2015 Alaska State Antibiogram

The following tables show the proportion of isolates of various bacterial species that tested susceptible to various antibiotics during 2014 and 2015. These data were aggregated from the antibiograms produced by Alaska hospitals in order to create aggregate regional resistance pattern summaries. These antibiograms can be helpful for health care providers in selecting appropriate "presumptive" antimicrobial therapy for their patients until specific individual laboratory test results are available. They can also be helpful for determining antibiotic stewardship priorities within hospitals and emerging resistance patterns in a broader service area.

- **Methodology:** Individual hospitals prepared their own facility antibiograms, which were shared with the Alaska Section of Epidemiology. Aggregated susceptibility percentages were calculated as the proportion of all tested isolates for the region that were susceptible. Values are only reported when more than one facility provided data for the given species-antibiotic combination. Intrinsic resistance is indicated with an "R", following the guidance of CLSI document M100-S24.
- **Multi-Drug Resistant Organisms of Note:**
  - Vancomycin-resistant *Staphylococcus aureus* (VRSA): no cases of VRSA have ever been reported in Alaska. VRSA is reportable to the Alaska Section of Epidemiology.
  - Carbapenem-resistant Enterobacteriaceae (CRE): there were 6 cases of CRE reported in Alaska in 2015.
- **Legend:**
  - The top value in each square is the percent of isolates of that species that tested susceptible to that antibiotic.
  - The lower value in each square indicates the number of tested isolates for that bacteria-antibiotic combination.
  - "R" indicates intrinsic resistance to that antibiotic, while "S" indicates definitional susceptibility.
  - "NED" indicates that there was Not Enough Data to report the value: either only one facility reported data for that drug-bug combination or <30 isolates were tested.
- **Limitations:** Individual facilities often use different methods to test for antimicrobial susceptibility, different methods to build their antibiograms, and different antibiotics in their pharmacies. These factors limit interpretation of these data. Additionally, antimicrobial susceptibility testing done in the laboratory does not always predict how effective that drug will be when used to treat a patient. Data are not stratified by infection site, which influences antibiotic choice and effectiveness.
- **Contributing Facilities:** Thanks to all the hospitals in Alaska for participating in this project to the extent of their ability. These statewide data include all the hospitals used in the Regional Antibiograms, plus Fairbanks Memorial Hospital.

For more information, the methods used for the analyses, and statistical comparisons between different parts of Alaska, please see the "Regional Antibiogram Project — Alaska, 2014–2015" Epidemiology *Bulletin*.

Statewide data

Species	Penicillin	Ampicillin	Oxacillin	Ampicillin-sulbactam	Amoxicillin	Cefazolin	Ceftriaxone	Cefotaxime	Ciprofloxacin	Levofloxacin	Moxifloxacin	Daptomycin	Clindamycin	Erythromycin	Vancomycin	Gentamicin	Gent Syn	Trimethoprim-sulfamethoxazole	Linezolid	Tetracycline	Nitrofurantoin	Quinupristin-dalfopristin	Rifampin
Total *Staphylococcus aureus*	**6%** (3082)	**0%** (905)	**63%** (6629)	**63%** (1268)	**62%** (1268)	**58%** (2432)	**58%** (1003)		**68%** (4202)	**69%** (4953)	**82%** (444)	**99%** (717)	**86%** (6621)	**50%** (3692)	**99%** (6586)	**99%** (4226)		**98%** (5978)	**99%** (3588)	**97%** (6082)	**99%** (5118)	**99%** (249)	**99%** (2391)
MSSA	**10%** (1532)	**0%** (563)	**S**	**99%** (763)	**100%** (763)	**100%** (1439)	**100%** (761)		**88%** (2247)	**90%** (2658)	**95%** (279)	**99%** (672)	**87%** (3540)	**68%** (1845)	**99%** (3585)	**99%** (2499)		**99%** (3581)	**99%** (1892)	**97%** (3261)	**99%** (1635)	**99%** (142)	**99%** (1248)
MRSA	**0%** (1033)	**0%** (340)	**R**	**0%** (329)	**0%** (329)	**0%** (306)	**0%** (556)		**27%** (1458)	**32%** (1834)	**62%** (163)	**99%** (362)	**81%** (2249)	**14%** (1236)	**99%** (2266)	**99%** (1472)		**97%** (2264)	**94%** (1630)	**97%** (2063)	**99%** (1559)	**100%** (62)	**100%** (776)
Staphylococcus lugdunensis	**0%** (23)	NED	**88%** (74)	NED	NED	NED			**96%** (51)	**96%** (51)		NED	**89%** (74)	**86%** (51)	**100%** (74)	**100%** (51)		**100%** (74)	**100%** (74)	**96%** (51)	**100%** (51)		
Coag-negative *Staphylococcus*	**9%** (1039)	**1%** (399)	**48%** (1328)	**31%** (433)	**31%** (433)		**51%** (506)		**57%** (903)	**66%** (1175)	**87%** (62)	**99%** (494)	**39%** (1543)	**37%** (900)	**99%** (1330)	**89%** (623)		**67%** (1316)	**97%** (1011)	**87%** (1072)	**99%** (655)	**96%** (100)	**98%** (408)
Enterococcus faecalis	**98%** (600)	**99%** (865)		**91%** (82)		**R**	**R**	**R**	**84%** (810)	**82%** (925)		**99%** (318)	**R**	**18%** (302)	**99%** (920)	**R**	**81%** (482)	**R**	**98%** (698)	**25%** (761)	**96%** (792)	**R**	**70%** (73)
Enterococcus faecium	**26%** (47)	**29%** (74)				**R**	**R**	**R**	**27%** (30)	**33%** (30)	NED	NED	**R**	NED	**58%** (74)	**R**	**88%** (61)	**R**	**98%** (61)	**30%** (33)	**37%** (35)		NED
Enterococcus spp.	**99%** (446)	**99%** (452)							**88%** (120)	**84%** (397)					**99%** (452)		**88%** (332)		**96%** (332)	NED	**97%** (403)		
Streptococcus agalactiae	**96%** (46)	**S**			NED					NED			**42%** (41)	NED	**98%** (46)				NED	NED			
Streptococcus pyogenes	**100%** (45)	**100%** (45)			NED		NED	NED		**100%** (45)			**95%** (45)	**90%** (45)	**100%** (45)								
Streptococcus pneumoniae (all)	**93%** (158)				NED		**98%** (64)	**99%** (99)		**99%** (364)			**88%** (177)	**69%** (204)	**100%** (524)			**89%** (175)		**89%** (114)			
S. pneumoniae - oral	**80%** (386)																						
S. pneumoniae - non-CSF	**96%** (410)						**99%** (314)	**99%** (366)															
S pneumoniae - meningitis	**75%** (410)						**97%** (348)	**96%** (400)															
Viridans-group *Streptococcus*	**84%** (95)	NED					**94%** (55)						NED	NED	**100%** (55)								

