



Louisiana Morbidity Report

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What is the Louisiana Antibigram ?

The statewide Antibigram is a compilation of individual hospital antibiograms. Within each cell the range of sensitivity including 95% of the hospitals is presented: for example in the cell Staphylococcus aureus / Oxacillin a 50-82 results means that 95% of hospitals reported staphylococcus aureus sensitivity ranging from 50% to 82%, or resistance ranging from 18% to 50%.

Most hospitals issue an "Antibiogram" which once per year summaries of the most important antibiotic resistance patterns for their hospital. The Antibigram is a table listing the microorganisms in the first left column, antibiotics in columns and microorganisms in rows.

How useful is a hospital antibiogram?

The antibiogram shows the spectrum of resistance among the most common micro-organisms detected by the hospital laboratory.

It provides useful information for the selection of an empiric antibiotic treatment when a presumptive diagnosis of infection with a specific bacteria is made. It is no longer useful once the specific bacteria has been identified and an antibiotic resistance established for the patient's infection.

There are some limitations when using a hospital antibiogram:

1. Most hospital laboratories do not sort out community acquired infections from hospital acquired. The antibiotic resistance patterns for both groups may be substantially different. Gram negative rods tend to be more prevalent in hospital infections, and more resistant if they originate from a hospital source.

2. Some laboratories do not thoroughly eliminate duplicate cultures from the same patients, so that resistant strain which tend to be cultured more often artificially inflate the resistance prevalence.

The Louisiana Antibigram is not as useful as the individual hospital Antibigram to make empiric treatment decisions. But it is useful to compare one individual hospital Antibigram to the rest of the state.

If constructed carefully and interpreted with caution, a hospital Antibigram can be a useful tool.

Here are a few examples:

1. My hospital is out of range. What does it mean?

For example methicillin sensitivity ranges from 50 to 82% but your antibiogram shows a sensitivity of 35%, so your resistance is 65% a very high number.

--Your lab maybe counting duplicate MRSA

--You have an unusual high MRSA prevalence that needs to be looked into.

2. I do not find the cell I need in the state antibiograms. Why ?

The cell you are looking for is not used by many hospitals

--It may not be appropriate: check with your infectious disease specialist and the lab

--You may use some unusual or expensive antibiotic that most other hospitals do not use.

The whole purpose of comparing your antibiograms with the state is more to generate questions than to provide answers.

How often do I need to generate a hospital antibiogram?

Some hospitals generate reports every 3, 6 or 12 months. Generating a report too often, for example every 3 months results in small numbers of isolates and sometimes large variations in % from one quarter to the next. These variations are usually not sustained and do not mean much. Usually an annual report is sufficient

WE NEED YOUR HELP

This antibiogram is an example of what we may produce. It is based on too few hospitals to be very useful.

Send us your antibiograms and we can prepare a more meaningful tool. Your data will be held confidentially and we would NEVER release any hospital specific data to anyone. The data is part of our antibiotic resistance investigation and such data is protected by Louisiana Statues.

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Louisiana Antibiogram (Antimicrobial Susceptibilities of Selected Pathogens) 1999-2000
For epidemiologic purpose ONLY - Not for making therapeutic decisions

Coac Gram +	# of hospital	Peni -cillin	Oxa -cillin	Ticr -cillin	Augmen -tin	Cephz -loxin	Cefa -zolin	Cefo -taxime	Ceftri -axone	Clinda -mycin	Erythromycin	Centa -mycin	Cipro -flox	Nor -flox	Tetra -cycline	Trim -Sul	Vanco -mycin
<i>Staph aureus</i> , coag+(1)	17	9-18	30-80	60-99	83*	56-95	70-76			90-99	50-78	82-99	65-85			89-99	100
MRSA only	7									60-75	15-40	70-82	15-25	70*		78-98	100
<i>Staph epidermidis</i> , coag neg	16	3-20	15-40	30-80	83*	20-95	30*			65-85	25-65	50-98	45-85			50-80	100
<i>Streptococcus</i> sp. A	2	91-100	83-92	77-100		91-100	82-93			100	90-91	100					100
<i>Streptococcus</i> sp. B	4	100								85-90	70-100						100
<i>Strep. pneumoniae</i>	12	33-99		48-50*		50*	75-90	80-90*		90-95	45-90	70-90			80-90	35-80*	100
<i>Enterococcus faecalis</i>	12									25-61	27-80	45-70			24-56		97-100
<i>Enterococcus faecium</i>	8									9-20	30	5-25			13-50		30-95
<i>Enterococcus</i> spp.	4														36-40	25	93-100

