



Epidemiology & Surveillance Quarterly Newsletter



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New Regional Medical Director at Region 7

This past March, Health Services Region (HSR) 7 welcomed our new Regional Medical Director, Dr. Tom Betz. Dr. Betz has a long and distinguished career in public health, in all arenas of service -- local, regional, state and international. Prior to joining the Region, he was the Manager of Epidemiology and Surveillance in the Infectious Disease Control Unit of the Community Preparedness Section with the Department of State Health Services (DSHS) central office in Austin. During his years at TDH/DSHS, Dr. Betz has served in many roles, including State Epidemiologist and Acting Regional Director (in HSR 1, Lubbock, and HSR 6/5S, Houston). He is regarded statewide and nationally as a true subject matter expert in infectious diseases. He has developed, guided and directed numerous programs that have brought great credit to DSHS and have improved the quality of public health service delivery to our State.

- John Burlinson, Deputy Regional Director, HSR 7

A Letter from Dr. Betz

Carol saved some space in the newsletter to provide me an opportunity to introduce myself to those of you in the Region. John has done so above, taking great liberties to embellish my accomplishments which he realizes have only been done in concert with the help of others such as himself, Jeff Taylor, Jon Huss, Rocco Pelosi, and others. I have been fortunate in my career to have been able to team up with folks with whom collectively we have been able to move forward on things.

I come to the Region with the challenge and opportunity to try and fill some very big shoes. Dr. James Morgan has served this Region in excellent fashion, and many consider it to be the best of all our state Regions as a result of his vision and leadership. I will attempt to continue that vision, leadership, and support of the Regional teams and programs, realizing I cannot replace him. Fortunately he is not too far down the road to guide me as I go along in this.

I believe in a lot of things that begin with P: public health, partnerships, planning, proactiveness, prevention, primary care. Because of the events of 9/11, followed by Hurricanes Katrina, Rita, and others, and along with the prospects of a flu pandemic, we as an agency have of necessity been tasked with responding to these real and threatening events. As a nation, state, and public health region, much of our available public health funding for new projects, staff and activities has focused on preparedness, disaster response, and the concerns over a possible influenza pandemic. While these concerns are based on realities or a study of past pandemics, we have enjoyed a period over the past few years that has been relatively free of natural and man-made disasters. That's the good news. The bad news is that much of the federal funding for disaster preparedness in Texas is being reduced, and federal pan flu funds are being cut completely. As monies are reduced, it makes our ability to partner and pool talents and resources even more important. We are not quite at the level of the Lord Rutherford adage during World War II in England when he said: "There is no money, we'll have to think.". But we are moving down that road and it is worth remembering. Our advantage in working in a large organization, albeit a cumbersome environment at times, is that collectively we are able to do more working together than we can by working individually. Furthermore, our ability to work and contribute as an agency is in large measure related to how well we are able to reach out and work with our external partners at many levels in the state and our communities.

Letter from Dr Betz cont.

Back in 1979, the first Surgeon General's Report on Health Promotion and Disease Prevention, *Healthy People*, was issued. Dr. Bill Foege, who was then the Director of the United States Public Health Service Center for Disease Control had a vision to greatly expand the CDC presence into areas other than that of infectious diseases, while continuing to deal with the important emerging infections, such as Legionnaire's disease, toxic shock, and HIV/AIDS. The process he used to carry out this vision was to reach out to 167 national experts in some 15 priority disease categories and invite them to CDC to put their heads together with the following charge: using available technology and resources in a coordinated and concerted fashion, determine what were the greatest realistic reductions that could be achieved in reducing morbidity and mortality from their assigned health problem. These reductions became health objectives and collectively (as I recall there were some 273 specific objectives identified for the 15 priority categories) they were disseminated in a CDC-based document, *Promoting Health/Preventing Disease: Objectives for the Nation*, with the objectives serving as an implementation plan for a national Healthy People 1990 campaign. In the mid-1980's Texas emulated this process with Healthy Texans 1990, developing specific health objectives for this state. These processes have continued on a 10-year cycle, with updated health objectives for 2000 and 2010 following the original 1990 objectives. The singular CDC became the Centers for Disease Control to better reflect its expanded role in health issues. This process was carried out with a modicum of funding and resulted in the development of several important public health programs for important causes of morbidity and mortality.

