Epi Update

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In This Issue

Norovirus Outbreak Associated with a Community Charity Event, Osceola County, December, 2006

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INTRODUCTION

On December 4, 2006, the Osceola County Foodborne Epidemiology team was notified that a group of over 30 volunteers had allegedly experienced gastrointestinal symptoms approximately 12 hours after consuming boxed lunches that were served at a charity golf tournament. This tournament occurred from November 29 to December 3, 2006, at a local resort hotel. The total approximated attendees included 180 golfers and 150 volunteers.

METHODS

The Osceola County Health Department's Epidemiology team interviewed managers and volunteers to obtain relevant menus, lists of event participants, food histories, and a schedule of events. A questionnaire was developed and administered to volunteers and food workers via email and telephone. Another questionnaire was used for interviewing the golfers. Surveillance was also conducted to determine if anyone outside of this event reported similar illness associated with Resort A. A case was defined as a person who reported either vomiting or diarrhea, or three of the following symptoms: headache, nausea, abdominal pain or cramps, muscle aches, fever, weakness, fatigue, or drowsiness within three days of attending all or part of the charity golf tournament at Resort A from November 30 to December 3, 2006. Collected data was stored and analyzed using Epi-Info 6.0 database software. Bivariate analysis was performed using SAS version 9.1 (SAS Institute Inc. Cary, North Carolina).

A joint investigation with the Department of Business and Professional Regulation, Division of Hotels and Restaurants was performed at the food service facilities at Resort A and at Company A, a facility that provided three refrigeration units for the tournament. Information of previous regulatory inspections of the facilities was also collected.

Two symptomatic cases submitted stool samples that were sent to the Bureau of Laboratories in Jacksonville for analysis. Two leftover ham sandwiches from the December 2 lunch were obtained and sent to the laboratory for microbiological testing and transferred to the Tampa branch for viral analysis.

RESULTS

A total of 117 completed volunteer questionnaires were obtained with 43 (36.8%) respondents reporting gastrointestinal illness matching the case definition. Data presented is from the volunteer cohort. Illness onsets ranged from November 29 through December 4, 2007. A total of 36 (83.7%) of the reported illness onsets occurred between December 1 at 10:30 pm and midnight of December 2 (refer to Chart 1). Predominant symptoms described were nausea, diarrhea, fatigue, weakness, vomiting, and abdominal pain (refer to Table 1). Duration of the illnesses ranged from 3 to 168 hours with a median of 36 hours. The age of the ill persons ranged from 42 to 86 years with a median of 66 years. A total of 34 (81.0%) ill persons were male. No other similar illnesses outside of this group were reported to any county health department in the area.

A single stool from a case with an onset of December 1 at 12:30 pm was positive for Norovirus Type G1. The two sandwiches had a standard plate count of 78,000/g and 71,000/g, and fecal coliform MPN/gm of 850/g and 630/g. These sandwiches were negative for *Staphylococcus* toxin, *Staphylococcus aureus*, *Clostridium perfringens*, and *Bacillus cereus*. Norovirus was not found in either sandwich.

Meals for the golfers and volunteers were prepared in the clubhouse food preparation facilities of Resort A. Golfers and volunteers were served differing food products at different locations. The volunteers had self service eating arrangements and were served bagged lunches at the volunteer tent. A volunteer served the meals to another volunteer if they were on the course. The players were served by hotel employees and other volunteers in the tournament hall. Bottled water was provided at locations throughout the golf course.

Observations of the clubhouse foodservice facility included improper hand hygiene practices, improperly maintained food contact surfaces, cross contamination between raw animal foods and ready to eat foods, presence of flies, bare hand contact with ready to eat foods, and improperly sanitized food contact surfaces. Resort A did not notify and obtain the required permit for a temporary event involving food service. It was learned that a temporary food worker called in ill on the second day of the event. Upon further questioning this food worker denied this information.

Three mobile refrigeration units were provided by Company A to Resort A for storage of food for the tournament. Company A fleet manager stated that normal operating procedures of refrigeration mobile units included being pre-cooled prior to utilization, temperatures checked daily, units cleaned daily, and fuel levels checked every other day. Temperature gauges are located on the exterior of the units. No logs were kept of the temperatures during the tournament. The manager for food production at the resort stated the temperatures in the refrigeration units were less than 41 degrees F. during the tournament.

