

The silence of the alarms: *Cyclospora* and the fragility of foodborne surveillance



The summer of 2026 marks a turning point in the epidemiology of foodborne infections, not because of the re-emergence of a known pathogen, but because of the systemic vulnerabilities exposed by this event. In 2026, as of July 14, the US Centers for Disease Control and Prevention (CDC) recorded 1645 laboratory-confirmed cases of domestically acquired cyclosporiasis, with an additional 5100 awaiting confirmation, a shadow cohort suggesting that the true burden is significantly higher.¹ By the same date in 2025, only 249 cases were reported nationally to the CDC, representing a six-fold increase. The outbreak has extended to 34 states, with 1645 confirmed cases reported nationally as of July 14, 2026.¹ In a specific multistate outbreak cluster, more than 400 infections have been concentrated in Michigan, Ohio, West Virginia, and Kentucky, according to CDC investigation updates.² Preliminary investigations indicate shredded iceberg lettuce served at certain restaurant locations as the source of contamination, according to CDC investigation updates.³

Cyclospora cayetanensis is an obligate intracellular parasite whose biological characteristics complicate conventional control interventions. Its oocysts, the transmissible form, have a thick bilayered wall that confers resistance to adverse environmental conditions and chlorine disinfection.⁴ Because oocysts must mature in the environment before becoming infectious, direct person-to-person transmission is unlikely; infection occurs through ingestion of food or water contaminated with sporulated oocysts.⁴ Following an incubation period of 2–14 days, symptoms include profuse watery diarrhoea, abdominal cramping, and marked fatigue.¹ Of the 1645 confirmed domestically acquired cases reported in 2026, 141 (9%) required hospitalisation.¹ Laboratory diagnosis is challenging, as *Cyclospora* is not detected by standard faecal parasitological examinations or routine gastrointestinal PCR panels. Specific testing should, therefore, be requested.^{1,4} Trimethoprim-sulfamethoxazole remains the treatment of choice. Ciprofloxacin is a second-line alternative, but no highly effective salvage therapy exists.⁴

Beyond the clinical data, this outbreak should be considered in the context of the progressive erosion of the active surveillance infrastructure that once underpinned

food safety in the USA. The Foodborne Diseases Active Surveillance Network (FoodNet), established in 1995, historically conducted active, population-based surveillance for eight pathogens, including *Cyclospora*.⁵ However, from July 1, 2025, reporting to FoodNet was required only for *Salmonella* and Shiga toxin-producing *Escherichia coli* (STEC), a decision justified on the grounds that these two pathogens rank among the five leading contributors to foodborne illnesses and related hospitalisations and deaths.⁶ Reporting of illnesses caused by the other six pathogens, including *Cyclospora*, to FoodNet by state health departments became optional, although these pathogens continue to be monitored through other CDC surveillance systems.⁶ For pathogens such as *Cyclospora*, which are not transmitted directly from person to person, this narrowing of active, population-based surveillance could be particularly consequential because their timely detection and containment depend heavily on epidemiological, environmental, and agricultural surveillance.

Even so, the capacity to detect, track, and contain outbreaks of foodborne illness is a direct function of the robustness and mandatory nature of the reporting system. The reduction in active surveillance through FoodNet and the shift to voluntary reporting for these six pathogens could compromise the public health system's ability to detect early signals of emerging clusters. These gaps in surveillance could allow *Cyclospora* to spread silently through the food chain until rising case numbers could no longer be ignored. Voluntary reporting, by its nature, can introduce delays and heterogeneity in data collection, as it depends on the resources and priorities of individual state health departments. The 1645 confirmed cases across 34 states, including 141 hospitalisations, highlight the substantial human burden of cyclosporiasis in the USA.¹ Although a direct causal link between this outbreak and the FoodNet reporting changes cannot be established, the scale of illness underscores the critical importance of robust surveillance infrastructure. The concomitant reduction in CDC staffing, including the loss of epidemiologists, laboratory technicians, and field investigators, further exacerbated the damage to outbreak response capacity,

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depriving the agency of the expertise necessary to integrate genomic and epidemiological data and identify the contaminated products in a timely manner.⁷

In recent years, molecular characterisation of *C. cayetanensis* has progressed substantially. CDC developed the Cybernetic Clustering of Nonclonal Eukaryotes (CYCLONE), a bioinformatics workflow that uses sequence data to cluster genetically similar samples.⁸ A 2025 study identified associations between infection with specific *Cyclospora* species and the consumption of particular produce items and found that no genotype was uniquely associated with or consistently detected in a particular state, suggesting cyclosporiasis is likely caused by frequent parasite introductions into the USA.⁹ However, the utility of CYCLONE depends on the integrity of the surveillance network that provides the samples and epidemiological data on which it relies. Timely sample collection and complete epidemiological data are indispensable prerequisites for the utility of genomic tools; this outbreak serves as a reminder that molecular tools complement, rather than substitute, a functioning public health infrastructure.

The philosophical question posed by this outbreak is fundamental. The greatest victories of public health are invisible: the outbreaks that do not occur and the cases that are never counted. Active surveillance constitutes the foundation upon which this invisible success is built; it is the constant, unglamorous, and costly work of observation that enables intervention at the margins and averts catastrophe. The dismantling of surveillance represents a gamble against the stochastic nature of infectious diseases. As this outbreak shows, the consequences can be severe. Pathogens do not recognise fiscal prudence or respect ideological claims that government oversight impedes efficiency.

The ethical dimension of this crisis also warrants attention. Public health represents a covenant between the state and its citizens, the promise that collective resources will be mobilised to protect the vulnerable from threats they cannot foresee or prevent individually. Reductions in active surveillance for *Cyclospora* could be viewed as a violation of this covenant. The people of Michigan, Ohio, Kentucky, and West Virginia, states at the centre of a large multistate outbreak cluster, did not knowingly consent to any increased risk of parasitic infection that might arise from administrative decisions made far from their communities.¹ The voluntary reporting system introduces structural inequities: states with more robust health departments might be better able to sustain surveillance for these pathogens, whereas

those with fewer resources could lag behind, potentially creating a surveillance mosaic that mirrors socioeconomic disparities.⁹ The pathogen exploits these fissures with biological indifference.

The lesson of this cyclosporiasis outbreak is not that pathogens are unpredictable; it is that our willingness and capacity to confront them have become predictably inadequate. Active, mandatory, and adequately funded surveillance across the full spectrum of foodborne pathogens is required and should be integrated with genomic sequencing and real-time data sharing between state and federal agencies. Restoring the surveillance workforce that has been reduced and renewing commitments to the essential work of observation are necessary. The alternative, as evidenced by the current outbreak, is a reactive public health response that waits until thousands of people fall ill before acting and that treats the symptoms of systemic failure rather than addressing its root causes. The pathogens we choose to ignore are precisely those that can return to haunt us with greater harm.

We declare no competing interests.

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