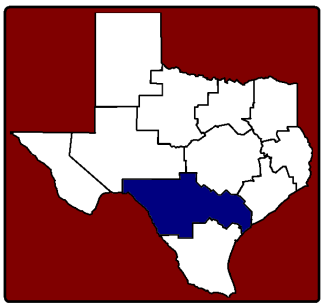

Epidemiology Newsletter
Health Service Region 8 (HSR 8)

A collaboration of DSHS HSR 8, San Antonio Metropolitan Health District, Comal County Health Department, Medina County Health Unit, Victoria City-County Health Department

Spring 2014

In this Issue

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Victoria, Texas 77901
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Two Confirmed Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Cases in Indiana and Florida, 2014

Recommendations

Health Providers/Hospitals should evaluate for MERS-CoV infection for patients who **meet** the following criteria to be considered a Person Under Investigation (PUI):

- Fever (≥38°C, 100.4°F) or acute respiratory distress syndrome (based on clinical and radiologic evidence) **AND EITHER:**
    - History of travel from Arabian Peninsula or neighboring countries (Bahrain, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates (UAE), and Yemen) within **14 days** before symptom onset **OR**
    - Close contact with a symptomatic traveler who developed fever and acute respiratory illness within **14 days** after traveling from countries in or near the Arabian Peninsula **OR**
    - Member of a cluster of patients with severe acute respiratory illness of unknown etiology **in which MERS-COv is being evaluated by SAMHD in consultation with the Texas Department of State Health Services. OR**
    - Close Contact of a confirmed or probable case of MERS.

If Health Providers/Hospitals Suspect MERS they are to:

- Report to their identified Infection Control Practitioner (ICP) within their facility
- The ICP will for
    - Bexar County Residents: report to SAMHD-Epidemiology via fax at **210-207-8807** with supporting medical documentation and/or call **210-207-8876.**
    - Residents outside of Bexar County: report to Texas Department of State Health Services (DSHS), Health Service Region (HSR) 8 via fax at **210-692-1457** with supporting medical documentation and/or call **210-949-2000 or 2121**
- The Epidemiology team in consultation with DSHS-Epidemiology will verify if reported case meets PUI definition using the PUI investigation form.
- If reported case supports PUI definition, steps will be taken by Epidemiology to obtain specimen that will be sent to Texas DSHS Laboratory.
    - Acceptable Specimens:
        - Nasopharyngeal swabs, oropharyngeal swabs, sputum, serum, and stool/rectal swab.
- **Infection control precautions should be practiced when collecting specimens.**
- SAMHD Laboratory team is available to answer questions related to proper specimen collection and can be reached at **210-207-8747** or **210-207-5883.**

Continued on next page...

MERS-CoV Continued….

Background

The first known cases of MERS-CoV occurred in Jordan in April 2012. The virus is associated with respiratory illness and high death rates, although mild and asymptomatic infections have been reported too. All reported cases to date have been linked to six countries in the Arabian Peninsula: Saudi Arabia, Qatar, Jordan, the United Arab Emirates (UAE), Oman, and Kuwait. Cases in the United Kingdom, France, Italy, Greece, Tunisia, Egypt, and Malaysia have also been reported in persons who traveled from the Arabian Peninsula. In addition, there have been a small number of cases in persons who were in close contact with those infected travelers. Since mid-March 2014, there has been an increase in cases reported from Saudi Arabia and UAE. Public health investigations are ongoing to determine the reason for the increased cases. There is no vaccine yet available and no specific treatment recommended for the virus. In some cases, the virus has spread from infected people to others through close contact. However, there is currently no evidence of sustained spread of MERS-CoV in community settings.

Symptoms of MERS-CoV are similar to those of the flu and include:

- Congestion
- Cough
- Fever over 100.4
- Shortness of breath
- Pneumonia
- Body aches
- Diarrhea

Persons at highest risk of developing infection are:

- those with close contact to a case, defined as any person who provided care for a patient, including a healthcare provider or family member not adhering to recommended infection control precautions (i.e., not wearing recommended personal protective equipment), or had similarly close physical contact; or

- any person who stayed at the same place (e.g. lived with, visited) as the patient while the patient was ill.

Ill people who are being evaluated for MERS-CoV infection and do not require hospitalization for medical reasons may be cared for and isolated in their home. (Isolation is defined as the separation or restriction of activities of an ill person with a contagious disease from those who are well.).

