronze foundries, rubber products and plastics, steel welding and cutting operations, battery manufacturing, radiator repair and other industries that use lead solder. Childhood lead exposure occurs primarily through ingestion of lead-based dust, soil, or paint chips.

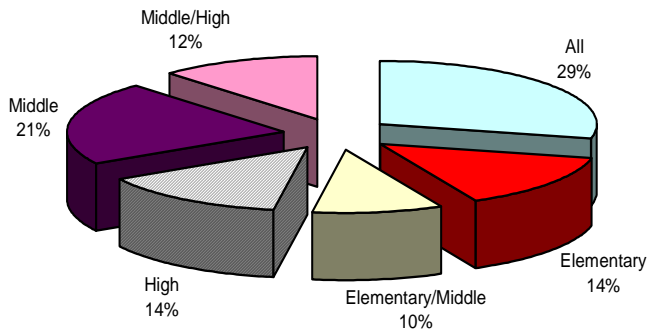
The effects of lead are the same regardless of the route of exposure. Lead affects almost every organ and system although the main target for lead toxicity is the nervous system, both in children and adults. Symptoms of lead poisoning include weakness, excessive tiredness, irritability, constipation, anorexia, abdominal discomfort (colic), fine tremors and "wrist drop." Overexposure to lead may also result in damage to the kidneys, anemia, high blood pressure, impotence, infertility and reduced sex drive.

Long-term exposure of adults to lead at work has resulted in decreased performance in some tests that measure functions of the nervous system. At high levels of exposure, lead can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage.

CADMIUM

Exposure to cadmium happens mostly in the workplace where cadmium products are made (e.g., battery manufacturing, metal soldering and welding). The general population may be exposed from breathing cigarette smoke or eating cadmium-contaminated foods. Breathing high levels of cadmium can severely damage the lungs and can cause death. Cadmium ingestion irritates the stomach, leading to vomiting and diarrhea. Chronic exposure to low levels leads to buildup of cadmium in the kidneys and possible kidney damage. Other long-term effects include lung damage and fragile bones.

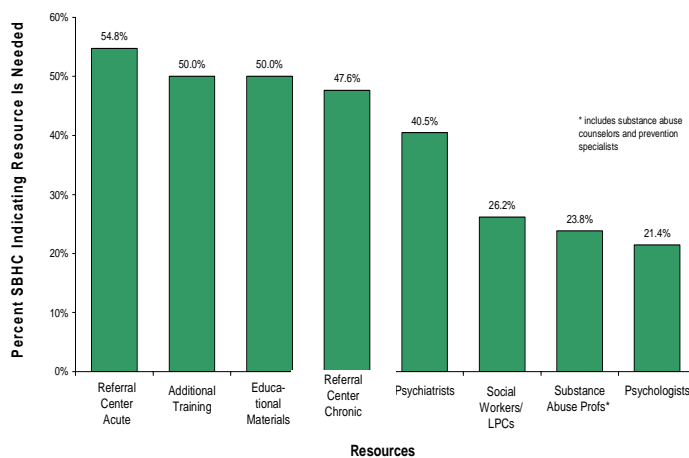
Figure 3: Breakdown of students served by school-based health centers by grade level - Louisiana, 2005-2006



MHPs reported that younger children must rely on adults (teacher, parent, nurse, etc) to be identified as needing help and once identified, they have a decreased ability to verbally express themselves. MHPs also described younger children as having more trouble with inattention and hyperactivity, whereas older children were more likely to engage in substance abuse and sexual promiscuity. According to MHPs, adolescents are also more affected by peer relationships and aware of family difficulties as a result of the hurricane.

In addition to directly addressing the impact of the hurricanes on students, another goal of the survey was to assess the needs of the MHPs in providing support to students. Two-thirds of MHPs identified the following provider types as lacking: psychiatrists, social workers/LPCs, psychologists, substance abuse counselors, prevention specialists. The professional in highest demand was psychiatrists; forty percent of all survey respondents felt they were lacking psychiatrists. MHPs also lacked educational materials for students and families, additional training for MHPs and referral centers- for both acute needs and management of chronic conditions. (Figure 4)