Coac Gram -	# of hospital	Peni -cillin	Ampic -cillin	Ticr -cillin	Cephz -loxin	Pipera -cillin	Augmen -tin	Trim -Sul	Cefuro -xime	Cefo -taxime	Ceftri -axone	Cefo -taxime	Cefaz -idime	Cefep -ime	Cefi -xime	Trim -Sul
<i>Acinetobacter</i>	8			50-85		28-64	80*	11-44	95-100	75	40-90	52-80		94-100	100	50-95
<i>Hemophilus influenzae</i>	9	60-80					87-96*			93-96	100					70-85
<i>Neisseria gonorrhoeae</i>	2	65-80												100		
<i>Neisseria meningitidis</i>	2	100														

Coac Gram -	# of hospital	Ampic -cillin	Pipera -cillin	Ticr -cillin	Augmen -tin	Cephz -loxin	Trim -Sul	Cefuro -xime	Cefo -taxime	Ceftri -axone	Cefo -taxime	Cefaz -idime	Cefep -ime	Nitro -furant	Cipro -flox	Nor -flox	Centa -mycin	Tobraz -mycin	Amaba -cin	Tetra -cycline	Trim -Sul			
<i>Enterobacteriaceae</i>	20	8-11	40-88		53-76	71-100	71-100	50-80	50-94	50-94	4-6	4-6	2-11	56-91	55-98	61-86	25-100	81-99	75-100	82-100	80-100	98-100	67-100	70-100
<i>Citrobacter</i> spp.	20	2-50	51-85	50-99	20-86	29-99	57-95	100	34-66	4-6														
<i>Enterobacter</i> spp.	15	32-63	46-62	24-61	42-66	79-100	95-100	97-100	75-100	88-100	77-92	92-100	85-100	83-100	75-99	89-100	91-100	93-100	97-100	98-100	98-100	76-87	78-100	
<i>E.coli</i>	15	1-6	48-91	11	72-80	87-100	88-100	99-100	81-91	87-100	75-99	86-99	83-100	55-80	88-97	81-100	85-100	84-100	95-100	82-87	62-100			
<i>Klebsiella</i> spp.	15	81-99	90-100	81-100	92-100	99-100	91-100	92-100	99-100	77-99	95-100	97-100	99-100	28-98	81-100	90-100	92-100	89-100	95-100	1-3	77-98			
<i>Protococcus</i> spp.	2	87-88	88-89	78-86			74	96																
<i>Salmonella</i> spp.	2	22	64	66				100	100	100	100													
<i>Shigella</i> spp.	2	80-100																						
<i>Serratia</i> spp.	15																							
Other Gram - Rods																								
<i>Pseudomonas aeruginosa</i>	15	81-95																						
<i>Kaerthomonas m. Akropolis</i>	4	16	16	16																				

*Only 1 or 2 hospital reporting
(15 some hospital may have included MRSA in the total *Staph aureus*)
Based on 15 reports

Outbreak of Gastroenteritis ? Think of Norwalk Virus

A recent outbreak of Norwalk virus gastroenteritis

In mid-September 2002, the Infectious Disease Epidemiology Section of the Louisiana Office of Public Health was notified of unusually high numbers of gastrointestinal illnesses among the residents of an Alzheimer's unit in a nursing home. Twenty of the 42 residents within the Alzheimer's unit developed GI distress over a three-day period (attack rate: 47.6%); 13 cases were identified on day 1, followed by 5 cases on day 2 and 2 cases on day 3. Six additional cases of gastrointestinal illness were reported among residents within other units of the 245-bed facility during this time period. Symptoms were mostly limited to diarrhea; very few episodes of vomiting were noted. No other symptoms were reported and none of the residents developed fever.

Upon recognition of the outbreak, the Infectious Disease Section recommended infection control measures including strict enforcement of hand-washing practices, isolation of the unit, and disinfection of environmental surfaces. Most of the affected residents experienced resolution of symptoms within 24 hours, and no further cases were identified. No employees within the affected unit or food handlers from the dietary facility had reported illness prior to the occurrence of gastrointestinal illness.

Meals for the Alzheimer's unit were prepared in the dietary facility, plated from the main cafeteria line, put onto trays, covered, placed in warming carts and transported to the unit. An inspection of the kitchen revealed that food conservation temperatures were not respected (104°F to 110°F instead of 145°F). No food was available for laboratory testing. No food histories could be obtained.

