

**MINNESOTA DEPARTMENT OF HEALTH
EMERGING INFECTIONS PROGRAM**

**REPORTED CASES OF INVASIVE BACTERIAL DISEASE
JANUARY 1, 2007 - DECEMBER 31, 2008**

<u>PATHOGEN</u>	<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>			
	<u>No.</u>	<u>Rate per 100,000*</u>	<u>No.</u>	<u>Rate per 100,000*</u>		
<i>Neisseria meningitidis</i>		22	0.43		30	0.58
Serogroup B	6			13		
Serogroup C	9			14		
Serogroup Y	6			2		
Serogroup W135	0			1		
Serogroup X	0			0		
Serogroup Z	0			1		
Not groupable	1			0		
Reported but isolate not available	0			0		
<i>Haemophilus influenzae</i>		82	1.59		72	1.39
type a	4			2		
type b	1			5		
type c	1			0		
type d	2			1		
type e	4			4		
type f	8			12		
Non-typeable	53			42		
Reported but isolate not available	9			6		
Group A streptococcus		173	3.35		185	3.58
Group B streptococcus		332	6.43		418	8.09
<i>Streptococcus pneumoniae</i>		664	12.85		712	13.78

*Annual rate using population estimates from the U.S. Bureau of the Census 2006

Note: Active surveillance for these pathogens began April 1, 1995. Previous reports have summarized data for 4/1/95-12/31/05. This current report can also be located via the MDH Web Page at: www.health.state.mn.us

MDH Emerging Infections Program (651) 201-5414



Minnesota Department of Health - Infectious Disease Epidemiology, Prevention and Control Division
651-201-5414 - TDD/TTY 651-201-5797 - www.health.state.mn.us

TABLE 2

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
NEISSERIA MENINGITIDIS, JANUARY 1, 2007 - DECEMBER 31, 2008

	<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>		<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>		
RESIDENCE				OUTCOME					
<u>Residence</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Survived</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Twin Cities Metro Area	11	(50)	16	(53)	Yes	21	(95)	27	(90)
<u>Greater Minnesota</u>	<u>11</u>	<u>(50)</u>	<u>14</u>	<u>(47)</u>	<u>No</u>	<u>1</u>	<u>(5)</u>	<u>3</u>	<u>(10)</u>
TOTAL	22	(100)	30	(100)	TOTAL	22	(100)	30	(100)
AGE				SITE OF ISOLATE CULTURE					
<u>Age (Years)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Site</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
<1	0	(0)	5	(17)	Blood	11	(50)	14	(47)
1-4	5	(23)	2	(7)	CSF	11	(50)	14	(47)
5-9	1	(5)	2	(7)	<u>Joint</u>	<u>0</u>	<u>(0)</u>	<u>2</u>	<u>(7)</u>
10-19	5	(23)	4	(13)	TOTAL	22	(100)	30	(100)
20-29	6	(27)	4	(13)					
30-39	2	(9)	3	(10)					
40-49	1	(5)	1	(3)					
50-59	0	(0)	4	(13)					
<u>60+</u>	<u>2</u>	<u>(9)</u>	<u>5</u>	<u>(17)</u>					
TOTAL	22	(100)	30	(100)					
GENDER				TYPE OF INFECTION					
<u>Gender</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Male	10	(45)	17	(57)	Bacteremia	6	(27)	6	(20)
<u>Female</u>	<u>12</u>	<u>(55)</u>	<u>13</u>	<u>(43)</u>	Meningitis	16	(73)	18	(60)
TOTAL	22	(100)	30	(100)	Pneumonia	0	(0)	3	(10)
					Septic arthritis	0	(0)	2	(7)
					Pericarditis	0	(0)	0	(0)
					Otitis	0	(0)	0	(0)
					<u>Cellulitis</u>	<u>0</u>	<u>(0)</u>	<u>1</u>	<u>(3)</u>
					TOTAL	22	(100)	30	(100)
RACE				SEROGROUP					
<u>Race</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Serogroup</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
White Only	11	(50)	19	(63)	B	6	(27)	13	(43)
Black Only	2	(9)	0	(0)	C	9	(41)	13	(43)
American Indian/ Alaskan Native Only	0	(0)	1	(3)	Y	6	(27)	2	(7)
Asian/Pacific Isl. Only	0	(0)	0	(0)	W135	0	(0)	1	(3)
More than 1 Race	0	(0)	0	(0)	X	0	(0)	0	(0)
Other Only	0	(0)	0	(0)	Z	0	(0)	1	(3)
<u>Unknown</u>	<u>9</u>	<u>(41)</u>	<u>10</u>	<u>(33)</u>	Not groupable	1	(5)	0	(0)
TOTAL	22	(100)	30	(100)	<u>Unknown</u>	<u>0</u>	<u>(0)</u>	<u>0</u>	<u>(0)</u>
					TOTAL	22	(100)	30	(100)

Cases of *Neisseria meningitidis* Invasive Disease by Culture Date, Minnesota January 1, 2007 – December 31, 2008

