

## Antibiotic Resistant Pathogen Isolate Surveillance Report

Statewide, for the three-year period of 1999-2001, 28-31% of *Streptococcus pneumoniae* isolates were resistant to penicillin (intermediate + resistant totals), which is higher than the national estimate of 24% for 1998. During this period, 4-5% of *Enterococcus* species isolates tested were resistant to vancomycin. There were no confirmed cases of vancomycin-intermediate resistant *Staphylococcus aureus*.

In 1998 a Board of Health rule change required that all microbiology laboratories in Texas report, at least on a quarterly basis, vancomycin-resistant *Enterococcus* species (MIC  $\geq$ 16 mcg/mL) and penicillin-resistant *Streptococcus pneumoniae* (MIC  $\geq$ 0.1 mcg/ml), as well as total numbers of *Enterococcus* species and *Streptococcus pneumoniae* isolated/cultured at their site. Vancomycin-intermediate resistant *Staphylococcus aureus* and vancomycin-intermediate resistant coagulase negative *Staphylococcus* species (MIC  $\geq$ 8 mcg/mL) are to be reported immediately by phone or fax.

The information generated by this surveillance system provides an overview of the human reservoir of these pathogens in Texas. However, this passive reporting system is limited by

- inherent inability to differentiate between pathogen colonization and infection
- geographic variability in completeness of reporting
- variability in testing methodology
- interfacility variability in routine culturing practices. (For example, hospitals that have the capacity to test sensitivity and that routinely actively monitor rates of colonization [as compared with infection] are over-represented in this surveillance system's database.)

### Reporting Facilities

**1999.** For the period January 1, 1999, through December 31, 1999, 119 laboratories mailed or faxed complete antibiotic resistance reports. The majority of these laboratories were small- to medium-sized city hospital laboratories that served multiple counties;

8 were large, freestanding laboratories. Forty-nine of 186 (26%) counties with hospitals were represented.

**2000.** For the period January 1 through December 31, 126 laboratories completed antibiotic resistance reports. Again the majority of these laboratories were small- to medium-sized city hospital laboratories that served multiple counties; 5 were large, freestanding laboratories. Fifty-five of 189 (29%) counties with hospitals were represented.

**2001.** For the period January 1 through December 31, 115 laboratories mailed or faxed complete antibiotic resistance reports. The characteristic laboratory was as described above; 5 were large, freestanding laboratories. Sixty of 189 (32%) counties with hospitals were represented.

Continued ☞

**Table 1. Estimated Distribution of Penicillin-resistant *Streptococcus pneumoniae* (PRSP) by PHR, 1999-2001.\***

PHR	1999 % (CI)	2000 % (CI)	2001 % (CI)
1	44 (39-48)	43 (37-49)	36 (31-40)
2	56 (44-67)	52 (44-60)	0 (0-25)
3	21 (19-24)	29 (26-31)	30 (27-32)
4	27 (23-32)	33 (28-36)	29 (23-36)
5	38 (14-68)	32 (25-39)	30 (22-40)
6	29 (25-32)	34 (30-37)	38 (34-41)
7	27 (24-30)	29 (27-31)	32 (29-34)
8	22 (17-28)	27 (23-31)	23 (19-27)
9	2 (0-8)	22 (15-30)	34 (24-45)
10	—	16 (7-30)	19 (10-32)
11	36 (27-46)	21 (17-25)	30 (22-39)
State	28 (27-30)	30 (29-31)	31 (30-33)

\* Data from reports missing numerator or denominator were excluded. PHR = Public Health Region; CI = 95% Confidence interval

Also in this issue  
Perspectives in Public Health Conference

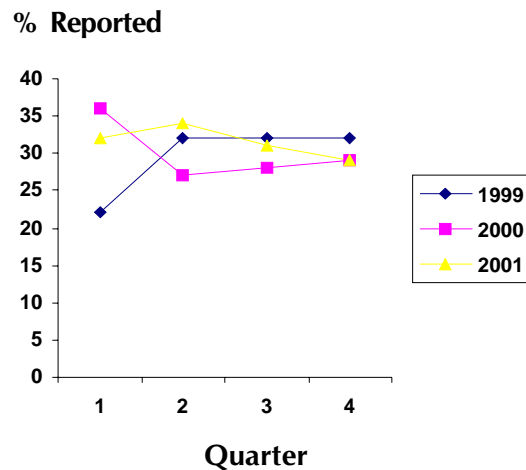
**Table 2. Estimated Distribution of Vancomycin-Resistant *Enterococcus* Species (VRE) by PHR, 1999-2001.\***

PHR	1999 % (CI)	2000 % (CI)	2001 % (CI)
1	7 (6-8)	9 (7-11)	7 (5-8)
2	1 (0-1)	1 (0-1)	3 (0-7)
3	3 (3-4)	3 (3-4)	3 (2-3)
4	2 (1-2)	1 (1-2)	1 (1-1)
5	1 (0-5)	2 (1-3)	2 (1-3)
6	7 (6-7)	11 (10-12)	9 (8-10)
7	1 (1-2)	1 (0-1)	1 (1-2)
8	6 (5-7)	10 (10-11)	6 (5-6)
9	2 (1-5)	4 (3-6)	6 (4-9)
10	—	2 (1-3)	2 (1-3)
11	2 (1-2)	7 (6-9)	4 (3-4)
State	4 (4-4)	5 (4-5)	4 (4-4)

