

# CSTE Botulism Surveillance Summary 2014

An overview of national botulism surveillance is available at:

[http://www.cdc.gov/ncezid/dfwed/PDFs/bot-overview\\_508c.pdf](http://www.cdc.gov/ncezid/dfwed/PDFs/bot-overview_508c.pdf)

## Summary of Botulism Cases Reported in 2014

A total of 161 laboratory-confirmed and 16 probable cases of botulism were reported to CDC in 2014. Laboratory-confirmed foodborne botulism accounted for 15 (9%) cases, infant botulism for 128 (80%) cases, wound botulism for 16 (10%) cases, and botulism of unknown or other etiology for 2 (1%) cases (Table 1). Probable foodborne botulism accounted for 5 (31%) cases, and probable wound botulism for 11 (69%) cases.

The 15 cases of laboratory-confirmed foodborne botulism were reported from seven states (Figure 1). Toxin type A accounted for 4 (27%), toxin type B for 4 (27%), and toxin type E for 7 (47%). The median age of patients was 53 years with a range of 8–85; 8 (53%) were women. There were four outbreaks (events with two or more cases) among laboratory-confirmed cases. One was associated with stinkheads (3 cases), one with seal oil (3 cases), one with pasta and jarred pesto\* (2 cases), and one with home-canned tomato sauce (2 cases) (Table 2a). Two deaths were reported.

The 5 cases of probable foodborne botulism (clinically compatible illness with an epidemiologic link that is not laboratory-confirmed) were reported from one state. The median age of patients was 53 years with a range of 28–86 years; 3 (60%) were women. One may have been associated with dried fish, one with stinkheads, one with seal oil/dried fish, one with seal oil, and one with fermented seal flipper (Table 2b). All five patients survived.

The 128 cases of infant botulism were reported from 27 states and the District of Columbia. Toxin type A accounted for 56 (44%), toxin type B for 71 (55%), and toxin type Bf for 1 (<1%). The median age of patients was 17 weeks with a range of 2–54 weeks; 59 (46%) were girls. No deaths were reported. The number of infant botulism cases was fairly constant throughout the year (Figure 2).

The 16 cases of wound botulism were reported from two states. Toxin type A accounted for 15 (94%), and the toxin type was not determined for 1 (6%). All patients were injection drug users; one person also had a dental abscess. The median age of patients was 54 years with a range of 21–66 years; 3 (19%) were women. One death was reported. There was one outbreak with two laboratory-confirmed cases associated with the use of shared injectable drugs.

The 11 cases of probable wound botulism were reported from one state. The median age of patients was 34 years with a range of 23–55; 3 (27%) were women. All patients were injection drug users.

The 2 cases of botulism of unknown or other etiology were reported from two states. Toxin type A accounted for both. The patients were aged 44 and 59 years; 1 was a woman. No deaths were reported.

\*Jarred pesto was produced in a home kitchen and sold commercially



A photomicrograph of *Clostridium botulinum* type A.

**Table 1. Summary of reported botulism cases – United States, 2014**

<b>Foodborne-Confirmed (15 cases)</b>	
Median Age:	53 years (range: 8–85 years)
Death:	2 confirmed
Gender:	7 (47%) male, 8 (53%) female
Toxin type:	4 (27%) type A, 4 (27%) type B, 7 (47%) type E
Outbreaks*:	4
<b>Foodborne-Probable<sup>§</sup> (5 cases)</b>	
Median age:	53 years (range: 28–86 years)
Death:	0 confirmed
Gender:	2 (40%) male, 3 (60%) female
Outbreaks*:	0
<b>Infant (128 cases)</b>	
Median age:	17 weeks (range: 2–54 weeks)
Death:	0 confirmed
Gender:	69 (54%) male, 59 (46%) female
Toxin type:	56 (44%) type A, 71 (55%) type B, 1 (<1%) type Bf
Outbreaks:	None
<b>Wound-Confirmed (16 cases)</b>	
Median age:	53.5 years (range: 21–66 years)
Death:	1 confirmed
Gender:	13 (81%) male, 3 (19%) female
Toxin type:	15 (94%) type A, 1 (16%) type not specified <sup>+</sup>
Exposures:	16 (100%) injection drug users
Outbreaks:	One
<b>Wound-Probable<sup>§</sup> (11 cases)</b>	
Median age:	34 years (range: 23–55 years)
Death:	0 confirmed
Gender:	8 (73%) male, 3 (27%) female
Exposures:	11 (100%) injection drug users
Outbreaks:	None
<b>Unknown, Other (2 cases)</b>	
Ages:	44 and 59 years
Death:	0 confirmed
Gender:	1 (50%) man, 1 (50%) woman
Toxin type:	2 (100%) type A
Outbreaks:	None