Stool samples from 7 residents were collected. No *Salmonella*, shigella, *E.coli* O157:H7, campylobacter or vibrio were isolated. Virology testing at the CDC lab identified Norwalk virus from the 7 samples and genomic analysis confirmed that samples were identical (only 2 of the 7 were tested).

Detection of Norwalk viruses has become easier

Since the discovery of viral gastroenteritis outbreaks in the 1970s, laboratory confirmation of this etiology has become easier. Sensitivity and specificity of immunologic assays improved but reagents were in limited quantities. Molecular assays such as Reverse Transcription Polymerase Chain Reaction (RT-PCR) have now made the etiologic diagnosis much easier to obtain.

The criteria for presumptive diagnosis of Norwalk viral gastroenteritis are

- Stool specimen for bacterial and parasitic pathogens
- Proportion of cases with vomiting 50%
- Duration of illness 12-60 hours
- Mean incubation period 24-48 hours

In this outbreak the very small proportion of vomiting was a main argument against Norwalk, and the lab proved decisive in confirming the etiology.

The source of the outbreak has not been identified. The relative concentration of cases over a short period of time (less than 72 hours) suggests a point source, possibly contaminated food. Since patrons of the cafeteria were not significantly affected, contamination may have occurred during the process of plating and transporting the meals.

This nursing home was also affected by Norwalk in 2000

In May 2000, nearly 50 residents with symptoms of GI distress were reported, most of them with volatile episodes of diarrhea and/or vomiting lasting anywhere from 1 to 3 days.

No dietary employees reported any illness. Of the other 18 employees 11 (61.1%) reported illness. Out of 160 patients 44 were found to have had illness (attack rate 27%). The range of duration of symptoms was 1-3 days. The common symptoms were diarrhea, nausea, and vomiting. The majority of cases occurred over a 6-day period, with a 20-day span from the first to the last case.

Six stool samples, collected from residents at the facility, were negative for enteric bacteria at the state laboratory. Norwalk-like virus strain was detected in 5 samples examined by a reverse transcriptase-polymerase chain reaction (RT-PCR) procedure at CDC. No food samples were available for testing.

Burden of disease due to Norwalk viruses

Extrapolating from national data from CDC (CDC RR9), there are 4,500,000 episodes of diarrhea in the state each year, leading to 1,000 hospitalizations and 50 deaths. It is estimated that 5 to 15% of diarrhea cases are caused by Norwalk viruses.

Numerous outbreaks of Norwalk virus gastroenteritis have been reported in the state.

Outbreak related to oysters with contamination from the harvesting site in March 2002

(Continue on next page)

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(Outbreak of Gastroenteritis Cont.)

Following a report of gastrointestinal illness among several individuals eating raw oysters from two different restaurants, an outbreak investigation was undertaken. A total of 61 questionnaires were obtained. Twenty-six patients met the case criteria. Twenty-two (84.6%) case-patients had abdominal cramping, twenty-one (80.8%) experienced diarrhea, twenty-one (80.8%) were nauseated, fourteen (53.8%) had a headache, thirteen (50.0%) had a fever, thirteen (50%) experienced vomiting, and sixteen (61.5%) exhibited other symptoms.

The average incubation period was 23 hours (range 3 to 49 hrs). The median duration of illness was 37 hours (range 6-72 hours). Four persons consulted a physician; no one was hospitalized. Data collected on food items consumed by cases was analyzed. Eating oysters, both raw and fried (OR= 51.82, 95% CI= 10.03 - 402.81) and eating shrimp (OR= 3.90, 95% CI= 1.20, 13.53) were significantly associated with illness.

A total of nine stool specimens were collected and tested negative for bacterial enteric pathogens at the state laboratory. These specimens were then submitted to the Viral Gastroenteritis Section of CDC for additional testing. Six out of nine samples tested positive for Norwalk-like virus: 4 from Restaurant B patrons and 2 from Restaurant A. All six sequences were identical.

As a result of two unrelated illnesses associated with oyster consumption and in accordance with the Louisiana Sanitary Code an oyster area was closed to the harvest of molluscan shellfish, including oysters.

The Molluscan Shellfish & Seafood Monitoring Program conducted the oyster trace back to the distributor, harvester, and area of harvest. There was no increase in coliforms in the water but a drop in salinity occurred (believed to create a better environment for viruses to exist in oysters).