2014/2015 State Antibiograms- SURVEILLANCE DATA ONLY

Statewide data

Species	Amoxicillin+ clavulanic acid	Ampicillin	Ampicillin+Sulbactam	Piperacillin+Tazobactam	Cefazolin	Cefuroxime	Ceftriaxone	Ceftazidime	Cefepime	Cefotaxime	Cefotetan	Cefoxitin	Aztreonam	Gentamicin	Tobramycin	Amikacin	Ertapenem	Imipenem	Meropenem	Ciprofloxacin	Levofloxacin	Trimeth+Sulfa	Tetracycline	Nitrofurantoin
Citrobacter freundii	**R**	**R**	**R**	**91%** (265)	**R**	**R**	**86%** (271)	**86%** (729)	**94%** (124)	**82%** (76)	**R**	**R**	**82%** (34)	**97%** (273)	**98%** (273)	**100%** (92)	**100%** (132)	**99%** (190)	**99%** (108)	**96%** (267)	**96%** (267)	**73%** (267)	**71%** (54)	**76%** (202)
Enterobacter aerogenes	**R**	**R**	**R**	**87%** (154)	**R**	**R**	**88%** (154)	**89%** (148)	**99%** (140)	**77%** (60)	**R**	**R**	**78%** (112)	**98%** (154)	**98%** (148)	**99%** (124)	**100%** (44)	**86%** (50)	**100%** (112)	**95%** (154)	**94%** (154)	**97%** (154)	**95%** (66)	**22%** (146)
Enterobacter cloacae	**R**	**R**	**R**	**83%** (375)	**R**	**R**	**78%** (395)	**78%** (361)	**96%** (330)	**71%** (209)	**R**	**R**	**74%** (268)	**97%** (401)	**97%** (376)	**99%** (250)	**93%** (56)	**97%** (123)	**99%** (301)	**95%** (373)	**96%** (373)	**90%** (373)	**90%** (167)	**30%** (356)
Escherichia coli	**85%** (7138)	**57%** (11856)	**65%** (10778)	**97%** (11276)	**90%** (10263)	**88%** (7874)	**96%** (11541)	**98%** (10316)	**98%** (7823)	**77%** (4687)	**97%** (3605)	**92%** (5242)	**92%** (5898)	**93%** (12112)	**94%** (11026)	**100%** (6108)	**100%** (3314)	**100%** (4964)	**100%** (7956)	**85%** (11864)	**85%** (11864)	**78%** (11864)	**79%** (5246)	**93%** (11725)
ESBL E. coli	**67%** (42)	**9%** (43)	NED	**95%** (61)	**43%** (70)	**2%** (51)	**0%** (61)	**19%** (51)	**16%** (38)	NED	**41%** (34)	NED	**21%** (37)	**79%** (65)	NED	NED	NED	**100%** (34)	**100%** (72)	**43%** (61)	**43%** (61)	**36%** (61)	**55%** (40)	**98%** (61)
Klebsiella oxytoca	**96%** (68)	**15%** (150)	**60%** (233)	**94%** (230)	**49%** (193)	**84%** (190)	**97%** (234)	**99%** (219)	**98%** (199)	**96%** (72)	NED	**98%** (76)	**89%** (123)	**99%** (241)	**99%** (241)	**100%** (119)	NED	**100%** (113)	**100%** (156)	**93%** (235)	**96%** (229)	**95%** (230)		**69%** (221)
Klebsiella pneumoniae	**98%** (761)	**R**	**90%** (1498)	**96%** (1498)	**92%** (1416)	**91%** (1073)	**98%** (1465)	**98%** (1414)	**98%** (1175)	**95%** (567)	**99%** (414)	**92%** (215)	**97%** (789)	**98%** (1554)	**98%** (1495)	**99%** (805)	**99%** (412)	**99%** (684)	**99%** (957)	**97%** (1499)	**98%** (1498)	**94%** (1510)	**85%** (503)	**42%** (1491)
Proteus mirabilis	**97%** (299)	**89%** (611)	**94%** (562)	**99%** (608)	**90%** (490)	**97%** (427)	**99%** (590)	**99%** (550)	**99%** (411)	**96%** (228)	**99%** (168)	**96%** (249)	**97%** (311)	**96%** (634)	**94%** (586)	**99%** (308)	**98%** (163)	**70%** (240)	**100%** (400)	**88%** (608)	**91%** (608)	**90%** (608)	**R**	**R**
Pseudomonas aeruginosa	**R**	**R**	**R**	**95%** (817)	**R**	**R**	**R**	**65%** (842)	**92%** (772)	**R**	**R**	**R**	**77%** (235)	**91%** (884)	**96%** (863)	**96%** (477)	**R**	**66%** (429)	**88%** (612)	**85%** (846)	**83%** (846)	**R**	**R**	**R**
Serratia marcesens	**R**	**R**	**R**	NED	**R**	**R**	**100%** (57)	**100%** (51)	**100%** (51)	NED	**R**	**R**	**100%** (51)	**98%** (57)	**96%** (51)	**100%** (51)	NED	NED	**100%** (55)	**98%** (58)	**100%** (57)	**100%** (57)		**R**
Haemophilus influenzae		**82%** (74)				NED	**100%** (74)	NED													**80%** (83)	**66%** (74)		