In our Infectious Disease Surveillance and Epidemiology Branch at the Texas Department of State Health Services (DSHS now-formerly TDH) during 2004, we were following the emergence of methicillin-resistant *Staphylococcus aureus* (MRSA) as an important hospital and community-acquired infection. We elected to follow Dr. Foege's lead in convening a 1-day conference with national experts on MRSA, followed by a second day in which 6 workgroups were tasked with coming up with recommendations and guidelines for the prevention and control of MRSA in their area of expertise. These guidelines have been developed and are now in use. To see them, go to www.mrsatexas.org (some of the staff had the foresight to go after some catchy urls for direct access to our MRSA information, although this is also accessible through a more circuitous route in the DSHS or Infectious Disease Control Unit (IDCU) link.) When MRSA began getting heavy coverage in the media last fall, the proactive work dating from 2004 had already produced the necessary information that people wanted. As was the case for the CDC process, all this was done through partnerships with state experts. No additional state funds were available or used, saved for those of us who chipped in for the coffee and doughnuts. In 2005, we used a similar approach to come up with pandemic flu prevention and control recommendations through a 1-day state workgroup of experts.

As I learn more of the resources, potential, and available partnerships here in Region 7, there may be opportunities to make use of the above process for specific health problems. Better yet, you who have lived here and worked here longer may already have ideas for how we might use approaches such as this for important Regional health problems.

I will close this with a quote from Dr. Foege taken from the Joseph Mountin lecture he gave at CDC in 1984. We could easily substitute state, region, or community for CDC. "If the Centers for Disease Control is to maintain the reputation it now enjoys, it will be because in everything we do, behind everything we say, as the basis for every program decision - we are willing to see faces."

I appreciate the opportunity to be here and work with you in the spirit of teams, partnerships, and the celebration of our individual and cultural diversities and talents. My wife Kay and I relocated to Temple because we believe in this Region's talent, expertise, and commitment to maintaining and improving the health of Central Texans.

Tom Betz MD MPH

Invasive *Streptococcus pneumoniae* in Region 7

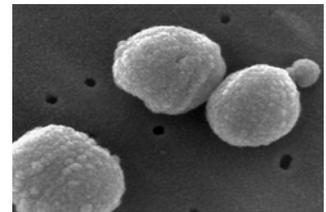
Streptococcus pneumoniae is a gram positive, alpha-hemolytic encapsulated bacterium that is often found in the nasopharynx of healthy people. It can be passed from person to person, usually through droplet spread or direct oral contact. Young children under two, the elderly and people with underlying health conditions are at greatest risk of infection. The Centers for Disease Control and Prevention (CDC) estimates the rate of invasive illness in the United States was 13 cases per 100,000 in 2002.

According to the CDC, there are over 90 serotypes of *S. pneumoniae* that cause invasive illness. The 23-valent polysaccharide vaccine covers 88% of the serotypes known to cause invasive illness. The 23-valent polysaccharide vaccine is currently recommended for all adults who are older than 65 years and for persons who are 2 years or older who are at high risk for invasive disease including people with sickle cell disease, HIV infection or other immunocompromising conditions. The pneumococcal conjugate vaccine is also recommended for healthy children under 2 years old.