An individual with the onset of November 29 at 10:00 pm (see Chart 1) was the coordinator of the volunteers from November 29 through December 3. The individual consumed a turkey sandwich on November 29 at approximately 12:30 pm. The individual's main functions included signing in volunteers, greeting them, and distributing meals. The individual's spouse, another volunteer, assisted the individual and became ill on December 1 at 10:30 am. The spouse also ate a turkey sandwich on November 29 at 12:30 pm. There is also a person who reported illness with onset at 11:00 am on November 30 who also reported consuming food at the luncheon at 11:00 am on November 30. This person worked all four days of the event on the putting greens as an attendant. Foods consumed at lunch on November 30 included ham sandwich, cookie, and drink with ice.

One interview of a golfer revealed his onset of symptoms on December 3, 2006, at 3:00 am with nausea, vomiting, drowsiness, fever, abdominal cramps, weakness, and fatigue. Food consumed included a turkey deli roll up sandwich and water on the course. No other epidemiological links to the volunteer cohort were evident. No other golfers were made available for interviews.

The majority of the volunteers (62) worked all four days at the Resort A golf tournament. There were 39 individuals who only worked on December 2 and 3. Those who volunteered on November 30 and December 1 were significantly more likely to become ill than those who volunteered on December 2 and 3. (Refer to Table 2) Individuals who volunteered did not consistently eat the food each day they were present. On December 2

and 3, approximately 22 percent of the volunteers did not eat the food (see Table 3). There were three individuals who were present on all four days but did not eat any of the food. None of these three people became ill. In addition, there were three individuals who were present on December 2 and 3 but did not eat any of the food. One of these three people became ill. There were a total of 43 people who became ill. The majority of these individuals (35) ate the food on November 30 and December 1.

Overall, the risk of a person who ate the food becoming ill is 2.27 times higher compared to those who did not eat the food. However, this result is not statistically significant ($p = 0.22$). When examining only the 39 individuals who worked on December 2 and 3, the risk of a person who ate the food becoming ill is 0.25 times lower compared to those who did eat the food. However, this result is not statistically significant ($p = 0.26$). Excluding the one individual whose disease onset was November 29, the risk of a person who ate the food on November 30 becoming ill is 4.08 times higher compared to those who did not eat the food on November 30 ($p < 0.0001$). Excluding the individuals whose disease onset was on December 1 or earlier, the risk of a person who ate the food on December 1 becoming ill is 4.4 times higher compared to those who did not eat the food on December 1 ($p < 0.0001$). Excluding the individuals whose disease onset was December 2 or earlier, the risk of a person becoming ill who ate the food on December 2 is 0.46 times lower compared to those who did not eat the food on December 2 ($p = 0.07$). Excluding the individuals whose disease onset was on December 3 or earlier, the risk of a person who ate the food on December 3 becoming ill is 0.23 times lower compared to those who did not eat the food on December 3 ($p = 0.15$).

Table 4 shows the statistically significant foods that were served on November 30, excluding persons whose disease onset was the previous day. It is important to note that every individual who had milk at breakfast also had a ham or a turkey sandwich. In addition, every individual who had a drink at lunch also had a ham or turkey sandwich. Volunteers who ate a turkey or ham sandwich on November 30 had a higher risk (4.29) of becoming ill compared to individuals who did not eat or were not present on November 30 ($p < 0.0001$). The incubation period assuming a November 30 lunch exposure, excluding those who became ill before, ranges from 3.75 to 64.0 hours with a median of 34.0 hours.

Chart 1: Gastrointestinal Illness by 6 Hour Onsets, Charity Golf Tournament, Osceola County, Florida, November 2006