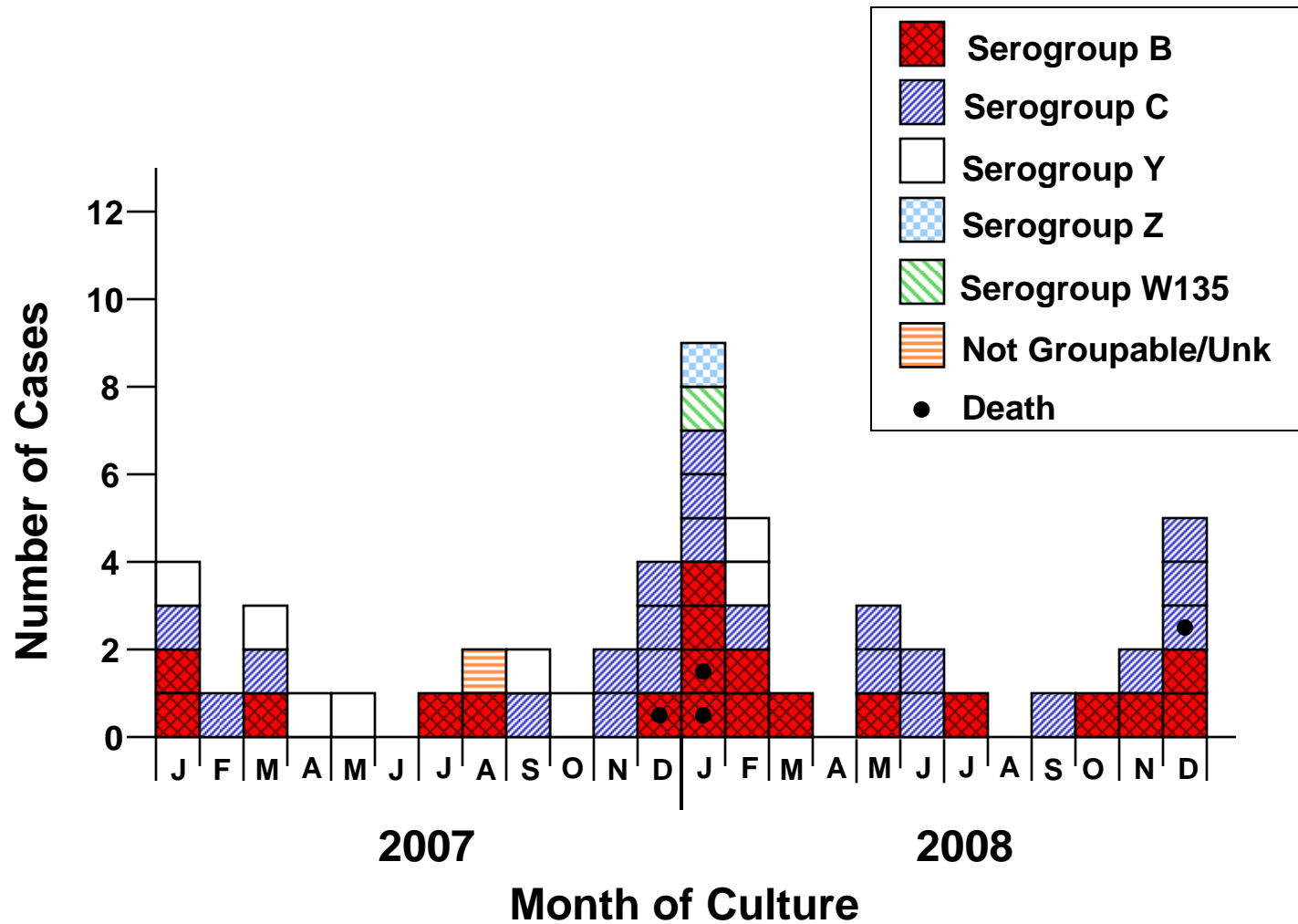


TABLE 3

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
HAEMOPHILUS INFLUENZAE, JANUARY 1, 2007 - DECEMBER 31, 2008

	<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>		<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>		
RESIDENCE					OUTCOME				
<u>Residence</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Survived</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Twin Cities Metro Area	41	(50)	31	(43)	Yes	73	(89)	64	(89)
<u>Greater Minnesota</u>	<u>41</u>	<u>(50)</u>	<u>41</u>	<u>(57)</u>	<u>No</u>	<u>9</u>	<u>(11)</u>	<u>8</u>	<u>(11)</u>
TOTAL	82	(100)	72	(100)	TOTAL	82	(100)	72	(100)
AGE					SITE OF ISOLATE CULTURE				
<u>Age (Years)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Site</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
<1	6	(7)	8	(11)	Blood	75	(91)	65	(90)
1-4	6	(7)	4	(6)	CSF	5	(6)	2	(3)
5-9	0	(0)	0	(0)	Peritoneal	0	(0)	0	(0)
10-19	1	(1)	1	(1)	Joint	0	(0)	1	(1)
20-29	1	(1)	3	(4)	Pleural fluid	1	(1)	3	(4)
30-39	2	(2)	2	(3)	<u>Other</u>	<u>1</u>	<u>(1)</u>	<u>1</u>	<u>(1)</u>
40-49	4	(5)	6	(8)	TOTAL	82	(100)	72	(100)
50-59	11	(13)	4	(6)					
60-69	14	(17)	13	(18)					
<u>70+</u>	<u>37</u>	<u>(45)</u>	<u>31</u>	<u>(43)</u>					
TOTAL	82	(100)	72	(100)					
GENDER					TYPE OF INFECTION				
<u>Gender</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Male	43	(52)	31	(43)	Bacteremia	36	(44)	29	(40)
<u>Female</u>	<u>39</u>	<u>(48)</u>	<u>41</u>	<u>(57)</u>	Pneumonia	37	(45)	26	(36)
TOTAL	82	(100)	72	(100)	Meningitis	5	(6)	6	(8)
					Cellulitis	0	(0)	2	(3)
					Peritonitis	0	(0)	0	(0)
					Epiglottitis	1	(1)	2	(3)
					Chorioamnionitis	0	(0)	0	(0)
					Arthritis	0	(0)	1	(1)
					Sinusitis	0	(0)	0	(0)
					<u>Other</u>	<u>3</u>	<u>(4)</u>	<u>6</u>	<u>(8)</u>
					TOTAL	82	(100)	72	(100)
RACE									
<u>Race</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>					
White Only	53	(65)	52	(72)					
Black Only	3	(4)	5	(7)					
American Indian/ Alaskan Native Only	1	(1)	0	(0)					
Asian/Pacific Isl. Only	0	(0)	1	(1)					
More than 1 Race	1	(1)	0	(0)					
Other Only	0	(0)	0	(0)					
<u>Unknown</u>	<u>24</u>	<u>(29)</u>	<u>14</u>	<u>(19)</u>					
TOTAL	82	(100)	72	(100)					

TABLE 3 (CONTINUED)