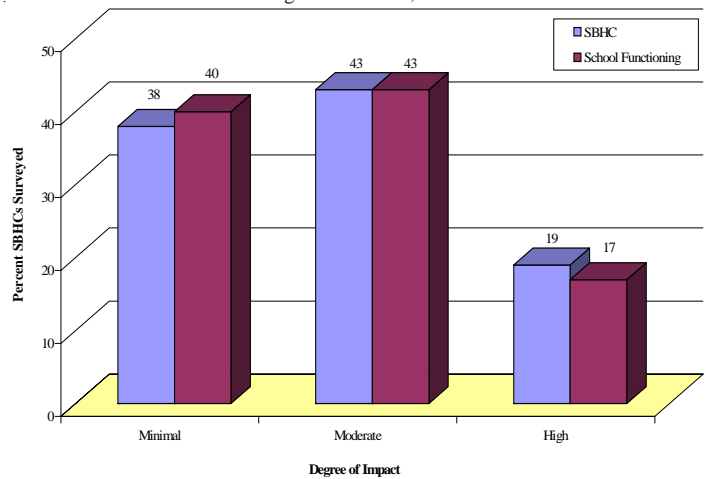
Figure 4: Resources needed by mental health providers Louisiana, 2005-2006



A series of questions also inquired about the intergration of relocated students into the school system. One third (32%) of MHPs identified their schools as holding specialized workshops to help teachers and staff deal with students having adjustment diffi-

culties or suffering from emotional trauma, while approximately another third (39%) did not, with the remaining third (29%) being unknown. When asked about other types of resources needed, some MHPs mentioned the need for additional staff, while others listed specific topics for educational materials and training. The requests for additional staff, aside from the professionals previously listed, included nurse practitioners, family counselors, case managers and clerical help. Educational materials on teen pregnancy, anxiety, adjustment and play therapy mediums were needed. Suggestions were made for additional training in long-term stress management, art therapy, play therapy and the management of self-mutilation. Finally, the survey addressed the overall impact of Hurricanes Katrina and Rita on SBHCs, as well as on school functioning. (Figure 5)

Figure 5: Impact of hurricanes on school-based health centers and school functioning - Louisiana, 2005-2006



Discussion

The initiative for SBHCs, which originated twenty years ago in the U.S, has steadily gained momentum. As a result, SBHCs have been systematically studied and discussed in the medical literature. It has been reported that students who have access to SBHCs are much more likely to seek out and use mental health services than their counterparts who are not part of a SBHC network. Additionally it has been shown that students receiving school-based mental health care have improved academic performance, reduced disciplinary problems and fewer absences from school.

The implications of the above positive outcomes afforded by SBHCs are especially pertinent to Louisiana. Prior to Hurricanes Katrina and Rita, the five-year needs assessment conducted in 2005 by the Maternal and Child Health Program-OPH, identified the top need of Louisiana's youth to be access to mental health, substance abuse and health services. Furthermore, the second most common reason for visits at SBHCs in Louisiana during the 2004 to 2005 school year was for mental health, preceded only by visits for general preventive medicine. Providing additional support and resources for SBHCs in Louisiana is one potential avenue for addressing these critical needs.

For references or more information, please contact Dr. Richard by email, grichard1@dhh.la.gov or phone, (504) 219-4419.