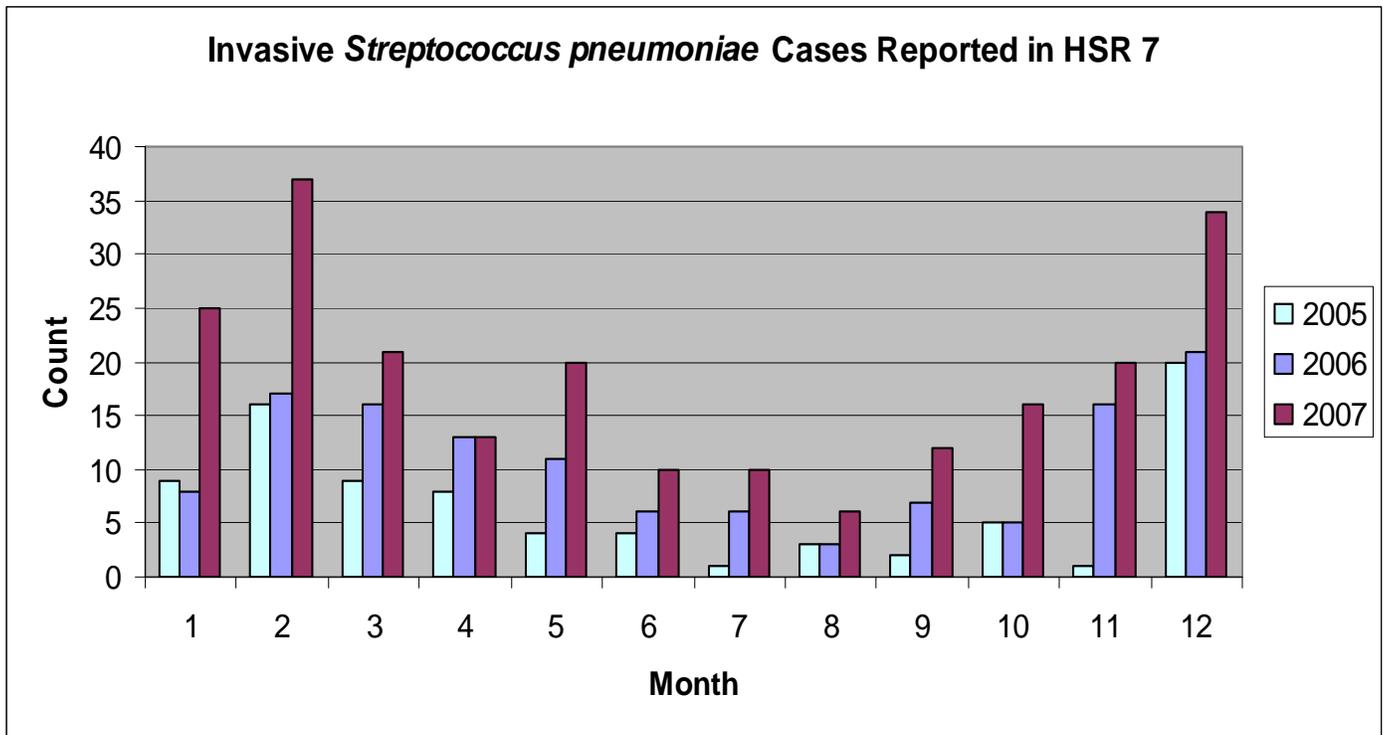
In Texas, invasive *S. pneumoniae* cases are reportable to the health department within 1 week of detection. Any case of *S. pneumoniae* identified from a normally sterile site (e.g., blood, cerebrospinal fluid, or, less commonly, joint, pleural, or pericardial fluid) is required to be reported. The graph below illustrates the number of confirmed invasive *S. pneumoniae* cases reported to Health Services Region 7 from 2005 to 2007 by EpiMonth. EpiMonth is based preferentially on date of onset, date of diagnosis or date of report. Most invasive cases in Region 7 occur December through February which is consistent with national trends.

Additional information on *S. pneumoniae* can be found at:

- <http://www.dshs.state.tx.us/idcu/disease/strep/>
- <http://www.cdc.gov/vaccines/vpd-vac/pneumo/dis-faqs.htm>
- http://www.cdc.gov/ncidod/dbmd/diseaseinfo/streppneum_t.htm



Scanning Electron Micrograph of *S. pneumoniae*. Picture from the CDC Public Health Image Library



Notes: Graph includes clinically compatible invasive cases attributed to a laboratory confirmed culture of *S. pneumoniae* from a normally sterile site (e.g., blood, cerebrospinal fluid, or, less commonly, joint, pleural, or pericardial fluid) that were reported to the Texas Department of State Health Services Region 7.