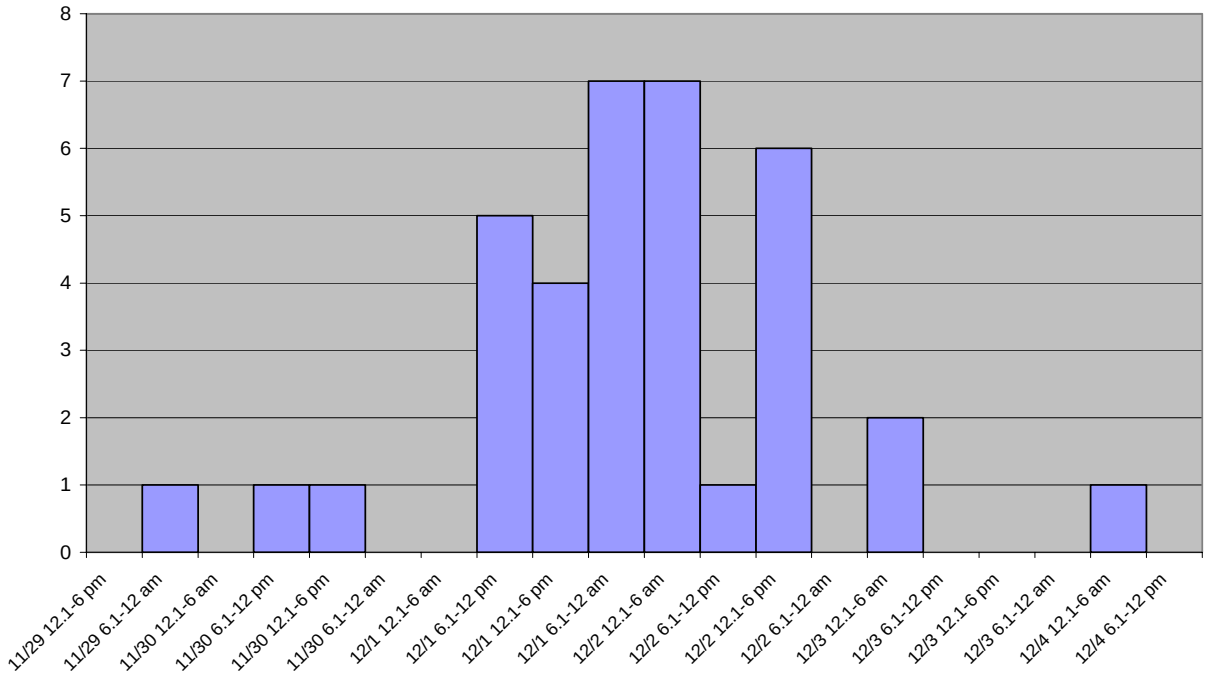

Table 1: Frequency of Symptoms, Norovirus Gastrointestinal Illness Cluster Osceola County, November-December, 2006.

Symptom	Number (N=43)	%
Nausea	36	83.7
Diarrhea (mean=7.9 episodes/24 hours)	34	79.1
Watery	30	88.2
Mucous	2	5.9
Bloody	1	2.3
Fatigue	33	76.7
Weakness	29	67.4
Vomiting	24	55.8
Abdominal Pain	22	52.4
Abdominal Cramps	21	48.8
Headache	19	44.2
Drowsy	13	31.7
Fever	12	27.9
Muscle Aches	11	26.8
Chills	11	25.6
Dizziness	10	23.8

Table 2: Attack Rate Table for Statistically Significant Volunteer Days, Gastrointestinal Illness Outbreak, Charity Golf Tournament, December 2006, Osceola County, Florida

Food	Number of persons who ate the food				Number of persons who did not eat the food				Risk Ratio	95% Confidence Interval	p-value
	Ill	Well	Total	% Ill	Ill	Well	Total	% Ill			
Volunteer on Nov 30	37	37	74	50.0	6	37	43	13.9	3.58	1.65-7.79	< 0.0001
Volunteer on Dec 1	38	39	77	49.4	5	35	40	12.5	3.95	1.69-9.24	< 0,0001
Volunteer on Dec 2	37	72	109	33.9	6	2	8	75.0	0.45	0.28-0.73	0.03*
Volunteer on Dec 3	35	72	107	32.7	8	2	10	80.0	0.41	0.27-0.62	0.005*

* Fisher Exact

Table 3: Frequency of volunteers and those who did not eat, Gastrointestinal Illness Outbreak, Charity Golf Tournament, December 2006, Osceola County, Florida

Date	No. Volunteers	Did not eat
Nov 30	74	4
Dec 1	77	5
Dec 2	109	23
Dec 3	107	26

Table 4: Statistically Significant Food Items, November 30, Norovirus Outbreak, Osceola County, Florida, November, 2006

Food Eaten	Relative Risk	p-value
Milk at breakfast	1.65	0.039
Turkey sandwich at lunch*	0.60	0.025
Lettuce on the turkey sandwich at lunch	0.64	0.055
Tomato on the turkey sandwich at lunch	0.51	0.009
Onion on the turkey sandwich at lunch	0.49	0.046
Ham sandwich at lunch*	1.58	0.048
Drinks at lunch**	----	0.057

*People who did not eat the turkey sandwich and became ill ate the ham sandwich. People who did not eat the ham sandwich and became ill ate the turkey sandwich.