2015 Alaska State Antibiogram: Anchorage-Mat-Su Region

The following tables show the proportion of isolates of various bacterial species that tested susceptible to various antibiotics during 2014 and 2015. These data were aggregated from the antibiograms produced by Alaska hospitals in order to create aggregate regional resistance pattern summaries. These antibiograms can be helpful for health care providers in selecting appropriate "presumptive" antimicrobial therapy for their patients until specific individual laboratory test results are available. They can also be helpful for determining antibiotic stewardship priorities within hospitals and emerging resistance patterns in a broader service area.

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- **Multi-Drug Resistant Organisms of Note:**
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- **Limitations:** Individual facilities often use different methods to test for antimicrobial susceptibility, different methods to build their antibiograms, and different antibiotics in their pharmacies. These factors limit interpretation of these data. Additionally, antimicrobial susceptibility testing done in the laboratory does not always predict how effective that drug will be when used to treat a patient. Data are not stratified by infection site, which influences antibiotic choice and effectiveness.
- **Contributing Facilities:** Thanks to the following facilities for providing data in support of this project:
    - Alaska Native Medical Center
    - Alaska Regional Hospital
    - Providence Alaska Medical Center
    - Mat-Su Regional Medical Center

Anchorage+ Mat-Su Region data **Species**	Penicillin	Ampicillin	Oxacillin	Ampicillin-sulbactam	Amoxicillin	Cefazolin	Ceftriaxone	Cefotaxime	Ciprofloxacin	Levofloxacin	Daptomycin	Clindamycin	Erythromycin	Vancomycin	Gentamicin	Gent Syn	Trimethoprim-sulfamethoxazole	Linezolid	Tetracycline	Nitrofurantoin
Total *Staphylococcus aureus*	NED	NED	**62%** (3559)	**59%** (857)	**59%** (857)	**58%** (2184)			**61%** (2184)	**63%** (2184)	NED	**85%** (3559)	**42%** (857)	**100%** (3559)	**99%** (3048)		**98%** (3559)	**100%** (1838)	**97%** (3048)	**99%** (3078)
MSSA	NED	NED	**S**	**99%** (507)	**59%** (507)	**100%** (1278)			**88%** (1278)	**89%** (1278)	NED	**87%** (2202)	**63%** (507)	**100%** (2202)	**99%** (1894)		**99%** (2202)	**100%** (1079)	**97%** (1894)	**100%** (991)
MRSA	NED	NED	**R**	NED	NED	NED			**24%** (912)	**26%** (912)	NED	**81%** (1363)	**11%** (350)	**100%** (1363)	**99%** (1160)		**98%** (1363)	**99%** (1216)	**97%** (1160)	**100%** (1169)
Staphylococcus lugdunensis	NED	NED	**89%** (46)	NED	NED	NED			NED	NED	NED	**89%** (46)	NED	**100%** (46)	NED		**100%** (46)	**100%** (46)	NED	NED
Coag-negative *Staphylococcus*	NED	NED	**41%** (515)	NED	NED	**21%** (292)			**60%** (372)	**61%** (372)	NED	**53%** (515)	**30%** (292)	**100%** (515)	**83%** (257)		**62%** (515)	**97%** (481)	**87%** (257)	**98%** (140)
Enterococcus faecalis	**99%** (164)	**100%** (459)				**R**	**R**	**R**	**85%** (395)	**77%** (459)	NED	**R**	NED	**99%** (459)	**R**	**82%** (359)	**R**	**99%** (364)	NED	**100%** (359)
Enterococcus faecium	**99%** (41)	**100%** (68)				**R**	**R**	**R**	NED	NED		**R**		**60%** (68)	**R**	**87%** (55)	**R**	**98%** (55)	NED	33% (33)
Streptococcus pneumoniae (all)										**100%** (183)		NED	**63%** (86)	**100%** (343)						
S. pneumoniae - oral	**80%** (309)																			
S. pneumoniae - non-CSF	**99%** (309)						**100%** (257)	**99%** (309)												
S pneumoniae - meningitis	**72%** (309)						**96%** (291)	**96%** (343)												