Norovirus and Long-Term Care Facilities

Noroviruses are a group of related single-strand RNA, non-enveloped viruses that cause acute gastroenteritis. These viruses have been referred to as “Norwalk-like viruses” and “Cruise ship viruses”. Noroviruses are found in the stool and vomitus of infected individuals. The virus can be aerosolized during the cleanup of fecal material and vomitus. Onset of symptoms begins in most people between 24 and 48 hours after exposure. A person is infectious for at least 3 days after their symptoms resolve. Noroviruses are easily transmitted and can spread rapidly through daycares, nursing homes, assisted living facilities and other similar environments.

Last winter was a busy Norovirus season for Health Services Region 7. Several of our local health departments investigated outbreaks of Norovirus in various long-term care facilities. In December, Austin/Travis County Health and Human Services Department responded to two different nursing homes with outbreaks of Norovirus occurring among their residents. Williamson County & Cities Health District also received reports of Norovirus-like activity from nursing homes in January.

Austin/Travis County Health and Human Services Department prepared a list of recommendations for controlling the spread of norovirus in long-term care facilities as a result of their December investigations. These recommendations were shared with other local health departments in Region 7 and adapted for use by many of the health jurisdictions. Some jurisdictions incorporated the recommendations into their norovirus outbreak response and others proactively shared these recommendations with long-term care facilities in their jurisdictions.

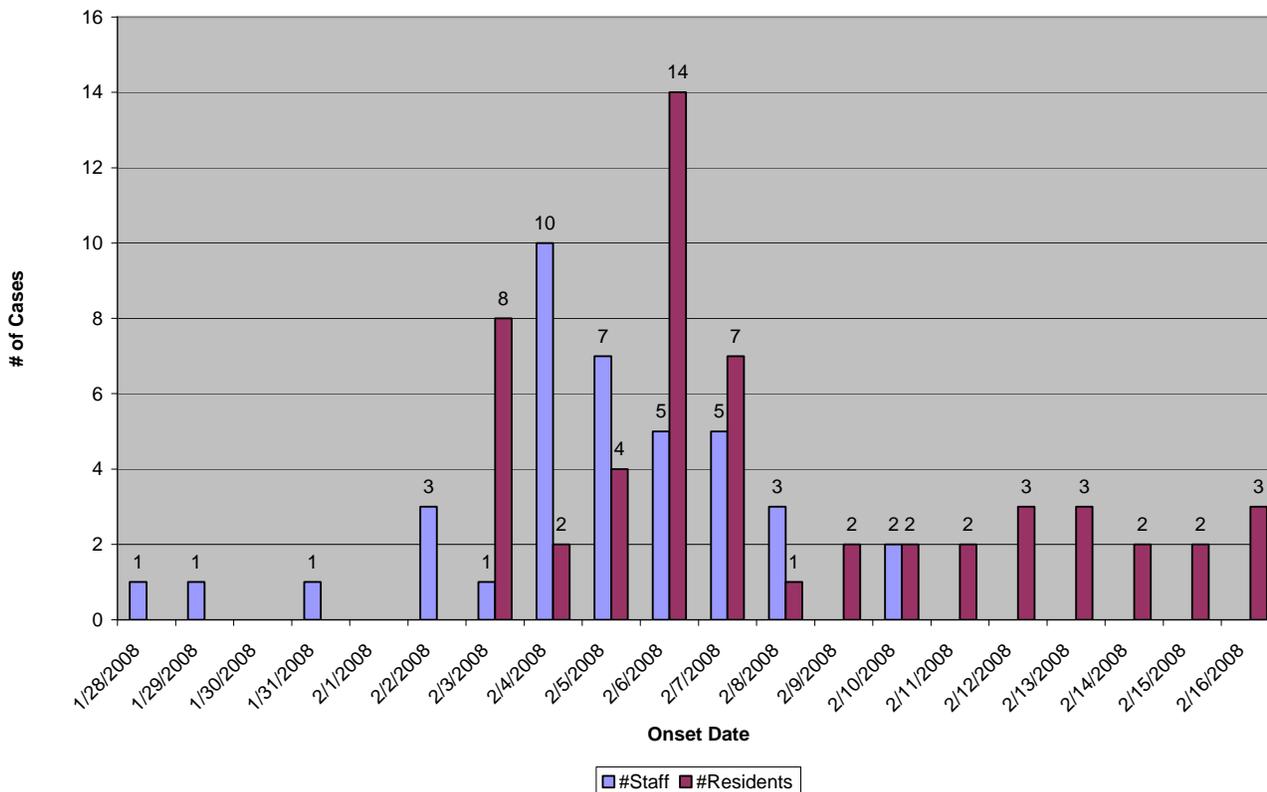
The following control measures were found to be effective when implemented early and maintained until no new cases of gastroenteritis occurred for a 72 hour period:

- Perform thorough deep cleaning of the facility, including common areas and resident rooms.
- Enforce strict hand washing and glove policies for all employees
- Ensure universal precautions are followed by staff cleaning up emesis or feces. Gowns and masks should be worn along with gloves.
- Provide hand sanitizer dispensers and reminders and instructions to use them throughout your facility.
- Require ill employees to remain at home until they have been without symptoms for 48 hours. Upon their return to work, limit their contact with persons who are medically fragile or could be put at risk of severe complications if they were to contract a norovirus infection.
- Cancel all group activities.
- Limit mingling of ill and non-ill residents. If possible, limit ill residents to their rooms for the duration of their illness.
- Temporarily suspend new admissions or transfers.
- Limit transfers out to only medically necessary transfers (NOTE: EMS/patient transport, hospitals and other receiving facilities should be notified of the possibility of norovirus when transferring/transporting patients from a facility experiencing cases of acute gastroenteritis).
- Inform family members and healthcare providers in writing when ongoing transmission of gastrointestinal illness is occurring particularly when Norovirus is suspected.
- Post precautionary notifications on entrances and exits.
- Limit visitors. Provide all visitors with information sheets on how they can limit their own risks of contracting norovirus.

Norovirus and Long-Term Care Facilities continued

It can be challenging to identify the original source of infection in long-term care facilities since Norovirus can be introduced by any number of infected people including staff, family/friends of residents, new residents, visiting health care workers, contractors and other people visiting the facility. This February, Waco-McLennan County Public Health District assisted a nursing home with controlling a Norovirus outbreak that was likely introduced by staff working at the facility. The graph below shows the number of staff and residents by day who had an onset of symptoms compatible with norovirus.

Cases of Gastrointestinal Illness by Onset Date and Resident Status



Graph submitted by Ann Davis, epidemiologist with Waco-McLennan County Public Health District.

The lessons learned from these investigations and further communications with nursing homes and assisted living facilities culminated in a collaborative workshop hosted by Austin/Travis County Health and Human Services Department, Williamson County & Cities Health District, Hays County Personal Health Department, The Texas Department of Aging and Disability Services and the Texas Department of State Health Services. The workshop, Infection Control and Outbreak Management, was held in March and targeted long-term care facilities in and around Region 7. This workshop was recorded and may be available in the future as a web-based training.