**Relative risk was not calculated because zero people did not have drink with lunch and did not become ill.

CONCLUSIONS

This cluster of gastrointestinal illnesses is associated with charity golf tournament events at Resort A occurring from November 29 to December 3, 2006. The reported illness onset times are clustered indicating a common point source exposure. The high percentage of illnesses with onsets in a 26 hour period also strongly suggests a common single source for the illnesses. Described clinical symptoms and incubation periods suggest a viral agent. The presence of Norovirus G1 in a stool sample from a case confirms Norovirus as the agent.

Volunteers who consumed food on November 31 and December 1, 2006, were statistically more likely to become ill than those eating on December 2 or 3. There was no increased or decreased risk of eating the food and becoming ill among volunteers who only worked on December 2 and/or December 3. The majority of ill volunteers ate the food on November 30 and December 1. The majority of symptom onsets occurred within a 26 hour period on December 1 and December 2. The mean latency period of Norovirus is 33-36 hours, further indicating that meals provided on November 30 most likely facilitated the rapid spread of virus particles. The bivariate analysis of the available data strongly indicates that consuming ham or turkey sandwiches on November 30 are likely predictors of illness.

The route of transmission of Norovirus to this group may be attributed to the preparation and/or serving of the ham or turkey sandwiches. The presence of an ill person who may have distributed bagged lunches to volunteers may account for some disease transmission. It is also possible that an infected asymptomatic or non-reported ill food handler(s) who prepared the sandwiches may have contaminated them. It is not known exactly who handled what volunteer lunches, how they were bagged or by whom. The reported presence of an ill person who was ill during or very soon after the November 30 lunch could indicate some person-to-person transmission of the disease prior to the event that may account for a small portion of the reported illnesses. There is also the possibility that this illness onset was misreported or is not the same illness. The observed environmental conditions of the food preparation facility where these sandwiches were prepared indicate an environment capable of harboring and transmitting viral agents.

RECOMMENDATIONS

It is imperative that food service facilities constantly and vigorously promote and insist on proper handwashing procedures by food workers during all phases of food preparation, display, and storage. This includes maintaining handwash sinks and providing soap and drying devices continuously. Ill food workers must be excluded from food preparation activities. Ensuring properly cleaned and sanitized food contact surfaces and proper temperature controls also greatly contributes to the elimination or reduction of viral particles on fomites or in food products. The possibility that members of the volunteer group at the implicated event may have

possibly contributed to a number of cases points to a need to educate the general public on the necessity of proper handwashing techniques, especially when one has a diarrheal illness.

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Outpatient Staphylococcus aureus Infections in Florida: Descriptive Epidemiology of Methicillin Sensitive and Resistant Infections

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INTRODUCTION

The *Staphylococcus aureus* bacterium can produce severe morbidity and mortality and has the potential to cause outbreaks (Ruben & Muder, 1998). Currently *S. aureus* is the most common cause of skin and soft tissue infections in the United States, (Fridkin, Hageman, Morrison, Sanza, Como-Sabetti, Jernigan, et al., 2005). Initially penicillin was an effective treatment, but the first resistant isolates developed within a year of its introduction in the 1940s. Methicillin, a synthetic penicillin, was introduced in 1961 to combat penicillin resistant *S. aureus* strains (Kowalski, Berbari, & Osman, 2005), resistance to methicillin was reported in the same year (Chambers, 2001). Since then, methicillin-resistant *S. aureus* (MRSA) has become prevalent worldwide.

Initially MRSA infections were a problem of hospital intensive care units. In the early 1980s, cases of MRSA in the community were described mostly among those with a history of injection drug use and other patients at high risk. Recently, MRSA infections have been found in adults and children who did not have exposure to hospitals or other healthcare facilities, nor had any other known healthcare-associated risk factors. These infections are referred to as community-associated MRSA (CA-MRSA) (Daum & Seal, 2001; Jones, Kellum, Porter, Bell, & Schaffner, 2002; Naimi, LeDell, Como-Sabetti, Borchardt, Boxrud, Etienne, et al., 2003).

Over the past few years the Florida Department of Health has received numerous reports of outbreaks of MRSA in the community, in addition to single case reports. Many of the single case reports have had fatal outcomes. In order to better understand *S. aureus* in the community setting, *S. aureus* culture data from a large commercial laboratory that primarily serves outpatient facilities were analyzed. The main objectives of this study were to determine the proportion of *S. aureus* that are MRSA by age group, gender, county and region of the state, changes over time, and antibiotic resistance patterns. This report describes the results of the first statewide surveillance of both methicillin-resistant and methicillin-susceptible *S. aureus* (MSSA).