Oyster samples were obtained from both the closed growing area and from leftover oyster batches that were recalled and submitted to the USDA lab for PCR testing. Norwalk-like virus was undetected in all of the samples submitted. The lack of viral identification and isolation may be associated with several plausible factors, including the possibility that the implicated oysters associated with this outbreak may have been geographically confined to a limited contamination site or that the timing of oyster collection for testing may have precluded viral capture by PCR.

A river boat outbreak in June 2001

In June 2001 an unusual increase of gastrointestinal illnesses on a river boat was reported to the Infectious Disease Section.

A food history survey was administered to passengers and crew members. To identify exposure associated with illness, a case-control study was performed. Based on information reported in the completed questionnaires, 35 of the 183 passengers and 5 out of 86 crew members met the case definition. Five stool specimens were collected from passengers, and one tested positive for a Norwalk-like virus (NLV). Some secondary cases were identified in the cabins of case-patients.

Analysis of passenger-reported exposures revealed a significant association between consumption of raw fruits and illness. There was also a weaker association with the consumption of raw vegetables.

Several problems were identified in the kitchen with respect to cooling, storing, reheating, and serving of foods. In addition, two crew members reported handling raw products such as fruits and vegetables during their illness. The pattern of illnesses suggests a point source outbreak of NLV initially transmitted through a common vehicle such as high-risk foods, followed by secondary case development due to the close contact within the living quarters on board the ship.

Outbreaks probably related to NorwalkOyster Related outbreak in January 2001

Following a report of acute gastroenteritis among convention attendees, the Infectious Disease Epidemiology Section interviewed 46 individuals. Thirteen attendees met the case definition. Predominant symptoms among cases were diarrhea, followed by nausea, fever, and fatigue. Five individuals sought medical attention and no one was hospitalized. No stool specimens were submitted for laboratory cultures. Incubation periods ranged from 12 to 48 hours (mean 27 hrs). Duration of illness among cases ranged from 6 to 36 hours with a mean of 22 hours. All of the cases consumed raw oysters. A thorough restaurant inspection was conducted and did not demonstrate any obvious breaks in oyster management. The water quality at the harvest site was within guidelines and the temperature was cold (42°F) and not favorable to bacterial multiplication. The epidemiologic evidence points to a post harvest contamination, occurring either at the distributor or retail level. Among the cases, self-limiting mild to moderate disease with clinical symptoms predominantly consisting of diarrhea, nausea, fever, vomiting, abdominal cramps, and fatigue was observed. This suggested a Norwalk-like virus as the probable organism. Norwalk virus outbreaks in the United States are often associated with consumption of raw shellfish. The epidemic curve suggested a point-source outbreak, in which consumption of raw oysters was implicated as the likely exposure associated with illness. The source of contamination could not be determined, but it was likely with the retail level.

Epidemiologic Notes from CDC

Outbreaks of Norwalk gastroenteritis occur in multiple settings. Of 348 such outbreaks reported to CDC from 1996 to 2000:

- 39% occurred in restaurants;
- 29% occurred in nursing homes and hospitals;
- 12% in schools and day care centers;
- 10% in vacation settings, including cruise ships;
- 9% in other settings.

Nursing Homes and Residential Institutions

Protracted outbreaks of NLV disease have been reported among elderly persons living in institutional settings, (e.g., nursing homes). In certain cases, the outbreak was initially caused by a common-source exposure to a fecally contaminated vehicle (e.g., food or water). Later, the outbreak spreads through person-to-person transmission among the residents; this spread is facilitated by the enclosed living quarters and reduced levels of personal hygiene that

result from incontinence, immobility, or reduced mental alertness. Because of underlying medical conditions, the disease among these persons can be severe or fatal.

Restaurants and Catered Events

Investigations of foodborne Norwalk outbreaks have implicated multiple food items, including oysters, salads, sandwiches, cakes, frosting, raspberries, drinking water, and ice. In certain outbreaks, the implicated food is fecally contaminated with Norwalk at its source (e.g., oysters harvested from fecally contaminated waters or raspberries irrigated with sewage-contaminated water). However, food handlers might contaminate food items during preparation. The risk for contamination through food handlers is increased when the food item is consumed without further cooking (e.g., ready-to-eat foods) and when a semiliquid food (e.g., cake frosting or salad dressing) is contaminated so that a small inoculum is mixed and spread to multiple persons.