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
HAEMOPHILUS INFLUENZAE, JANUARY 1, 2007 - DECEMBER 31, 2008

1/1/2007-
12/31/2007 1/1/2008-
12/31/2008

ISOLATE SEROTYPE

<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
a	4	(5)	2	(3)
b	1	(1)	5	(8)
c	1	(1)	0	(0)
d	2	(3)	1	(2)
e	4	(5)	4	(6)
f	8	(11)	12	(18)
<u>Non-typeable</u>	<u>53</u>	<u>(73)</u>	<u>42</u>	<u>(64)</u>
TOTAL	73	(100)	66	(100)
	<u>No.</u>	<u>(%)*</u>	<u>No.</u>	<u>(%)*</u>
Not Tested	9	(16)	5	(9)

SEROTYPE B (Hib) CASES BY AGE

<u>Age (Years)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
<1	0	(0)	2	(40)
1-4	1	(100)	3	(60)
5-9	0	(0)	0	(0)
10-14	0	(0)	0	(0)
15-19	0	(0)	0	(0)
20-39	0	(0)	0	(0)
40-59	0	(0)	0	(0)
<u>60+</u>	<u>0</u>	<u>(0)</u>	<u>0</u>	<u>(0)</u>
TOTAL	1	(100)	5	(100)

*of total cases

Cases of *Haemophilus influenzae* Invasive Disease by Culture Date, Minnesota January 1, 2007 – December 31, 2008

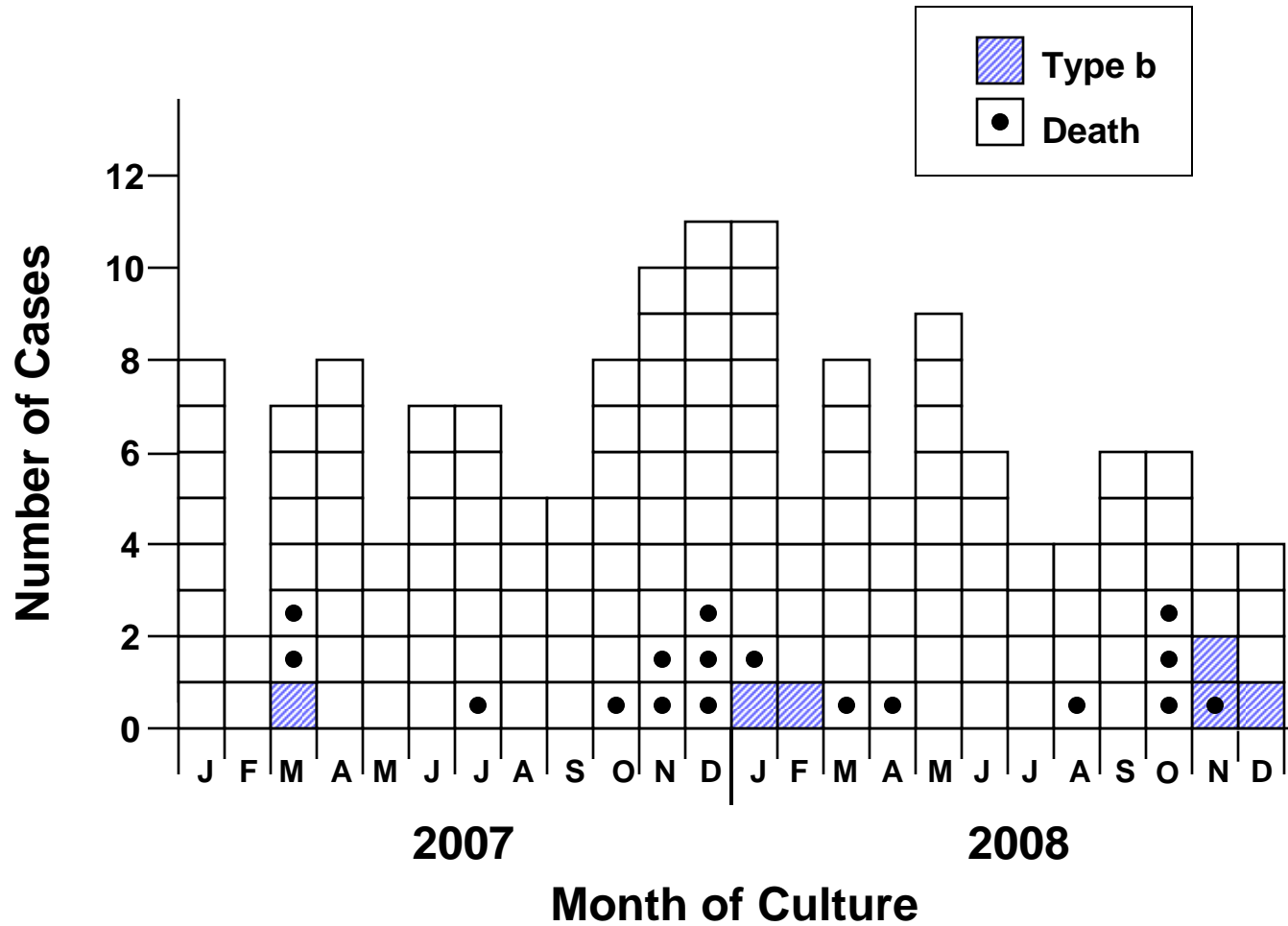


TABLE 4

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
GROUP A STREPTOCOCCUS, JANUARY 1, 2007 - DECEMBER 31, 2008