Anchorage+ Mat-Su Region data

Species	Amoxicillin+ clavulanic acid	Ampicillin	Ampicillin+Sulbactam	Piperacillin+Tazobactam	Cefazolin	Cefuroxime	Ceftriaxone	Ceftazidime	Cefepime	Cefotaxime	Cefotetan	Aztreonam	Gentamicin	Tobramycin	Amikacin	Imipenem	Meropenem	Ciprofloxacin	Levofloxacin	Trimeth+Sulfa	Tetracycline	Nitrofurantoin
Citrobacter freundii	**R**	**R**	**R**	**87%** (99)	**R**	**R**	**77%** (102)	**76%** (77)	**99%** (100)	**78%** (59)	**R**	NED	**95%** (104)	**97%** (104)	NED	NED	**99%** (96)	**92%** (98)	**93%** (98)	**87%** (98)	NED	**60%** (94)
Enterobacter aerogenes	**R**	**R**	**R**	**83%** (98)	**R**	**R**	**84%** (98)	**84%** (98)	**99%** (98)	NED	**R**	**76%** (98)	**98%** (98)	**98%** (98)	**100%** (98)		**100%** (98)	**98%** (98)	**97%** (98)	**98%** (98)	NED	**13%** (98)
Enterobacter cloacae	**R**	**R**	**R**	**82%** (281)	**R**	**R**	**76%** (299)	**76%** (293)	**97%** (291)	**69%** (188)	**R**	**74%** (257)	**98%** (307)	**98%** (307)	**100%** (202)	**100%** (54)	**99%** (290)	**96%** (279)	**97%** (279)	**92%** (279)	**92%** (125)	**32%** (280)
Escherichia coli	**86%** (3442)	**56%** (6297)	**62%** (6311)	**97%** (6308)	**89%** (6300)	**86%** (6303)	**96%** (6306)	**98%** (5899)	**98%** (6368)	**74%** (4063)	**97%** (3247)	**92%** (5479)	**92%** (6553)	**94%** (6552)	**99%** (4861)	NED	**100%** (6553)	**85%** (6305)	**85%** (6305)	**78%** (6305)	**78%** (3442)	**96%** (6299)
Klebsiella oxytoca	NED		**63%** (123)	**91%** (120)	**47%** (120)	**82%** (122)	**95%** (124)	**99%** (143)	**97%** (123)	NED	NED	**89%** (123)	**99%** (131)	**99%** (131)	NED	NED	**100%** (122)	**93%** (120)	**96%** (120)	**95%** (120)	NED	**75%** (119)
Klebsiella pneumoniae	**98%** (387)	**R**	**90%** (861)	**95%** (861)	**95%** (861)	**89%** (863)	**98%** (864)	**98%** (830)	**98%** (865)	**95%** (501)	**99%** (382)	**97%** (746)	**98%** (916)	**98%** (916)	**99%** (632)	NED	**99%** (865)	**97%** (861)	**98%** (861)	**94%** (861)	**84%** (387)	**42%** (864)
Proteus mirabilis	**98%** (140)	**84%** (325)	**92%** (327)	**99%** (327)	**89%** (327)	**98%** (327)	**99%** (327)	**100%** (319)	**99%** (327)	**96%** (190)	**99%** (149)	**99%** (286)	**94%** (353)	**93%** (353)	**100%** (236)	NED	**100%** (327)	**88%** (327)	**88%** (327)	**87%** (327)	**R**	**R**
Pseudomonas aeruginosa	**R**	**R**	**R**	**93%** (546)			**R**	**50%** (543)	**91%** (563)	**R**		NED	**90%** (581)	**98%** (578)	**96%** (390)	NED	**87%** (568)	**85%** (547)	**83%** (547)	**R**	**R**	**R**

2015 Alaska State Antibiogram: Gulf Coast Region

The following tables show the proportion of isolates of various bacterial species that tested susceptible to various antibiotics during 2014 and 2015. These data were aggregated from the antibiograms produced by Alaska hospitals in order to create aggregate regional resistance pattern summaries. These antibiograms can be helpful for health care providers in selecting appropriate "presumptive" antimicrobial therapy for their patients until specific individual laboratory test results are available. They can also be helpful for determining antibiotic stewardship priorities within hospitals and emerging resistance patterns in a broader service area.

