

Yersiniosis Detections in Public Health Region 6/5S, Texas

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Background

In fall 2025, epidemiologists identified an increase in yersiniosis cases in Texas Public Health Region (PHR) 6/5S. Yersiniosis, caused by *Yersinia enterocolitica*, is transmitted via the fecal-oral route, most often through consumption of raw or undercooked pork, contaminated food or water, or direct animal contact. Young children (< 5 years old) and older adults (≥ 65 years old) are at the highest risk of infection.¹ However, illness occurs across all age groups. Diagnosis increasingly relies on culture independent diagnostic tests (CIDTs) such as the BioFire FilmArray Gastrointestinal Panel, a rapid multiplex PCR assay approved in 2014 that detects 22 enteric pathogens, including *Y. enterocolitica*.²

Methods

Confirmed and probable cases were extracted from The National Electronic Disease Surveillance System (NEDSS) Disease Surveillance Provisional Data Dashboard. Case counts and demographic trends were reviewed for 2005–2025. Case detections from 2005-2014 and 2015-2025 were further reviewed to identify increases in case reports before and after the approval of the BioFire Film Array GI Panel.

Results

In 2025, 48 yersiniosis cases were reported in PHR 6/5S, with 47.9% (23 cases occurring among individuals aged 60 years and older. From 2005–2025, PHR 6/5S reported a total 320 cases, with 43.8% occurring in the 60+ age group. Average annual case counts increased from 2.4 cases per year (2005–2014) to 26.9 cases per year following the introduction and widespread adoption of CIDTs. Similar increases after the adoption of CIDTs have been seen across the United States: One review article on FoodNet reviewed data from 10 states from 2010-2021³ and showed the proportion of CIDT-diagnosed *Y. enterocolitica* infections increased from 3% in 2012 to 89% in 2021.

Figure 1: Confirmed and probable cases of Yersiniosis from 2005-2025, PHR 6/5S, Texas