	<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>		<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>		
RESIDENCE					SITE OF ISOLATE CULTURE				
<u>Residence</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Site</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Twin Cities Metro Area	94	(54)	104	(56)	Blood only	105	(61)	111	(60)
<u>Greater Minnesota</u>	<u>79</u>	<u>(46)</u>	<u>81</u>	<u>(44)</u>	CSF only	2	(1)	0	(0)
TOTAL	173	(100)	185	(100)	Blood and other	25	(14)	22	(12)
AGE					Joint	11	(6)	16	(9)
<u>Age (Years)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	Peritoneal	2	(1)	2	(1)
<1	7	(4)	3	(2)	Pericardial	0	(0)	0	(0)
1-4	8	(5)	12	(6)	Pleural	6	(3)	5	(3)
5-9	10	(6)	15	(8)	Middle ear	0	(0)	0	(0)
10-19	9	(5)	10	(5)	Bone	4	(2)	1	(1)
20-29	11	(6)	8	(4)	Muscle	2	(1)	3	(2)
30-39	12	(7)	12	(6)	Internal Body Site	4	(2)	3	(2)
40-49	26	(15)	36	(19)	<u>Other sterile site</u>	<u>12</u>	<u>(7)</u>	<u>22</u>	<u>(12)</u>
50-59	27	(16)	27	(15)	TOTAL	173	(100)	185	(100)
60-69	24	(14)	21	(11)	TYPE OF INFECTION				
<u>70+</u>	<u>39</u>	<u>(23)</u>	<u>41</u>	<u>(22)</u>	<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
TOTAL	173	(100)	185	(100)	Bacteremia only	59	(34)	54	(29)
GENDER					Meningitis	1	(1)	0	(0)
<u>Gender</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	Pneumonia only	16	(9)	15	(8)
Male	84	(49)	111	(60)	Cellulitis only	27	(16)	27	(15)
<u>Female</u>	<u>89</u>	<u>(51)</u>	<u>74</u>	<u>(40)</u>	Necrotizing fasciitis				
TOTAL	173	(100)	185	(100)	(NF) only	10	(6)	7	(4)
RACE					Otitis	1	(1)	1	(1)
<u>Race</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	Arthritis only	10	(6)	9	(5)
White	113	(65)	132	(71)	Osteomyelitis	5	(3)	4	(2)
Black	7	(4)	9	(5)	Endometritis	2	(1)	2	(1)
American Indian/ Alaskan Native	4	(2)	2	(1)	Abscess	5	(3)	3	(2)
Asian/Pacific Islander	3	(2)	4	(2)	Empyema/Peritonitis	2	(1)	2	(1)
More than One Race	0	(0)	0	(0)	Endocarditis	0	(0)	0	(0)
<u>Unknown</u>	<u>46</u>	<u>(27)</u>	<u>38</u>	<u>(21)</u>	STSS	0	(0)	3	(2)
TOTAL	173	100	185	100	Pneumonia + other	6	(3)	11	(6)
					NF + other	4	(2)	6	(3)
					Cellulitis + other	11	(6)	13	(7)
					Abscess + other	2	(1)	1	(1)
					<u>Other/Unknown (2)</u>	<u>12</u>	<u>(7)</u>	<u>27</u>	<u>(15)</u>
					TOTAL	173	(100)	185	(100)

TABLE 4 (CONTINUED)

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
GROUP A STREPTOCOCCUS, JANUARY 1, 2007 - DECEMBER 31, 2008

	<u>1/1/2007-</u> <u>12/31/2007</u>		<u>1/1/2008-</u> <u>12/31/2008</u>	
	OUTCOME			
<u>Survived</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Yes	157	(91)	165	(89)
No	16	(9)	20	(11)
<u>Unknown</u>	<u>0</u>	<u>(0)</u>	<u>0</u>	<u>(0)</u>
TOTAL	173	(100)	185	(100)

TYPE OF INFECTION
RESULTING IN DEATH

<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Bacteremia	8	(50)	10	(50)
Bloodstream/CSF Infection	0	(0)	1	(5)
Meningitis	0	(0)	0	(0)
Necrotizing fasciitis	2	(13)	0	(0)
Pneumonia	2	(13)	1	(5)
Cellulitis	0	(0)	5	(25)
Peritonitis	1	(6)	0	(0)
Pneumonia/Cellulitis	1	(6)	0	(0)
Pneumonia/Otitis Media	0	(0)	1	(5)
Abscess	0	(0)	1	(5)
Petechia/Vasculitis	0	(0)	0	(0)
<u>Unknown</u>	<u>2</u>	<u>(13)</u>	<u>1</u>	<u>(5)</u>
TOTAL	16	(100)	20	(100)

Cases of Invasive Group A Streptococcal Disease by Date of Culture, Minnesota January 1, 2007 – December 31, 2008