Providers should contact DSHS Region 8 or your local health department to determine whether home isolation, home quarantine or additional guidance is indicated since recommendations may be modified as more data becomes available. Additional information on home care and isolation guidance is available at http://www.cdc.gov/coronavirus/mers/hcp/home-care.html.

Healthcare providers should adhere to recommended infection-control measures, including standard, contact, and airborne precautions, while managing symptomatic contacts and patients who are persons under investigation or who have probable or confirmed MERS-CoV infections. For CDC guidance on MERS-CoV infection control in healthcare settings, see Interim Infection Prevention and Control Recommendations for Hospitalized Patients with MERS-CoV at http://www.cdc.gov/coronavirus/mers/infection-prevention-control.html. Specimens can be sent using category B shipping containers. Providers should notify DSHS HSR 8 or your local health department if they suspect MERS-CoV infection in a person.

Additional information is available at http://www.cdc.gov/coronavirus/mers/guidelines-clinical-specimens.html. Additional or modified recommendations may be forthcoming as the investigation proceeds.

Please call SAMHD-Epidemiology at 210-207-8876 or HSR 8 at 210-949-2000 or 2121 for questions pertaining to this guidance.

Multi-Drug Resistant Organisms—Newly Reportable Condition

Carbapenem-resistant *Enterobacteriaceae* (*E. coli and Klebsiella species only*) and multi-drug resistant Acinetobacter are now notifiable conditions in the Texas Administrative Code (TAC).

Infectious Agent

Carbapenem-resistant *Enterobacteriaceae* (CRE):
Carbapenemase producing *Enterobacteriaceae* or Carbapenem-resistant *Enterobacteriaceae*, specifically *Klebsiella* species and *E. coli*, are gram-negative bacilli that have the ability to break down the carbapenem antibiotic rendering it ineffective. Carbapenem resistance by *Enterobacteriaceae* can occur by many mechanisms, including the production of a metallo-beta-lactamase or a carbapenemase (such as Klebsiella *pneumonia* carbapenemase, KPC) which can be transmitted from one *Enterobacteriaceae* to another. CRE can also have additional resistance mechanisms that enable them to be nonsusceptible to many other classes of commonly used antibiotics.

Multi-drug Resistant *Acinetobacter* (MDR-A):
Acinetobacter are strictly aerobic gram negative coccobacilli of the Moraxellaceae family and have more than 25 species within the genus. They have an intrinsic resistance factor that enables them to hydrolyze carbapenem, causing resistance to carbapenems and penicillins. Multi-drug resistant *Acinetobacter* strains can also circumvent antibiotics by producing porins, modifying penicillin-binding proteins and producing aminoglycoside modifying enzymes, among other ways.

Transmission

Transmission can occur via direct person-to-person contact or secondary contact with contaminated environmental surfaces, medical devices, or equipment. Additionally, the hands of health care workers who frequently touch these objects in patient environments often become vectors of transmission if hand hygiene compliance and/or transmission-based precautions are not adhered to.

Reporting Guidelines

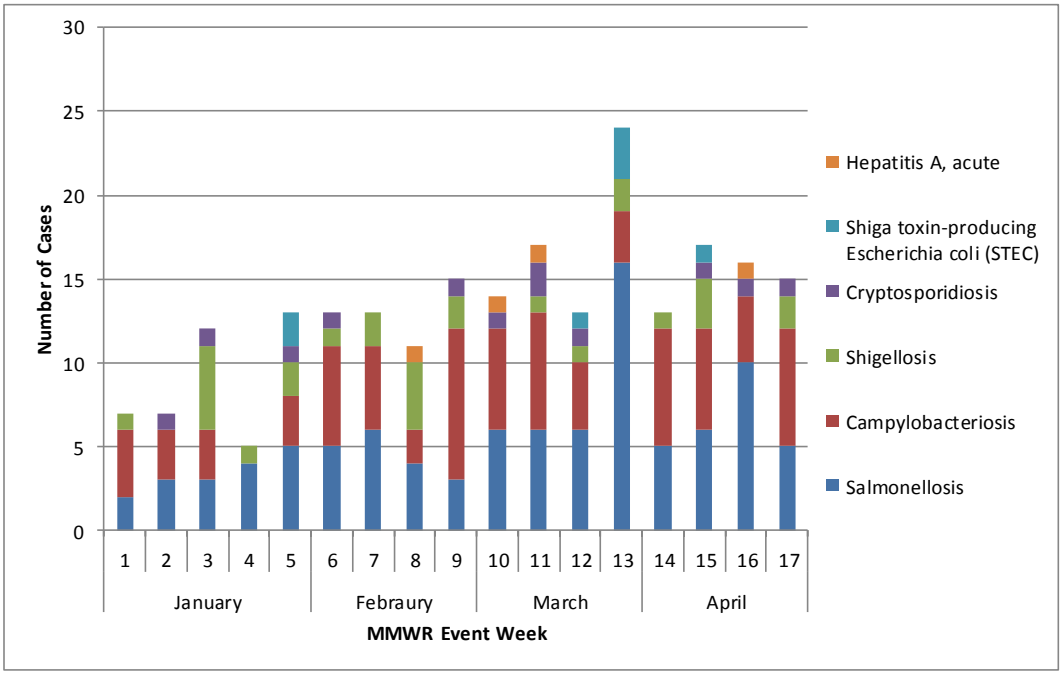
- You may use the Epi 2 form or your standard reporting form when reporting. http://www.dshs.state.tx.us/idcu/investigation/forms/ .
- Make sure infection prevention methods are established after a CRE or MDR-A is identified.
- If a cluster of associated cases are suspected, please contact the health department to see if specimens can be submitted to the state laboratory. DSHS can perform molecular analysis if multiple isolates are identified.
- Only with prior DSHS approval, isolates may be submitted to the DSHS lab for susceptibility confirmation or Pulse-Field Gel Electrophoresis (PFGE) limited to *Klebsiella* species.
- Both conditions are listed as “call immediately”.