\*Data from reports missing numerator or denominator were excluded.  
PHR = Public Health Region; CI = 95% Confidence interval

### Reports

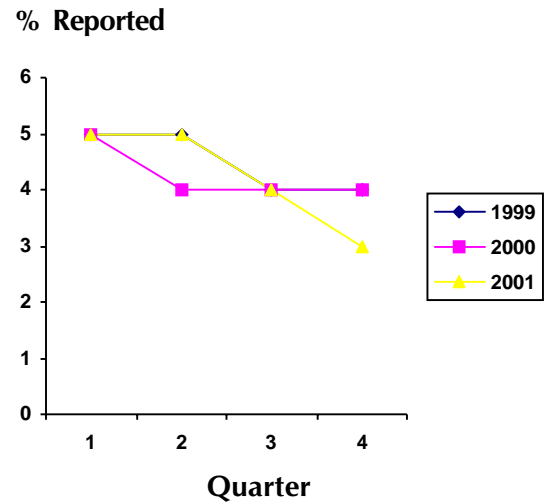
Statewide for the years 1999, 2000, and 2001 respectively, 28%, 30%, and 31% of *Streptococcus pneumoniae* isolates (intermediate and resistant totals) had decreased susceptibility to penicillin (Table 1). Statewide, 4%, 5%, and 4% of *Enterococcus* species isolates tested were resistant to vancomycin during this 3-year period (Table 2). In 1999-2001 there were no confirmed reports of the isolation of vancomycin-intermediate or resistant *Staphylococcus aureus* and coagulase-negative *Staphylococcus* species.

**Figure 1. Isolates of *Streptococcus pneumoniae* Resistant to Penicillin, 1999-2001**

The distribution of vancomycin-resistant *Enterococcus* species (VRE) and penicillin-resistant *Streptococcus pneumoniae* (PRSP) isolates by the Public Health Region site of the reporting laboratory are also shown in Tables 1 and 2. Figures 1 and 2 depict the quarterly distribution of these resistant pathogens by year.

### Death Certificate Review

A review of death certificates revealed that in 1999, 9 deaths were attributed to VRE; in 2000, 5 deaths; and in 2001, 4. In 1999 and 2000, no deaths, and in 2001, 1 death was attributed to PRSP. All of the deaths attributed to VRE and PRSP, except for the death of a 3-month old from VRE sepsis in 1999, occurred in

**Figure 2. Isolates of *Enterococcus* Species Resistant to Penicillin, 1999-2001**

patients who were 45 to 93 years of age and who had severe underlying medical conditions such as cancer.



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For further information call 512/458-7676.

## Perspectives in Public Health: Topics In Preventive Medicine

On Friday, September 27, 2002, from 8:00 AM to 4:00 PM, the Texas Department of Health (TDH) will present its Perspectives in Public Health: TDH Quarterly CME Conference. Designed for public health and primary care physicians, the conference will be held at the North Austin Medical Center, 1221 North Mopac, Austin, Texas.

The program will consist of lectures supplemented by audiovisual slide presentations.

After attending this conference, the participants will be able to

- ♦ prevent, detect at an early stage, treat, control, or take remedial action against specific medical conditions that may adversely affect the health of individuals and populations in Texas;
- ♦ identify policies, processes, and products that promote and protect the health of people and preserve environmental quality; and
- ♦ establish relationships with other physicians concerned with public health and preventive medicine issues through dialogue with presenters and other participants.

Topics covered at the upcoming conference include

- ♦ **Impact of Cardiovascular Disease, Stroke, & Diabetes In Texas**  
*Philip Huang, MD, MPH, Chief, TDH Bureau of Chronic Disease & Tobacco Prevention, Austin, Texas*
- ♦ **Evaluating/Managing Cholesterol**  
*Thomas C. Blevins, MD, Office-based Practice, Austin, Texas*
- ♦ **Combating the Obesity Epidemic**  
*Raymond G. Troxler, MD, Director, University Lipid Clinic, University of Texas Health Science Center at San Antonio*
- ♦ **Medical Newsdesk**  
*W.S. Riggins, Jr, MD, MPH, Regional Director, TDH Public Health Region 8, San Antonio, Texas*
- ♦ **Increasing Physical Activity**  
*Leilani Cronin, PhD, Body Image, Inc, Austin, Texas*
- ♦ **Community Strategies for Preventive Services**  
*Joan M. Miller, MHA, Executive Director, Bexar County Community Health Collaborative, San Antonio, Texas*

The Texas Department of Health designates this educational activity for a maximum of 6 hours in Category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

This program has been reviewed and is acceptable for 6 prescribed hours by the American Academy of Family Physicians.

The Texas Department of Health is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.



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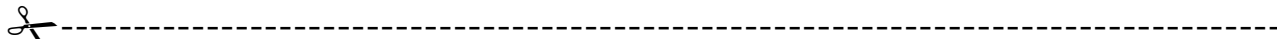
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