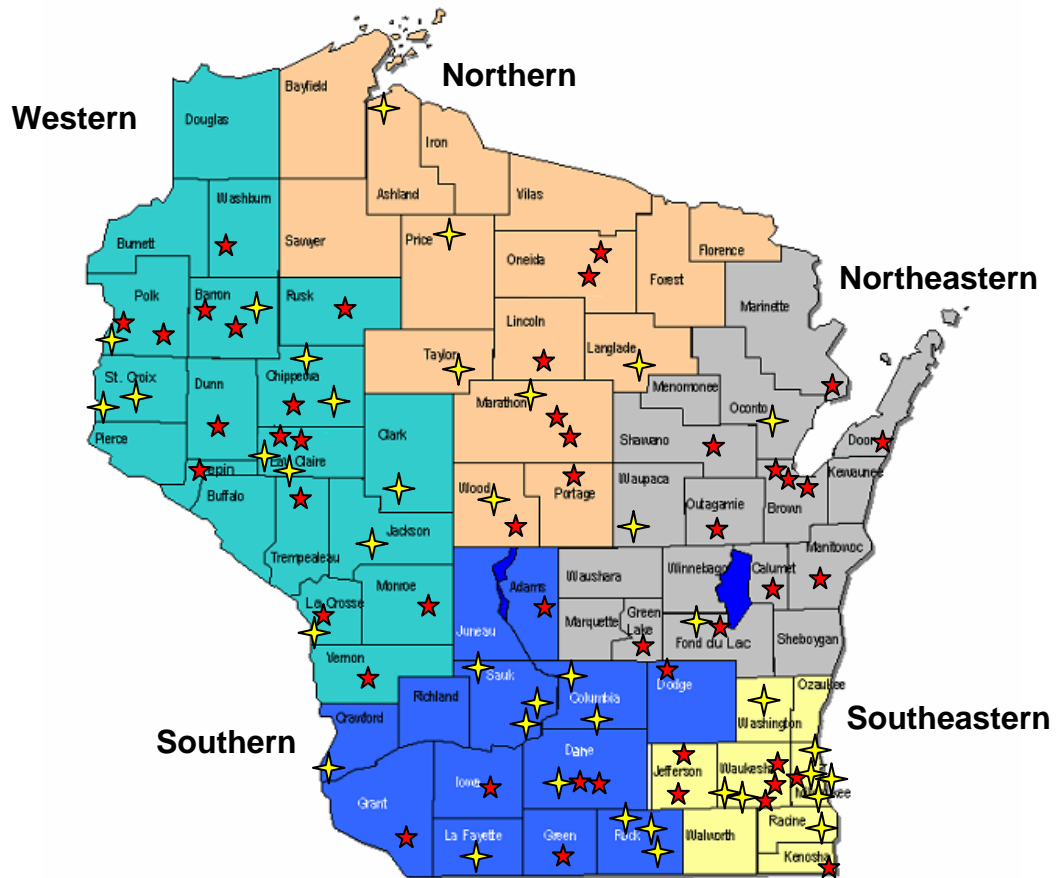


In order to examine and report the status of antimicrobial resistance in Wisconsin, a request for the year 2006 antibiograms was sent to all healthcare facilities performing antimicrobial susceptibility testing (AST). Of the 87 healthcare facilities performing AST, 47 (54%) contributed their antibiogram data. These antibiograms were combined into a cumulative statewide antibiogram. A publication is pending on this work and will be posted at <http://www.slh.wisc.edu/labupdates/reports>.

**Figure 1. Wisconsin map divided into five regions.** The boundaries of the regions are according to the Wisconsin Division of Public Health – Department of Family Health and Services. The locations of healthcare facilities performing antimicrobial susceptibility testing (AST) are marked.



Adapted from the Wisconsin Division of Public Health – Department of Family Health & Services

- ✦ Healthcare facilities performing AST but did not send in antibiogram
- ★ Healthcare facilities contributed antibiogram

Table 1. 2006 State-wide antibiogram of Gram-negative organisms.

