

Table 22. Characteristics of Tuberculosis Cases in GENType Clusters¹, by Alert Levels Based on Log-Likelihood Ratios (LLR)²: United States, 2014–2016

Case characteristics	Unique		Alert levels for clustered cases ³							
			Clustered		Non-alerted (LLR <5)		Medium (LLR 5–<10)		High (LLR ≥10)	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Total	16,655	(79.2)	4,387	(20.8)	2,487	(56.7)	1,021	(23.3)	879	(20.0)
Origin of birth										
U.S.-born	4,311	(65.2)	2,301	(34.8)	902	(39.2)	654	(28.4)	745	(32.4)
Non-U.S.–born	12,327	(85.6)	2,077	(14.4)	1,579	(76.0)	365	(17.6)	133	(6.4)
Unknown or missing	17	(65.4)	9	(34.6)	6	(66.7)	2	(22.2)	1	(11.1)
Race and ethnicity										
Hispanic/Latino	4,565	(76.9)	1,371	(23.1)	830	(60.5)	370	(27.0)	171	(12.5)
American Indian/Alaska Native	146	(48.3)	156	(51.7)	18	(11.5)	42	(26.9)	96	(61.5)
Asian	6,385	(86.5)	996	(13.5)	843	(84.6)	107	(10.7)	46	(4.6)
Black/African American	3,029	(70.9)	1,246	(29.1)	531	(42.6)	299	(24.0)	416	(33.4)
Native Hawaiian/Other Pacific Islander	97	(53.3)	85	(46.7)	40	(47.1)	20	(23.5)	25	(29.4)
White	2,251	(81.7)	503	(18.3)	213	(42.3)	172	(34.2)	118	(23.5)
Multiple race	127	(84.7)	23	(15.3)	10	(43.5)	7	(30.4)	6	(26.1)
Unknown or missing	55	(88.7)	7	(11.3)	2	(28.6)	4	(57.1)	1	(14.3)
Age group (years)										
0–4	72	(38.7)	114	(61.3)	47	(41.2)	45	(39.5)	22	(19.3)
5–14	104	(63.4)	60	(36.6)	31	(51.7)	11	(18.3)	18	(30.0)
15–24	1,621	(75.7)	521	(24.3)	286	(54.9)	140	(26.9)	95	(18.2)
25–44	5,023	(77.9)	1,426	(22.1)	774	(54.3)	354	(24.8)	298	(20.9)
45–64	5,056	(75.5)	1,639	(24.5)	892	(54.4)	371	(22.6)	376	(22.9)
≥65	4,773	(88.4)	627	(11.6)	457	(72.9)	100	(15.9)	70	(11.2)
Unknown	6	(100.0)	0	(0)	0	(0)	0	(0)	0	(0)
Disease site										
Pulmonary only	11,836	(77.3)	3,473	(22.7)	1,925	(55.4)	823	(23.7)	725	(20.9)
Extrapulmonary	2,898	(86.8)	440	(13.2)	294	(66.8)	93	(21.1)	53	(12.0)
Both	1,911	(80.2)	472	(19.8)	266	(56.4)	105	(22.2)	101	(21.4)
Unknown	10	(83.3)	2	(16.7)	2	(100.0)	0	(0)	0	(0)
Sputum smear										
Positive	7,675	(76.4)	2,372	(23.6)	1,299	(54.8)	601	(25.3)	472	(19.9)
Negative	6,850	(81.1)	1,598	(18.9)	952	(59.6)	309	(19.3)	337	(21.1)
Not done	2,111	(83.6)	414	(16.4)	234	(56.5)	110	(26.6)	70	(16.9)
Unknown or missing	19	(86.4)	3	(13.6)	2	(66.7)	1	(33.3)	0	(0)
Cavitary disease⁴										
Yes	167	(77.7)	48	(22.3)	23	(47.9)	14	(29.2)	11	(22.9)
No	1,358	(79.4)	352	(20.6)	199	(56.5)	76	(21.6)	77	(21.9)
Unknown or missing	4	(100.0)	0	(0)	0	(0)	0	(0)	0	(0)

Table 22. (Con't) Characteristics of Tuberculosis Cases in GENType Clusters¹, by Alert Levels Based on Log-Likelihood Ratios (LLR)²: United States, 2014–2016