- **Methodology:** Individual hospitals prepared their own facility antibiograms, which were shared with the Alaska Section of Epidemiology. Aggregated susceptibility percentages were calculated as the proportion of all tested isolates for the region that were susceptible. Values are only reported when more than one facility provided data for the given species-antibiotic combination. Intrinsic resistance is indicated with an "R", following the guidance of CLSI document M100-S24.
- **Multi-Drug Resistant Organisms of Note:**
  - Vancomycin-resistant *Staphylococcus aureus* (VRSA): no cases of VRSA have ever been reported in Alaska. VRSA is reportable to the Alaska Section of Epidemiology.
  - Carbapenem-resistant Enterobacteriaceae (CRE): there were 6 cases of CRE reported in Alaska in 2015.
- **Legend:**
  - The top value in each square is the percent of isolates of that species that tested susceptible to that antibiotic.
  - The lower value in each square indicates the number of tested isolates for that bacteria-antibiotic combination.
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- **Limitations:** Individual facilities often use different methods to test for antimicrobial susceptibility, different methods to build their antibiograms, and different antibiotics in their pharmacies. These factors limit interpretation of these data. Additionally, antimicrobial susceptibility testing done in the laboratory does not always predict how effective that drug will be when used to treat a patient. Data are not stratified by infection site, which influences antibiotic choice and effectiveness.
- **Contributing Facilities:** Thanks to the following facilities for providing data in support of this project:
  - Central Peninsula Hospital
  - South Peninsula Hospital
  - Providence Valdez Medical Center

Gulf Coast Region data **Species**	Penicillin	Ampicillin	Oxacillin	Ampicillin-sulbactam	Amoxicillin-clavanulate	Ceftriaxone	Ciprofloxacin	Levofloxacin	Daptomycin	Clindamycin	Erythromycin	Vancomycin	Gentamicin	Rifampin	Trimethoprim-sulfamethoxazole	Linezolid	Tetracycline	Nitrofurantoin
Total *Staphylococcus aureus*	**13%** (514)	NED	**68%** (514)	**69%** (195)	**64%** (195)	**69%** (362)	**60%** (514)	**63%** (514)	NED	**81%** (460)	**45%** (460)	**99%** (471)	**99%** (195)	**99%** (471)	**98%** (508)	**99%** (471)	**97%** (514)	**99%** (206)
MSSA	**18%** (319)	NED	**S**	NED	NED	NED	**82%** (319)	**84%** (319)	NED	**80%** (279)	**61%** (279)	**99%** (319)	NED	**99%** (319)	**99%** (315)	**99%** (319)	**97%** (319)	**99%** (137)
MRSA	**0%** (152)	NED	**R**	NED	NED	NED	**13%** (152)	**13%** (152)	NED	**80%** (138)	**9%** (138)	**99%** (152)	NED	**100%** (152)	**98%** (150)	**99%** (152)	**97%** (152)	**99%** (69)
Staphylococcus epidermidis	**11%** (178)	NED	**54%** (178)	NED	NED	NED	**62%** (178)	**65%** (178)	NED	**63%** (111)	**34%** (111)	**100%** (178)	NED	**98%** (178)	**59%** (175)	**92%** (178)	**92%** (178)	**99%** (109)
Enterococcus faecalis	**99%** (217)	**99%** (217)					**81%** (217)	**85%** (221)	NED		**3%** (40)	**99%** (217)		NED		**98%** (217)	**23%** (221)	**86%** (200)
Streptococcus pneumoniae (all)	**94%** (50)	NED			NED	NED		**100%** (33)	NED	**95%** (33)	**73%** (33)	**100%** (33)			NED		**90%** (33)	
Streptococcus agalacticae	**93%** (30)	NED			NED			NED		NED	NED	**100%** (30)				NED	NED	