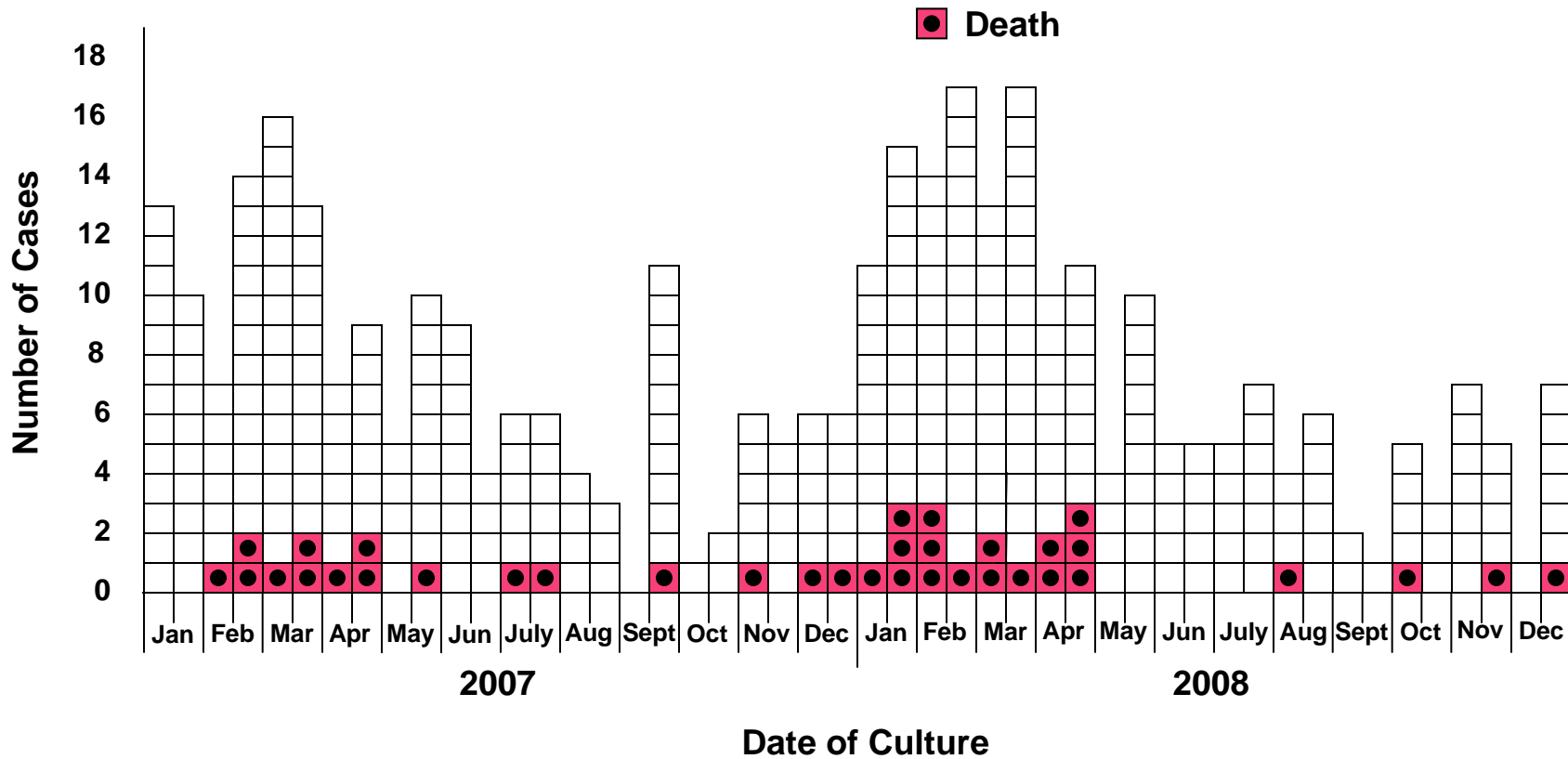


TABLE 5

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
GROUP B STREPTOCOCCUS, JANUARY 1, 2007 - DECEMBER 31, 2008

		<u>1/1/2007-</u> <u>12/31/2007</u>		<u>1/1/2008-</u> <u>12/31/2008</u>		<u>1/1/2007-</u> <u>12/31/2007</u>		<u>1/1/2008-</u> <u>12/31/2008</u>	
RESIDENCE					OUTCOME				
<u>Residence</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Survived</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Twin Cities Metro Area	170	(51)	240	(57)	Yes	319	(96)	393	(94)
<u>Greater Minnesota</u>	<u>162</u>	<u>(49)</u>	<u>178</u>	<u>(43)</u>	No	12	(4)	24	(6)
TOTAL	332	(100)	418	(100)	<u>Unknown</u>	<u>1</u>	<u>(0)</u>	<u>1</u>	<u>(0)</u>
					TOTAL	332	(100)	418	(100)
AGE					SITE OF ISOLATE CULTURE				
<u>Age</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Site</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
<7 days	23	(7)	23	(6)	Blood only	261	(79)	292	(70)
7-90 days	13	(4)	20	(5)	CSF only	3	(1)	9	(2)
91 days-11 mos.	1	(0)	2	(0)	Blood and CSF	0	(0)	0	(0)
1-9 yrs	2	(1)	2	(0)	Pleural	0	(0)	4	(1)
10-19 yrs	4	(1)	4	(1)	Joint	25	(8)	46	(11)
20-29 yrs	14	(4)	16	(4)	Placenta	4	(1)	6	(1)
30-39 yrs	24	(7)	29	(7)	Amniotic fluid	1	(0)	0	(0)
40-49 yrs	30	(9)	29	(7)	Surgical specimen	0	(0)	0	(0)
50-59 yrs	55	(17)	75	(18)	Internal body site	3	(1)	0	(0)
60-69 yrs	59	(18)	75	(18)	Peritoneal	4	(1)	13	(3)
<u>70+ yrs</u>	<u>107</u>	<u>(32)</u>	<u>143</u>	<u>(34)</u>	Bone	27	(8)	46	(11)
TOTAL	332	(100)	418	(100)	<u>Other</u>	<u>4</u>	<u>(1)</u>	<u>2</u>	<u>(0)</u>
					TOTAL	332	(100)	418	(100)
GENDER					TYPE OF INFECTION				
<u>Gender</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Male	187	(56)	221	(53)	Bacteremia	156	(47)	172	(41)
Female	<u>145</u>	<u>(44)</u>	<u>197</u>	<u>(47)</u>	Meningitis	5	(2)	6	(1)
TOTAL	332	(100)	418	(100)	Pneumonia	27	(8)	34	(8)
					Cellulitis	52	(16)	56	(13)
					Arthritis	21	(6)	38	(9)
					Osteomyelitis	28	(8)	50	(12)
					Abscess	12	(4)	17	(4)
					Necrotizing fasciitis	1	(0)	2	(0)
					Peritonitis	2	(1)	7	(2)
					Septic abortion	2	(1)	1	(0)
					or stillbirth				
					<u>Other</u>	<u>26</u>	<u>(8)</u>	<u>35</u>	<u>(8)</u>
					TOTAL	332	(100)	418	(100)
RACE									
<u>Race</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>					
White	209	(63)	277	(66)					
Black	15	(5)	30	(7)					
Amer Indian/Alas Native	5	(2)	11	(3)					
Asian/Pacific Islander	5	(2)	3	(1)					
More than 1 race	2	(1)	0	(0)					
<u>Other/Unknown</u>	<u>96</u>	<u>(29)</u>	<u>97</u>	<u>(23)</u>					
TOTAL	332	(100)	418	(100)					

TABLE 5 (CONTINUED)

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
GROUP B STREPTOCOCCUS, JANUARY 1, 2007 - DECEMBER 31, 2008