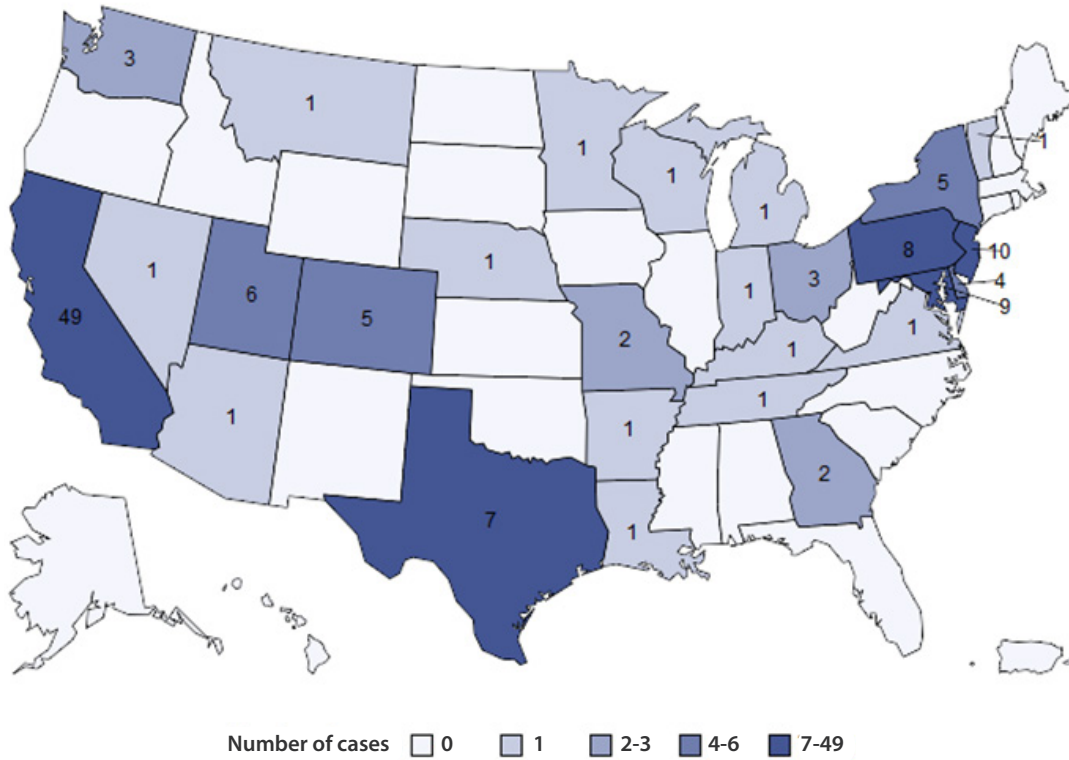
\* Outbreaks defined as two or more cases resulting from a common exposure.

§ Probable foodborne botulism is defined as a clinically compatible case with an epidemiologic link (e.g., ingestion of a home-canned food within the previous 48 hours). Probable wound botulism is defined as a clinically compatible case who has no suspected exposure to contaminated food and who has a history in the 2 weeks before illness began of either a fresh wound or injection drug use.

