Group A *Streptococcus* (GAS)	Group B *Streptococcus* (GBS)	*Haemophilus influenzae* (HFlu)	*Neisseria meningitidis* (NMen)	*Streptococcus pneumoniae* (SPN)	Bact Facts 🏠

Topic

Cases and Deaths

Case Rates

Death Rates

Syndromes

emm Types

Antibiotic Resistance

Surveillance Report

Year

2022 ⌄

Dataset version: Jun 2024
Final run: Jul 5, 2024

Note: Click here to access and download Surveillance Reports.

Data Download

Active Bacterial Core Surveillance (ABCs) Report Emerging Infections Program Network Group A *Streptococcus,* 2022

ABCs Areas: California (3 county San Francisco Bay area); Colorado (5 county Denver area); Connecticut; Georgia (20 county Atlanta area); Maryland (6 county Baltimore area); Minnesota; New Mexico; New York (15 county Rochester and Albany areas); Oregon (3 county Portland area); Tennessee (20 urban counties).

ABCs Population: The surveillance areas represent 34,991,238 persons. Source: Census Bureau's Vintage 2022 population estimates.

ABCs Case Definition: Invasive bacterial disease is defined as isolation of group A *Streptococcus* from a normally sterile site or from a wound culture accompanied by necrotizing fasciitis or streptococcal toxic shock syndrome or detection of ABCs pathogen-specific nucleic acid in a specimen obtained from a normally sterile site, using a validated molecular test in a resident of one of the surveillance areas.

ABCs Methodology: ABCs personnel routinely contacted all microbiology laboratories serving acute care hospitals to identify cases. Standardized case report forms including demographic and clinical characteristics were completed for each case. All group A *Streptococcus* (GAS) isolates were subject to whole genome sequencing (WGS) to derive *emm* types and to predict minimum inhibitory concentration (MIC). Regular laboratory audits assessed active surveillance completeness.
Rates were calculated using population estimates from the Vintage 2022 file. For national estimates of cases, race and age specific rates of disease were applied from the aggregate surveillance area to the age and racial distribution of the U.S. population. Cases with missing data, excluding ethnicity, were multiply imputed using sequential regression imputation methods.¶

ABCs Profiles

Race ▲	No.	Rate*	Ethnicity ▲	No.	Rate*
Black	395	6.8	Hispanic	438	8.5
White	2,241	9.1	Non-Hispanic	2,256	-
Other	239	5.4	Unknown	181	-

		Cases		Deaths	
Age (years) ▲	No.	Rate*	No.	Rate*	
<1	7	1.9	1	0.26	
1	12	3.2	0	0.00	
2-4	23	2.0	0	0.00	
5-17	74	1.3	2	0.04	
18-34	430	5.3	25	0.31	
35-49	652	9.4	40	0.57	
50-64	804	12.0	66	0.99	
65-74	438	12.9	56	1.64	
75-84	279	16.4	38	2.23	
≥85	156	24.3	34	5.31	
Total	2,875	8.2	262	0.75	

*Rates are per 100,000 population for ABCs areas

National Estimates of Invasive Disease
Total Cases: 27,400 (8.2/100,000 population)
Deaths: 2,500 (0.75/100,000 population)

¶ Surveillance Note
Missing race (n=214) data were multiply imputed using sequential regression imputation methods.

Emm Types

Area	Most Common emm Types**	% Area Isolates
Total	49,77,11,82,12,92,1,53	59.5
CA	53,49,82,169,58,77	55.6
CO	60,77,11,82,83,12,43	69.9
CT	11,92,89,77,88,164	64.1
GA	12,1,77,92,89	59.2
MD	49,82,88,169,11,28	76.1
MN	1,81,12,43,11,28,77,53	80.4
NM	49,82,91,77,92	78.3
NY	11,77,169	69.0
OR	53,101,77,59,82,49,91,92	80.5
TN	12,92,49,11,1,77,82,91,89	76.9

**Requires ≥3 isolates and ≥5% of isolates typed by area. Based on reference lab testing of 2457 isolates.

Syndromes

Syndrome	No.	% ▼
Cellulitis	1,373	47.8
Bacteremia without focus	431	15.0
Pneumonia	354	12.3
Necrotizing fasciitis	148	5.1
Streptococcal toxic shock syndrome	67	2.3

Note: Some cases had more than 1 syndrome.

Citation
Centers for Disease Control and Prevention. 2022. Active Bacterial Core Surveillance Report, Emerging Infections Program Network, Group A Streptococcus, 2022.