Control Measures for Facilities

- Facilities should ensure that health care personnel are vigilant on hand hygiene practices and that adequate hand hygiene stations are accessible, free from clutter/supplies and well stocked.
- Ensure the case is on contact precautions, aka contact isolation.
    - Contact precautions entail: Performing hand hygiene before entry into room; donning gown and gloves either before or upon immediate entry into case’s room; and removing gown and gloves and performing hand hygiene prior to exiting or upon immediate exit of case’s room. Disinfection of reusable equipment after use.
    - No recommendation currently exists for when to remove a case from contact precautions.
- Recommend optional screening for cohabitant of case (if one exists) for CRE, via rectal swab. See CDC Laboratory Protocol http://www.cdc.gov/hai/pdfs/labsettings/klebsiella_or_ecoli.pdf
- Recommend optional screening for cohabitant of case (if one exists) for MDR-A. Candidate body sites for screening cultures may include the nose, the throat, skin sites such as the axilla and/or groin, the rectum, open wounds and endotracheal aspirates.
- Recommend patient and/or staff cohorting, if feasible
- Recommend minimal use of invasive devices for patients on unit where the case was cared for.

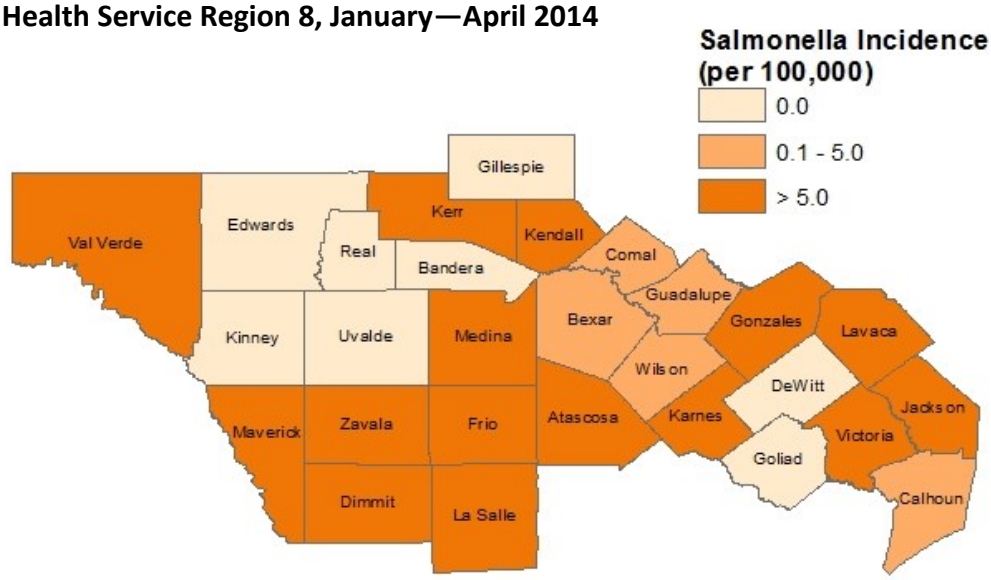
Enteric Illnesses

Number of Enteric Illnesses Reported to Region 8 and SAMHD by Event Week



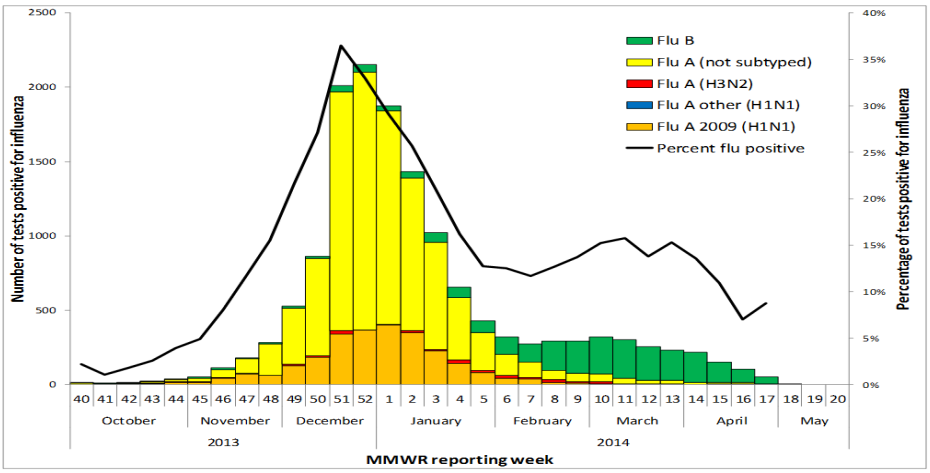
*Event Week is defined in hierarchical order onset date, diagnosis date, report to county date, report to state date, date investigation created

Salmonella Incidence, Health Service Region 8, January—April 2014



Influenza Surveillance

Number and Percentage of Tests (Antigen, Culture, PCR) Positive for Influenza by Type and Subtype Reported by Texas Laboratories, 2013-2014 Season



Region 8 Notifiable Conditions Report, January - April*