Gulf Coast Region data **Species**	Amoxicillin+ clavulanic acid	Ampicillin	Ampicillin+Sulbactam	Piperacillin+Tazobactam	Cefazolin	Cefuroxime	Ceftriaxone	Ceftazidime	Gentamicin	Tobramycin	Imipenem	Ciprofloxacin	Levofloxacin	Trimeth+Sulfa	Tetracycline	Nitrofurantoin
Enterobacter cloacae	**R**	**R**	**R**	**85%** (33)	**R**	**R**	**82%** (33)	NED	NED	NED	NED	NED	NED	NED		NED
Escherichia coli	**85%** (1073)	**66%** (1053)	**68%** (1053)	**98%** (1053)	**93%** (1053)	**96%** (1053)	NED	**98%** (972)	**94%** (1053)	**95%** (1058)	**100%** (972)	**85%** (1053)	**85%** (1053)	**80%** (1053)	**82%** (324)	**96%** (1053)
Klebsiella oxytoca	NED		**46%** (34)	NED	**46%** (39)	NED	NED	NED	NED	NED	NED	**95%** (39)	NED	NED		NED
Klebsiella pneumoniae	**96%** (154)	**R**	**97%** (154)	**99%** (154)	**98%** (154)	**95%** (154)	NED	**99%** (154)	**99%** (154)	**98%** (154)	**99%** (154)	**97%** (154)	**99%** (154)	**90%** (165)	NED (11)	**45%** (155)
Proteus mirabilis	**91%** (67)		**91%** (64)	**98%** (62)	**91%** (62)	**96%** (67)	**95%** (44)	**97%** (62)	**94%** (62)	**95%** (62)	**95%** (62)	**78%** (62)	**84%** (62)	**90%** (62)	**R**	**R**
Pseudomonas aeruginosa	**R**	**R**	**R**	**99%** (75)		NED	**R**	**96%** (71)	**89%** (75)	**77%** (75)	**89%** (71)	**86%** (71)	**86%** (71)	**R**	**R**	**R**

2015 Alaska State Antibiogram: Northern Region

The following tables show the proportion of isolates of various bacterial species that tested susceptible to various antibiotics during 2014 and 2015. These data were aggregated from the antibiograms produced by Alaska hospitals in order to create aggregate regional resistance pattern summaries. These antibiograms can be helpful for health care providers in selecting appropriate "presumptive" antimicrobial therapy for their patients until specific individual laboratory test results are available. They can also be helpful for determining antibiotic stewardship priorities within hospitals and emerging resistance patterns in a broader service area.

- **Methodology:** Individual hospitals prepared their own facility antibiograms, which were shared with the Alaska Section of Epidemiology. Aggregated susceptibility percentages were calculated as the proportion of all tested isolates for the region that were susceptible. Values are only reported when more than one facility provided data for the given species-antibiotic combination. Intrinsic resistance is indicated with an "R", following the guidance of CLSI document M100-S24.
- **Multi-Drug Resistant Organisms of Note:**
    - Vancomycin-resistant *Staphylococcus aureus* (VRSA): no cases of VRSA have ever been reported in Alaska. VRSA is reportable to the Alaska Section of Epidemiology.
    - Carbapenem-resistant Enterobacteriaceae (CRE): there were 6 cases of CRE reported in Alaska in 2015.
- **Legend:**
    - The top value in each square is the percent of isolates of that species that tested susceptible to that antibiotic.
    - The lower value in each square indicates the number of tested isolates for that bacteria-antibiotic combination.
    - "R" indicates intrinsic resistance to that antibiotic, while "S" indicates definitional susceptibility.
    - "NED" indicates that there was Not Enough Data to report the value: either only one facility reported data for that drug-bug combination or <30 isolates were tested.
- **Limitations:** Individual facilities often use different methods to test for antimicrobial susceptibility, different methods to build their antibiograms, and different antibiotics in their pharmacies. These factors limit interpretation of these data. Additionally, antimicrobial susceptibility testing done in the laboratory does not always predict how effective that drug will be when used to treat a patient. Data are not stratified by infection site, which influences antibiotic choice and effectiveness.
- **Contributing Facilities:** Thanks to the following facilities for providing data in support of this project:
    - Maniilaq Health Center
    - Norton Sound Health Center

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Northern Region data **Species**	Ampicillin	Oxacillin	Ciprofloxacin	Levofloxacin	Clindamycin	Vancomycin	Gent Syn	Trimethoprim-sulfamethoxazole	Linezolid	Tetracycline	Nitrofurantoin	Rifampin
Total *Staphylococcus aureus*	NED	**67%** (366)	**67%** (366)	**68%** (366)	**73%** (366)	**95%** (366)		**100%** (366)	**99%** (366)	**99%** (366)	**94%** (233)	**100%** (366)
Coag negative Staphylococcus	NED	**48%** (89)	**81%** (89)	**84%** (89)	**44%** (89)	**97%** (89)		**67%** (89)	**97%** (89)	**89%** (89)	**98%** (54)	**97%** (89)
Streptococcus pneumoniae				**100%** (24)	NED	**100%** (24)		NED		NED		
Enterococcus faecalis	**98%** (46)		**93%** (46)	**93%** (46)	**R**	**98%** (46)	**78%**	**R**	**93%** (46)	**40%** (46)	**97%** (41)	NED

