Salmonella, Shiga Toxin-producing Escherichia coli (STEC), and Listeria (SSL) plus Shigella and Campylobacter

Report Period: [January 1, 2018] to [December 31, 2018]

Ten state and local health departments participate in FoodCORE. Data are only reported when available from three or more centers; 'n' indicates the number of centers reporting each metric.

Performance Metrics: (See <u>FoodCORE website</u> for complete language and definitions)	<i>Salmonella</i>	STEC	Listeria	Shigella	Campylobacter
	Mean (Range)	Mean (Range)	Mean (Range)	Mean (Range)	Mean (Range)
1a. Total number of isolates and isolate-yielding specimens	1082 (398–1661)	239 (79–453)	22 (2–51)	182 (33–665)	475 (70–1287)
	n=10	n=10	n=10	n=9	n=8
1b. Number of primary isolates/isolate-yielding specimens	960 (368–1514)	219 (46–431)	21 (2–49)	173 (33–609)	461 (70–1246)
	n=10	n=10	n=10	n=9	n=8
2a. Total number of preliminary positive clinical specimens	902 (446–1593) n=9	445 (171–922) n=10	n/a	194 (63–397) n=8	581 (74–1568) n=7
2b. Number; Percent isolate-yielding preliminary positive clinical specimens	762 (398–1514) 86% (53%–96%) n=9	226 (78–430) 52% (22%–73%) n=10	n/a	102 (26–187) 52% (29%–82%) n=8	402 (64–1002) 74% (53%–98%) n=7
3. Median days from isolation/isolate-yielding specimen collection to receipt at PHL	4 (3–7)	3 (2–6)	4 (1–6)	4 (2–8)	4 (3–5)
	n=10	n=10	n=10	n=9	n=8
4. Median days from receipt of isolate-yielding specimens at PHL to recovery of isolate	2 (0–4)	4 (2–6)	2 (0–3)	3 (0–5)	2 (0–5)
	n=9	n=9	n=8	n=8	n=7
5. Percent of primary isolates with serotype information	99% (95%–100%) n=10	79% (63%–100%) n=10	n/a	100% (98%–100%) n=9	77% (7%–100%) n=4
6. Median days from isolate receipt (or recovery) to serotype result	4 (2-7) n=10	3 (1–6) n=10	n/a	3 (1–5) n=9	3 (1–5) n=5
7a. Percent of primary isolates with PFGE information	99% (97%–100%)	98% (86%–100%)	26% (0–100%)-	56% (0%–100%)	32% (0%–100%) [*] -
	n=10	n=10	n=4	n=9	n=8
7b. Percent of primary isolates with WGS information	91% (24%–100%)	93% (43%–100%)	100% (100%–100%)	40% (0%–100%)	58% (0%–97%)
	n=10	n=10	n=10	n=9	n=8
8a. Median days from isolate receipt (or recovery) to PFGE upload to PulseNet	4 (2-8)	5 (2-10)	2 (0-4)*-	10 (4–33)	7 (0–17) *
	n=10	n=10	n=3	n=7	n=5

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Performance Metrics: (See <u>FoodCORE website</u> for complete language and definitions)	Salmonella	STEC	<i>Listeria</i>	Shigella	Campylobacter
	Mean (Range)	Mean (Range)	Mean (Range)	Mean (Range)	Mean (Range)
8b. Median days from isolate receipt (or recovery) to WGS sequence being shared	12 (7–19)	15 (7–25)	8 (6–13)	14 (6–30)	14 (7–21)
	n=8	n=8	n=10	n=7	n=7
8c. Median days from isolate receipt (or recovery) at PFGE lab to upload to PulseNet	3 (1–7)	3 (1–8)	2 (0-4)*	6 (2–18)	3 (0–6) *
	n=10	n=10	n=3	n=7	n=5
8d. Median days from isolate receipt (or recovery) at WGS lab to upload to sequence being shared	9 (3–16)	11 (3–22)	7 (4–11)	12 (3–30)	8 (3–12)
	n=8	n=8	n=10	n=7	n=7
9a. Number of reported laboratory confirmed cases	880 (339–1446)	204 (53–385)	16 (2–36)	189 (36–637)	888 (340–1938)
	n=10	n=10	n=10	n=9	n=9
9b. Number of reported probable cases	97 (20–161) n=10	167 (59–349) n=10	n/a	137 (25–348) n=8	525 (184–1429) n=8
9c. Number of reported suspect cases	2 (0–17) n=9	6 (0–30) n=10	n/a	1 (0–4) n=7	n/a
10a.1 Percent of confirmed cases with attempted interview	98% (89%–100%)	94% (69%–100%)	97% (83%–100%)	84% (0%–100%)	74% (0%–100%)
	n=10	n=10	n=10	n=9	n=9
10a.2 Percent of probable/suspect cases with attempted interview	96% (77%–100%) n=10	95% (73%–100%) n=10	n/a	81% (4%–100%) n=8	84% (12%–100%) n=8
10b.1 Median days from confirmed case report to interview attempt	1 (0–3)	1 (0-4)	2 (0–5)	1 (0–4)	3 (0–8)
	n=9	n=9	n=9	n=8	n=8
10b.2 Median days from probable/suspect case report to interview attempt	1 (0–3) n=9	1 (0-4) n=9	n/a	1 (0–2) n=8	3 (0–13) n=8
10c.1 Median days from confirmed case report to completed interview	3 (1-7)	3 (1–6)	4 (1–12)	3 (1–6)	4 (1–11)
	n=10	n=10	n=10	n=9	n=9