	Atascosa		Bandera		Bexar		Calhoun		Comal		De Witt		Dimmit		Edwards		Frio		Gillespie	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Amebiasis					9	3														
Aseptic (viral) meningitis																				
Botulism, infant		1																		
Brucellosis					1															
Campylobacteriosis		1	1	2	62	46		1	1	2		2					1	1	4	5
Chagas, chronic indeterminate						1														
Chlamydia	67	71	5	4	3,971	**	29	32	118	97	43	22	21	20	4	2	33	37	8	21
Cryptosporidiosis				1	12	7	1	2											1	
Gonorrhea	20	7	3		1,065	**	9	5	15	10	9	12	2	7			10	7		1
Haemophilus influenzae, invasive					1															
Hemolytic uremic synd,postdiarrheal																				
Hepatitis A, acute					4	4			1											
Hepatitis B, acute					2	1			1	1										
Hepatitis C, acute					1	3											1			
Hepatitis E, acute																				
Influenza-associated pediatric mortality					2															
Legionellosis					6	3			1											
Leishmaniasis						1														
Lyme disease					1															
Mumps					2															
Neisseria meningitidis, invasive (Mening. disease)																				
Pertussis	5		4		34	27			4	2										
Salmonellosis	4	3	2		46	58	1	1	8	5	1			1	1		2	1	3	
Shiga toxin-producing Escherich-ia coli (STEC)					12	3		1	1											
Shigellosis	1	1		3	23	19		1			1									
Spotted Fever Rickettsiosis						1														
Strep, other, invasive, beta-hem (non-A nonB)																				
Streptococcus pneumoniae, invasive disease (IPD)	2		2	1	78	43	1		1	2	2	1					1	1	1	2
Streptococcus, invasive Group A		2			5	14			2	5										
Streptococcus, invasive Group B			1		30	37		1		1							1		1	1
Syphilis	4				368	319			5	10	1	1	1	1			3			2
Tuberculosis	1	2			19	20	1								1			2		
Tularemia									1											
Typhoid fever (Salmonella typhi)	1													1						
Typhus fever-fleaborne, murine					1															
Vancomycin-intermediate Staph aureus (VISA)					1															
Varicella (Chickenpox)	1	1		2	39	26			7	1			3				24	4	1	2
Vibriosis, other or unspecified					1															
Yersiniosis												1								