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE

March-April, 2006

Table 1. Disease Incidence by Region and Time Period

DISEASE	HEALTH REGION									TIME PERIOD				
	1	2	3	4	5	6	7	8	9	Mar-Apr 2006	Mar-Apr 2005	Jan-Apr Cum 2006	Jan-Apr Cum 2005	% Chg
Vaccine-preventable														
Hepatitis B										4	12	14	23	-39.1
Cases	0	0	1	0	1	0	0	0	2					
Rate ¹	0.0	0.0	0.3	0.0	0.4	0.0	0.0	0.0	0.5	0.1	0.3	0.3	0.5	NA
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Mumps	0	0	0	0	0	0	0	0	0	0	0	0	4	-100.0
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Pertussis	0	0	0	0	0	0	1	0	1	2	8	6	13	-53.8
Sexually-transmitted														
HIV/AIDS										54	207	155	389	-61.0
Cases ²	12	16	1	3	1	5	7	3	6					
Rate ¹	1.2	2.8	0.3	0.6	0.4	1.7	1.4	0.9	1.4	1.2	4.7	3.5	8.9	NA
Gonorrhea										1838	1950	2939	3660	-20
Cases	190	347	132	245	83	72	408	267	94					
Rate ¹	18.4	57.5	34.4	44.7	29.3	23.9	78.1	75.5	21.5	41.1	43.6	65.8	81.9	NA
Syphilis (P&S)										32	44	59	71	-16.9
Cases	8	10	3	11	0	0	0	0	0					
Rate ¹	0.8	1.7	0.8	2.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	1.3	1.6	NA
Enteric														
Campylobacter	3	3	2	0	0	1	1	1	3	14	22	28	39	-28.2
Hepatitis A										1	9	3	22	-86.4
Cases	0	0	0	1	0	0	0	0	0					
Rate ¹	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.5	NA
Salmonella										82	103	132	172	-23.3
Cases	6	9	16	14	7	7	10	4	9					
Rate ¹	0.6	1.5	4.2	2.6	2.5	2.3	1.9	1.1	2.1	1.9	2.4	3.1	4.0	NA
Shigella										23	14	43	43	0
Cases	0	2	4	12	0	0	1	1	3					
Rate ¹	0.0	0.3	1.0	2.2	0.0	0.0	0.2	0.3	0.7	0.5	0.3	1.0	1.0	NA
Vibrio cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	NA*
Vibrio, other	0	1	1	1	0	0	0	0	1	4	4	4	4	0
Other														
<i>H. influenzae (other)</i>	1	1	0	1	0	1	0	0	0	4	11	7	25	-72.0
<i>N. Meningitidis</i>	2	2	2	0	0	0	0	2	0	8	11	25	19	31.6

1 = Cases Per 100,000

2=These totals reflect persons with HIV infection whose status was first detected during the specified time period. This includes persons who were diagnosed with AIDS at time HIV was first detected.

Due to delays in reporting of HIV/AIDS cases, the number of persons reported is a minimal estimate. Data should be considered provisional.

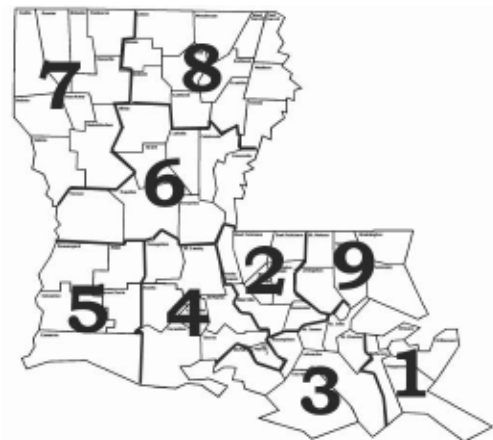
* Percentages not calculated for numbers less than 10

Table 2. Diseases of Low Frequency (January-April, 2006)

Disease	Total to Date
Legionellosis	4
Lyme Disease	0
Malaria	0
Rabies, animal	2
Varicella	116

Table 3. Animal rabies (March-April, 2006)

Parish	No. Cases	Species
Calcasieu	1	Bat
Rapides	1	Bat



**Sanitary Code - State of Louisiana
Chapter II - The Control of Disease**

LAC 51:II.105: The following diseases/conditions are hereby declared reportable with reporting requirements by Class:

Class A Diseases/Conditions - Reporting Required Within 24 Hours

Diseases of major public health concern because of the severity of disease and potential for epidemic spread-report by telephone immediately upon recognition that a case, a suspected case, or a positive laboratory result is known; [in addition, all cases of rare or exotic communicable diseases, unexplained death, unusual cluster of disease and all outbreaks shall be reported.

Anthrax	Measles (rubeola)	Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV)
Avian Influenza	Neisseria meningitidis (invasive disease)	Smallpox
Botulism	Plague	<i>Staphylococcus Aureus</i> , Vancomycin Intermediate or Resistant (VISA/VRSA)
Brucellosis	Poliomyelitis, paralytic	Tularemia
Cholera	Q Fever (<i>Coxiella burnetii</i>)	Viral Hemorrhagic Fever
Diphtheria	Rabies (animal and human)	Yellow Fever
<i>Haemophilus influenzae</i> (invasive disease)	Rubella (congenital syndrome)	
Influenza-associated Mortality	Rubella (German measles)	

Class B Diseases/Conditions - Reporting Required Within 1 Business Day

Diseases of public health concern needing timely response because of potential of epidemic spread-report by the end of the next business day after the existence of a case, a suspected case, or a positive laboratory result is known.