METHODS

This analysis was performed using a record of all the *S. aureus* isolates tested by Quest Diagnostics, a laboratory that primarily serves outpatient providers for the entire state. Data from January 1, 2003 to December 31, 2005 were analyzed. The dataset contained 67,790 isolates before exclusions. This dataset consists almost entirely of cultures from outpatient facilities. Only 275 of the total 67,790 isolates, 0.4%, were from a hospital provider. SAS version 9 statistical software was used for statistical analyses.

As per National Committee for Clinical Laboratory Standards (NCCLS) guidelines, only the first isolate per person per analysis period of 365 days was used in the analysis. This approach has been validated by several studies evaluating isolate removal methods (Horvat, Klutman, Lacy, Grauer, & Wilson, 2003; Lee, Cho, Kim, Lee, Park, & Seo, 2004; Li, Ayers, Park, Miller, MacFadden, Nakata, et al., 2005; Magee, 2004; Shannon & French, 2002).

RESULTS

After removal of duplicates there were 8,299 isolates for 2003, 17,309 for 2004 and 35,986 for 2005, giving a total of 61,596 for all three years. The total number of both *S. aureus* (MSSA and MRSA) isolates increased each year and the percentage of isolates that were methicillin-resistant increased from 35.1% in 2003 to 41.5% in 2004 to 49.7% of isolates in 2005. In this dataset, 79.6% (49,060) of the isolates were from skin and soft tissue sites. The other sites of collection each make up no more than 5% of the total number of isolates. All infection sites showed an increase in the percent of isolates that were methicillin-resistant over time.

Of all the age groups, the 21- 30 age group had the highest percentage of MRSA in 2005 (56%). This group is followed by the >90 age group and the 31-40 age group (54%) (Figure 1). There was no difference in methicillin resistance by gender. The state of Florida was divided into seven regions, which corresponds to the seven regional domestic security task force regions. All regions showed an increase in the percent of isolates that were methicillin-resistant. In all years the western panhandle had the highest percentage of MRSA (62.5% in 2005), and the southwest had the lowest (41.7%) (Figure 2). In 2005, the percent of isolates that were methicillin-resistant ranged from 20% to 75% among the counties. In 35 of the 67 counties (52%), the percent of isolates that were methicillin-resistant was 50% or greater. In 2005, there were fourteen counties in which the percent of isolates that were methicillin resistant was greater than 60%, and in four the percent was greater than 70% (Table 1). Several counties had a low number of isolates (<100) making their resistance estimates more susceptible to random variation.

In this population, the percentage of MRSA isolates that were resistant to trimethoprim-sulfamethoxazole, gentamycin, and rifampin was less than three percent, while resistance to erythromycin was 93% (Table 2). In 2005, 26% of isolates showed the typical CA-MRSA antibiogram (resistant to methicillin and erythromycin, but susceptible to clindamycin, trimethoprim-sulfamethoxazole, ciprofloxacin and levofloxacin).

CONCLUSIONS

The total number of isolates in this dataset doubled each year. The rate of increase was higher for MRSA than for MSSA. This increase in the number of isolates is unlikely to only be the result of an increase in Quest's client base, but is most likely a product of an increase in physician orders and an increase in infections (Quest per comm). The percent of methicillin resistance in *S. aureus* increased in Florida's outpatient population during this study period (2003-2005*).*

Resistance to many of the antibiotics that were once recommended to treat *S. aureus* infections are now found in over half of the isolates. It is recommended by CDC that physicians culture all skin and soft tissue infections because sensitivities should be determined for treatment, and organisms other than *S. aureus* may be the cause of infection. Current recommendations for treatment of soft tissue infections include incision and drainage if possible and empiric treatment for *S. aureus*. There have been no randomized trials to determine optimal treatment for MRSA in this setting. Based on the analysis found in this report and the limited reports in the literature, alternatives to the penicillins and cephalosporins include trimethoprim-sulfamethoxazole and the tetracyclines. They can be used either as a single agent or in combination with rifampin (Federal Bureau of Prisons Clinical Practice Guidelines, 2005).