*All data is provisional and subject to change

**Data not available

Region 8 Notifiable Conditions Report, January - April*

	Goliad		Gonzales		Guadalupe		Jackson		Karnes		Kendall		Kerr		Kinney		La Salle		Lavaca	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Amebiasis												1								
Aseptic (viral) meningitis						2														
Botulism, infant																				
Brucellosis																				
Campylobacteriosis			4	4	6	7					1	1	1	2			1			2
Chagas, chronic indeterminate																				
Chlamydia		6	32	28	124	116	15	14	12	13	42	21	41	36			8	6	10	8
Cryptosporidiosis							1						1						1	4
Gonorrhea	3	1	7	10	30	25	3	3	1	4		3	4	6	1		1		2	8
Haemophilus influenzae, invasive																				
Hemolytic uremic synd,postdiarrheal																				
Hepatitis A, acute																				
Hepatitis B, acute					1						1			1						
Hepatitis C, acute													1							
Hepatitis E, acute																				
Influenza-associated pediatric mortality																				
Legionellosis					1				1				1							
Leishmaniasis																				
Lyme disease																				
Mumps																				
Neisseria meningitidis, invasive (Mening. disease)							1													
Pertussis				1	8	5	1			1		1		1						
Salmonellosis			2	2	4	3	1	1		1	4	2	2	5				1	4	1
Shiga toxin-producing Escherichia coli (STEC)					2		1											1		1
Shigellosis			1			1								1						
Spotted Fever Rickettsiosis																				
Strep, other, invasive, beta-hem (non-A nonB)																				
Streptococcus pneumoniae, invasive disease (IPD)			6		8	6			1		2		1	1						1
Streptococcus, invasive Group A	1				2	2						1		1						
Streptococcus, invasive Group B				1	1	3			1	1			2							
Syphilis				1	7	5	1			3	2	2	1	3	1					
Tuberculosis					1					1			2	1						
Tularemia																				
Typhoid fever (Salmonella typhi)																				
Typhus fever-fleaborne, murine																				
Vancomycin-intermediate Staph aureus (VISA)																				
Varicella (Chickenpox)					4	7				1				2			1			
Vibriosis, other or unspecified																			1	
Yersiniosis													2	2						

*All data is provisional and subject to change

Region 8 Notifiable Conditions Report, January - April*

	Maverick		Medina		Real		Uvalde		Val Verde		Victoria		Wilson		Zavala		Region 8	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Amebiasis																	9	4
Aseptic (viral) meningitis																	0	2
Botulism, infant																	0	1
Brucellosis																	1	0
Campylobacteriosis	1	5		2			1		2	1	7	3		2			93	89
Chagas, chronic indeterminate																	0	1
Chlamydia	100	90	41	22	5	4	61	50	58	87	189	169	39	19	26	17	5102	1012
Cryptosporidiosis																	17	14
Gonorrhea	12	12	8	7	1		5	13	10	19	50	52	9	4	2		1282	216
Haemophilus influenzae, invasive																	1	0
Hemolytic uremic synd,postdiarrheal													1				1	0
Hepatitis A, acute																	5	4
Hepatitis B, acute													1				6	3
Hepatitis C, acute																	3	3
Hepatitis E, acute												1					0	1
Influenza-associated pediatric mortality																	2	0
Legionellosis																	10	3
Leishmaniasis																	0	1
Lyme disease																	1	0
Mumps																	2	0
Neisseria meningitidis, invasive (Mening. disease)																	1	0
Pertussis			1	1			3							2			60	41
Salmonellosis	3	3		3	1		3		4	2	8	6	4	1			108	100
Shiga toxin-producing Escherichia coli (STEC)												1	2	1			18	8
Shigellosis				1					2	1		1		1			28	30
Spotted Fever Rickettsiosis																	0	1
Strep, other, invasive, beta-hem (non-A nonB)									1								1	0
Streptococcus pneumoniae, invasive disease (IPD)				1					2	2		2	2				110	63
Streptococcus, invasive Group A																	10	25
Streptococcus, invasive Group B	2	2		1					1				2	1			42	49
Syphilis	1	6	2	2			2		1	4	14	2	3	3			417	364
Tuberculosis	2	6							1	1	1						29	33
Tularemia																	1	0
Typhoid fever (Salmonella typhi)		1															1	2
Typhus fever-fleaborne, murine																	1	0
Vancomycin-intermediate Staph aureus (VISA)																	1	0
Varicella (Chickenpox)	2	4						1	3	5		1			4	2	89	59
Vibriosis, other or unspecified																	2	0
Yersiniosis											1						3	3

*All data is provisional and subject to change

Please email Jessica.Deerin@dshs.state.tx.us to be added to the distribution list for the HSR 8 Quarterly Epidemiology Newsletter.