Northern Region data **Species**	Amoxicillin+ clavulanic acid	Ampicillin	Ampicillin+Sulbactam	Piperacillin+Tazobactam	Cefazolin	Ceftriaxone	Ceftazidime	Cefepime	Gentamicin	Tobramycin	Ertapenem	Imipenem	Ciprofloxacin	Levofloxacin	Trimeth+Sulfa	Nitrofurantoin
Escherichia coli	**84%** (727)	**55%** (727)	**61%** (727)	**96%** (727)	**92%** (727)	**96%** (727)	**97%** (727)	**97%** (727)	**92%** (727)	**95%** (727)	**99%** (727)	**100%** (727)	**84%** (727)	**84%** (727)	**74%** (727)	**55%** (709)
Klebsiella pneumoniae	**98%** (61)	**R**	**93%** (61)	**98%** (61)	**97%** (61)	**98%** (61)	**98%** (61)	**98%** (61)	**100%** (61)	**100%** (61)	**100%** (61)	**100%** (61)	**100%** (61)	**100%** (61)	**97%** (61)	**65%** (49)
Proteus mirabilis	**97%** (34)	**88%** (34)	**91%** (34)	**100%** (34)	**91%** (34)	**100%** (34)	**97%** (34)	**94%** (34)	**91%** (34)	**88%** (34)	**94%** (16)	**100%** (34)	**91%** (34)	**94%** (34)	**91%** (34)	**R**
Pseudomonas aeruginosa	**R**	**R**	**R**	**100%** (39)		**R**	**100%** (39)	**97%** (39)	**92%** (39)	**100%** (39)		**95%** (39)	**97%** (39)	**95%** (39)	**R**	**R**

2015 Alaska State Antibiogram: Southeast Region

The following tables show the proportion of isolates of various bacterial species that tested susceptible to various antibiotics during 2014 and 2015. These data were aggregated from the antibiograms produced by Alaska hospitals in order to create aggregate regional resistance pattern summaries. These antibiograms can be helpful for health care providers in selecting appropriate "presumptive" antimicrobial therapy for their patients until specific individual laboratory test results are available. They can also be helpful for determining antibiotic stewardship priorities within hospitals and emerging resistance patterns in a broader service area.

- **Methodology:** Individual hospitals prepared their own facility antibiograms, which were shared with the Alaska Section of Epidemiology. Aggregated susceptibility percentages were calculated as the proportion of all tested isolates for the region that were susceptible. Values are only reported when more than one facility provided data for the given species-antibiotic combination. Intrinsic resistance is indicated with an "R", following the guidance of CLSI document M100-S24.
- **Multi-Drug Resistant Organisms of Note:**
  - Vancomycin-resistant *Staphylococcus aureus* (VRSA): no cases of VRSA have ever been reported in Alaska. VRSA is reportable to the Alaska Section of Epidemiology.
  - Carbapenem-resistant Enterobacteriaceae (CRE): there were 6 cases of CRE reported in Alaska in 2015.
- **Legend:**
  - The top value in each square is the percent of isolates of that species that tested susceptible to that antibiotic.
  - The lower value in each square indicates the number of tested isolates for that bacteria-antibiotic combination.
  - "R" indicates intrinsic resistance to that antibiotic, while "S" indicates definitional susceptibility.
  - "NED" indicates that there was Not Enough Data to report the value: either only one facility reported data for that drug-bug combination or <30 isolates were tested.
- **Limitations:** Individual facilities often use different methods to test for antimicrobial susceptibility, different methods to build their antibiograms, and different antibiotics in their pharmacies. These factors limit interpretation of these data. Additionally, antimicrobial susceptibility testing done in the laboratory does not always predict how effective that drug will be when used to treat a patient. Data are not stratified by infection site, which influences antibiotic choice and effectiveness.
- **Contributing Facilities:** Thanks to the following facilities for providing data in support of this project:
  - Bartlett Regional Hospital
  - Peacehealth Ketchikan Medical Center
  - SEARHC
  - Petersburg Medical Center
  - Sitka Community Hospital
  - Wrangell Medical Center

Southeast Region data **Species**	Penicillin	Ampicillin	Oxacillin	Ampicillin-sulbactam	Amoxicillin- k-clavulanate	Ceftriaxone	Ciprofloxacin	Levofloxacin	Daptomycin	Clindamycin	Erythromycin	Vancomycin	Gentamicin	Gent Syn	Trimethoprim-sulfamethoxazole	Linezolid	Tetracycline	Nitrofurantoin	Quinupristin-dalfopristin	Rifampin	Moxifloxacin
Total *Staphylococcus aureus*	**14%** (546)	**0%** (67)	**63%** (818)	**65%** (77)	**68%** (77)	**77%** (70)	**73%** (553)	**74%** (553)	**100%** (67)	**87%** (813)	**50%** (813)	**99%** (818)	**99%** (292)		**99%** (818)	**99%** (328)	**96%** (818)	**99%** (748)	**100%** (67)	**99%** (546)	**76%** (311)
MSSA			**S**	**94%** (36)	**100%** (36)	**100%** (37)	**87%** (191)	**89%** (191)	NED (35)	**88%** (191)	**73%** (191)	**99%** (194)	**96%** (49)		**100%** (194)	NED (35)	**97%** (194)	**100%** (148)	(35)	(35)	**92%** (177)
MRSA	**0%** (30)	**0%** (30)	**R** (143)	**0%** (39)	**0%** (39)	**3%** (31)	**40%** (142)	**40%** (142)	**100%** (30)	**72%** (141)	**15%** (141)	**100%** (143)	NED		**99%** (143)	**100%** (30)	**95%** (143)	**99%** (119)	**100%** (30)	**100%** (30)	NED
Staphylococcus epidermidis	NED		NED							NED	**54%** (30)	NED	NED		NED	NED	NED	NED		NED	
Enterococcus faecalis	**95%** (152)	**98%** (96)		NED		**R**	**85%** (152)	**86%** (152)	NED	**R**	**21%** (145)	**99%** (151)	**R**	**82%** (77)	**R**	**96%** (71)	**25%** (152)	**100%** (147)	**0%** (77)	NED	NED