Select Notifiable Conditions Reported in 2006 , 2007 and January to March 2008

Notifiable Condition	2006 Count	2007 Count*	2008 YTD Count*
Amebiasis	30	61	15
Aseptic meningitis	270	278	36
Bacterial meningitis, other	18	24	8
Brucellosis	2	5	0
Campylobacteriosis	146	275	35
Cruetzfeldt-Jakob Disease	2	0	0
Cryptosporidiosis	109	37	0
Cyclosporiasis	1	0	0
Ehrlichiosis, Human monocytic	1	0	0
Enterohemorrhagic <i>E.coli</i> O157:H7	9	0	0
Enterohemorrhagic <i>E.coli</i> , shiga + (not serogrouped or non-O15:H7 serogroup))	10	11	0
Group A Streptococcus, invasive	57	44	15
Group B Streptococcus, invasive	76	52	17
<i>Haemophilus influenzae</i> , invasive	1	0	1
Hepatitis, unspecified	75	10	13
Hepatitis A, acute	23	28	11
Hepatitis B virus infection, Chronic [^]	241	227	79
Hepatitis B, acute	55	68	12
Hepatitis C Virus Infection, chronic or resolved [^]	2025	1271	468
Hepatitis C, acute	3	13	5
Hepatitis E, acute	0	2	0
Legionellosis	8	6	1
Leishmaniasis~	~	2	0
Listeriosis	1	3	1
Lyme disease	5	11	0
Malaria	9	20	0
Mumps	15	2	2
<i>Neisseria meningitidis</i> , invasive (Meningococcal disease)	7	9	5
Pertussis	337	272	37
Plague	1	0	0
Q fever	3	8	2
Rocky Mountain spotted fever	2	2	0
Salmonellosis	366	390	60
Shigellosis	388	252	41
<i>Streptococcus pneumoniae</i> , invasive	129	224	93
Streptococcus, other, invasive, beta-hem (non-A nonB) [^]	15	12	2
Typhoid fever (<i>Salmonella typhi</i>)	0	2	1
Typhus fever	0	2	0
Vancomycin-Resistant Enterococcus	5	5	0
Varicella (Chickenpox)	1728	1230	444
Vibriosis	12	3	0
Yersiniosis	3	5	0
Grand Total	6190	4866	1404

Includes confirmed and probable notifiable conditions reported to the Texas Department of State Health Services Region 7 that are tracked in the NEDSS database. Year to Date (YTD) for 2008 includes cases reported and entered from January 2008 through March 2008.

* Data is provisional and may change as investigations are completed or updated.

[^] Disease is not reportable. Note: Newly reported chronic Hepatitis C was taken off of the notifiable conditions list as of June 5, 2007.

~ Disease was added to the notifiable conditions list in 2007.

Public Health Information Network (PHIN)

Between January and March, 9 PHIN messages were sent out to physicians, nurses and area hospitals in Region 7 counties. These messages contained information from the Centers for Disease Control and Prevention and/or the Texas Department of State Health Services regarding ongoing health investigations with the potential to impact Texans. The PHIN provides a secure format for sharing critical health information that may contain sensitive health information. PHIN messages are sent by email, phone or fax depending on the importance or time sensitive nature of the message.

Didn't get the alerts?

Healthcare providers, school officials, emergency medical services and emergency management coordinators are eligible for PHIN access. Go to <https://texphin.dshs.state.tx.us/> to sign up to use the PHIN. In addition to getting critical health information from the Department of State Health Services, PHIN users can also assess the New England Journal of Medicine through the PHIN web portal. If you have any questions about the PHIN, call 254-778-6744 and ask to speak with Carol Davis, Jacquie Hagerty or Russ Jones.

Region 7 Outbreaks, Clusters and Other Large Investigations; Jan — Mar 2008

Health Services Region 7 investigated a cluster of positive Shiga toxin lab tests from a single hospital in Bastrop. A total of six cases, 3 adults and 3 children, were reported to Region 7 from March 4 through March 7, 2008. A media release was sent out on March 7 because one of the 6 cases was a fatality. Enhanced surveillance for diarrheal illness in Bastrop, Caldwell, Fayette and Lee counties did not detect any additional cases. The initial results were from stool samples collected from ill patients and tested at a private laboratory using an enzyme immuno-assay (EIA) testing for the presence of Shiga toxin. While several organisms are capable of producing Shiga-toxin, such as many sero-types of *E. coli*, no Shiga-toxin producing organism was isolated from the six cases by the private laboratory or by the Texas Department of State Health Services Laboratory in Austin. Interviews of the six reported cases included information on food histories, drinking water sources, recreational water exposures, animal exposures, group gatherings, etc. No common source such as a restaurant, grocery store or water source was implicated, despite common rumors to the contrary. No further cases have been reported that would suggest a continuing problem in the area.

Isolated Norovirus outbreaks were investigated by more than one Region 7 local health department during this time frame. Waco-McLennan County Public Health District responded to an outbreak in a nursing home. Austin/Travis County Health and Human Services Department responded to an outbreak associated with a luncheon at a country club, another with a local restaurant and a third with a local substance abuse treatment facility. No links were identified between any of these incidents.

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