Cruise Ships

Passengers and crew members on cruise ships and naval vessels are frequently affected by outbreaks of Norwalk gastroenteritis. These ships dock in countries where levels of sanitation might be inadequate, thus increasing the risk for contamination of water and food taken aboard or for having a passenger board with an active infection. After a passenger or crew member brings the virus on board, the close living quarters on ships amplify opportunities for person-to-person transmission. Furthermore, the arrival of new and susceptible passengers every 1 or 2 weeks on affected cruise ships provides an opportunity for sustained transmission during successive cruises. NLV outbreaks extending beyond 12 successive cruises have been reported.

Laboratory testing is essential for the etiologic diagnosis

Stool

Timing. Ideally, specimens should be obtained during the acute phase of illness (within 48-72 hours after onset) while the stools are still liquid or semisolid because the level of viral excretion is greatest then. However, specimens may be collected later during the illness (7-10 days after onset), as newer testing techniques have enhanced capacity for viral detection.

Number and Quantity. Ideally, specimens from ≥ 10 ill persons should be obtained during the acute phase of illness. Bulk samples (10-50ml of stool placed in a stool cup or urine container) are preferred. Serial specimens from persons with acute, frequent, high-volume diarrhea are also useful. In general, smaller and better-formed stool samples are associated with lower diagnostic yield. Rectal swabs are of limited or no value because they contain insufficient quantity of nucleic acid for amplification.

Storage and Transport. Because freezing can destroy the characteristic viral morphology that permits a diagnosis by electron microscopy, specimens should be kept refrigerated at 4°C. At this temperature, specimens can be stored without compromising diagnostic yield for 2-3 weeks, during which time testing for other pathogens can be completed. If the specimens have to be transported to

a laboratory for testing, they should be bagged and sealed and kept on ice or frozen refrigerant packs in an insulated, waterproof container. If facilities for testing specimens within 2-3 weeks are not available, specimens can be frozen for antigen or PCR testing.

Vomit

Recommendations for collection, storage, and shipment of vomitus specimens are the same as those for stool specimens.

Serum

Acute- and convalescent-phase serum specimens should be obtained to test for a diagnostic ≥ 4 -fold rise in IgG titer to Norwalk. Ideally, 10 pairs of specimens from ill persons (i.e., the same persons submitting stool specimens) and 10 pairs from well persons (controls) should be obtained. Adults should provide 5-7 ml of blood, and children should provide 3-4 ml. Specimens should be collected in tubes containing no anticoagulant, and the sera should be spun off and frozen.

Note that acute serums submitted without convalescents are not very useful.

Environmental Specimens:

Norwalk cannot be detected easily in water, food, or environmental specimens. If a food or water item is strongly suspected as the source of an outbreak, then a sample should be obtained as early as possible and stored at 4°C. If the epidemiologic investigation confirms the link, a laboratory with the capacity to test these specimens should be contacted for further testing.

Reference

CDC 2001. Norwalk like viruses: Public health consequences and outbreak management. Recommendations and Reports Vol 50. #RR9.

Influenza Program - 2002

Ruben Tapia, MPH

The statewide influenza immunization program for high risk individuals vaccination kick off is scheduled to begin the week of October 28th 2002. The Influenza strains anticipated to be prevalent in 2002-2003 will be related to: A/NEW Caledonia/20/99 (H1N1), A/Panama/2007/99 (H3N2)(an A/Moscow/10/99-like strain) and B/Hong Kong/1434/2002 (a B/Hong Kong/330/2001-like strain).

Each year, influenza, also known as "the flu", causes on average about 20,000 deaths in the U.S. alone. Most of those deaths are among seniors. Because flu season in the Louisiana is from late November to spring, the best protection is to vaccinate now.

Who should get influenza vaccine? (1) groups at greatest medical risk of Influenza-related complications such as residents of nursing homes, institutionalized patients, individuals of any age with chronic medical conditions; (2) anyone with a weakened immune system; (3) anyone 6 months to 18 years of age on long term aspirin treatment (who could develop Reye Syndrome if they become infected with influenza); (4) persons 50 years or older; (5) pregnant (*Continue on page 7*)

