

National Enteric Disease Surveillance: *Listeria* Annual Summary, 2007

Listeria Annual Summary, 2007

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 2007 are shown in Figure 1.

- Twenty-two states reported 311 listeriosis cases.
 - 242 cases (78%) were non-pregnancy-associated.
 - 66 cases (21%) were pregnancy-associated.
 - Pregnancy status was not reported for three cases.

Figure 1. States reporting at least one case of listeriosis to the *Listeria* Initiative, 2007 (n=22)*.



*Reporting states are indicated in gray.

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 years for pregnancy-associated cases.
- Hispanic ethnicity was substantially more common in patients with pregnancy-associated cases (67%) than with non-pregnancy-associated cases (17%).
- Twenty-five percent of patients with non-pregnancy associated cases of listeriosis died. Seventeen percent of pregnancy-associated cases led to fetal death among pregnancies no longer ongoing at the time of interview; at least 5% 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=242).

Characteristic (number with information)	n	%
Age in years (n=242)		
Median (range)	72 (1-99)	
Female sex (n=242)	127	52
Hispanic ethnicity (n=169)*	29	17
Race (n=206)*		
White	180	87
African American	18	9
Asian	4	2
Multiracial/Other	4	2
Source of isolate (n=241) [†]		
Blood	205	85
CSF	31	13
Stool	3	1
Other [§]	17	7
Hospitalized (n=231)	204	88
Died (n=212)	52	25
*Does not include reports with missing or unknown ethnicity (n=73) or race (n=36).		
[†] Fifteen cases had more than one site of isolation		
[§] Pleural fluid, bone, urine, brain tissue, and other sites.		

Table 2. Demographic and clinical characteristics of patients with pregnancy-associated listeriosis reported to the *Listeria* Initiative, 2007 (n=66)*.

Characteristic (number with information)	n	%
Mother's age in years (n=38)		
Median (range)	27 (16-42)	
Hispanic ethnicity (n=49) [†]	33	67
Race (n=48) [†]		
White	40	83
African American	6	13
Asian	2	4
Multiracial/Other	0	0
Source of isolate (n=65) [§]		
Blood from neonate	26	40
Blood from mother	19	29
CSF from neonate	15	23
Placenta	10	15
Other [¶]	5	8
Hospitalization**		
Mothers (n=53)	25	47
Live born infants (n=46)	41	89
Pregnancy outcome (n=67)		
Live birth, survived	38	56
Live birth, died	2	3
Live birth, unknown outcome	13	19
Fetal Death	11	16
Still pregnant	3	4

*Cases involving mother-infant pairs are counted as a single case.

[†]Does not include reports with missing or unknown ethnicity (n=17) or race (n=18)

[§] In 10 cases there was more than one site of isolation.