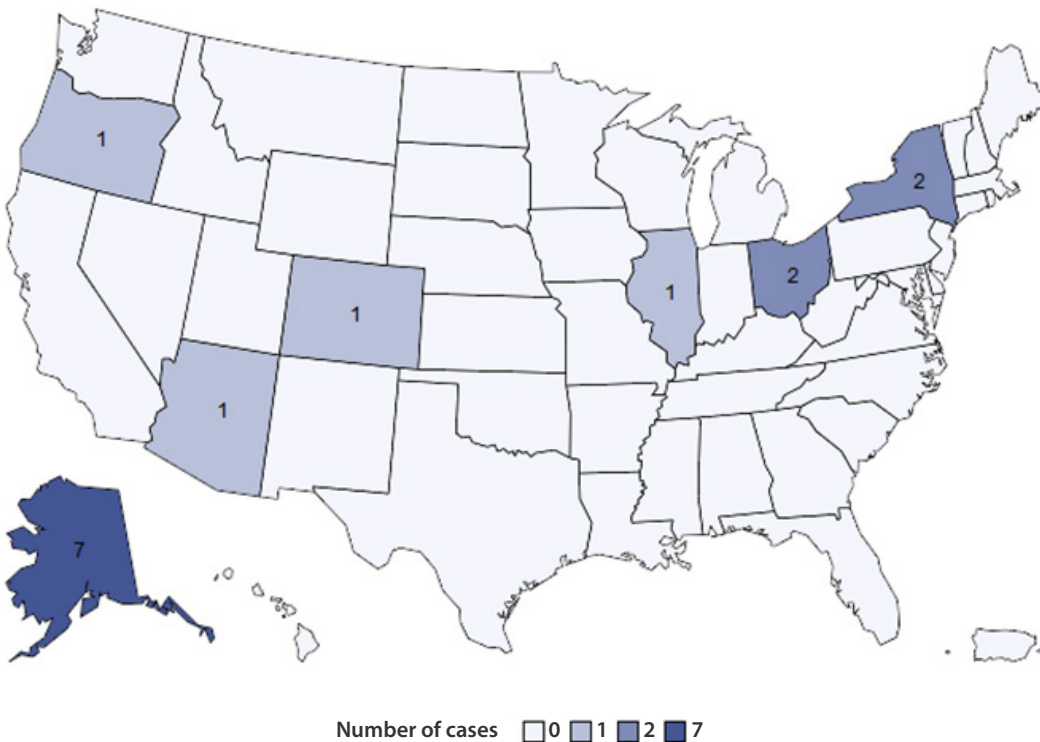
+ Serum quantity not sufficient for toxin typing.

**Figure 1. Number of confirmed botulism cases by state and transmission category, United States, 2014**

Infant (N=128)

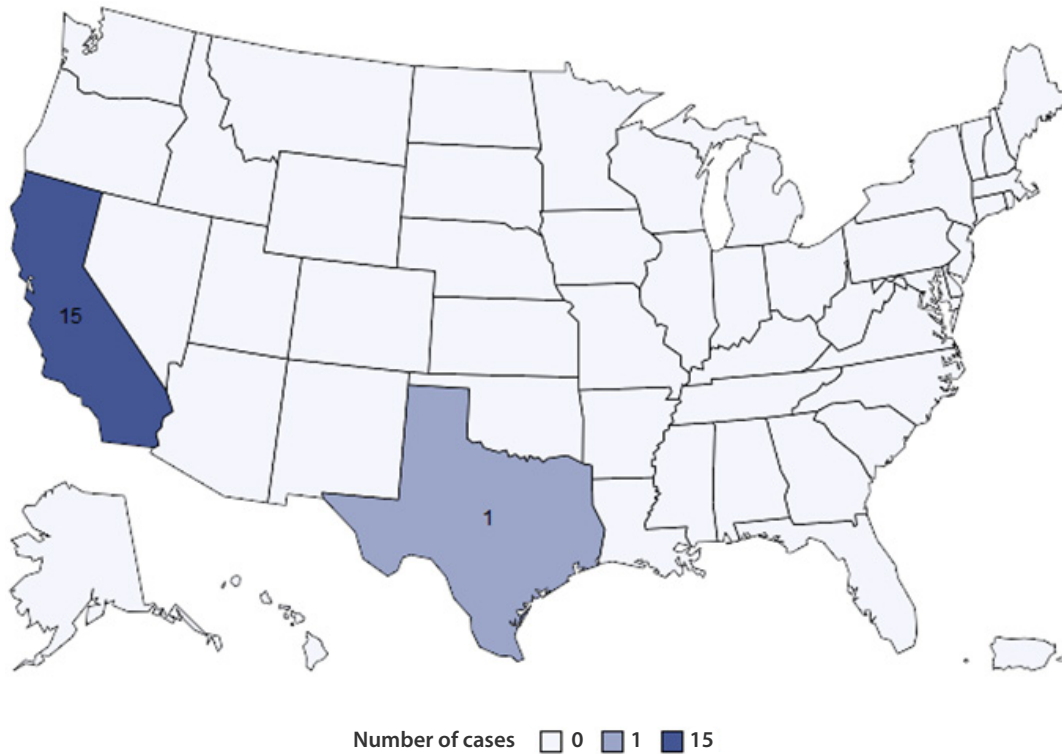


Foodborne (N=15)