LOUISIANA COMMUNICABLE DISEASE SURVEILLANCE
Jul-Aug 2002
PROVISIONAL DATA

Table 1. Disease Incidence by Region and Time Period

DISEASE	HEALTH REGION									TIME PERIOD				
	1	2	3	4	5	6	7	8	9	Jul-Aug 2002	Jul-Aug 2001	Jan-Aug Cum 2002	Jan-Aug Cum 2001	% Chg
Vaccine-preventable														
<i>H. influenzae (type B)</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hepatitis B Cases	11	10	1	1	1	1	0	2	4	31	14	95	85	+11.7
Rate ¹	1.1	1.8	0.3	0.2	0.4	0.3	0	0.6	1	0.7	0.3	2.2	2.0	na
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mumps	0	0	0	0	0	0	0	0	0	0	0	1	2	-100.0
Rubella	0	0	0	0	0	0	0	0	0	0	0	1	0	+100.0
Pertussis	1	0	0	0	0	0	0	0	0	1	1	8	5	+60.0
Sexually-transmitted														
HIV/AIDS Cases ²	44	58	3	18	8	7	10	12	11	171	197	723	763	-6.0
Rate ¹	4.4	10	0.8	3.4	2.9	2.3	2.0	3.4	2.5	3.9	4.5	16.5	17.5	na
Gonorrhea Cases	633	322	112	200	96	122	597	137	112	2331	2102	8104	8209	-1.3
Rate ¹	60.9	56.7	29.7	38.8	35.8	40.0	118	39	29.1	55.2	49.8	192.0	194.5	na
Syphilis (P&S) Cases	1	13	2	11	1	1	3	1	0	33	28	98	95	+3.2
Rate ¹	0.1	2.3	0.5	2.1	0.4	0.3	0.6	0.3	0	0.8	0.7	2.3	2.3	na
Enteric														
Campylobacter	6	2	1	4	1	1	0	0	1	16	32	92	103	-10.6
Hepatitis A Cases	4	0	0	0	2	0	0	1	1	8	14	61	73	-16.4
Rate ¹	0.4	0.0	0	0	0.7	0	0	0.3	0.3	0.2	0.3	1.4	1.7	na
Salmonella Cases	6	12	9	15	3	18	3	36	8	110	208	571	525	+8.7
Rate ¹	0.6	2.1	2.4	2.9	1.1	5.9	0.6	10.3	2.1	2.5	4.9	13.2	12.2	na
Shigella Cases	18	11	0	0	3	2	3	0	4	41	31	370	171	+116.4
Rate ¹	1.7	1.9	0.0	0.0	1.1	0.7	0.6	0.0	1.0	1.0	0.7	8.6	4.0	na
Vibrio cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vibrio, other	5	0	4	1	0	0	0	0	2	12	6	30	25	+20.0
Other														
<i>H. influenzae (other)</i>	0	3	0	0	0	0	0	0	0	3	0	7	6	+16.7
<i>N. Meningitidis</i>	3	1	0	0	0	2	0	0	1	7	5	33	63	-47.6
Tuberculosis	7	0	1	3	2	2	3	5	1	24	52	137	218	-37.1

1 = Cases Per 100,000

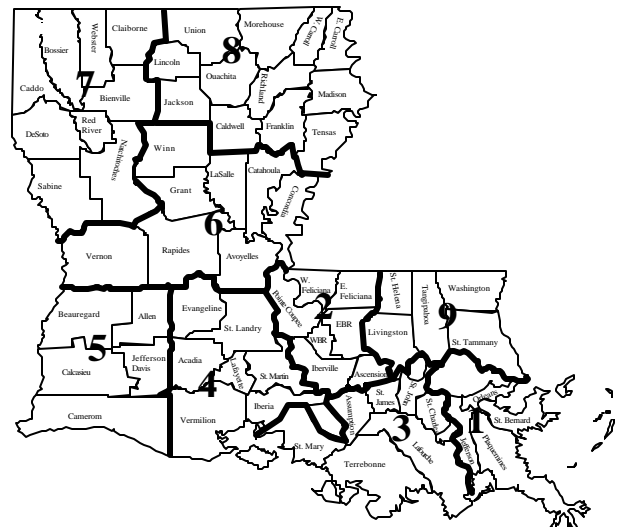
2=These totals reflect persons with HIV infection whose status was first detected during the specified time period. This includes persons who were diagnosed with AIDS at time HIV was first detected.

Table 2. Diseases of Low Frequency

Disease	Total to Date
Legionellosis	5
Lyme Disease	3
Malaria	3
Rabies, animal	4
Varicella	22

Table 3. Animal rabies (Sep-Oct)

Parish	No. Cases	Species
Lafayette	1	skunk
Calcasieu	1	bat



women who will be past the third trimester of pregnancy during the influenza season (usually November through March, but past March in some years); (6) physicians, nurses, family members, or anyone else coming in close contact with people at risk of serious influenza.

