

National Enteric Disease Surveillance: *Listeria* Annual Summary, 2009

Listeria Annual Summary, 2009

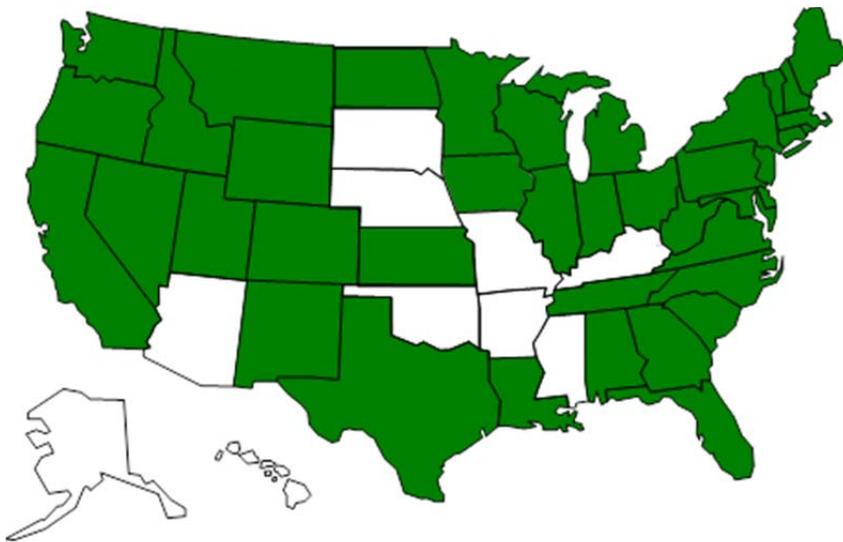
Listeria Initiative Data

An overview of the *Listeria* Initiative surveillance system is available at http://www.cdc.gov/nationalsurveillance/listeria_surveillance.html.

States reporting at least one listeriosis case to the *Listeria* Initiative during 2009 are shown in Figure 1.

- Forty states reported 524 listeriosis cases.
 - 421 cases (80%) were non-pregnancy-associated.
 - 99 cases (19%) were pregnancy-associated.
 - Pregnancy status was not reported for four cases.

Figure 1. States reporting to the *Listeria* Initiative, 2009 (N=40)*.



*Reporting states are indicated in green.

Demographic and clinical characteristics of patients with non-pregnancy-associated and pregnancy-associated listeriosis are shown in Tables 1 and 2, respectively.

- The median age of patients was 72 years for non-pregnancy-associated cases and 27.5 years for pregnancy-associated cases.
- Hispanic ethnicity was substantially more common in patients with pregnancy-associated cases (49%) than with non-pregnancy-associated cases (7%).
- Nineteen percent of patients with non-pregnancy associated cases of listeriosis died. Thirteen percent of pregnancy-associated cases led to fetal death among pregnancies no longer ongoing at the time of interview; at least 7% of live-born infants with cases of listeriosis died.

Table 1. Demographic and clinical characteristics of patients with non-pregnancy-associated listeriosis reported to the *Listeria* Initiative, 2007 (N=421).

Characteristic	n (%)
Age in Years (N=421)	
Median (range)	72 (0-98)
Female Sex (N=421)	213 (51)
Hispanic Ethnicity (N=324)*	23 (7)
Race (N=356)*	
White	299 (84)
African American	44 (12)
Asian	12 (3)
Multiracial/Other	1 (<1)
Source of Isolate (N=419) [†]	
Blood	345 (82)
CSF	72 (17)
Stool	2 (<1)
Other [§]	29 (7)
Hospitalized (N=399)	370 (93)
Died (N=341)	64 (19)
*Does not include reports with missing or unknown ethnicity (n=97) or race (n=65).	
[†] Twenty-seven cases had more than one site of isolation	
[§] Other sources include peritoneal fluid, wound, and other sites.	