**Figure 1. Number of confirmed botulism cases by state and transmission category, United States, 2014 (continued)**

Wound (N= 16)



**Table 2a. Foods linked to confirmed botulism outbreaks and cases (n=15), 2014**

Month	State	Confirmed or Suspected Food	Toxin Type	Number of Cases
February	Colorado	Old/expired food	B	1
June	New York	Home-canned tomato sauce	A	2
June	Illinois	Homemade beef stew*	A	1
July	Ohio	Pasta and jarred pesto <sup>§</sup>	B	2
August	Alaska	Stinkheads	E	3
August	Arizona	Home-canned pickles*	B	1
August	Oregon	Home-canned stew	A	1
September	Alaska	Stinkheads	E	1
December	Alaska	Seal oil	E	3

\* Toxin not detected in food or food item not available for testing; food vehicle suspected based on epidemiologic evidence and reported method of preparation or storage.

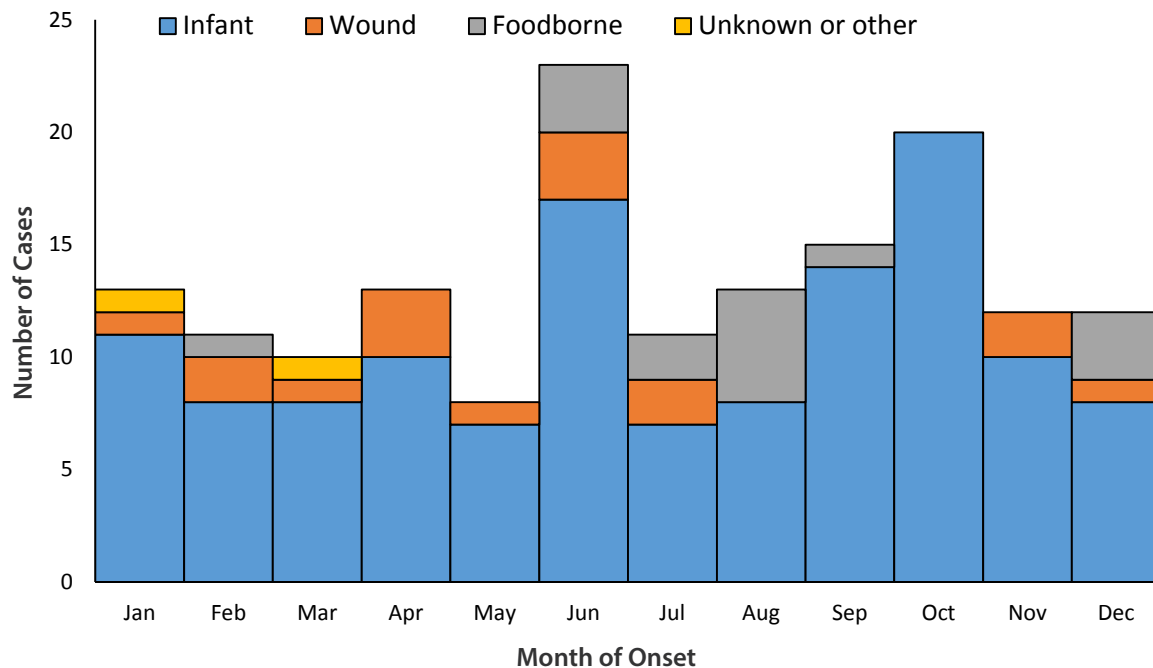
<sup>§</sup> Jarred pesto was produced in a home kitchen and sold commercially

**Table 2b. Foods linked to probable botulism cases\* (n=5), 2014**

Month	State	Suspected Food	Number of Cases
February	Alaska	Dried fish	1
May	Alaska	Seal oil	1
June	Alaska	Fermented seal flipper	1
July	Alaska	Stinkheads	1
August	Alaska	Seal oil/dried fish	1

\* Probable foodborne botulism: a clinically compatible case with an epidemiologic link (e.g., ingestion of a home-canned food within the previous 48 hours)

**Figure 2. Number of confirmed botulism cases by month and transmission category (n=161), 2014**



## References

[1] 2012 Case Definitions: Nationally Notifiable Conditions Infectious and Non-Infections Case. (2012). Atlanta, GA: Centers for Disease Control and Prevention. Available at: <http://wwwn.cdc.gov/NNDSS/script/casedef.aspx?CondYrID=622&DatePub=2011-01-01>

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