For the upcoming 2002-03 influenza season, no changes are being made to groups of children eligible for influenza vaccine. But an annual flu shot is “encouraged”, when feasible to:

(1) Healthy children 6-23 months of age, and their household contacts and out of home caretakers; (2) household contacts and out-of-home caretakers of infants less than 6 months of age; (3) people who provide essential community services; (4) people living in dormitories or under other crowded conditions, to prevent outbreak; (5) anyone who wants to reduce their chance of catching the influenza; (6) travelers to Southern hemisphere between April and September.

Please check with your medical provider, or local Health Unit for days and times of flu clinics. The flu vaccine is administered at the public health units and there is a \$10 administrative fee. However, this fee is waived for Medicare or Medicaid clients. For further information please call the Immunization Program Office at 504-483-1900.

BRFSS: Awareness of Signs and Symptoms of Heart Attack and Stroke

Srikant Nannapaneni, MPH

Cardiovascular disease (CVD) is the leading cause of death and disability for both men and women in all racial and ethnic groups in Louisiana and the United States. In Louisiana alone, CVD was responsible for 14,977 deaths in the year 2000 (36% of all deaths that year). In 1999, CVD was also responsible for more than 76,000 hospitalizations in Louisiana and an estimated \$1.4 billion in hospital charges.

One main factor known to adversely influence the outcome of an acute CVD event such as a heart attack or stroke is the time between the onset of symptoms and institution of treatment. Studies have shown that patients treated with clot dissolving drugs within 1 hour of symptom onset had a 45% reduction in mortality rate compared to those who did not receive the treatment.

Awareness of the signs and symptoms of heart attack and stroke by the general public plays a major role in reducing the time delay between the onset of a heart attack or stroke and accessing emergency care.

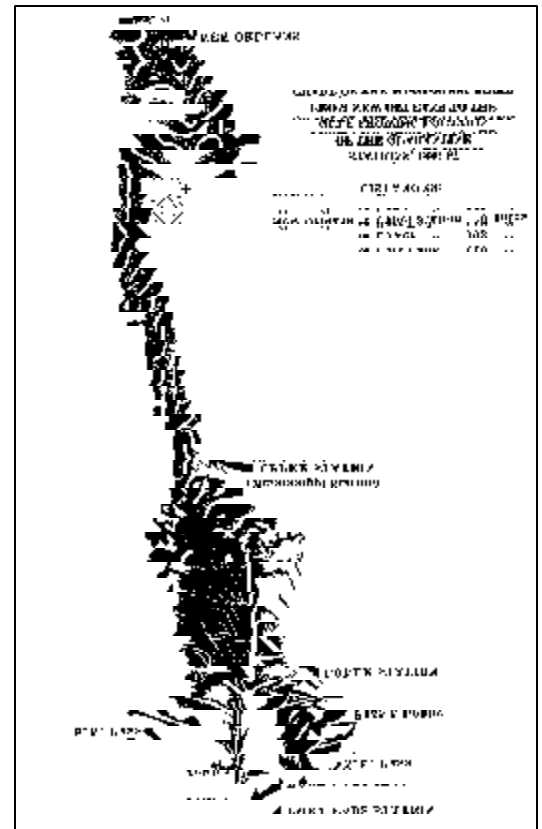
In 2001, the Louisiana Behavioral Risk Factor Surveillance System (BRFSS) survey, a state-based random-digit-dialed telephone survey of non-institutionalized adults aged 18 years or older, was used to assess public awareness of the signs and symptoms of heart attack and stroke. Awareness of the individual signs and symptoms of heart attack varied widely. While 91% of the respondents were able to identify chest pain/discomfort as a symptom of heart attack, 63% incorrectly reported trouble seeing in both eyes as being a symptom of heart attack. Overall, respondents who were African American, individuals 65 years and older, unemployed or have

annual household income of less than \$15,000 were less likely to report awareness of signs and symptoms of heart attack. Similarly, a greater proportion (91.3%) of respondents were able to identify sudden numbness or weakness of face, arm or leg as a symptom of stroke but 70% inaccurately identified chest pain/discomfort as being a symptom of stroke. As with heart attack symptom awareness, race, age, education, employment status and household income were found to influence the degree of awareness of stroke symptoms.

Our results correspond well with other studies, which assessed the knowledge of signs and symptoms of heart attack and stroke. The key findings of this study are: 1) overall, chest pain and weakness or numbness are the most commonly recognized symptoms of heart attack and stroke respectively with a lesser degree of awareness of the other signs and symptoms, 2) awareness of signs and symptoms of heart attack and stroke appear to vary with socio-demographic characteristics.