	EARLY ONSET CASES*				LATE ONSET CASES*			
	<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>		<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>	
RESIDENCE								
<u>Residence</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Twin Cities Metro Area	14	(61)	12	(52)	8	(62)	15	(75)
Greater Minnesota	9	(39)	11	(48)	5	(38)	5	(25)
TOTAL	23	(100)	23	(100)	13	(100)	20	(100)
GENDER								
<u>Gender</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Male	14	(61)	9	(39)	5	(38)	10	(50)
Female	9	(39)	14	(61)	8	(62)	10	(50)
TOTAL	23	(100)	23	(100)	13	(100)	20	(100)
RACE								
<u>Race</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
White	11	(48)	16	(70)	3	(23)	10	(50)
Black	3	(13)	6	(26)	5	(38)	7	(35)
American Indian/ Alaskan Native	0	(0)	0	(0)	0	(0)	1	(5)
More than 1 race	1	(4)	0	(0)	0	(0)	0	(0)
Asian/Pacific Islander	1	(4)	0	(0)	0	(0)	0	(0)
Other/Unknown	7	(30)	1	(4)	5	(38)	2	(10)
TOTAL	23	(100)	23	(100)	13	(100)	20	(100)
OUTCOME								
<u>Survived</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Yes	21	(91)	21	(91)	13	(100)	20	(100)
No	2	(9)	2	(9)	0	(0)	0	(0)
Unknown	0	(0)	0	(0)	0	(0)	0	(0)
TOTAL	23	(100)	23	(100)	13	(100)	20	(100)
TYPE OF INFECTION								
<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Bacteremia	19	(83)	19	(83)	10	(77)	16	(80)
Meningitis	1	(4)	1	(4)	2	(15)	4	(20)
Pneumonia	1	(4)	0	(0)	0	(0)	0	(0)
Other	2	(9)	3	(13)	1	(8)	0	(0)
TOTAL	23	(100)	23	(100)	13	(100)	20	(100)

* Early onset is defined as occurring in the first 6 days, and late onset in the 7th-89th days of life.

TABLE 5 (CONTINUED)

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
GROUP B STREPTOCOCCUS, JANUARY 1, 2007 - DECEMBER 31, 2008

	<u>1/1/2007-</u> <u>12/31/2007</u>		<u>1/1/2008-</u> <u>12/31/2008</u>	
TYPE OF CASE				
<u>Type of Case*</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Maternal case - miscarriage/stillbirth	5	(2)	1	(0)
Maternal case - other	5	(2)	1	(0)
Infant case - early onset	23	(7)	23	(6)
Infant case - late onset	13	(4)	20	(5)
<u>Adult/Child, non-maternal, non-infant case</u>	<u>286</u>	<u>(86)</u>	<u>373</u>	<u>(89)</u>
TOTAL	332	(100)	418	(100)

*A maternal case is defined as invasive GBS infection during pregnancy or postpartum. An early onset infant case is defined as invasive disease occurring in the first 6 days, and late onset in the 7th - 89th days of life.

TYPE OF INFECTION REPORTED FOR MATERNAL CASES

<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Bacteremia without another focus of infection	2	(20)	2	(100)
Septic abortion/ stillbirth	2	(20)	0	(0)
Meningitis	0	(0)	0	(0)
Chorioamnionitis	2	(20)	0	(0)
Abscess	0	(0)	0	(0)
Pyelonephritis	0	(0)	0	(0)
Peritonitis	0	(0)	0	(0)
Cellulitis	1	(10)	0	(0)
Arthritis	1	(10)	0	(0)
Endometritis	1	(10)	0	(0)
<u>Unknown</u>	<u>1</u>	<u>(10)</u>	<u>0</u>	<u>(0)</u>
TOTAL	10	(100)	2	(100)

OUTCOME OF FETUS FOR MATERNAL CASES

<u>Outcome</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Survived, no apparent clinical illness	4	(40)	1	(50)
Survived, clinical illness	0	(0)	0	(0)
Live birth, neonatal death, GBS-related	0	(0)	0	(0)
Miscarriage/stillbirth, likely GBS-related	5	(50)	1	(50)
<u>Induced abortion</u>	<u>1</u>	<u>(10)</u>	<u>0</u>	<u>(0)</u>
TOTAL	10	(100)	2	(100)

TABLE 5 (CONTINUED)

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
GROUP B STREPTOCOCCUS, JANUARY 1, 2007 - DECEMBER 31, 2008

1/1/2007-
12/31/2007 1/1/2008-
12/31/2008

SITE OF ISOLATE CULTURE FOR MISCARRIAGES/STILLBIRTHS

<u>Site</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Maternal blood	0	(0)	1	(100)
CSF	0	(0)	0	(0)
Amniotic fluid	1	(20)	0	(0)
Placenta	4	(80)	0	(0)
Peritoneal	0	(0)	0	(0)
<u>Autopsy</u>	<u>0</u>	<u>(0)</u>	<u>0</u>	<u>(0)</u>
TOTAL	5	(100)	1	(100)

GESTATIONAL AGE OF EARLY ONSET CASES

<u>Age (weeks)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
<28	4	(17)	5	(22)
28-32	2	(9)	1	(4)
33-34	1	(4)	0	(0)
35-36	3	(13)	1	(4)
37+	13	(57)	16	(70)
<u>Unknown</u>	<u>0</u>	<u>(0)</u>	<u>0</u>	<u>(0)</u>
TOTAL	23	(100)	23	(100)

BIRTH WEIGHT OF EARLY ONSET CASES

<u>Weight (grams)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
<1000	0	(0)	4	(17)
1000-1999	0	(0)	3	(13)
2000-2999	4	(17)	2	(9)
≥3000+	16	(70)	14	(61)
<u>Unknown</u>	<u>3</u>	<u>(13)</u>	<u>0</u>	<u>(0)</u>
TOTAL	23	(100)	23	(100)

Cases of Group B Stretococcal Disease by Date Cultures, Minnesota January 1, 2007 – December 31, 2008