This is the first study to use a large outpatient dataset to assess methicillin resistance in Florida. It is unknown how many of these isolates are truly community acquired. Currently, there are no published studies that used statewide outpatient data. Most previous studies have used emergency room data. For physicians treating outpatients in Florida, data from this study may be more appropriate for basing empirical treatment decisions on then hospital data. This is also the most recent data on methicillin resistance in the community setting. The increasing resistance rates are a disturbing trend. The clinical consequence of this increase is unknown.

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The analysis of the data was conducted by Stephanie Kolar as part of her MSPH at the University of South Florida, College of Public Health.

Figure 1: Percentage of MRSA in all *S. aureus* Isolates By Age Category 2005 For All Culture Sites

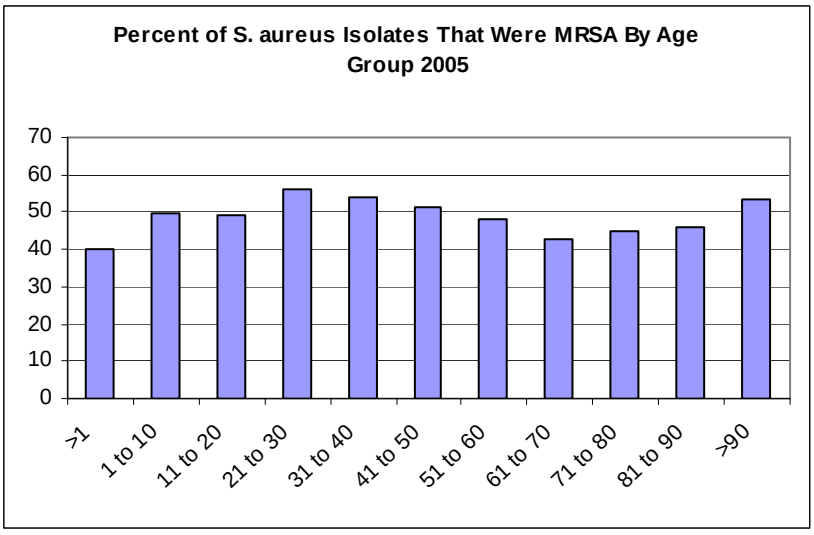

Figure 2: Percentage of MRSA in all *S. aureus* Isolates by Region of Florida by Year from 2003 To 2005 For All Culture Sites

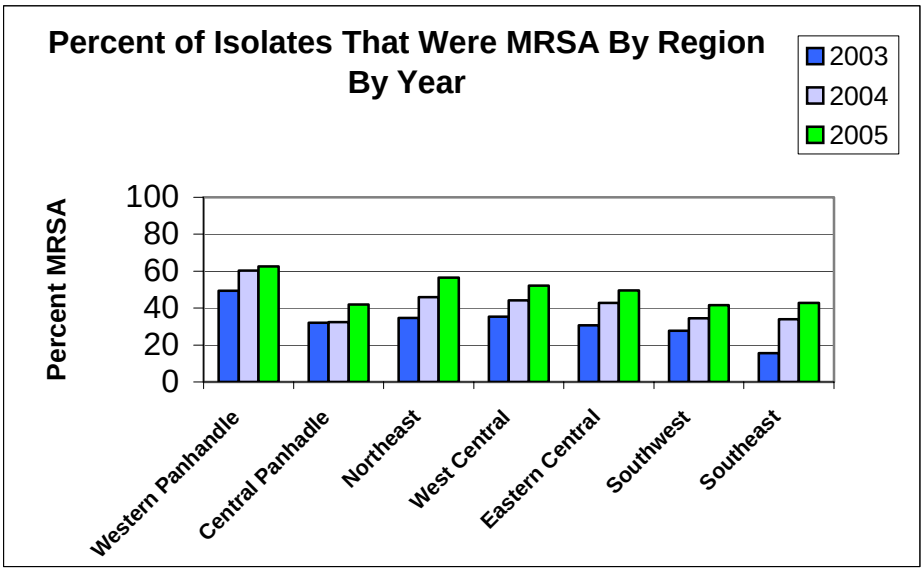

Table 1: Percent of *S. aureus* Isolates That Were MRSA and Total Number of Isolates For Each County With 100 or More Isolates For 2005.