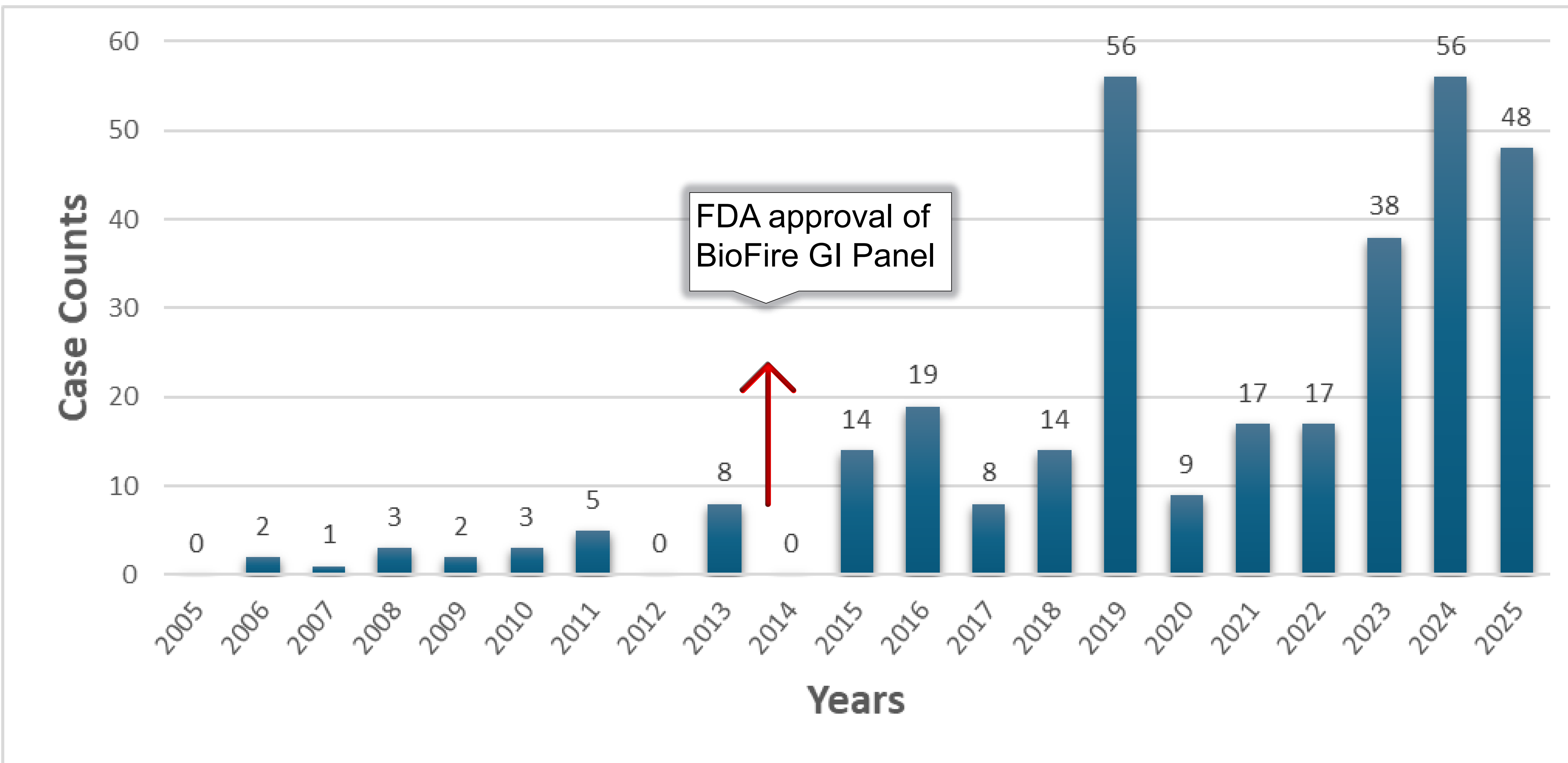
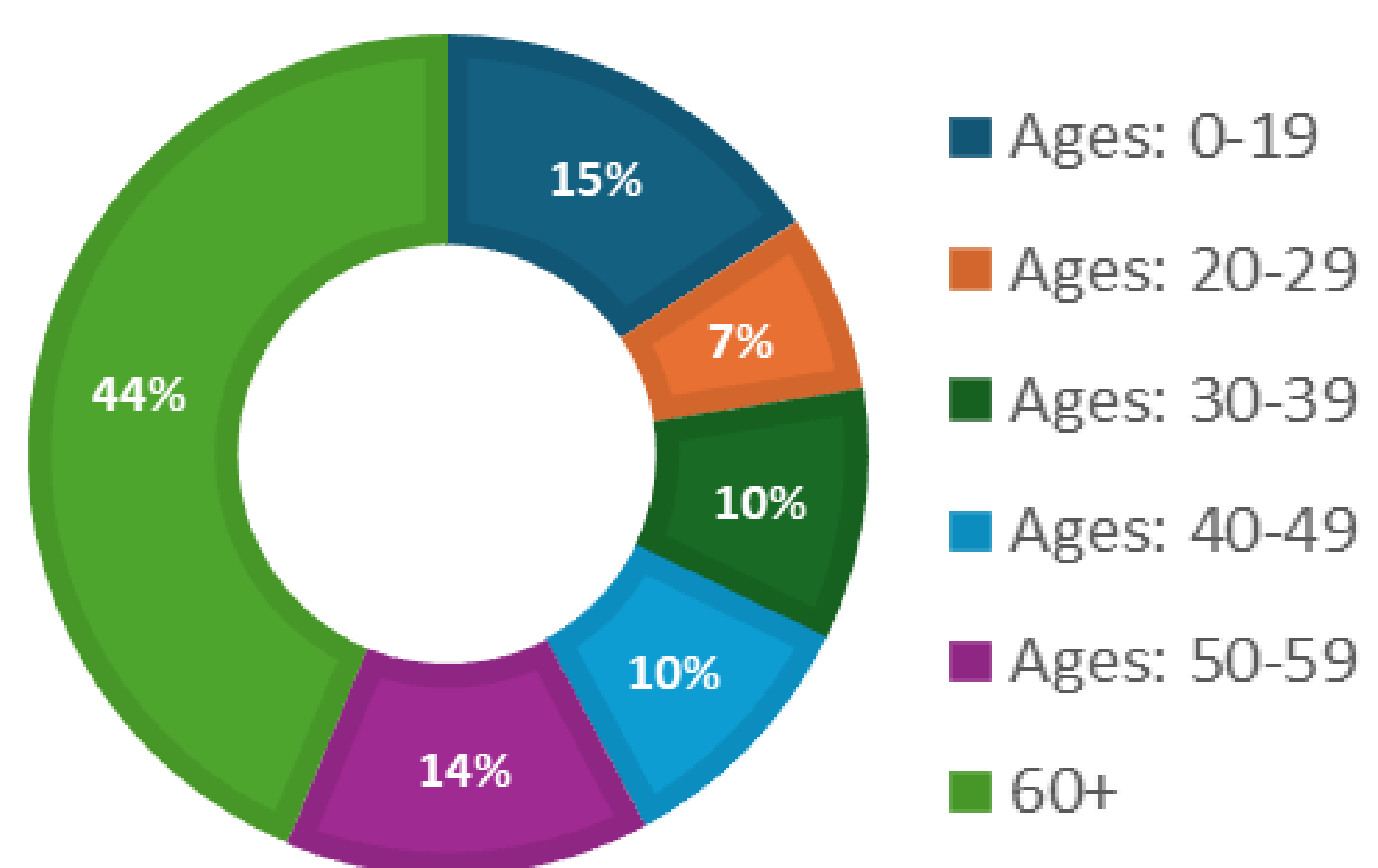