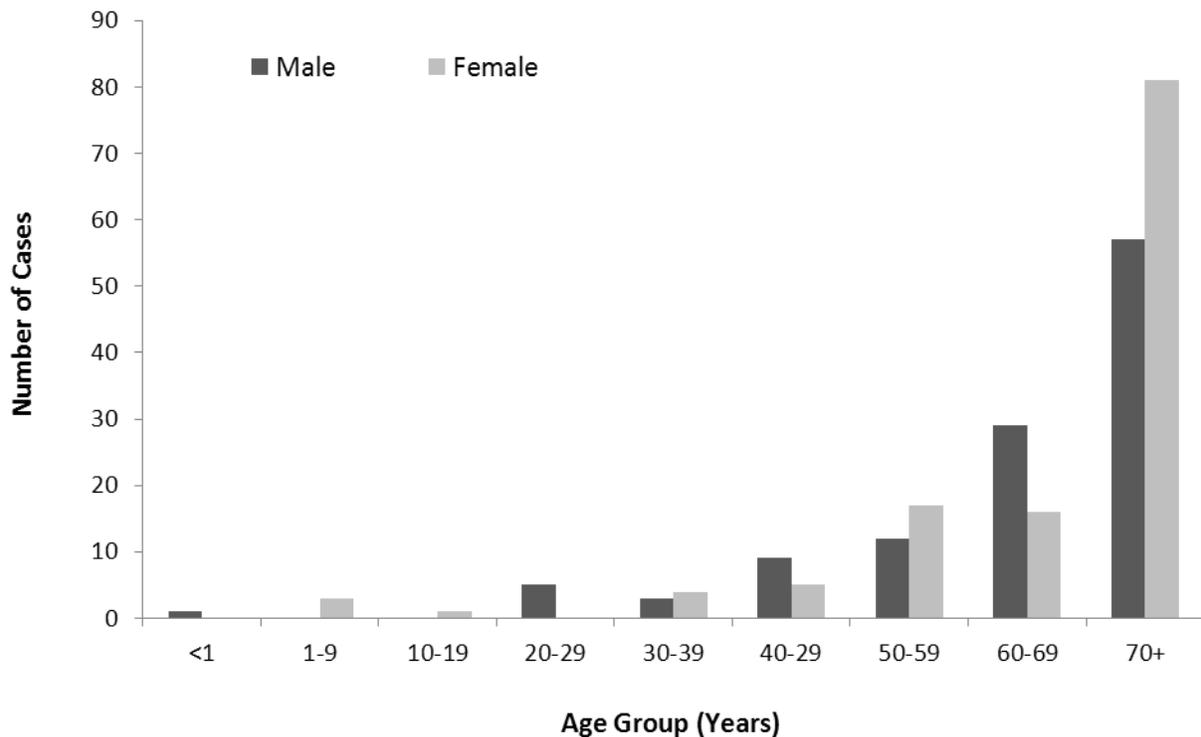
[¶]Vagina, sputum from neonate, stool from neonate, and other sites.

**Hospitalization related to *Listeria* infection.

Patients with non-pregnancy-associated listeriosis reported to the *Listeria* Initiative during 2007 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, 2007 (n=243).



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 one investigations in 2007:

- The Massachusetts Department of Public Health used the *Listeria* Initiative questionnaire in an investigation of an outbreak caused by pasteurized milk from a local dairy (1).

The CDC *Listeria* Reference Laboratory serotypes *Listeria monocytogenes* isolates from cases reported to the *Listeria* Initiative. Serotypes identified from cases reported in 2007 are shown in Table 3.

- Serotype 4b remained the most commonly identified serotype, accounting for 46% of isolates.

Table 3. Serotypes of *Listeria monocytogenes* among cases reported to the *Listeria* Initiative, 2007 (n=213).

Serotype	n	%
4b	97	46
1/2a	44	21
1/2b	35	16
Other Serotypes	18	8
Untypeable	19	9

NNDSS Data

The National Notifiable Disease Surveillance System (NNDSS) collects and compiles reports of nationally notifiable infectious diseases, including *Listeria*. The 2007 NNDSS report is available at <http://www.cdc.gov/mmwr/PDF/wk/mm5653.pdf>.

- A total of 808 listeriosis cases were reported to NNDSS during 2007 (2).

Outbreak Data

The Foodborne Disease Outbreak Surveillance System (FDOSS) collects reports of foodborne disease outbreaks from local, state and territorial public health agencies. Reports can be found at http://www.cdc.gov/outbreaknet/surveillance_data.html.

- In 2007, one confirmed listeriosis outbreak was reported to CDC (3); this outbreak was associated with pasteurized milk and caused five illnesses and three deaths (1).

References

1. Cumming, M., P. Kludt, B. Matyas, et. al. Outbreak of *Listeria monocytogenes* infection associated with pasteurized milk from a local dairy—Massachusetts, 2007. *MMWR* 2008; 57(40): 1097-1100.
2. CDC. Summary of notifiable diseases—United States, 2007. *MMWR* 2009; 56(53): 1-94.
3. CDC. Surveillance for foodborne disease outbreaks—United States, 2007. *MMWR* 2010; 59(31):1277-1280.

Reference Citation:

Centers for Disease Control and Prevention (CDC). National *Listeria* Surveillance Annual Summary, 2009. Atlanta, Georgia: US Department of Health and Human Services, CDC, 2011.