County	Percent MRSA (Number of Isolates)	County	Percent MRSA (Number of Isolates)
Alachua	62.6% (246)	Martin	46.5% (271)
Bay	62.4% (117)	Miami-Dade	39.9% (3342)
Brevard	49.5% (865)	Monroe	47.2% (159)
Broward	42.5% (2981)	Nassau	52.1% (163)
Charlotte	46.8% (158)	Okaloosa	53.3% (107)
Citrus	53.8% (145)	Orange	50.7% (2039)
Clay	60.2% (254)	Osceola	49.9% (487)
Duval	57.4% (2006)	Palm Beach	42.9% (3654)
Escambia	71% (335)	Pasco	47% (798)
Hernando	53% (353)	Pinellas	53.7% (1677)
Hillsborough	53.3% (2634)	Polk	50.2% (833)
Indian River	43.7% (126)	Santa Rosa	58.9% (163)
Lake	43.6% (486)	Sarasota	39.8% (580)
Lee	41.6% (927)	Seminole	50.6% (720)
Leon	59.7% (124)	St. Johns	45.6% (125)
Manatee	51.5% (618)	St. Lucie	47.7% (405)
Marion	50.4% (520)	Volusia	52.2% (674)

Table 2: Percent Resistance of MSSA and MRSA Isolates to Other Antibiotics By Class

Antibiotic	Percent of MSSA Isolates	Percent of MRSA Isolates
Amoxicillin	0.30%	100%
Penicillin	84.40%	99.90%
Trimethoprim Sulfamethoxazole	0.80%	1.20%
Ciprofloxacin	6.60%	39.20%
Levofloxacin	4.80%	36.00%
Gentamycin	0.80%	2.40%
Tetracycline	5.20%	8.90%
Erythromycin	39.70%	93.30%
Clindamycin	3.20%	14.40%
Rifampin	0.50%	1.00%

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Revised Epi Update Submission Guidelines, Deadline, and Editorial Policy

Jamie Fairclough, MPH, LPN

If you are interested in submitting articles for publication in future issues of Epi Update, please adhere to the following guidelines:

1. Articles should be no more than 2000 words. Content must be applicable to the field of epidemiology.

2. Use MS Word for all submissions. Articles should be single-spaced, aligned left, and written in 11-point Arial font. Please note that formatting is subject to change to meet the format requirements for Epi Update.

3. All graphics such as charts, tables, and other data should be included in the body of the article. If needed, they will be requested in a different format.

4. When selecting a title for your article or abstract, be sure to use key words that will make an Internet search successful.

5. Please provide the author's name, title, and professional designations for the byline, and include the workplace name and telephone/email address for contact purposes.

6. Please submit only final documents and be sure to proofread the article for accuracy prior to submission. Once received, the article will be reviewed by at least 3 staff members for scientific accuracy, spelling, grammar, and punctuation.

7. If you have questions regarding grammar, punctuation, or format, please refer to APA publishing guidelines. A free APA resource is available at http://owl.english.purdue.edu/owl/resource/560/01/

8. The deadline for submission is the 15th day of each month at 5:00 p.m. Eastern Time. Email articles to Jamie_Fairclough@doh.state.fl.us.

9. Articles may be submitted at any time for inclusion in Epi Update. Once the article is received and reviewed, any suggestions, comments, or edits will be returned to the author for consideration and article revisions. After final revisions and approval, articles will be included in the next issue of Epi Update with space available.

10. Authors will be notified of article publication date.

Epi Update will be published on the 4th Wednesday of each month unless otherwise noted.

JUST PUBLISHED:
If you have an article accepted for publication in a refereed journal (MMWR, American Journal of Epidemiology, etc.), please let us know!

Jamie Fairclough is the Communications Coordinator at the Bureau of Epidemiology. She can be reached at 850.245.4444, ext. 3425.

Just Published

Infection Control and Hospital Epidemiology, Volume 28, No. 7 July 2007
Outbreak of Healthcare-Associated Infection and Colonization with Multidrug-Resistant *Salmonella enterica* Serovar Seftenberg in Florida
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Upcoming Events

The Florida Public Health Association (FPHA) Annual Education Conference is scheduled for July 31 – August 3, 2007, at the Tampa Grand Hyatt in Tampa, Florida. This year's theme is **Under the Big Top: Florida Public Health - The Greatest Show on Earth.** On-site registration is available. For more information, visit http://www.fpha.org/index.html or contact FPHA via e-mail at floridapha@bellsouth.net.

The Bureau of Epidemiology has scheduled a series of 4 regional epidemiology trainings in different locations in the state:

- Leon County – Tallahassee, July 26-27, 2007
- Lake County – Mt. Dora, August 7-8, 2007
- Sarasota County – Sarasota, August 15-16, 2007
- St. Lucie County – Port St. Lucie, August 27-28, 2007

This training is designed for all epidemiology staff and their supervisors, with special attention to those who are new to epidemiology. The training topics covered will also be beneficial to epidemiology strike team members. The purpose of the regional epidemiology training sessions is to increase knowledge, skills, and competencies of epidemiology professionals through presentations, interactive workshops and discussions.