Case characteristics	Unique		Alert levels for clustered cases ³							
			Clustered		Non-alerted (LLR <5)		Medium (LLR 5–<10)		High (LLR ≥10)	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Homeless within past year										
Yes	627	(53.2)	552	(46.8)	188	(34.1)	138	(25.0)	226	(40.9)
No	15,930	(80.6)	3,824	(19.4)	2,291	(59.9)	881	(23.0)	652	(17.1)
Unknown or missing	98	(89.9)	11	(10.1)	8	(72.7)	2	(18.2)	1	(9.1)
Excess alcohol use within the past year										
Yes	1,470	(62.2)	895	(37.8)	367	(41.0)	235	(26.3)	293	(32.7)
No	14,965	(81.3)	3,444	(18.7)	2,085	(60.5)	776	(22.5)	583	(16.9)
Unknown or missing	220	(82.1)	48	(17.9)	35	(72.9)	10	(20.8)	3	(6.3)
Injecting illicit drug use within past year										
Yes	175	(55.9)	138	(44.1)	57	(41.3)	42	(30.4)	39	(28.3)
No	16,306	(79.6)	4,186	(20.4)	2,391	(57.1)	962	(23.0)	833	(19.9)
Unknown or missing	174	(73.4)	63	(26.6)	39	(61.9)	17	(27.0)	7	(11.1)
Noninjecting illicit drug use within past year										
Yes	906	(56.9)	685	(43.1)	275	(40.1)	193	(28.2)	217	(31.7)
No	15,575	(81.0)	3,644	(19.0)	2,176	(59.7)	813	(22.3)	655	(18.0)
Unknown or missing	174	(75.0)	58	(25.0)	36	(62.1)	15	(25.9)	7	(12.1)
Resident of a correctional facility at the time of diagnosis										
Yes	499	(69.0)	224	(31.0)	116	(51.8)	34	(15.2)	74	(33.0)
No	15,585	(79.8)	3,933	(20.2)	2,246	(57.1)	946	(24.1)	741	(18.8)
Unknown or missing	571	(71.3)	230	(28.7)	125	(54.3)	41	(17.8)	64	(27.8)
HIV status										
Positive	832	(74.7)	282	(25.3)	143	(50.7)	61	(21.6)	78	(27.7)
Negative	13,958	(78.7)	3,783	(21.3)	2,131	(56.3)	892	(23.6)	760	(20.1)
Refused testing	478	(86.6)	74	(13.4)	48	(64.9)	15	(20.3)	11	(14.9)
Testing not offered	960	(83.3)	193	(16.7)	128	(66.3)	38	(19.7)	27	(14.0)
Unknown, missing or indeterminate	427	(88.6)	55	(11.4)	37	(67.3)	15	(27.3)	3	(5.5)
Multidrug-resistant TB										
Yes	232	(84.7)	42	(15.3)	35	(83.3)	7	(16.7)	0	(0)
No	16,090	(79.0)	4,269	(21.0)	2,416	(56.6)	993	(23.3)	860	(20.1)
Unknown or missing	333	(81.4)	76	(18.6)	36	(47.4)	21	(27.6)	19	(25.0)

¹GENType clusters have two or more cases with matching spoligotype and 24-locus mycobacterial interspersed repetitive unit-variable number tandem repeat type (GENType) within a county during the specified 3-year time period.

²Alert levels are based on a log-likelihood ratio (LLR), which calculates the geographic concentration of a genotype in a county compared to the rest of the country during a 3-year period.

³There were 4,387 cases in 1,401 alerted clusters: 879 cases were in 86 (6.1%) high alert clusters; 1,021 cases were in 322 (23.0%) medium alert clusters, and 2,487 cases were in 993 (70.9%) nonalert clusters.

⁴Cavitary disease only assessed for persons with pulmonary TB and an abnormal x-ray.

Note: Case counts for race categories (American Indian/Alaska Native, Asian, black/African American, Native Hawaiian/Other Pacific Islander, and white) are mutually exclusive and do not include persons of Hispanic ethnicity or multiple race. Multiple race does not include persons of Hispanic ethnicity.

See Surveillance Slide #35