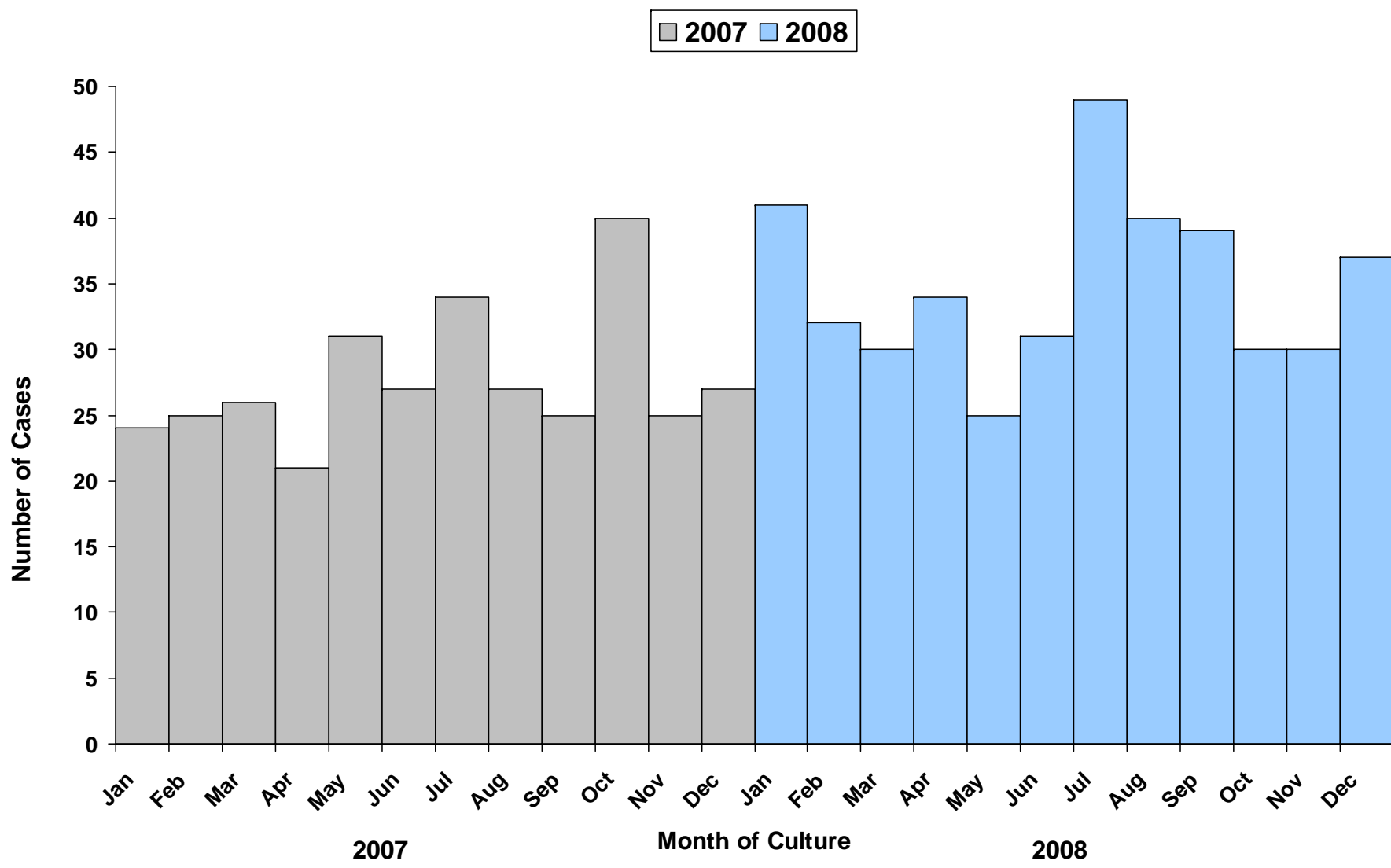


TABLE 6

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
STREPTOCOCCUS PNEUMONIAE, JANUARY 1, 2007 - DECEMBER 31, 2008

	1/1/2007- 12/31/2007		1/1/2008- 12/31/2008		1/1/2007- 12/31/2007		1/1/2008- 12/31/2008		
RESIDENCE					OUTCOME				
<u>Residence</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Survived</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Twin Cities Metro Area	318	(48)	330	(46)	Yes	603	(91)	649	(91)
Greater Minnesota	346	(52)	382	(54)	No	61	(9)	63	(9)
TOTAL	664	(100)	712	(100)	TOTAL	664	(9)	712	(100)
AGE					SITE OF ISOLATE CULTURE				
<u>Age (Years)</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Culture Site</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
<1	39	(6)	27	(4)	Blood Only	617	(93)	661	(93)
1	30	(5)	28	(4)	Blood and CSF	0	(<1)	0	(0)
2-4	33	(5)	28	(4)	CSF Only	25	(3)	25	(4)
5-17	29	(4)	26	(4)	Pericardial Fluid	0	(<1)	0	(<1)
18-34	32	(5)	44	(6)	Pleural	14	(2)	15	(2)
35-49	102	(15)	116	(16)	Joint	3	(1)	5	(1)
50-64	150	(23)	180	(25)	Peritoneal	1	(<1)	3	(<1)
65-79	123	(19)	145	(20)	Other	4	(<1)	3	(<1)
80+	126	(19)	118	(17)	TOTAL	664	(100)	712	(100)
TOTAL	664	(100)	712	(100)					
GENDER					TYPE OF INFECTION				
<u>Gender</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	<u>Type</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Male	349	(53)	357	(50)	Bacteremia				
Female	315	(47)	355	(50)	without focus	206	(35)	221	(31)
TOTAL	664	(100)	712	(100)	Pneumonia	381	(54)	410	(58)
RACE					Meningitis	38	(5)	35	(5)
<u>Race</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>	Otitis	12	(<1)	3	(0)
White Only	379	(59)	446	(62)	Cellulitis	2	(1)	3	(0)
Black Only	38	(8)	58	(8)	Other	25	(4)	40	(6)
American Indian/ Alaskan Native Only	13	(<1)	23	(3)	TOTAL	664	(100)	712	(100)
Asian/Pacific Isl. Only	15	(<1)	13	(2)	PENICILLIN SUSCEPTIBILITY				
More than 1 Race	10	(<1)	0	(0)	<u>Susceptibility</u>	<u>No.</u>	<u>(%)</u>	<u>No.</u>	<u>(%)</u>
Unknown	209	(31)	174	(24)	Susceptible (MIC ≤ 0.06)	492	(80)	529	(80)
TOTAL	664	(100)	714	(100)	Resistant (MIC ≥ 0.12)	123	(20)	130	(20)
					TOTAL	615	(100)	659	(100)
						<u>No.</u>	<u>(%)*</u>	<u>No.</u>	<u>(%)*</u>
					Not Tested	57	(9)	53	(7)

* of total cases

TABLE 6 (CONTINUED)