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Performance Metrics: (See <u>FoodCORE website</u> for complete language and definitions)	Salmonella Mean (Range)	STEC Mean (Range)	<i>Listeria</i> Mean (Range)	Shigella Mean (Range)	Campylobacter Mean (Range)
10c.2 Median days from probable/suspect case report to completed interview	2 (1–7) n=10	3 (1–8) n=10	n/a	15 (0–123) n=9	5 (1–17) n=8
10d. Percent of confirmed cases with complete demographic data	93% (81%–100%) n=10	93% (77%–100%) n=10	97% (88%–100%) n=10	90% (69%–98%) n=9	76% (0%–99%) n=9
10e. Percent of confirmed cases with exposure history	86% (79%–100%) n=10	92% (85%–100%) n=10	89% (67%–100%) n=10	84% (71%–100%) n=9	86% (77%–100%) n=9
10e.1 Percent of confirmed cases with full exposure interview	89% (81%–96%) n=9	88% (76%–99%) n=9	94% (64%–100%) n=9	78% (0%–100%) n=8	76% (0%–99%) n=7
10f. Percent of confirmed cases with serotype information	96% (85%–99%) n=10	78% (20%–100%) n=10	n/a	80% (0%–100%) n=9	n/a
10g. Percent of confirmed cases with PFGE information	93% (85%–99%) n=10	86% (21%–100%) n=10	14% (0%–100%) [*] n=7	43% (0%–91%) n=9	16% (0%–91%) [*] n=8
10g.1 Percent of confirmed cases with PFGE with complete epi	84% (76%–94%) n=10	84% (56%–100%) n=10	n/a [*]	89% (69%–100%) n=6	69% (0%–100%) [*] n=5
10h. Reasons for not interviewing cases					
10h.1 Number; Percent Lost to Follow-up	102 (45–191) 24% (7%–71%) n=9	16 (2–30) 20% (4%–67%) n=9	1 (0–3) 6% (0%–18%) n=8		
10h.2 Number; Percent Refused interview	27 (4–77) 7% (1%–29%) n=10	3 (1–4) 7% (1%–33%) n=10	1 (0-2) 7% (0%-33%) n=10		
10h.3 Number; Percent Lag time too long	1 (0–2) 0% (0%–1%) n=9	1 (0–2) 3% (0%–22%) n=8	0 (0–1) 0% (0%–3%) n=8		
10h.4 Number; Percent Other	20 (0–68) 3% (0%–8%) n=10	6 (0–30) 2% (0%–13%) n=9	1 (0–2) 19% (0%–100%) n=10		