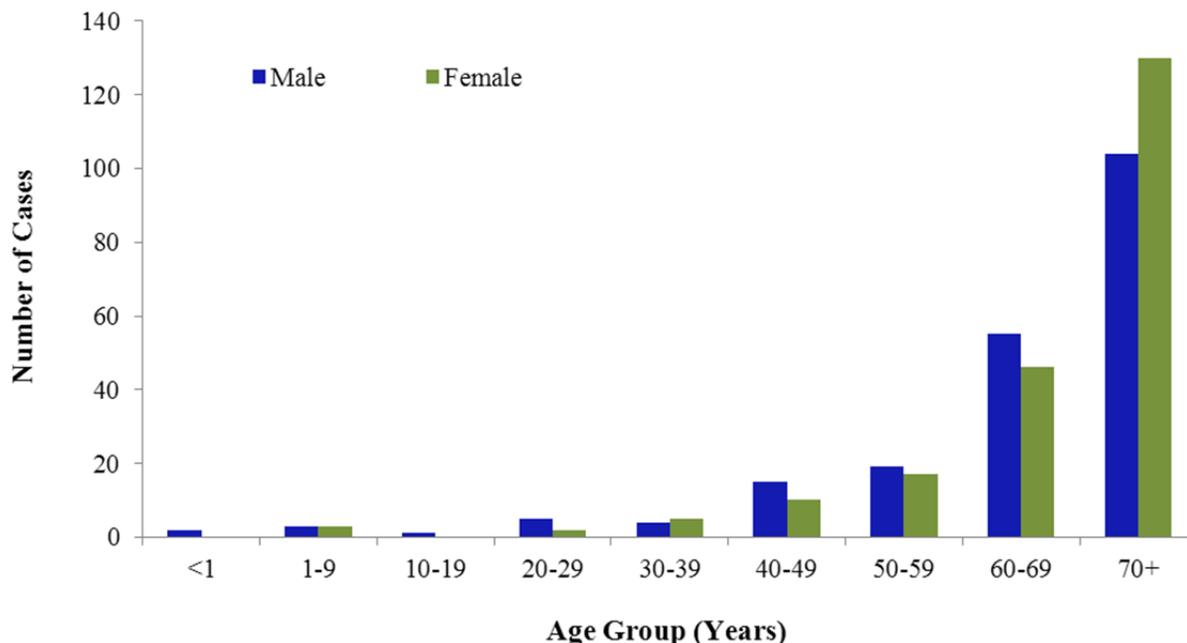
Table 2. Demographic and clinical characteristics of patients with pregnancy-associated listeriosis reported to the *Listeria* Initiative, 2009 (N=99)*.

Characteristic	n (%)
Mother's Age in Years (N=62)	
Median (range)	27.5 (14-51)
Hispanic Ethnicity (N=65) [†]	43 (49)
Race (N=58) [†]	
White	57 (84)
African American	8 (12)
Asian	1 (1)
Multiracial/Other	2 (3)
Source of Isolate (N=87) [§]	
Blood from Neonate	37 (43)
Blood from Mother	29 (33)
CSF from Neonate	24 (28)
Placenta	18 (21)
Amniotic fluid	4 (5)
Other	9 (10)
Hospitalization**	
Mothers (N=84)	37 (44)
Live born Infants (N=75)	64 (85)
Pregnancy Outcome (N=97)	
Live birth, survived	55 (57)
Live birth, died	6 (6)
Live birth, unknown outcome	15 (15)
Fetal Death	13 (13)
Still pregnant	8 (8)
*Cases involving mother-infant pairs are counted as a single case.	
[†] Does not include reports with missing or unknown ethnicity (n=34) or race (n=41).	
[§] In one case, four sites of isolation were reported; in three cases, three sites of isolation were reported, and in 14 cases, two sites of isolation were reported.	
Other sources include urine and other sites.	
**Hospitalizations related to <i>Listeria</i> infection.	

Patients with non-pregnancy-associated listeriosis reported to the *Listeria* Initiative during 2009 are shown by age group and sex in Figure 2.

- As in previous years, the number of cases per 10-year age group increased with age.

Figure 2. Patients with non-pregnancy-associated listeriosis, by age group and sex, *Listeria* Initiative, 2009 (N=421).



The *Listeria* Initiative questionnaire was designed not only for reporting of clinical characteristics of cases but also to assist public health investigation by capturing food exposures. It assisted in implicating foods in at least three investigations in 2009:

- The Washington State Department of Health determined that an outbreak of thirteen cases was due to Mexican-style cheese made from pasteurized milk, and
- State partners and CDC determined that two multistate outbreaks of eight cases each were due to Mexican-style cheese made from pasteurized milk (1).

The CDC *Listeria* Reference Laboratory serotypes *Listeria monocytogenes* isolates from cases reported to the *Listeria* Initiative. Serotypes identified from cases reported in 2009 are shown in Table 3.

- Serotype 4b remained the most commonly identified serotype, accounting for 48% of isolates.

Table 3. Serotypes of *Listeria monocytogenes* among cases reported to the *Listeria* Initiative, 2009 (N=332).

Serotype	n (%)
4b	159 (48)
1/2a	92 (28)
1/2b	51 (15)
Other Serotypes	23 (7)
Untypeable	7 (2)

NNDSS Data

The National Notifiable Disease Surveillance System (NNDSS) collects and compiles reports of nationally notifiable infectious diseases, including *Listeria*. The 2009 NNDSS report is available at <http://www.cdc.gov/mmwr/PDF/wk/mm5853.pdf>.

- Forty-seven states reported 851 listeriosis cases (2).

Outbreak Data

The Foodborne Disease Outbreak Surveillance System (FDOSS) collects reports of foodborne, waterborne, enteric person-to-person, environmental and animal contact-associated disease outbreaks from local, state and territorial public health agencies. The most recent report can be found at http://www.cdc.gov/outbreaknet/surveillance_data.html.

References

1. Jackson, KA, M. Biggerstaff, M. Tobin-D'Angelo, et. al. Multistate outbreak of *Listeria monocytogenes* associated with Mexican-style cheese made from pasteurized milk among pregnant, Hispanic women. *Journal of Food Protection* 2011; 76(6): 949-953.
2. CDC. Summary of notifiable diseases—United States, 2009. *MMWR* 2011; 58(53): 1-100.

Reference Citation:

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