Southeast Region data

Species	Amoxicillin+ clavulanic acid	Ampicillin	Ampicillin+Sulbactam	Piperacillin+Tazobactam	Cefazolin	Cefuroxime	Ceftriaxone	Ceftazidime	Cefepime	Cefotaxime	Cefoxitin	Aztreonam	Gentamicin	Tobramycin	Amikacin	Ertapenem	Imipenem	Meropenem	Ciprofloxacin	Levofloxacin	Trimeth+Sulfa	Tetracycline	Nitrofurantoin
Escherichia coli	**83%** (806)	**60%** (1661)	**73%** (1553)	**97%** (1070)	**93%** (1093)	**94%** (160)	**97%** (1661)	**97%** (1584)	**97%** (728)	**98%** (160)	**91%**)403)	**98%** (61)	**95%** (1661)	**95%** (1661)	**99%** (160)	**100%** (1559)	**100%** (1622)	**100%** (61)	**86%** (1661)	**86%** (1661)	**82%** (1661)	**83%** (138)	**92%** (1646)
Klebsiella pneumoniae	**84%** (100)	**R**	**92%** (222)	**99%** (221)	**99%** (139)	NED	**99%** (222)	**99%** (217)	**99%** (107)	NED (24)	**94%**)53)	NED	**98%** (222)	**99%** (222)	NED	**99%** (209)	**100%** (213)	NED (11)	**99%** (222)	**99%** (221)	**96%** (222)	**83%** (24)	**44%** (222)
Proteus mirabilis		**96%** (55)	**98%** (55)	**100%** (55)	NED	NED	**96%** (55)	**96%** (53)	**98%** (50)	NED	NED	**100%** (6)	**100%** (55)	**100%** (55)	NED	**98%** (47)	NED	**100%** (6)	**87%** (55)	**94%** (55)	**95%** (55)	**R**	**R**
Pseudomonas aeruginosa	**R**	**R**	**R**	**97%** (60)	**0%** (37)		**R**	NED	**90%** (39)	R		NED	**93%** (92)		NED	NED	**83%** (87)	NED	**82%** (92)	**78%** (92)	**R**	**R**	**R**

2015 Alaska State Antibiogram: Southwest Region

The following tables show the proportion of isolates of various bacterial species that tested susceptible to various antibiotics during 2014 and 2015. These data were aggregated from the antibiograms produced by Alaska hospitals in order to create aggregate regional resistance pattern summaries. These antibiograms can be helpful for health care providers in selecting appropriate "presumptive" antimicrobial therapy for their patients until specific individual laboratory test results are available. They can also be helpful for determining antibiotic stewardship priorities within hospitals and emerging resistance patterns in a broader service area.

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- **Contributing Facilities:** Thanks to the following facilities for providing data in support of this project:
  - Yukon-Kuskokwim Health Center Center
  - Bristol Bay Area Health Center

Southwest Region data **Species**	Penicillin	Ampicillin	Oxacillin	Levofloxacin	Clindamycin	Erythromycin	Vancomycin	Trimethoprim-sulfamethoxazole	Tetracycline	Nitrofurantoin
Total *Staphylococcus aureus*	**8.5%** (787)	NED	**53%** (787)	NED	**97%** (784)	**49%** (784)	**100%** (787)	**100%** (136)	NED	NED
MSSA	**16%** (411)	NED	**S**	**94%**	**95%** (409)	**74%** (409)	**100%** (411)	**100%** (411)	NED	NED
MRSA	**0%** (416)	NED	**R**	NED	**98%** (375)	**21%** (375)	**100%** (376)	**100%** (376)	**97%** (376)	NED
Enterococcus faecalis	**96%** (47)	**96%**		**96%** (47)		NED	**100%** (47)		**32%** (47)	**96%** (45)

Southwest Region data **Species**	Amoxicillin+ clavulanic acid	Ampicillin	Piperacillin+Tazobactam	Cefazolin	Ceftriaxone	Gentamicin	Ciprofloxacin	Levofloxacin	Trimeth+Sulfa	Nitrofurantoin
Escherichia coli	**81%** (1090)	**48%** (1090)	**99%** (1090)	**89%** (1090)	**96%** (1090)	**94%** (1090)	**87%** (1090)	**87%** (1090)	**74%** (1090)	**99%** (1090)
Klebsiella pneumoniae	**95%** (59)	**R**		**93%** (59)	**97%** (59)	**98%** (59)	**100%** (59)	**100%** (59)	**98%** (59)	**68%** (59)