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Performance Metrics:	Salmonella STEC	STEC	Listeria	Shigella	Campylobacter
See FoodCORE website for complete language and definitions)	Mean (Range)	Mean (Range)	Mean (Range)	Mean (Range)	Mean (Range)
11. Number of investigations	71 (26–118)	14 (1–29)	2 (0–10)		
	n=10	n=10	n=10		
12a. Number; Percent of investigations with routine interview	63 (16–116)	12 (1–29)	3 (0–10)		
of cases	86% (32%–100%)	80% (8%–100%)	83% (0%–100%)		
	n=10	n=10	n=6		
12b. Number; Percent of investigations with	17 (1–38)	17 (0–100)	1 (0–3)		
supplemental/targeted interviewing of cases	29% (1%–76%)	43% (0%–100%)	47% (0%–100%)		
supplementally targeted interviewing or cases	n=10	n=10	n=6		
12c. Number; Percent of investigations where an analytic	3 (0–12)	4 (0–25)	0 (0–1)		
epidemiologic study conducted	6% (0%–23%)	13% (0%–60%)	2% (0%–10%)		
cpiaciniologic study conducted	n=10	n=10	n=6		
13. Number; Percent of investigations with suspect	5 (0–24)	4 (0–13)	0 (0–1)		
vehicle/source identified	9% (0%–27%)	17% (0%–60%)	25% (0%–100%)		
venicie/source identined	n=10	n=10	n=6		
AA N	10 (0–24)	2 (0–7)	0 (0–0)		
14. Number; Percent of investigations with confirmed	16% (0%–46%)	18% (0%–50%)	0% (0%–0%)		
vehicle/source identified	n=10	n=10	n=6		
15. Number; Percent of investigations with source identified with:					
, ,	4 (0–19)	4 (0–25)	0 (0–0)		
a. Exclusion of ill person(s)	5% (0%–16%)	17% (0%–100%)	0% (0%–0%)		
Proceedings of the control of the co	n=10	n=10	n=6		
	2 (0–8)	1 (0–5)	0 (0–0)		
b. Remediation or closure	4% (0%–13%)	8% (0%–25%)	0% (0%–0%)		
	n=10	n=10	n=6		
	1 (0–3)	1 (0–6)	0 (0–0)		
c. Educational campaign	2% (0%–7%)	10% (0%–60%)	0% (0%–0%)		
	n=10	n=10	n=6		
	6 (0–13)	2 (0–3)	0 (0–0)		
d. Media/public messaging	9% (0%–29%)	22% (0%–60%)	0% (0%–0%)		
	n=10	n=10	n=6		
	4 (0–9)	1 (0-3)	0 (0–0)		
e. Regulatory action (recall, hold)	5% (0%–13%)	14% (0%–50%)	0% (0%–0%)		
c. hegalatory action (recall, flola)	3/0 (0/0 13/0)	11/0 (0/0 30/0)	0,0 (0,0 0,0)		

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Performance Metrics: (See <u>FoodCORE website</u> for complete language and definitions)	Salmonella Mean (Range)	STEC Mean (Range)	<i>Listeria</i> Mean (Range)	Shigella Mean (Range)	Campylobacter Mean (Range)
16. Number; Percent of investigations linked to a restaurant/food establishment with EHA	5 (1–13) 35% (1%–100%) n=10	3 (0–7) 48% (0%–100%) n=9	0 (0–1) 17% (0%–100%) n=6		
17. Number; Percent of investigations with food/environmental sample collected for testing	6 (1–22) 11% (1%–49%) n=10	2 (0–4) 12% (0%–40%) n=10	0 (0–1) 25% (0%–100%) n=6		
18. Number; Percent of investigations where environmental health partners were contacted	12 (1–27) 19% (1%–60%) n=10	4 (1–9) 41% (12%–100%) n=10	1 (0–3) 30% (0%–100%) n=6		
19. Number; Percent of outbreaks with NORS form completed	13 (1–32) 82% (11%–100%) n=10	4 (0–11) 78% (0%–100%) n=10	0 (0–1) 17% (0%–100%) n=6		

All data are cumulative. Core performance metrics that are required for reporting are in bold.

*CDC PulseNet fully implemented whole genome sequencing (WGS) to replace pulsed-field gel electrophoresis (PFGE) testing as the national, primary subtyping method for *Listeria monocytogenes* and *Campylobacter jejuni/coli* on January 15, 2018 and March 15, 2018, respectively. CDC is quickly expanding the use of WGS to state laboratories and scientists will soon be using WGS for other enteric pathogens, such as Shiga toxin-producing *Escherichia coli* (STEC), *Shigella*, and *Salmonella*. FoodCORE centers discontinued reporting of PFGE metrics for *Listeria* and *Campylobacter* starting in Year 8 of the program and will discontinue reporting of PFGE metrics for other enteric pathogens in the future.