The Louisiana Cardiovascular Health (CVH) program is currently in the process of developing a statewide plan to decrease the burden of CVD. The plan aims to bring about system level changes by creating heart-healthy environments and facilitating policy changes to decrease the death and disability due to CVD in the state of Louisiana. For further information on the results from this study and the Louisiana CVH program, please contact Ms. Tara Doskey, Program Coordinator for the Louisiana CVH program at (504) 568-7210.

Louisiana Fact



Reference: *The Progressive Years* by Gordon Gillson, p. 12.

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

"It is hereby made the duty of every physician practicing medicine in the State of Louisiana to report to the State Health Officer, through the Health Unit of the parish or municipality wherein such physician practices, any case of suspected case of reportable disease which he is attending, or has examined, or for which such physician as prescribed. The report shall be made promptly at the time the physician first visits, examines or prescribes for the patient, and such report shall state the name, age, sex, race, usual residence, place where the patient is to be found, the nature of the disease and the date of onset." In addition to physician reporting, laboratories are required to report the results of tests which either confirm or suggest the occurrence of reportable diseases as specified by law. Additionally, Section 2:006 states "It shall be the duty of every osteopath, coroner, medical examiner, dentist, homeopath, infection control practitioner, medical records director, nurse, nurse midwife, nurse practitioner, pharmacist, physician assistant, podiatrist, social worker, veterinarian, and any other health care professional to report a confirmed case of reportable disease as specified in Section 2:003 in which he or she has examined or evaluated, or for which he or she is attending or has knowledge."

2:003 The following diseases 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	Haemophilus influenzae (invasive infection)	Rubella (German measles)
Botulism	Measles (rubeola)	Rubella (congenital syndrome)
Brucellosis	Neisseria meningitidis (invasive infection)	Smallpox
Cholera	Plague	Tularemia
Diphtheria	Rabies (animal & man)	Viral Hemorrhagic Fever

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 encephalitis	Hepatitis A (acute illness)	Pertussis
Aseptic meningitis	Hepatitis B (carriage in pregnancy)	Salmonellosis
Chancroid ¹	Herpes (neonatal)	Shigellosis
E. Coli 0157:H7	Legionellosis	Syphilis ¹
Hantavirus Pulmonary Syndrome	Malaria	Tetanus
Hemolytic-Uremic Syndrome	Mumps	Tuberculosis ²
		Typhoid Fever

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

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

Acquired Immune Deficiency Syndrome (AIDS)	Giardia	Staphylococcus aureus, Methicillin/oxacillin or vancomycin resistant (MRSA)
Blastomycosis	Gonorrhea ¹	Streptococcus pneumoniae (invasive infection; penicillin resistant (DRSP)
Campylobacteriosis	Hansen Disease (leprosy)	Streptococcus pneumoniae (invasive infection in children < 5 years of age)
Chlamydial infection ¹	Hepatitis B (acute)	Varicella (chickenpox)
Cryptococcosis	Hepatitis C (acute)	Vibrio infections (except cholera)
Cryptosporidiosis	Human Immunodeficiency Virus (HIV)	
Cyclosporiasis	Listeria	
Dengue	Lyme Disease	
EHEC serogroup non 0157	Lymphogranuloma venereum ¹	
EHEC + shiga toxin not serogrouped	Psittacosis	
Enterococcus, Vancomycin Resistant; (VRE)	Rocky Mountain Spotted Fever (RMSF)	

Other Reportable Conditions:

Cancer	Lead Poisoning*	Sickle cell disease (newborns)*
Complications of abortion	Phenylketonuria*	Spinal cord injury**
Congenital hypothyroidism*	Reye's Syndrome	Sudden infant death syndrome (SIDS)
Galactosemia*	Severe traumatic head injury**	
Hemophilia*	Severe undernutrition (severe anemia, failure to thrive)	

Case reports not requiring special reporting instructions can be reported by Confidential Disease Case Report forms EPI-2430, facsimile (504-568-5006), phone reports (504-568-5005 or 1-800-256-2748), or electronic transmission.

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

²Report on CDC72.5 (f.5.2431) card.

*Report to the Louisiana Genetic Diseases Program Office by telephone (505) 568-5070 or FAX (504) 568-7722.

**Report on DDP-3 form; preliminary phone report from ER encouraged (504) 568-2509. Information contained in reports required under this section shall remain confidential in accordance with the law.

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