Arthropod-Borne Neuroinvasive Disease and other infections (including West Nile, St. Louis, California, Eastern Equine, Western Equine and others)	Hemolytic-Uremic Syndrome	Pertussis
Aseptic meningitis	Hepatitis A (acute disease)	Salmonellosis
Chancroid ¹	Hepatitis B (acute illness & carriage in pregnancy)	Shigellosis
<i>Escherichia coli</i> , Shig-toxin producing (STEC), including <i>E. coli</i> 0157:H7	Hepatitis B (perinatal infection)	Syphilis ¹
Hantavirus Pulmonary Syndrome	Hepatitis E	Tetanus
	Herpes (neonatal)	Tuberculosis ²
	Legionellosis (acute disease)	Typhoid Fever
	Malaria	
	Mumps	

Class C Diseases/Conditions - Reporting Required Within 5 Business Days

Diseases of significant public health concern-report by the end of the workweek after the existence of a case, suspected case, or a positive laboratory result is known.

Acquired Immune Deficiency Syndrome (AIDS)	Gonorrhea ¹	Staphylococcal Toxic Shock Syndrome
Blastomycosis	Hansen Disease (leprosy)	Streptococcal disease, Group A (invasive disease)
Campylobacteriosis	Hepatitis B (carriage, other than in pregnancy)	Streptococcal disease, Group B (invasive disease)
Chlamydial infection ¹	Hepatitis C (acute illness)	Streptococcal Toxic Shock Syndrome
Coccidioidomycosis	Hepatitis C (past or present infection)	<i>Streptococcus pneumoniae</i> , penicillin resistant [DRSP], invasive infection]
Cryptococcosis	Human Immunodeficiency Virus (HIV Syndrome infection)	<i>Streptococcus pneumoniae</i> (invasive infection in children < 5 years of age)
Cryptosporidiosis	Listeria	Transmissible Spongiform Encephalopathies
Cyclosporiasis	Lyme Disease	Trichinosis
Dengue	Lymphogranuloma Venereum ¹	Varicella (chickenpox)
Ehrlichiosis	Psittacosis	Vibrio Infections (other than cholera)
Enterococcus, Vancomycin Resistant [(VRE), invasive disease]	Rocky Mountain Spotted Fever (RMSF)	
Giardia	<i>Staphylococcus Aureus</i> , Methicillin/Oxacillin Resistant[(MRSA), invasive infection]	

Class D Diseases/Conditions - Reporting Required Within 5 Business Days

Cancer	Heavy Metal (Arsenic, Cadmium, Mercury) Exposure and/or Poisoning (All ages)	Severe Traumatic Head Injury
Complications of Abortion	Lead Poisoning and/or Poisoning (All ages)	Severe Undernutrition (severe anemia, failure to thrive)
Congenital Hypothyroidism ³	Pesticide-Related Illness or Injury (All ages)	Sickle Cell Disease (newborns) ³
Galactosemia ³	Phenylketonuria ³	Spinal Cord Injury
Hemophilia ³	Reye's Syndrome	Sudden Infant Death Syndrome (SIDS)

Case reports not requiring special reporting instructions (see below) can be reported by Confidential Disease Case Report forms (2430), facsimile, (504) 219-4522, telephone, (504) 219-4563, or web base at <https://ophrdd.dhh.state.la.us>.

¹Report on STD-43 form. Report cases of syphilis with active lesions by telephone.

²Report on CDC72.5 (f.5.2431) card.

³Report to the Louisiana Genetic Diseases Program Office by telephone at (504) 219-4413 or facsimile at (504) 219-4452.

This public health document was published at a total cost of . Seven thousand copies of this public document were published in this first printing at a cost of . The total cost of all printings of this document, including reprints is . This document was published by to inform physicians, hospitals, and the public of current Louisiana morbidity status under authority of R.S. 40:36. This material was printed in accordance with the standards for printing for state agencies established pursuant to R.S. 43:31. Printing of this material was purchased in accordance with the provisions of Title 43 of Louisiana Revised Statutes.

**DEPARTMENT OF HEALTH AND HOSPITALS
OFFICE OF PUBLIC HEALTH
P.O. BOX 60630 NEW ORLEANS LA 70160**

PRSRSTD
U.S. POSTAGE
PAID
Baton Rouge, LA
Permit No. 1032