REPORTED CASES OF INVASIVE DISEASE ATTRIBUTED TO
STREPTOCOCCUS PNEUMONIAE WITH SUSCEPTIBILITY TESTING COMPLETED,
JANUARY 1, 2007 - DECEMBER 31, 2008

PENICILLIN RESISTANCE* BY AGE

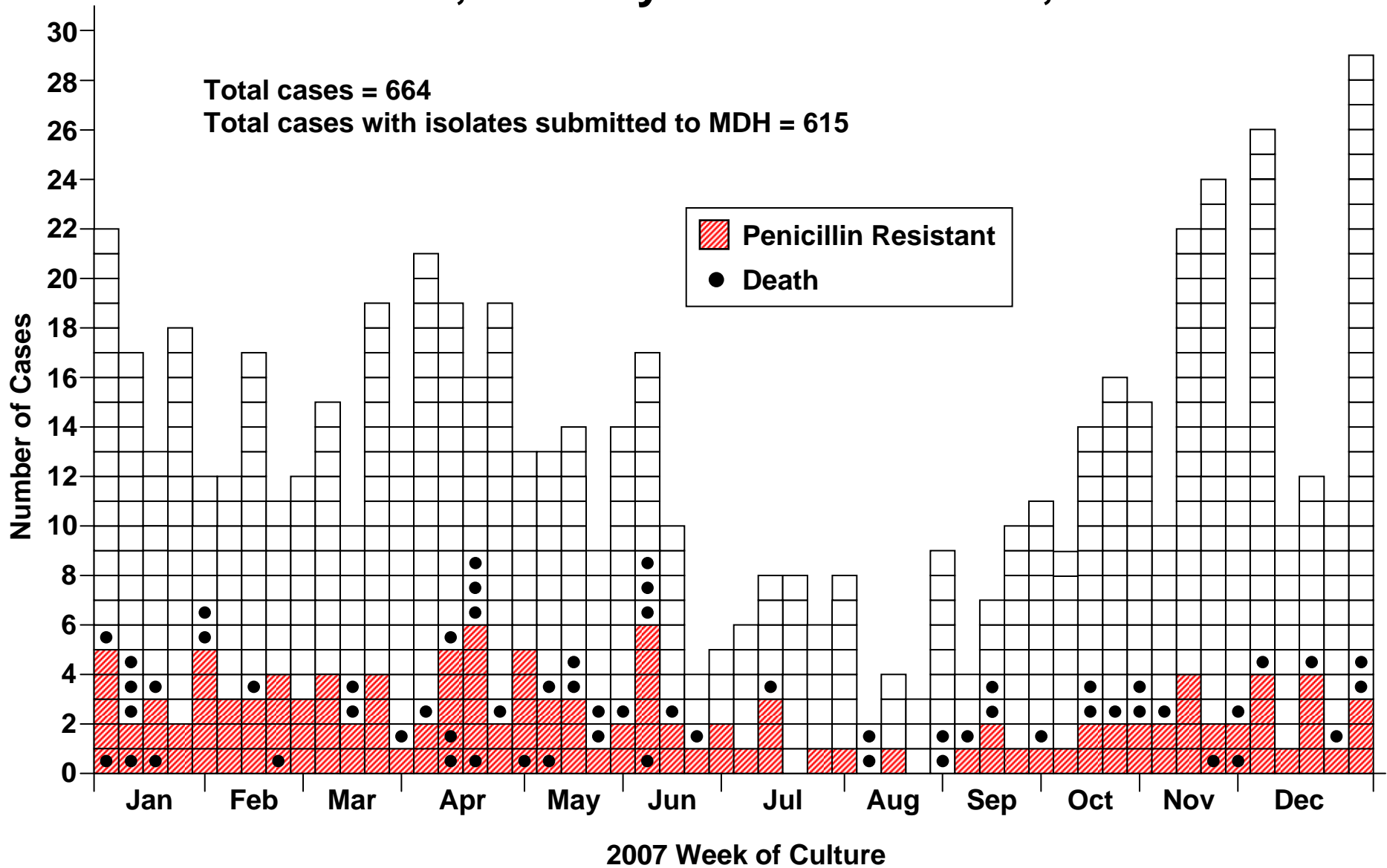
<u>Age (Years)</u>	<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>	
	<u>Resistant Total</u>	<u>(%)</u>	<u>Resistant Total</u>	<u>(%)</u>
<1	9 / 37	(24)	4 / 27	(15)
1	9 / 29	(31)	10 / 26	(38)
2-4	11 / 30	(37)	10 / 27	(37)
5-17	4 / 27	(15)	3 / 24	(13)
18-34	2 / 26	(8)	2 / 40	(5)
35-49	11 / 94	(12)	15 / 106	(14)
50-64	23 / 141	(16)	28 / 166	(17)
65-79	28 / 116	(24)	36 / 134	(27)
80+	26 / 115	(23)	22 / 109	(20)
TOTAL	123 / 615	(20)	130 / 659	(20)

PENICILLIN RESISTANCE* BY TYPE OF INFECTION

<u>Type</u>	<u>1/1/2007- 12/31/2007</u>		<u>1/1/2008- 12/31/2008</u>	
	<u>Resistant Total</u>	<u>(%)</u>	<u>Resistant Total</u>	<u>(%)</u>
Bacteremia	42 / 190	(22)	54 / 221	(24)
Pneumonia	66 / 352	(19)	63 / 410	(15)
Meningitis	4 / 37	(11)	4 / 35	(11)
<u>Other/Unknown</u>	<u>11 / 36</u>	<u>(31)</u>	<u>9 / 46</u>	<u>(20)</u>
TOTAL	123 / 615	(20)	130 / 712	(18)

*Penicillin resistant (meningitis breakpoints) includes isolates with a MIC \geq 0.12 μ g/ml.

Cases of *S. pneumoniae* by Week of Culture, Minnesota, January 1 - December 31, 2007



* Penicillin resistant (meningitis break points) includes isolates with a MIC \geq 0.12 $\mu\text{g/ml}$

Cases of *S. pneumoniae* by Week of Culture, Minnesota, January 1 - December 31, 2008