Figure 2: Average cases detected before and after the approval of the BioFire GI Panel, PHR 6/5S, Texas

Use of the BioFire GI Panel	Time Period	Average # of Cases
Before	2005-2014 (24 cases)	2.4
After	2015-2025 (296 cases)	26.90909

Figure 3: Age Distribution of Yersiniosis Cases from 2005-2025, PHR 6/5S, Texas



Conclusions

The implementation of CIDTs has significantly enhanced detection capabilities, allowing for earlier identification of potential outbreaks and high-risk exposures. From 2005–2025, PHR 6/5S reported a total of 320 cases, demonstrating that the disease burden fell most heavily on the 60+ demographic, which accounted for 43.8% of the total cases reported.

Public Health Significance

CIDTs, like the BioFire GI Panel, have more than doubled Yersiniosis detections in PHR 6/5S. Because CIDT positive results are classified as probable without culture confirmation, encouraging laboratories to submit CIDT positive specimens for culture would strengthen surveillance, improve outbreak detection, and enhance public health response. Increased lab reports of *Y. enterocolitica* could provide the opportunity for investigations and education, increasing the knowledge base of the epidemiology of Yersinia infections.

References

1. "Non-Pestis Yersiniosis 2025 Case Definition | CDC." Cdc.gov, 15 Jan. 2025, ndc.services.cdc.gov/case-definitions/non-pestis-yersiniosis/. Accessed 20 Apr. 2026.
2. Torres-Miranda D, Akselrod H, Karsner R, Secco A, Silva-Cantillo D, Siegel MO, Roberts AD, Simon GL. Use of BioFire FilmArray gastrointestinal PCR panel associated with reductions in antibiotic use, time to optimal antibiotics, and length of stay. BMC Gastroenterol. 2020 Jul 29;20(1):246. doi: 10.1186/s12876-020-01394-w. PMID: 32727381; PMCID: PMC7392718.
3. Ray LC, Payne DC, Rounds J, Trevejo RT, Wilson E, Burzlaff K, Garman KN, Lathrop S, Rissman T, Wymore K, Wozny S, Wilson S, Francois Watkins LK, Bruce BB, Weller DL. Syndromic Gastrointestinal Panel Diagnostic Tests Have Changed our Understanding of the Epidemiology of Yersiniosis-Foodborne Diseases Active Surveillance Network, 2010-2021. Open Forum Infect Dis. 2024 Apr 9;11(6):ofae199. doi: 10.1093/ofid/ofae199. PMID: 38868306; PMCID: PMC11167669.