Gram-Negative Organisms	Number of isolates*	Percent Susceptible (%S)																
		Aminoglycoside			Cephalosporins					Penicillins			Other					
		Amikacin	Gentamicin	Tobramycin	Cefazolin (1st generation)	Cefuroxime (2nd generation)	Ceftriaxone (3rd generation)	Ceftazidime (3rd generation)	Cefepime (4th generation)	Ampicillin	Ampicillin/Sulbactam	Piperacillin/Tazobactam	Ciprofloxacin	Levofloxacin	Ertapenem	Imipenem	Nitrofurantoin**	Trimethoprim/Sulfamethoxazole
<i>Acinetobacter baumannii</i> complex***	138	76	60	83	—	—	17	40	40	—	94	59	35	37	—	66	—	89
<i>Acinetobacter</i> spp.	92	96	97	97	—	—	27	80	90	—	97	92	82	87	—	98	—	85
<i>Citrobacter freundii</i>	687	100	95	96	—	83	89	91	99	—	30	90	90	91	100	100	91	86
<i>Citrobacter koseri</i>	295	100 <sup>a</sup>	100	100	98	78	100	100	100	—	90	98	99	100	100 <sup>a,b</sup>	100	85	100
<i>Enterobacter aerogenes</i>	594	100	98	99	—	79	90	91	98	—	27	88	97	98	100 <sup>a,b</sup>	100	22	98
<i>Enterobacter cloacae</i>	1,729	100	98	98	—	28	87	88	99	—	17	86	94	96	100	99	40	93
<i>Escherichia coli</i>	43,899	99	94	95	94	90	98	98	98	65	71	99	88	89	100	100	97	84
<i>Klebsiella oxytoca</i>	1,260	100	98	99	62	86	97	99	98	—	73	96	98	98	100	100	85	96
<i>Klebsiella pneumoniae</i>	7,414	100	99	99	97	92	99	99	99	—	89	98	98	98	87	100	49	95
<i>Morganella morganii</i>	359	100	91	96	—	0	95	85	100	—	35	96	78	77	—	93	—	78
<i>Proteus mirabilis</i>	4,480	100	93	93	93	97	99	99	99	88	95	99	84	89	100	89	—	88
<i>Pseudomonas aeruginosa</i>	6,116	96	85	94	—	—	—	88	87	—	—	94	72	74	—	89	—	—
<i>Salmonella</i> spp.	78	—	—	—	—	—	89	85	100	78	—	100	100	100	—	100	—	96
<i>Serratia marcescens</i>	663	99	99	86	0	2	96	97	97	3	13	93	92	96	100 <sup>a,b</sup>	99	0	97
<i>Stenotrophomonas maltophilia</i>	133	—	—	—	—	—	—	—	—	—	—	—	—	58	—	—	—	93

Note: Not all isolates tested against all antibiotics listed. All sources are included unless indicated.

\* Maximum number of isolates tested. % susceptible for each organism/antimicrobial combination may include more than one isolate per patient

\*\* Urine isolates only

\*\*\* Includes *A. baumannii* and *A. calcoaceticus*

<sup>a</sup> Less than 30 isolates tested. Percent susceptibility may have less statistical validity

<sup>b</sup> Based on isolates from one institution only.

(—) Drug not tested or drug not indicated

Table 2. 2006 State-wide antibiogram of Gram-positive organisms.

Gram-Positive Organisms	Number of isolates*	Percent Susceptible (%S)																
		Penicillins		Aminoglycosides			Macrolides/Lincosamides Streptogramins			Other								
		Penicillin	Oxacillin	Gentamicin	Gentamicin (synergy)	Streptomycin (synergy)	Clindamycin	Erythromycin	Quinupristin/dalfopristin	Ceftriaxone	Chloramphenicol	Levofloxacin	Linezolid	Nitrofurantoin**	Rifampin	Tetracycline	Trimethoprim/Sulfamethoxazole	Vanomycin
<i>Enterococcus faecalis</i>	5,032	98	—	—	73	70	—	19	—	—	87	57	99	98	79 <sup>d</sup>	33	—	99
<i>Enterococcus faecium</i>	376	29	—	—	92	37	—	8	90	—	98	21	97	35	—	65	—	71
<i>Enterococcus</i> spp. <sup>a</sup>	5,225	91	—	—	90	71	—	18 <sup>d</sup>	—	—	89	56	96	94	83 <sup>d</sup>	33	—	97
<i>Staphylococcus aureus</i> , methicillin-resistant	4,606	0	0	98	—	—	52	7	100 <sup>d</sup>	0	100	24	100	99	98	96	99	100
<i>Staphylococcus aureus</i> , methicillin-susceptible	2,896	17	100	99	—	—	87	68	100	98	100	85	100	98	100	96	98	100
<i>Staphylococcus</i> , coagulase-negative	9,410	11	40	84	—	—	63	37	99	43	100	49	100	95	96	84	65	100
<i>Staphylococcus</i> , coagulase-positive	11,002	8	61	99	—	—	70	47	100	56	100	63	100	99	99	96	99	100
<i>Streptococcus pneumoniae</i>	1,032	71	—	—	—	—	91	71	—	96 <sup>e</sup>	98	98	100	—	93 <sup>c,d</sup>	84	74	100
<i>Streptococcus agalactiae</i>	1,564	100	—	—	—	—	80	69	—	100 <sup>d</sup>	93 <sup>d</sup>	98	100	—	—	14	—	100
<i>Streptococcus</i> , viridans group	322	71	—	—	—	—	95	64	—	95	94 <sup>c</sup>	97	—	—	—	75 <sup>c</sup>	—	100

Note: Not all isolates tested against all antibiotics listed. All sources are included unless indicated otherwise.

\* Maximum number of isolates tested. % susceptible for each organism/antimicrobial combination may include more than one isolate per patient

\*\* Urine isolates only

(—) Drug not tested or drug not indicated

<sup>a</sup> Includes *E. faecalis*, *E. faecium*, vancomycin-intermediate species *E. gallinarum*, *E. casseliflavus*, and other strains not identified to the species level

<sup>c</sup> Based on isolates from one institution only.

<sup>d</sup> Less than 30 of the maximum isolates were tested. Percent susceptibility may have less statistical validity

<sup>e</sup> Ceftriaxone interpretation for non-meningeal infections. Meningeal infections show 81% susceptibility to ceftriaxone