Regional Training Objectives:

1. To increase proficiency in new and existing skills in the field of epidemiology, including surveillance, case response, quality improvement, and communication.
2. To increase the epidemiologic knowledge of our public health workforce to enable them to respond to any challenge.
3. To increase the use of the Incident Command System in an outbreak investigation.

Continuing education units (CEU's) will be offered for attendees.

It's not too late to register for these training sessions. Visit the Regional Epidemiology Training website for more information about training locations, registration, and area hotels. This website also has information about the training locations and hotels in the area for your use.
http://www.doh.state.fl.us/disease_ctrl/epi/conf/training/Regional_Epi_Training.html

The Bureau is also pleased to have travel scholarships available for up to 2 people per county to attend these trainings. The deadline to submit a request for a travel scholarship has been extended to Friday, July 27, 2007. Please contact one of the staff listed below for a request form.

For any questions about the upcoming Regional Trainings, please contact Debora Campbell at Debora_Campbell@doh.state.fl.us or 850-245-4409, or Charlotte White at Charlotte_White@doh.state.fl.us or 850-245-4444, ext. *3675.

Debora Campbell is the administrator for the Training & Communications Section at the Bureau of Epidemiology. She can be reached at 850.245.4409.

Weekly Disease Table

D'Juan Harris, MSP

Go to **http://www.doh.state.fl.us/disease_ctrl/epi/Disease_Table/2007_Weeks/dt_index.htm** to review the most recent disease figures provided by the Florida Department of Health, Bureau of Epidemiology.

D'Juan Harris is the systems project analyst in the Surveillance Systems Section of the Bureau of Epidemiology. He can be reached at 850.245.4444, ext. 2435.

This Month on EpiCom

Christie Luce

EpiCom is now located within the Florida Department of Health's Emergency Notification System (FDENS). The Bureau of Epidemiology encourages *Epi Update* readers to not only register on the EpiCom system by emailing the Florida Department of Health Emergency Notification System Helpdesk at FDENS-help@doh.state.fl.us, but to sign up for features such as automatic notification of certain events. Users are invited to contribute appropriate public health observations related to any suspicious or unusual occurrences or circumstances through the system. EpiCom is the primary method of communication between the Bureau of Epidemiology and other state medical agencies during emergency situations.

- Shigellosis Follow-up -- Citrus County
- Malaria among Recently Arrived Burundian Refugees? Duval County
- Suspected Foodborne Outbreak in Attendees at a Party in Miami-Dade County
- Investigation of Active Tuberculosis in an Airline Traveler
- Update on Tainted Veggie Booty Snack Food
- Meningococcal Disease, Volusia County

- GA Firm Recalls Canned Meat Products - *Clostridium botulinum*

- Recall of Certain Gerber Cereals Due to Choking Hazard
- Update on *E. coli* O157 Outbreak Associated with a Petting Zoo-Pinellas, 2007
- Allergic Reaction in a Melbourne City Hall Employee
- Lee County Chlorine Gas Exposure
- Recall Release #023-2007, Beef Products, *E. coli* O157:H7
- Lead Hazard Alert

Christie Luce is administrator of the Surveillance Systems Section in the Bureau of Epidemiology. She can be reached at 850.245.4444, ext. 2450.

Epi Update *is the peer-reviewed journal of the Florida Department of Health, Bureau of Epidemiology, and is published monthly on the Internet. Current and past issues of Epi Update are available at http://www.doh.state.fl.us/disease_ctrl/epi/Epi_Updates/index.html. The Current issue of Epi Update is available at http://www.doh.state.fl.us/disease_ctrl/epi/Epi_Updates/2007/April2007EpiUpdate.pdf. The publication dates for Epi Update are: August 22, September 26, October 24, November 28, and December 28.*

To receive an email reminder, simply send an email request to HSD_EpiUpdate@doh.state.fl.us. To submit an article or to obtain information about Epi Update, contact Jamie Fairclough, Communications Coordinator, at 850.245.4444, ext.3425, or Jamie_Fairclough@doh.state.fl.us.

The Bureau of Epidemiology is a part of the Division of Disease Control
Tallahassee, Florida